



TIME TO RECHARGE

CORPORATE ACTION AND INACTION TO TACKLE ABUSES IN
THE COBALT SUPPLY CHAIN

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First published in 2017

by Amnesty International Ltd
Peter Benson House, 1 Easton Street
London WC1X ODW, UK

Index: AFR 62/7395/2017
Original language: English

amnesty.org



Cover image: Design and layout by www.NickPurserDesign.com

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EXECUTIVE SUMMARY

Our world is increasingly powered by lithium-ion rechargeable batteries, ranging from the ones found in everyday mobile technologies, such as smartphones and laptop computers, to those in electric vehicles. There is also a growing interest in using super-sized rechargeable batteries to help store electricity generated from solar and wind sources and deliver it to consumers more efficiently. These technologies are attractive because of their perceived sustainability. But as their use becomes more and more widespread, in what some are calling the 'clean energy revolution', it is necessary to ask whether the energy powering this revolution is as "clean" as it is claimed to be.

Cobalt is an element critical for powering the clean energy revolution. More than 50% of the world's cobalt supply originates in the Democratic Republic of Congo (DRC). According to the government's own estimates, 20% of the cobalt currently exported from the DRC comes from artisanal miners in the southern part of the country. There are approximately 110,000 to 150,000 artisanal miners in this region, who work alongside much larger industrial operations. These artisanal miners, referred to as *creuseurs* in the DRC, mine by hand using the most basic tools to dig out rocks from tunnels deep underground. Much of the cobalt produced in the DRC is destined for smelters, refiners and processors located in China, where it gets turned into a variety of chemical products used in the manufacture of rechargeable batteries.

Demand for rechargeable batteries has helped contribute to a boom in cobalt prices since the beginning of 2017. It is also sustaining a market for minerals mined by hand in the DRC under extremely dangerous conditions.

In January 2016, Amnesty International and African Resources Watch (Afrewatch) jointly published "*This is What We Die For: Human Rights Abuses in the Democratic Republic of the Congo Power the Global Trade in Cobalt (This is What We Die For)*", a report that examined the conditions under which artisanal miners extract a significant proportion of the world's cobalt supply and traced how this mineral is traded. The report exposed serious human rights abuses in artisanal cobalt mining in southern DRC. Artisanal miners operating outside of authorized mining zones typically lack basic protective or safety equipment, such as respirators, gloves or face protection, and do not enjoy legal protections nominally provided by the state. Those involved with artisanal mining frequently suffer from chronic illnesses, as well as from serious and potentially fatal respiratory diseases due to prolonged exposure to dust containing cobalt and other metals. Researchers found children as young as seven who scavenged for rocks containing cobalt.

The report also assessed the extent to which 26 companies had put in place human rights due diligence measures to know where the cobalt in their products came from and the conditions under which it was extracted and traded. This included the upstream company, Zhejiang Huayou Cobalt Co., Ltd (Huayou Cobalt), whose wholly owned subsidiary in the DRC, Congo Dongfang International Mining SARL (CDM), is a major buyer from traders of artisanal cobalt in the former province of Katanga in the DRC, and 25 downstream companies that researchers found were potentially buying from Huayou Cobalt, either directly or indirectly.

Amnesty International concluded that all 26 companies had failed to conduct human rights due diligence in line with international standards. Alarmingly, the majority were unable to answer basic questions about where the cobalt in their products came from and whether there were any risks of the kind observed by researchers.

Amnesty International also concluded that there were significant gaps and weaknesses in the DRC government's regulation of artisanal mining. The DRC government was also failing to adequately enforce the legal prohibition against child labour in artisanal mining.

GAUGING IMPROVEMENT

Almost two years on, *Time to Recharge* examines the degree to which companies' cobalt-sourcing practices have improved with respect to identifying, preventing, addressing and accounting for human rights abuses in their supply chains. The situation on the ground remains problematic, as children and adults continue to mine cobalt in hazardous conditions in violation of international law.

This report covers 29 companies, comprising Huayou Cobalt (the smelter and "choke point" in the supply chain) and 28 downstream companies. The downstream companies include consumer-facing electronics companies like Apple Inc. (Apple), Huawei Technologies Co., Ltd (Huawei) and Microsoft Corporation (Microsoft); car manufacturers, including BMW Group (BMW), Daimler AG (Daimler) and Tesla Inc. (Tesla); battery cell manufacturers such as Samsung SDI Co., Ltd (Samsung SDI) and LG Chem Ltd. (LG Chem); and cathode manufacturers such as L & F Co., Ltd (L&F). All of these companies had been identified in the course of research for *This is What We Die For* to have possible supply chain links to Huayou Cobalt and includes five automakers (BMW, Fiat-Chrysler Automobiles NV (Fiat-Chrysler) General Motors Co. (General Motors), Renault Group (Renault) and Tesla) contacted after publication of the 2016 report.

Using international standards on human rights and supply chains, *Time to Recharge* assesses the quality of the cobalt sourcing practices of these 29 companies. Company assessments are depicted in the report by means of battery icons to represent the "battery health" of each company's due diligence practices.

INTERNATIONAL STANDARDS FOR MINERAL SUPPLY CHAIN DUE DILIGENCE

The UN Guiding Principles on Business and Human Rights (UN Guiding Principles) set out the responsibility of companies to respect international human rights in their global operations, including in their supply chains. This requires, amongst other things, that companies carry out human rights due diligence "to identify, prevent, mitigate and account for how they address their impacts on human rights."

The Organisation for Economic Co-operation and Development (OECD) has developed a practical guide for how such due diligence should be carried out for supply chains. Its Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas (OECD Guidance) sets out a five step process for all companies involved in the mineral supply chain to follow. The OECD Guidance is endorsed by states and is widely recognized as the international standard for mineral supply chains.

In December 2015 the China Chamber of Commerce of Metals, Minerals and Chemicals Importers and Exporters (CCCMC) promoted adoption of international due diligence standards through its Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains, which are aligned with the OECD Guidance. In addition, a number of voluntary industry initiatives of varying significance have emerged since 2016, including the Responsible Cobalt Initiative, Responsible Raw Materials Initiative and Global Battery Alliance. These industry schemes are voluntary by nature and, therefore, have limitations.

Amnesty International's assessment in *Time to Recharge* – both the questions posed to companies and the assessment of responses – is based on the international standards set out by the UN Guiding Principles and OECD Guidance. Twenty-two companies provided substantive responses. The assessment of Huayou Cobalt as the smelter is somewhat different to that of the downstream companies and presented separately.

ACTIONS TAKEN BY HUAYOU COBALT

The OECD Guidance requires upstream companies like Huayou Cobalt to trace minerals back to mining sites; map the circumstances of extraction, trade, handling and export for the minerals used; design and implement a strategy to respond to identified risks in order to prevent or mitigate adverse impacts; and provide this information to customers.

Since January 2016, Huayou Cobalt has taken a number of steps in line with these international standards. Huayou Cobalt appears to have conducted a detailed supply chain mapping and risk identification process in the DRC. In 2017, the company introduced a strategy for “responsible [artisanal and small scale] mining” that has largely focused on addressing the risk of child labour. Though making clear that it will not tolerate child labour in its supply chain, the company has also declared that it would continue purchasing artisanally mined cobalt in the DRC to avoid creating a negative impact on households dependent on artisanal mining. While this is potentially positive, the company has a responsibility to remedy human rights harms associated with its past sourcing practices.

Huayou Cobalt is relatively transparent about its due diligence compared to other cobalt smelters and refiners, but gaps in information remain. While it has disclosed general information about its due diligence policies and practices on its website, it has not disclosed specific details about the following information related to its risk assessment investigations leading up to the introduction of its new system: its past suppliers of artisanal cobalt; the mining sites from which those suppliers sourced cobalt; related trading locations and transport routes; or any specific findings by Huayou Cobalt on child labour, health and safety concerns or other issues affecting artisanal miners. As a result of its lack of disclosure, it is difficult to assess the quality and effectiveness of its due diligence practices.

Moreover, while child labour is a vital challenge for the company to address, Amnesty International’s research also exposed significant health issues relating to female and male adult workers. It is unclear the extent to which Huayou Cobalt has addressed, or considered addressing, these issues. In conclusion, while Huayou Cobalt is moving in the right direction and demonstrating to its peers that it is possible to strengthen due diligence in a short amount of time, there is significant scope for improvement. This is vital to enable the downstream companies and consumers to ensure that the cobalt supply chain is free from abuse.

ASSESSING DOWNSTREAM COMPANY PERFORMANCE

Downstream companies process or use materials containing cobalt after it has gone through smelting or refining. Amnesty International used the following five questions as criteria for assessing the effectiveness of downstream companies’ human rights due diligence policies and practices:

1. Has the company investigated its supply links to the DRC and Huayou Cobalt?
2. Does the company have robust policies and systems in place for detecting human rights risks and abuses in its cobalt supply chain?
3. Has the company taken action to identify “choke points” and associated human rights risks and abuses?
4. Has the company disclosed information about the human rights risks and abuses in its cobalt supply chain?
5. Has the company taken steps to mitigate human rights risks or remediate harms related to its cobalt supply chain?

For each question, companies received a performance assessment of no action, minimal, moderate or adequate.

QUESTION 1: HAS THE COMPANY INVESTIGATED ITS SUPPLY LINKS TO THE DRC AND HUAYOU COBALT?

Amnesty International asked companies for information about the origins of cobalt used in their products within the past five years. If a company claimed that Huayou Cobalt and its subsidiaries were not part of its supply chain, Amnesty International requested that it provide evidence of how it arrived at that conclusion, including details of steps taken to verify information provided by third-parties. Companies that acknowledged the presence of Huayou Cobalt and its subsidiaries in their supply chain were asked to provide assessments of the adequacy of Huayou Cobalt's due diligence practices.

All but six of the 28 downstream companies demonstrated having investigated these links in some form. Companies like Apple, HP, BMW and Tesla received higher ratings for showing that they were taking steps to verify documentation or other information provided by suppliers about how they source cobalt. Despite highly problematic practices early on, LG Chem and Samsung SDI demonstrated tangible improvements, showing evidence of fuller due diligence practices in their supply chain investigation. These positive developments account for their relatively high assessment in this category compared to other companies (see below and Annex "2" to the report).

However, most of the downstream companies contacted for this report are still largely in the dark about the extent of their connection to Huayou Cobalt/CDM or cobalt sourced from the DRC. They have not taken enough action, based on their responses, to answer fundamental questions about where their cobalt comes from. None of the companies can claim to be unaware of human rights risks associated with cobalt from the DRC. That knowledge should lead them to take responsible action to investigate and manage that risk, not simply avoid it. Most of the companies

surveyed continued to make claims about cobalt sourcing without providing evidence of additional investigations that would show how they checked information they received from suppliers.

QUESTION 2: DOES THE COMPANY HAVE ROBUST POLICIES AND SYSTEMS IN PLACE FOR DETECTING RISKS AND ABUSES IN ITS COBALT SUPPLY CHAIN?

Amnesty International asked companies whether cobalt was covered by their supply chain due diligence policy and whether the policy incorporated or otherwise made reference to the five-step framework in the OECD Guidance. They were also asked how their supply chain policy had been communicated, monitored and enforced with suppliers and who at the management level of their companies was responsible for implementation. Establishing a clear policy is a starting point for demonstrating respect for human rights in a cobalt supply chain.

Since 2016, only 25% of the downstream companies have adopted due diligence policies that make clear reference to cobalt and acknowledge the OECD Guidance as the recognized standard for conducting due diligence to identify and address human rights risks and abuses associated with cobalt. This is progress compared to 2016, when no company had such policies for cobalt. But based on the responses provided to Amnesty International, the other 20 downstream companies have been slow or resistant to adopt clear policies for due diligence in their cobalt supply chains. This is despite the fact that most of these companies already have policies for managing risks associated with "conflict minerals" (tin, tantalum, tungsten and gold, or 3TG), showing that they are capable of putting in place clear and detailed policies to address human rights impacts for mineral supply chains—particularly when required to do so by law (for example, under Section 1502 of the Dodd-Frank Act in the USA, which requires US-listed companies to conduct supply chain due diligence on 3TG).

QUESTION 3: Has the company taken action to identify “choke points” and associated human rights risks and abuses?

This question builds on Question 1 and considers a company’s broader approach to detecting human rights risks and abuses in its cobalt supply chain. Amnesty International asked companies whether and how they verify the claims made to them by their suppliers. The question specifically looks at whether companies reviewed factual information about such things as country of mineral origin and route of travel from the mine, whether they had identified all of the cobalt smelters and refiners in their supply chain, and how they had assessed the adequacy of those smelters’ or refiners’ due diligence practices.

Overall, companies in all downstream sectors are failing to meet minimal expectations when it comes to investigating human rights risks. Though most reported having more engagement with suppliers since January 2016, only Apple and Samsung SDI have shown they are able to identify all cobalt smelters and refiners. The Chinese cathode-material producer Hunan Shanshan Energy Technology Co., Ltd (Hunan Shanshan) and battery manufacturer Tianjin Lishen Battery Joint-Stock Co., Ltd, (Tianjin Lishen) showed basic steps to investigate supply chain risks related to cobalt, distinguishing them from other Chinese companies in these sectors, which were among the worst performers.

QUESTION 4: HAS THE COMPANY DISCLOSED INFORMATION ABOUT THE HUMAN RIGHTS RISKS AND ABUSES IN ITS COBALT SUPPLY CHAIN?

Amnesty International asked companies whether and how they publicly disclose their human rights due diligence policies and practices, including the identities of all cobalt smelters and refiners in their supply chains and details of their assessments of the due diligence practices of those cobalt smelters and refiners. Companies were also asked whether they regularly publish details of independent audits

or other checks carried out to verify the origins of cobalt and the nature of human rights risks or abuses associated with specific companies or locations of extraction or trading. Public disclosure of all of this information is necessary to be considered adequate performance of due diligence in line with international standards.

The present degree of due diligence transparency in the cobalt supply chain largely reflects the progress of companies’ due diligence in general. Companies with relevant policies are generally making them public and a few have begun to reference concerns about cobalt in their sustainability reporting. This, however, reflects only minimal compliance with the standards. Most of the manufacturers of electronics and electric vehicles Amnesty International looked at are already publishing supply chain-related policies, usually through their websites. As one moves upstream along the supply chain, however, companies become progressively less transparent about their due diligence policies and processes. For example, Amperex Technology Co., Ltd (ATL) was the only one of five Chinese battery cell producers surveyed to post any information about its human rights due diligence policies on its website.

Amnesty International does not consider any downstream company to be in basic compliance with international standards until it publicly discloses its assessments of the due diligence practices of smelters and refiners. Both the OECD Guidance and CCCMC Guidelines set out clear transparency standards requiring downstream companies to publicly report on its due diligence policies and practices.

QUESTION 5: HAS THE COMPANY TAKEN STEPS TO MITIGATE RISKS OR REMEDIATE HARMS RELATED TO ITS COBALT SUPPLY CHAIN?

When a company identifies potential risks and negative human rights impacts in its supply chain, it must take appropriate actions in response. Amnesty International asked downstream companies to describe steps they may have taken, either

individually or in collaboration with others, to address human rights risks and abuses associated with artisanal cobalt mining, such as the worst forms of child labour. Companies were requested to provide information about specific instances in which they had taken action in response to risks or harms identified in their supply chains.

Amnesty International was unable to give any company a full rating for risk mitigation and remediation of harm. Many of the consumer-facing companies in the electronics and automotive industries responded to questions about mitigation and remediation by mentioning that they were taking part in one or more of the joint industry initiatives that have recently emerged, such as the Responsible Cobalt Initiative or Raw Materials Initiative. While it may be useful for companies to join these initiatives, they cannot simply point to their membership as evidence that they are addressing risks in their supply chains. As international standards make clear, companies always maintain an individual responsibility to respect human rights in their supply chains.

With respect to risk mitigation, some companies gave specific details of how they had used various forms of leverage to try to change supplier behaviour and increase capacity to perform due diligence. But since most of the companies contacted for this report had not yet gotten very far in the supply chain investigation and risk identification process, few were in a position to address specific risks or harms in their supply chains.

COMPARISON OF OVERALL DOWNSTREAM COMPANY PERFORMANCE

Amnesty International has depicted the overall performance of each company by the bars of a battery icon. The highest possible number of bars is four. Please see Annex “2” for an overall analysis of each company, including their responses to the assessment where relevant.

CONSUMER-FACING COMPUTER AND ELECTRONICS COMPANIES (TOTAL: NINE COMPANIES)

Consumer-facing computer and electronics companies were the best performers of the four industry sectors covered in this report, though individual company performance varied widely. Amnesty International found these companies have generally made a commitment to improve human rights due diligence in their cobalt supply chains. Few companies have, however, shown that they have identified their cobalt smelters or refiners in line with the OECD Guidance. Most companies reported membership in one or more voluntary industry initiative, which demonstrates minimal commitment. Disclosure of specific human rights risks and abuses identified in supply chains is weak across the board, as is demonstration of specific mitigation and remediation efforts.

The best performer in this category was Apple (three bars), whereas the poorest performers were Huawei, Lenovo Group Ltd. (Lenovo), Microsoft and ZTE Corporation (ZTE) (all with zero bars). Amnesty International found that Dell Technologies (Dell) (two bars) and HP (two bars) are showing signs of potential based on emerging practices within their operations.

CONSUMER-FACING AUTOMOTIVE COMPANIES (TOTAL: SEVEN COMPANIES)

Amnesty International found that, as a group, companies in the consumer-facing automotive sector are lagging behind their counterparts in the computer and electronics sectors. Only one company surveyed had made explicit reference to cobalt as a material requiring OECD-level due diligence. This is despite the OECD itself issuing a clarification in 2016 that the OECD Guidance applies to cobalt. None of these companies are disclosing the identities of their cobalt smelters or

refiners, as required under international standards. Though many companies have joined voluntary industry-led initiatives to address human rights risks associated with cobalt and other raw materials, none is currently disclosing specific human rights risks or abuses identified in their supply chains. In light of the amount of cobalt the companies in this sector consume and are expected to consume in the next years as the demand for electric vehicles grows, much more action is urgently needed.

The best performer in this category was BMW (two bars). The poorest performers were Daimler (one bar) and Renault (zero bars). Amnesty International found that Tesla is showing signs of potential in light of its human rights investigative practices (two bars).

BATTERY CELL MANUFACTURERS (TOTAL: EIGHT COMPANIES)

Only three of the eight battery cell manufacturers responded to Amnesty International's March 2017 letters. Samsung SDI (three bars) and LG Chem (two bars) were the only two that showed more than nominal progress in developing effective human rights due diligence policies and practices for cobalt. These two Korean battery manufacturers demonstrated steps to improve their performance. Initially, they focused on certificates of origin to confirm if Huayou Cobalt had supplied it with DRC cobalt. Samsung SDI subsequently acknowledged these are insufficient.

Chinese battery manufacturers including Coslight Technology International Group (Coslight) and BYD Co., Ltd, (BYD) which also produces electric vehicles, did not respond to Amnesty International's March 2017 request for information. Tianjin Lishen provided limited information just prior to publication of this report. Only the Chinese battery cell producer ATL has shown some evidence of human rights due diligence policies and practices for cobalt. The disappointing lack of action by so many companies

in this sector suggests that actors in the middle of the supply chain, which is hidden from the public eye, are using their invisibility to contribute to, and benefit from, human rights abuses.

The best performer in this category was Samsung SDI (three bars), while the poorest performers were BYD, Coslight and Shenzhen BAK Battery Co., Ltd (Shenzhen BAK) (all with zero bars). Amnesty International found that LG Chem (two bars) is showing signs of potential in light of recent improvements made to its human rights due diligence practices for cobalt.

CATHODE MATERIALS MANUFACTURERS (TOTAL: THREE COMPANIES)

Amnesty International found that companies producing cobalt-containing cathode materials for lithium-ion batteries performed relatively poorly in their supply chain human rights due diligence, despite knowledge that cobalt mined by children and adults in hazardous conditions is likely entering their supply chains. The Korean company L & F was the only company out of the three in this sector to respond to the organization's March 2017 letter, although Hunan Shanshan provided some information just prior to publication of this report. Overall, these companies are still failing to demonstrate respect for human rights.

Hunan Shanshan (one bar) was the best performer in this category, having taken steps to improve its human rights due diligence system and trace its supply chain, but the company needs to be more transparent about the actions it is taking, including its policies and risk assessment details. Amnesty International found that L & F (zero bars) is showing signs of potential given its expressed commitment to work with suppliers to "take all necessary steps to prevent any identified violations in [its] supply chain".

CONCLUSIONS

Companies behind the technologies of the “clean energy revolution” clearly want to be associated with sustainability, not human rights abuses. More are now willing to admit there are serious problems that can no longer be ignored. However, awareness and commitments have not translated into action across the global supply chain. While companies like Huayou Cobalt, Apple and Samsung SDI have demonstrated that it is possible to map their supply chains in the DRC, too many others have failed to take any meaningful action. None of the 29 companies named in this report are carrying out human rights due diligence on their cobalt supply chains in line with international standards.

Cobalt is still not an explicit target of the supply chain due diligence policies and practices of leading technology brands, including Huawei and Microsoft. The automotive sector is largely falling short, with not a single company yet publicly identifying its cobalt smelters or refiners.

Amnesty International is concerned about the low response rate of producers of battery materials and battery cells, many based in China. Unless these companies begin carrying out due diligence in line with international standards, it will be difficult to establish a viable market for more responsible sources of cobalt. This is especially true given that Chinese battery producers are gearing up to meet expected demand for Chinese-manufactured electric vehicles.

Given the scale of the problem and exponentially growing demand for cobalt, more must be done.

The DRC government should act on its commitment to implement all of the recommendations in Amnesty International’s 2016 report.

States, such as the DRC, China, South Korea and the USA, should at a minimum require greater transparency around human rights and cobalt supply chain practices. In particular, regulation is required to ensure transparency in relation to: points of extraction, the conditions of extraction and trading and the chain of custody (actors involved) for cobalt.

Companies in the cobalt supply chain should undertake and publicly disclose their human rights due diligence practices.

Rising demand for electric vehicles means companies will source more cobalt from the DRC. Inadequate human rights protections for artisanal miners in the DRC continue to be the reality. This means that it is more urgent than ever that companies improve their due diligence practices to ensure respect for human rights. Business as usual is not an option: it is time for companies to “recharge their batteries” and face up to their human rights responsibilities in their cobalt supply chains.

Amnesty International provided companies featured in this report with the opportunity to respond to our findings as detailed in the Methodology.

LIST OF ABBREVIATIONS

3TG	tantalum, tin, tungsten and gold
AIAG	Automotive Industry Action Group
ASM	artisanal and small-scale mining
CCCMC	China Chamber of Commerce of Metals, Minerals and Chemicals Importers and Exporters
CDM	Congo Dongfang International Mining SARL, a subsidiary of Zhejiang Huayou Cobalt Co., Ltd
CEGA	Centre for Effective Global Action (University of California, Berkeley, USA)
ILO	International Labour Organization
LCO	lithium cobalt oxide
LSM	large scale mining
OECD	Guidance Organisation for Economic Co-operation and Development Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas
RBA	Responsible Business Alliance (formerly Electronic Industry Citizenship Coalition)
RCI	Responsible Cobalt Initiative
RRMI	Responsible Raw Materials Initiative
SEC	Securities and Exchange Commission (USA)
ZEAs	Artisanal Mining Zones

METHODOLOGY

This report is an update to *This is What We Die For*,¹ which was jointly published in January 2016 by Amnesty International and the Congolese NGO African Resources Watch (Afrewatch).² That report was the first comprehensive account of how cobalt mined by children and adults in hazardous conditions in the Democratic Republic of the Congo (DRC) enters the supply chains of many of the world's biggest electronic brands and vehicle companies.

For the 2016 report, Amnesty International and Afrewatch researchers visited five mining sites in and around Kolwezi, Kambove and Likasi, in what was then Katanga province.³ They interviewed nearly 90 people (including 17 children) who were either working or had worked in these mines. Amnesty International used public records, including investor documents and statements published on company websites, to identify companies in the international cobalt supply chain. Researchers established how cobalt mined in the DRC by hand using the most basic tools (artisanal mines) was used to produce the batteries that power mobile phones, tablets, laptop computers and electric vehicles.

This is What We Die For shone a light on the widespread failure by all the companies named in it to identify, prevent, address and account for human rights abuses linked to the production of lithium-ion batteries.

Time to Recharge, assesses the progress made since the 2016 report. It provides an overview of key developments related to the cobalt supply chain at the international, DRC and company

levels. It specifically considers the degree to which companies' cobalt-sourcing practices have improved since January 2016. It assesses companies' performance against five criteria that reflect international standards for conducting supply chain human rights due diligence for minerals extracted from high-risk or conflict affected areas (see below for further details).

This progress report is based on in-country updates and reviews of news reports, press releases, analysts' reports, corporate documents and other publicly available materials.

To assess whether conditions have changed on the ground, Amnesty International researchers worked with Afrewatch, who revisited artisanal mining sites at Kasulo, Tshipuki and Mutoshi (all located in and around Kolwezi city in Lualaba province) in March 2017. They documented adults and children engaged in mining activity in unsafe conditions and also investigated shifts in trading activity in response to the emergence of new mining sites. Throughout 2016 and 2017, researchers monitored the situation in the cobalt mining areas through discussions with various key contacts on the ground. Amnesty International researchers also attended a meeting hosted by the Congolese Ministry of Mines in Kinshasa on 30 August 2017.

ASSESSING COMPANY RESPONSES AND PROGRESS

In March 2017, Amnesty International sent letters to 29 companies identified during research for *This is What We Die For* as potential users of cobalt sourced from mines where children and adults worked in

1. Afrewatch and Amnesty International, "*This is what we die for*": Human Rights Abuses in the Democratic Republic of the Congo Power the Global Trade in Cobalt (Index: AFR 62/3183/2016) ("*This is what we die for*").
 2. www.afrewatch.org
 3. In 2015, the former province of Katanga was divided into four new provinces. Most of the region's cobalt production occurs in the two southern provinces of Lualaba and Haut Katanga.

hazardous conditions. One of those companies was Zhejiang Huayou Cobalt Co., Ltd (Huayou Cobalt), whose wholly owned subsidiary in the DRC is Congo Dongfang International Mining SARL (CDM). Amnesty International identified CDM as a major buyer of artisanal cobalt from traders operating in the market at Musonpo.

The other 28 companies Amnesty International approached were four manufacturers of cathode materials for lithium-ion batteries,⁴ eight battery cell manufacturers, nine electronics companies and seven electric vehicle manufacturers.⁵ All 28 were identified through corporate documents or other public sources of information as having possible supply chain links to Huayou Cobalt and, therefore, to CDM.⁶

Amnesty International asked each of the 29 companies contacted to provide details about its cobalt supply chain and human rights due diligence policies and practices. Questions to companies reflected the five-step due diligence framework set out by the Organisation for Economic Co-operation and Development (OECD) in its Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas (OECD Guidance).⁷

Amnesty International received substantive responses from 20 companies.⁸ Amnesty International's assessment of company practices is informed by these responses, as well as statements,

reports and other relevant information that companies have either publicly disclosed or brought to Amnesty International's attention. All responses can be accessed at: <https://www.amnesty.org/en/documents/afr62/7418/2017/en/>.

Drawing on the OECD Guidance, Amnesty International created assessment criteria to distinguish between the responsibilities of "upstream" companies (those located in the supply chain from the mines to smelters/refiners) and "downstream" companies (those in the supply chain from smelters/refiners to retailers).

Amnesty International assessed Huayou Cobalt, together with its wholly owned smelter CDM, according to international human rights due diligence standards applicable to upstream companies. Namely, the assessment looked at whether it has:

- Established a strong company management system, including a system of control and transparency with respect to the mineral supply chain;
- Mapped the factual circumstances of the supply chain in order to clarify chain of custody and identify risks associated with extraction, trade, handling and export;
- Designed and implemented a strategy to respond to identified risks in order to prevent or mitigate adverse impacts; and
- Reported publicly on supply chain due diligence policies and practices, including audit reports.⁹

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4. Cathode materials are important cobalt-containing components used in the manufacture of rechargeable lithium-ion batteries. Lithium cobalt oxide (LCO) is most commonly found in batteries used for computers, mobile phones and other consumer electronics. Higher voltage batteries, including those found in electric vehicles, typically make use of other formulations, such as lithium nickel manganese cobalt oxide (NMC) or lithium nickel cobalt aluminium oxide (NCA).
5. See the table of downstream companies in Chapter 5. Twenty-three of these were companies first contacted in late 2015, before the publication of *"This is what we die for"*, and five were electric vehicle manufacturers contacted in July 2016 that researchers believed, based on information reviewed after January 2016, were also sourcing Congolese cobalt from Huayou Cobalt. See Amnesty International, *Electric Cars: Running on Child Labour?* 30 September 2016, www.amnesty.org/en/latest/news/2016/09/electric-cars-running-on-child-labour/
6. Amnesty International used public records, including investor documents, news reports and statements published on company websites to identify business relationships between companies in the supply chain. Researchers made inferences based on these relationships to link companies back to Huayou Cobalt. Since Huayou Cobalt has publicly stated that around half of its supply of cobalt raw material is provided by CDM, Amnesty International considers that any company with Huayou Cobalt in its supply chain is likely to have CDM in its supply chain as well.
7. OECD, *OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas*, 3d edition, 2016, www.oecd.org/daf/inv/mne/OECD-Due-Diligence-Guidance-Minerals-Edition3.pdf (OECD Guidance).
8. These companies did not respond to Amnesty International: Amperex Technology Co, Ltd; BYD Co, Ltd; Coslight Technology International Group; Hunan Shanshan Energy Technology Co., Ltd; Ningbo Shanshan Co., Ltd; Shenzhen BAK Battery Co., Ltd; Tianjin B & M Science & Technology Joint Stock Co., Ltd; and Tianjin Lishen Battery Joint-Stock Co., Ltd. The Renault Group sent a brief response without providing substantive answers to the questions. Hunan Shanshan and Tianjin Lishen provided information immediately prior to publication, which has been reflected below.
9. OECD Guidance, *Supplement on Tin, Tantalum and Tungsten*, p. 32.

Amnesty International's assessment of Huayou Cobalt/CDM based on these criteria can be found in Chapter 4.

Amnesty International has assessed all the other companies in the supply chain according to the following criteria for downstream companies:

- Has the company investigated its supply links to the DRC and Huayou Cobalt?
- Does the company have robust policies and systems in place for detecting human rights risks in its cobalt supply chain?
- Has the company taken action to identify "choke points" (smelters and refiners) and associated human rights risks?
- Has the company disclosed information about human rights risks in its cobalt supply chain?
- Has the company taken steps to mitigate human rights risks or remediate harms related to its cobalt supply chain?

For each of the five questions, Amnesty International derived a series of three indicators reflecting actions companies could be expected to carry out (see Annex "1"). These indicators were then used to rate the adequacy of each company's due diligence in line with international standards. To reflect the achievement of companies that had taken more action in line with international standards, each rating was associated with a successively higher point value (indicated in brackets below):

- No demonstration or no response from company (0)
- Minimal demonstration (1)
- Moderate demonstration (3)
- Adequate demonstration (6)

Amnesty International's overall assessment of downstream companies' performance under each of the criteria can be found in Chapter 5, with more detailed assessments of each company in Annex "2".

The total point value for the ratings across all five questions was used to produce an overall assessment of each company's due diligence performance based on a scale of 0-30. Battery icons represent the "battery health" of each company's due diligence practices and performance. The maximum number of bars a company could receive is four. Amnesty International's overall assessment of downstream companies can be found in Chapter 5 and more detailed company-by-company assessments in Annex "2".

Amnesty International's assessment does not consider the effectiveness of any of the 29 companies' policies and practices in identifying, preventing, addressing or accounting for human rights abuses, only their relative compliance with international standards. Company pledges of action to be taken in the future were not considered proof of due diligence for the purposes of this assessment.

Prior to publication, Amnesty International wrote to all of the 29 companies and provided each with an opportunity to respond to our findings. Twenty-one companies provided responses. The following companies disagreed with their ranking against at least one of the five criteria: Apple, BMW, Dell, Fiat-Chrysler, General Motors, HP, Hunan Shanshan, Microsoft, Sony Corporation (Sony), Tesla and Tianjin Lishen. Amnesty International reviewed the responses in detail and took appropriate account of information provided in updating its findings. Copies of the companies' responses can be accessed at: <https://www.amnesty.org/en/documents/afr62/7418/2017/en/>

1. BACKGROUND

CLEAN ENERGY REVOLUTION: INCREASING DEMAND FOR COBALT

Our world is increasingly powered by lithium-ion rechargeable batteries (rechargeable batteries). They are a vital component of a wide array of devices, from everyday mobile technologies, such as smartphones and laptop computers, to electric vehicles.

At the same time, there is growing interest in using super-sized rechargeable batteries to help store electricity generated from solar and wind sources and deliver it to consumers more efficiently.¹⁰ These technologies are attractive because of their perceived sustainability, especially relative to traditional fossil fuels. But as they become more and more widespread in what some are calling the “clean energy revolution”, it is necessary to ask whether the energy powering this revolution is as “clean” as it claims to be.

Cobalt is a critical component of rechargeable batteries and therefore of the clean energy revolution. However, its extraction has been linked to serious human rights risks and abuses. More than 50% of the world’s cobalt supply originates in the DRC,¹¹ one of the most impoverished countries in the world due in part to decades of civil war and poor governance. For a long time, cobalt production in the DRC has been dependent on the demand for the copper-rich ores in which it is found in abundance. However, growing demand for rechargeable batteries is making cobalt an increasingly valuable commodity in its own right.

Cobalt in the DRC is generally found in a dark grey rock known as heterogenite. It can also be extracted from other ores that miners collect primarily for their copper content, and that are then processed.¹² Much of the cobalt produced in the DRC is destined for smelters, refiners and processors located in China, where it gets turned into a variety of chemical products used in the manufacture of rechargeable batteries. Demand for these batteries has helped contribute to a boom in cobalt prices since the beginning of 2017.¹³ It is also sustaining a market for minerals mined by hand in the DRC under extremely dangerous conditions.

Artisanal miners, known locally as *creuseurs*, use basic tools to extract mineral-rich rocks from hand-dug tunnels deep underground. Children as young as seven scavenge for rocks containing cobalt in the discarded by-products of industrial mines and wash and sort the ore before it is sold. Artisanal mining can be carried out by individuals or as small non-industrial mining cooperatives (artisanal and small-scale mining, ASM). This type of mining is distinct from industrial “large-scale mining” (LSM) operations that use machinery.

The 2002 DRC Mining Code¹⁴ established that artisanal mining can only take place within authorized *Zones d’exploitation artisanale* (Artisanal Mining Zones, ZEAs) where industrial or semi-industrial mining is not viable.¹⁵ However, the government has created very few ZEAs and most artisanal miners work in unauthorized and unregulated areas or trespass on land controlled by industrial mining companies.¹⁶

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- 10. D. Cardwell & C. Krauss, “A Big test for big batteries”, *New York Times*, 14 January 2017, www.nytimes.com/2017/01/14/business/energy-environment/california-big-batteries-as-power-plants.html
 - 11. US Geological Survey (USGS), *Mineral Commodity Summaries 2017*, p. 53, minerals.usgs.gov/minerals/pubs/commodity/cobalt/mcs-2017-cobal.pdf (USGS, *Mineral Commodity Summaries 2017*).
 - 12. Email from Kim Shedd, Mineral Commodity Specialist, USGS, 7 October 2015.
 - 13. According to data from the London Metal Exchange, the cash buyer price for cobalt fell to US\$21,700 per metric ton on 29 January 2016. The price rose to US\$32,700 per metric tonne on 30 December 2016 and was \$61,250 per metric ton on 2 November 2017. See www.lme.com/Metals/Minor-metals/Cobalt
 - 14. DRC Mining Code (2002), Loi no 007/2002 du 11 juillet 2002 portant Code minier, available in English at mines-rdc.cd/fr/documents/codemini-er-eng.pdf (DRC Mining Code (2002)).
 - 15. Article 109 of the DRC Mining Code (2002).
 - 16. “This is what we die for”, p. 33.

The scale of the ASM sector is substantial. Estimates from 2010 suggest that as many as 150,000 individuals (roughly 2% of the population of Katanga) were involved in artisanal mining.¹⁷ Government officials have said that hand-dug cobalt accounts for around 20% of the DRC's total exports of the mineral (in other words, 10% of the total global supply).¹⁸ Artisanal mining became a source of livelihood for many people when the largest state owned mining company collapsed in the 1990s. It grew further during the Second Congo War (1998–2003), when President Laurent Kabila encouraged people to dig for themselves. Today, miners typically earn little for their difficult and dangerous work, but miners interviewed by Amnesty International said that crippling levels of unemployment left them little choice.¹⁹

Cobalt that is dug from the DRC's artisanal mines enters a global trading network. Typically, cobalt smelting is at least four steps removed in the supply chain from the companies that use rechargeable batteries in their products. Because battery-using companies rarely have direct relationships with cobalt smelters or refiners, they have to rely on the suppliers at various points of the supply chain to provide information about how materials are sourced earlier in that chain.

Ending the daily health and safety risks and abuses faced by artisanal miners in the DRC must become central to the “clean energy revolution”. This requires governments to introduce regulations requiring companies to implement human rights due diligence practices and ensure that their operations relating to cobalt, as well as other key minerals used to make rechargeable batteries, are ethically clean.

2016 REPORT FINDINGS

In the January 2016 report, *This is What We Die For*, Amnesty International and Aforewatch exposed serious human rights abuses in artisanal cobalt mining in southern DRC. The report showed that artisanal miners operating outside of authorized mining zones typically lacked basic protective or safety equipment, such as respirators, gloves or face protection and did not enjoy legal protections nominally provided by the state. Those involved with artisanal mining frequently suffered from chronic illnesses, as well as from serious and potentially fatal respiratory diseases as a result of prolonged exposure to dust containing cobalt and other metals.²⁰

Researchers also observed and heard accounts from children as young as seven engaged in artisanal cobalt mining. Some of these children worked in the tunnels alongside adult miners, while most helped to pick through mine tailings or sort and wash minerals prior to sale. Many were forced to carry out this physically gruelling and hazardous work because their families were too poor to pay school fees or else relied on the supplementary income from mining to be able to afford to send their children to school. Children also recounted being subjected to beatings and extortion by security guards and exploited by traders.²¹ Under international standards, any participation in mining by children below the age of 18 falls under the category of “worst forms of child labour”.²²

The adults and children interviewed by Amnesty International for the 2016 report also detailed the widespread failure of government agents to monitor and enforce relevant safeguards aimed at protecting

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- 17. Pact, *PROMINES Study: Artisanal Mining in the Democratic Republic of Congo*, June 2010, p. 21, congomines.org/system/attachments/assets/000/000/349/original/PACT-2010-ProminesStudyArtisanalMiningDRC.pdf. More recent estimates are not available.
 - 18. Amnesty International interview with head of the *Service d'Assistance et d'Encadrement du Small-Scale Mining* (SAESSCAM) in Katanga, Lubumbashi, 18 May 2015. Routine under-reporting of ASM cobalt means that the actual figure is likely to be even higher.
 - 19. “*This is what we die for*”, p. 27.
 - 20. The World Health Organization (WHO) warns that exposure to high levels of cobalt can have both short and long-term negative health effects. See WHO, *Concise International Chemical Assessment Document 69: Cobalt and Inorganic Cobalt Compounds*, 2006, www.who.int/ipcs/publications/cicad/cicad69%20.pdf; Center for Disease Control, *Workplace Safety & Health Topics: Cobalt*, www.cdc.gov/niosh/topics/cobalt
 - 21. “*This is what we die for*”, pp. 28-31.
 - 22. Article 3(d) of the International Labour Organization (ILO) Convention on the Worst Forms of Child Labour (Convention No. 182), 17 June 1999, www.refworld.org/docid/3ddb6e0c4.html. Convention No. 182 defines the worst forms of child labour, in part, as: “work which, by its nature or the circumstances in which it is carried out, is likely to harm the health, safety or morals of children.” The ILO has also made clear that “[m]ining and quarrying are forms of work dangerous to children in every way”; see ILO, *Children in Hazardous work: What we know, What we need to do*, 2011, p. 32, www.ilo.org/wcms5/groups/public/@dgreports/@dcomm/@publ/documents/publication/wcms_155428.pdf. See also “*This is what we die for*”, pp. 28-29.

artisanal miners.²³ They further described a pattern of extortion by these same officials, who routinely demanded illegal payments from miners as a “tax” on each sack of ore collected or to gain access to mine sites.²⁴

The report also demonstrated how cobalt from artisanal mines in the DRC entered the global supply chain. Researchers tracked cobalt from the artisanal mining sites they visited to a market in Musompo on the outskirts of Kolwezi. There, researchers found traders purchasing cobalt ores without conducting basic checks, such as asking questions about where those minerals originated from or confirming the conditions under which they had been extracted (including the use of child labour).²⁵ These traders, in turn, sold the ores to larger entities supplying the smelters that process cobalt for use in various industrial applications, including products used in the manufacture of rechargeable batteries.

STATE FAILURE TO PROTECT HUMAN RIGHTS

This is What We Die For highlighted significant gaps and weaknesses in the DRC government’s regulation of artisanal mining. The Mining Code and Regulations contain limited guidance on health and safety and very few provisions to protect artisanal miners’ labour rights.

The report detailed several ways in which the government was failing to ensure protection for adults mining cobalt in hazardous conditions.²⁶ It had not created enough authorized zones for artisanal mining, effectively forcing miners to work in unregulated or “law-free” areas. Laws and regulations did not adequately protect the health and safety or other labour conditions of artisanal miners and the authorities responsible for monitoring and

enforcing standards lacked the capacity to do so. Researchers also found evidence suggesting that state officials were extorting illegal payments from artisanal miners and were ignoring unsafe working conditions that breached the DRC’s own laws, including the prohibition of child labour in mines.²⁷

The report concluded that the government was failing to adequately enforce the legal prohibition against child labour in artisanal mining. This was despite an international prohibition on the worst forms of child labour, DRC labour law and the country’s mining code which bans anyone under 18 from taking part in artisanal mining.²⁸ The children interviewed by researchers described the physically demanding nature of the work they did. They said that they worked for up to 12 hours a day in the mines carrying heavy loads for less than US\$2 a day. Those who were attending school worked similar hours performing arduous work at weekends and during school holidays as well as before and after school. Those who were not attending school worked in the mines all year round.

Amnesty International also found that the DRC government was failing to ensure children’s right to education by not providing access to free primary education, as required by law and the Constitution.²⁹ The DRC Child Protection Code (2009) guarantees free and compulsory primary education for all children. However, lack of government funding has meant that most schools continue to charge fees to cover costs. In Kolwezi, NGO staff told researchers that school fees were 10,000-30,000 Congolese Francs (US\$10-30) per month, which is more than many families can afford.

Research for the 2016 report also found clear regulatory gaps in the countries where multinational companies using rechargeable batteries are headquartered, such as China, the USA and

23. “*This is what we die for*”, pp. 19-27, 33-37.

24. “*This is what we die for*”, pp. 34-35.

25. “*This is what we die for*”, pp. 48-50.

26. “*This is what we die for*”, pp. 33-39.

27. “*This is what we die for*”, pp. 17

28. Article 3 of the DRC Labour Code (2002), Loi no 015/2002 du 16 octobre 2002 portant Code du travail, www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---ilo_aids/documents/legaldocument/wcms_126948.pdf; Article 23 of the DRC Mining Code (2002); “*This is what we die for*”, p. 37.

29. Article 38 of DRC Child Protection Code (2009), Loi no 009/001 du 10 janvier 2009 portant protection de l’enfant, www.leganet.cd/Legislation/JO/2009/L.09.001.10.01.09.htm; and Article 43 of the Constitution of the Democratic Republic of the Congo (2006), www.wipo.int/wipolex/en/text.jsp?file_id=193675.

South Korea among others. These home states have an important role to play in requiring greater transparency around cobalt supply chain practices that they were failing to fulfil. Under international human rights law, all states have a duty to protect against human rights abuses by all actors, including businesses throughout their global operations. Among other things, this requires all governments to enact and enforce laws requiring corporate due diligence and public disclosure in relation to cobalt and other minerals. A few jurisdictions have introduced legal obligations for due diligence and public reporting by certain companies that use or trade tantalum, tin, tungsten or gold (3TG, also commonly referred to as “conflict minerals”) originating from the DRC or neighbouring countries.³⁰ However, no country legally requires companies to publicly report on their cobalt supply chains. As a result, companies are able to profit from ongoing human rights abuses in the cobalt supply chain, such as child labour, without detection.

CORPORATE FAILURE TO RESPECT HUMAN RIGHTS

The 2016 report found that companies along the cobalt supply chain were failing to conduct adequate human rights due diligence in line with international standards.³¹

Researchers followed the vehicles of miners and traders as they carried cobalt ore from artisanal mines in Kolwezi to a market in Musombo. There, independent traders bought the ore, regardless of where it had come from or how it was mined. These traders then sold the ore to larger companies in the DRC for processing

and exporting. The 2016 report identified the smelter, CDM, as one of the largest buyers of ASM cobalt in the Kolwezi region. CDM is a wholly owned subsidiary of Huayou Cobalt, which is based in China and is one of the world’s largest cobalt processors and manufactures a variety of cobalt compounds used in the production of lithium-ion batteries.³²

CDM sourced 20–30% of its cobalt ore from ASM sources; the rest came from material purchased from LSM producers or obtained from formal mining operations in which it had a stake.³³ CDM then smelted the cobalt to produce crude cobalt hydroxide.³⁴ This processed cobalt was then shipped to Huayou Cobalt’s facilities in China. There it was further refined into products sold to companies in China and South Korea that made component materials for lithium-ion battery cells manufactured by companies in those countries and elsewhere. These battery cells then entered the supply chains of some of the world’s largest manufacturers of consumer electronics and electric vehicles.³⁵

In *This is What We Die For*, Amnesty International assessed the human rights due diligence practices of 26 companies. The organization concluded that all 26 companies, including Huayou Cobalt and companies potentially buying from it directly or indirectly, had failed to conduct human rights due diligence in line with international standards. Alarmingly, the majority of companies were unable to answer basic questions about where the cobalt in their products came from and whether there was any risk of human rights abuses of the kind observed by Amnesty International researchers.³⁶

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- 30. For example, Section 1502, Dodd-Frank Wall Street Reform and Consumer Protection Act, 2010, www.cftc.gov/ucm/groups/public. See also, Regulation (EU) 2017/821 of the European Parliament and of the Council of 17 May 2017 laying down supply chain due diligence obligations for Union importers of tin, tantalum and tungsten, their ores, and gold originating from conflict-affected and high-risk areas, eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2017.130.01.0001.01.ENG&toc=OJ:L:2017:130:TOC (EU Mineral Due Diligence Regulation).
 - 31. The UN Guiding Principles on Business and Human Rights set out the responsibility of companies to respect international human rights in their global operations, including in their supply chains. This requires, amongst other things, that companies carry out human rights due diligence “to identify, prevent, mitigate and account for how they address their impacts on human rights.” A practical guide for how such due diligence should be carried out for supply chains has been provided by the Organisation for Economic Co-operation and Development (OECD).
 - 32. See Chapter 4.
 - 33. This breakdown also reflects its 2017 operations. Huayou Cobalt, *Huayou Cobalt’s Due Diligence and Audit of Responsible Cobalt Supply Chain*, 9 August 2017, p. 16, en.huayou.com/downloadRepository/cfd6baf6-6aba-4846-9f2c-5ea7bf852e16.pdf (Huayou Cobalt’s Due Diligence and Audit). In 2015, CDM purchased mining licence PE527 from Gécamines, giving it access to a copper-cobalt mine site at Luiswishi, outside Lubumbashi. At the time of writing, Huayou Cobalt also had ownership stakes in La Minière de Kasombo SAS (MIKAS), and Feza Mining SAS, both joint ventures with Gécamines (Huayou Cobalt, Annual Report 2016, pp. 131, 133). It also has a 1% ownership stake in the major “resources-for-infrastructure” Sicomin project (Huayou Cobalt, Annual Report 2016, p. 104).
 - 34. Huayou Cobalt, *Annual Report 2016*, March 2017, p. 9, www.huayou.com/downloadRepository/68993f39-e85f-4068-ae38-7a4bd45aaedd.PDF (Huayou Cobalt, Annual Report 2016).
 - 35. “*This is what we die for*”, pp. 56–63.
 - 36. “*This is what we die for*”, pp. 53–65.

The report concluded that companies that purchase cobalt, or components containing the mineral, had no excuse for not conducting such due diligence steps. The DRC is by far the world's largest source of cobalt and the poor conditions of its artisanal mines and the use of child labour in them had been reported publicly in the past.

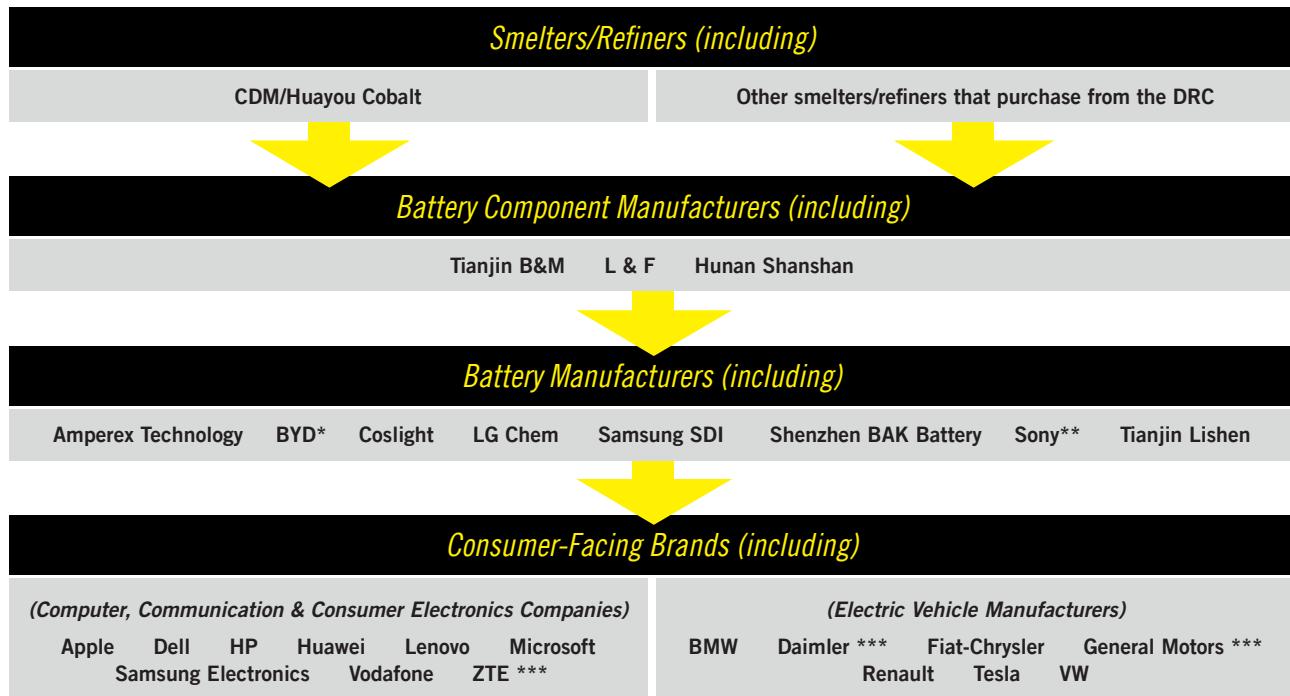
Amnesty International found that CDM and Huayou Cobalt, as smelters, should have known how the cobalt that they bought was extracted, handled, transported and traded. They should have been able to identify where it is mined, by whom and under what conditions (including whether human rights abuses or any form of illegality had taken place).

Amnesty International found that any company that sourced processed cobalt and its customers along the supply chain should have been able to trace its

suppliers back to the smelter and be fully aware of the smelter's due diligence practices. In their letters to Amnesty International, many of these companies stated that they had a "zero tolerance" policy on child labour in their supply chains. However, none could provide proof of any specific investigations and checks that they had undertaken to identify and address child labour in their cobalt supply chains.

Seven of the 26 companies did not respond when contacted in 2015.³⁷ Thirteen denied using cobalt sourced from the DRC or connected to Huayou Cobalt, without offering any information that would allow these claims to be verified.³⁸ Considering that the DRC accounts for more than half of the global cobalt supply, companies that claim to have no DRC cobalt in their supply chains should be prepared to offer credible evidence to support that contention.

Potential DRC cobalt supply chain (according to publicly available information).



*BYD is also an electric vehicle manufacturer

**In September 2017, Sony completed the transfer of its battery cell business to Murata Manufacturing Co., Ltd. Group and is also a computer, communication and consumer electronics company.

***Indicates companies which deny a connection to this potential supply chain and/or cobalt originating in the DRC.

37. Seven companies did not reply to Amnesty International's 2015 request for information: Ahong, ATL, BAK, BYD, Dell, Ningbo Shanshan and ZTE.

38. For example, Daimler, Huawei, Lenovo, Microsoft, Samsung Electronics, Samsung SDI, Tianjin Lishen, Vodafone, VW, Tianjin B & M, Coslight, Inventec and LG Chem.



Miners use a rope attached to a beam stretched over the pit as support to climb down into and out of the pit, Kasulo, March 2017

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2. KEY DEVELOPMENTS, 2016–2017

Following the publication of *This is What We Die For*, there was a flurry of activity, including a call to action by the OECD, commitments by the DRC government to protect human rights, and pledges by companies to undertake human rights due diligence in their cobalt supply chains.

ACTIONS TAKEN BY THE DRC GOVERNMENT

In 2011, the DRC government developed a national action plan aimed at eliminating the worst forms of child labour by 2020, but this has never been formally adopted or implemented.³⁹ Renewed international attention following publication of the 2016 report prompted the government to make new commitments to fulfil this human rights obligations. These culminated in the drawing up of a new national strategy aimed at removing children from all artisanal mines by 2025. The strategy (which had not been finalized at the time of writing) details six areas of work.⁴⁰

39. DRC Ministry of Labour, *Plan d'action national (PAN) de lutte contre les pires formes de travail des enfants en République démocratique du Congo*, December 2011, www.ilo.org/dyn/natlex/docs/MONOGRAPH/94977/111643/F-2051372699/COD-94977.pdf
40. These include: to strengthen the relevant legal and regulatory framework; to collect data on the presence of child labour in artisanal mining; to raise awareness among local communities, as well as public and private actors and create a community monitoring mechanism; to promote responsible mineral supply chains; to strengthen the protection and care of children; and to increase the capacity of government regulatory bodies and cooperatives representing artisanal miners. See DRC Ministry of Mines, *Stratégie nationale sectorielle de lutte contre le travail des enfants dans les mines artisanales et sur les sites miniers artisanaux en RDC 2017-2025*, August 2017, on file with Amnesty International. The Ministry of Mines said that it would work in a few pilot sites before implementing the scheme nationwide.

The Ministry of Mines invited Amnesty International and other national and international civil society groups to provide feedback on this strategy at a workshop in Kinshasa in August 2017. Amnesty International highlighted specific concerns and put forward recommendations for consideration.⁴¹ At this workshop, the government announced that it would “progressively” implement all of Amnesty International’s recommendations made in the 2016 report.⁴²

These national-level commitments are in addition to plans developed by the provinces. Those, too, remain at an early stage. For example, the plan proposed by the provincial government of Haut Katanga includes the creation of at least 60 formal artisanal mining sites, or ZEAs, but authorities said they needed more than US\$32 million in extra funding before they could implement the plan.⁴³ More concrete action has taken place in Kolwezi, where Huayou Cobalt and CDM have sought to have the provincial government of Lualaba impose a new ban on artisanal mining at the Kasulo and Tshipuki mining areas (see below for details).⁴⁴ The government in Kolwezi has also formed a new committee to coordinate regular checks for the presence of children at artisanal mining sites.⁴⁵

It is too soon to assess the impact of these various developments in tackling human rights risks and

abuses associated with cobalt mining in the DRC. In terms of national and provincial initiatives in the DRC, previous government promises to regulate the artisanal mining sector or tackle child labour have failed to materialize. Amnesty International has assessed the government’s current strategy for eliminating the worst forms of child labour and found it lacking in terms of concrete timelines, clearly assigned responsibilities and an operational plan for implementation. In addition to child labour, the DRC government has not yet addressed any other human rights abuses identified in the 2016 report. The DRC government continues to fail to meet its obligations to protect people from abuses of their rights to and at work and to health through its failure to put in place and enforce adequate safeguards for artisanal miners working in unauthorized areas.⁴⁶

ACTIONS TAKEN BY THE ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

In May 2016, a third edition of the OECD Guidance was released that made clear that its five-step due diligence framework is intended “as a basis for responsible supply chain management of *all minerals*” (emphasis added), not just 3TG.⁴⁷ OECD

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- 41. Amnesty International presented its concerns, including the lack of involvement of international experts such as the ILO and the United Nations Children’s Fund (UNICEF) in the elaboration of the strategy and a lack of care provision for children not yet of school age who accompany their mothers to the mines. The national strategy also failed to identify ways to provide social and economic protection to families who have been identified as vulnerable to severe poverty and malnutrition and to make the link between child labour and child protection. The strategy also did not provide for the formalization and creation of new authorized artisanal mining sites. This feedback followed on from Amnesty International’s letter to the DRC Mines Ministry, 28 August 2017, www.amnesty.org/en/documents/afr62/7269/2017/fr/.
 - 42. Mediacongo.net, *Eradiquer le travail des enfants dans les mines, une priorité nationale pour la RDC*, 31 August 2017, www.mediacongo.net/article-actualite-29960.html. See Amnesty International, “Democratic Republic of Congo: Government must deliver on pledge to end child labour by 2025”, 1 September 2017, www.amnesty.org/en/latest/news/2017/09/democratic-republic-of-congo-government-must-deliver-on-pledge-to-end-child-mining-labour-by-2025/
 - 43. Presentation by Haut Katanga provincial Minister of Mines at Kinshasa workshop, 31 August 2017.
 - 44. Provincial Government of Lualaba, “Point de presse de son Excellence Monsieur le Gouverneur sur l’exploitation minière artisanale interdite à Kasulo et Tshipuki”, 19 April 2017, www.lualaba.gouv.cd/point-de-presse-de-son-excellence-monsieur-le-gouverneur-sur-lexploitation-miniere-artisanale-interdite-a-kasulo-et-tshipuki
 - 45. Huayou Cobalt, *Responsible Cobalt Supply Chain: Updates on Actions and Controls on the Ground*, 5 May 2017, p. 32, en.huayou.com/downloadRepository/ce6d255e-2a81-4718-bd51-7f6f85f0ed5d.pdf (Huayou Cobalt, *Updates on Actions and Controls*).
 - 46. The DRC is a state party to various international and regional treaties, which require it to protect the rights of all persons to and at work, health, education, and an adequate standard of living, and children from work that is dangerous to their health or safety. These include: the International Covenant on Economic, Social and Cultural Rights, Convention on the Rights of the Child, Convention on the Elimination of Discrimination Against Women, ILO Worst Forms of Child Labour Convention, ILO Minimum Age Convention and the African Charter on Human and Peoples Rights.
 - 47. OECD Guidance, p. 4.

representatives met Huayou Cobalt to discuss creating human rights due diligence systems for cobalt,⁴⁸ and the organization has collaborated with state-affiliated initiatives like the Responsible Cobalt Initiative (see below). In 2016 and 2017, child labour in cobalt supply chains was among the key issues highlighted at the OECD's annual forum on responsible mineral supply chains (OECD Forum). In 2017, the OECD also developed and issued new guidance to help companies identify and address child labour in their mineral supply chains.⁴⁹ The OECD is also in the process of developing a “handbook on risks associated with production and trade of natural resources” that seeks to provide companies with information about reported risks and specific supply chains for minerals beyond 3TG.⁵⁰

Amnesty International welcomes the positive steps taken by the OECD to confirm that its standard applies to cobalt and that due diligence action is required by companies to address human rights risks and abuses. However, the OECD has been slow to call on adhering states to report on measures taken to ensure the implementation of the OECD Guidance, including public disclosure requirements, and compliance by companies. The OECD has also not called on states to legally require their companies to conduct human rights due diligence on their mineral supply chains and to report publicly on their due diligence policies and practices, in accordance with international standards. These gaps are significant given the poor participation of states at the OECD Forum and poor due diligence performance by all 26 companies named in the 2016 report.⁵¹

INDUSTRY-LED INITIATIVES

Companies put in the spotlight as a result of the 2016 report have started to join together in industry-wide efforts to discuss, develop and disseminate the tools they intend to use to conduct due diligence in their supply chains. The recent proliferation of initiatives is a clear sign that companies behind the “clean energy revolution” recognize the importance of cobalt to their business. It also reflects those companies’ desire to avoid reputational damage to their brands and products caused by association with child labour and other serious human rights abuses.

ACTIONS TAKEN BY THE CHINA CHAMBER OF COMMERCE OF METALS, MINERALS AND CHEMICALS IMPORTERS AND EXPORTERS

In the 2016 report, Amnesty International called on the government-affiliated China Chamber of Commerce of Metals, Minerals and Chemicals Importers and Exporters (CCCMC) to require its member companies to conduct supply chain due diligence in line with international standards and report publicly on steps taken to manage and mitigate human rights risks.⁵² In December 2015, shortly before *This is What We Die For* was released, the CCCMC adopted the Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains (CCCMC Guidelines), which are closely aligned to the five-step due diligence framework set out in the OECD Guidance.⁵³

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- 48. Huayou Cobalt, *Implement Responsible Supply Chains Due Diligence & Contribute to Improve Human Rights in Democratic Republic of Congo*, March 2016, p. 6, on file with Amnesty International (Huayou Cobalt, *Implement Responsible Supply Chains*)
 - 49. OECD, *Practical actions for companies to identify and address the worst forms of child labour in mineral supply chains*, 2017, mneguidelines.oecd.org/Practical-actions-for-worst-forms-of-child-labour-mining-sector.pdf (OECD, Practical actions).
 - 50. L. Maréchal, *OECD handbook on risks associated with production and trade of natural resources*, May 2017, stradeproject.eu/fileadmin/user_upload/pdf/20170620_STRADE-B2_Marechal_OECD-Handbook_Upload.pdf
 - 51. See “Civil society statement at the 10th Forum on Responsible Mineral Supply Chains, Paris, 10-12 May 2016”, www.amnesty.org/download/Documents/IOR1039972016ENGLISH.pdf
 - 52. “*This is what we die for*”, p. 69. The CCCMC is a ministry-level organization subordinate to the Chinese Ministry of Commerce and registered with the Ministry of Civil Affairs.
 - 53. CCCMC, *Chinese Due Diligence Guidelines for Responsible Mineral Supply Chains*, 2015, www.cccmc.org.cn/docs/2016-05/20160503161408153738.pdf (CCCMC Guidelines).

Responding to the 2016 report, the CCCMC issued a public statement condemning the use of child labour in mining and calling on companies at all levels of the supply chain to take action to investigate and manage risks associated with cobalt. The CCCMC warned that terminating trade with the DRC might worsen local poverty and contribute to further negative human rights impacts. For these reasons, the CCCMC said it would commit to help develop a due diligence management system for cobalt on the basis of the CCCMC Guidelines.⁵⁴

In April 2016, the CCCMC and OECD brought together more than 20 companies, government officials, academic experts and NGOs (including Amnesty International) for the International Workshop for Responsible Cobalt Supply Chain Management and Due Diligence in Beijing. This meeting introduced participants to the risks and challenges associated with cobalt and initiated a discussion about how different actors could join a cooperative effort and “shoulder common but differentiated responsibilities” in finding “win-win” solutions to problems, without resorting to divestment or embargoes.⁵⁵ Amnesty International also participated in a similar discussion in 2017.

The CCCMC has made efforts to bring together corporate actors in order to facilitate respect for human rights in their individual operations. Amnesty International welcomes the CCCMC’s efforts to promote collaboration between Chinese and non-Chinese companies in the cobalt supply chain. As an organization without regulatory powers, it is unclear what steps, if any, the CCCMC would be willing to take if its members do not act in accordance with international standards. A clear weakness of CCCMC’s approach so far is its almost exclusive

focus on child labour, meaning that other human rights risks and abuses have received less attention. Further, discussions around concrete actions that companies should take to remediate child labour in their supply chains have been slow.

RESPONSIBLE COBALT INITIATIVE

The CCCMC, with “strong support” from the OECD, launched the Responsible Cobalt Initiative (RCI) in November 2016.⁵⁶ The RCI describes itself as a joint effort aimed at introducing corporate supply chain due diligence in accordance with international standards. Its stated aims also include pursuing cooperation with governments, civil-society organizations and affected communities to address risks in the supply chain and strengthening communication and transparency about the steps companies are taking to identify and address social and environmental risks in the cobalt supply chain.⁵⁷ As of August 2017, the RCI had 16 corporate members, including Apple, Dell, HP, Huawei, Sony, Samsung SDI, LG Chem, Hunan Shanshan, L & F, Tianjin B & M Science & Technology Joint Stock Co., Ltd (Tianjin B & M) and Huayou Cobalt.⁵⁸

Companies have worked together through the RCI to collectively help develop due diligence tools for risk assessment and supplier management for cobalt smelters and refiners. These tools are being piloted by Huayou Cobalt. The RCI is also working to harmonize risk assessment tools and share compliance data from audits of smelters and refiners.⁵⁹ Such an initiative has the potential to be particularly valuable in bringing together a range of companies from many different regions, including China, and representing different segments of the

54. CCCMC, “Suggestions and explanations on due management of cobalt supply chain”, 3 March 2016, theory.gmw.cn/2016-03/03/content_19153547_2.htm

55. “Joint action initiative to build a responsible global cobalt supply chain”, 22 April 2016, en.huayou.com/downloadRepository/1e39ed9e-61a4-4f50-87fe-7cdcd0d245a0.pdf

56. The RCI was announced at the UN Forum on Business and Human Rights in November 2016; “Facing challenges, sharing responsibility, joining hands and achieving win-win”, en.cccmc.org.cn/news/58372.htm (RCI, “Facing challenges”).

57. RCI, “Facing challenges”.

58. RCI, “Member list of Responsible Cobalt Initiative”, 5 August 2017, on file with Amnesty International.

59. RCI, “Review of RCI actions to date and current progress”, 5 May 2017, on file with Amnesty International.

supply chain. However, participation in the RCI remains limited and is heavily weighted towards the downstream end of the supply chain. It is silent on corporate remediation of actual harm its members have benefited from, which is required under international standards. Given its voluntary nature, it is also unclear how the RCI would react to members that fail to make sufficient efforts to bring their human rights due diligence in their cobalt supply chains into line with international standards. To achieve its goals, the RCI will need to grow its membership, especially among Chinese battery manufacturers, chemical processors and smelters/refiners. It will also need to develop stricter rules of engagement for companies, including penalties for failing to perform due diligence. Unless such steps are taken, there is a risk that too many midstream actors will continue to contribute to, and benefit from, human rights abuses while remaining outside of the system being created and invisible to consumers.

THE STUDY OF CHILD LABOUR BY THE CENTER FOR EFFECTIVE GLOBAL ACTION

Several companies associated with the RCI, including Apple, BMW, Samsung SDI and Sony, provided funding for a survey of artisanal mining communities in the DRC by the Center for Effective Global Action (CEGA) at the University of California, Berkeley, in the USA.⁶⁰ CEGA states that the goal of its research is to “depict the socio-economic context of households affected by the mineral supply chain.⁶¹ In particular, the research aims to study the prevalence, forms and causes of child labour within these mining communities and to understand the way the mineral supply chain is organized between mining sites and traders.⁶²

Notably, the CEGA researchers have concluded that disengagement from artisanal mining is likely to have a detrimental impact on the welfare of many households. Instead, they recommend maintaining sourcing relationships and creating programmes to provide incentives and support to households involved in artisanal mining to reduce child labour voluntarily. The researchers call for pilot projects to test specific interventions and see what might have maximum impact before implementing at scale.⁶³ At this stage, the study has not yet put forward any concrete strategies to companies for remediating child labour they have benefited from.

Companies funding this research consider it to be part of their risk-mitigation and remediation strategies. For example, Apple told Amnesty International that, “independent, rigorous research into root causes of issues in the DRC affecting cobalt mining practices is an essential component to building effective prevention or remediation programs.”⁶⁴ This is good practice. Nevertheless, where harm has occurred, companies must do more to remediate the worst forms of child labour if they have contributed to and benefitted from it. Companies should build upon the CEGA findings and implement effective measures immediately, with clear goals that reflect the seriousness and urgency of the child labour problem.

RESPONSIBLE RAW MATERIALS INITIATIVE

Another joint initiative launched in 2016 is the Responsible Raw Materials Initiative (RRMI), which has the support of Apple, Dell, Fiat-Chrysler, General Motors, HP, Lenovo, Microsoft, Renault, Samsung Electronics Co., Ltd (Samsung Electronics)

60. B. Faber et al, *Artisanal Mining, Livelihoods, and Child Labor in the Cobalt Supply Chain of the Democratic Republic of Congo*, 6 May 2017, p. 6, escholarship.org/uc/item/17m9g4wm (CEGA Report).

61. CEGA Report, pp. 1, 13-17.

62. CEGA Report, pp. 12-13. Researchers identified 426 communities connected to 180 mining sites in the former province of Katanga and selected 150 communities, in which they carried out randomized surveys and collected data about more than 15,000 individuals from over 2,600 households. The interviews included surveys of nearly 1,600 children between the ages of 5 and 18, as well as surveys of community leaders, school principals and mineral traders and cooperatives. See CEGA Report, pp. 13-17.

63. CEGA Report, p. 9.

64. Apple letter to Amnesty International, 28 April 2017.

and Sony.⁶⁵ The RRMI is co-sponsored by the Responsible Business Alliance (RBA, formerly known as the Electronic Industry Citizenship Coalition)⁶⁶ and the Responsible Minerals Initiative (formerly known as the Conflict-Free Sourcing Initiative),⁶⁷ both industry initiatives.⁶⁸

The RRMI's focus on cobalt reflects the electronics industry's recognition that companies' awareness of mining-related risks must reach beyond the narrow confines of 3TG. The RRMI aims to promote a supply chain risk management system that will facilitate downstream companies' ability to perform due diligence in line with the OECD Guidance.⁶⁹ The wider recognition of risks associated with a larger category of minerals is positive. However, while companies may find the promotion of tools helpful, it is unclear what steps, if any, the RRMI takes to ensure that its members individually disclose human rights due diligence practices that are specific to their supply chains, in line with international standards. When it comes to meeting the corporate responsibility to respect human rights, companies cannot hide behind the RRMI. The RRMI is silent on companies' remediation of actual harm they have benefited from, which is required under international standards.

OTHER INDUSTRY-LED INITIATIVES

- In November 2016, a group of companies from the German automotive sector, including BMW, Daimler and Volkswagen AG (Volkswagen),

met to examine human rights risks associated with cobalt and other raw materials used in the manufacture of high-voltage batteries for electric vehicles.⁷⁰ The meeting, which was held with the support of the German Global Compact Network,⁷¹ reportedly resulted in a range of actions that could be taken by both individual companies and the sector as a whole, as well as plans for additional meetings. However, Amnesty International has not seen specific details of these.

- Members of the European Automotive Working Group on Supply Chain Sustainability,⁷² which includes BMW, Daimler and Volkswagen, are working with their suppliers and sub-suppliers to map their cobalt supply chains, identify relevant smelters and determine whether those smelters have been audited.⁷³ This initiative is being facilitated by the European Business Network for Corporate Social Responsibility (CSR Europe).⁷⁴
- A “public-private coalition”, known as the Global Battery Alliance, was formally launched at the World Economic Forum’s Sustainable Development Impact Summit in September 2017.⁷⁵ This coalition includes large mining companies and mineral traders, downstream companies (including Volkswagen), international organizations (including the OECD and CCCMC) and NGOs. Its stated aim is “to create a responsible value chain for the fast-growing battery market powering the technology and clean energy revolution” by “transform[ing] the entire value chain, from the mining and chemical industries to manufacturers, electronics, automotive and energy businesses”.⁷⁶

65. Responsible Business Alliance (RBA), Responsible Raw Materials Initiative, www.responsiblebusiness.org/initiatives/rrmi

66. www.responsiblebusiness.org

67. www.conflictfreesourcing.org

68. These two organizations have been involved in establishing a standardized reporting system and certification scheme used to track risks associated with tin, tungsten, tantalum and gold (3TG) from the DRC and surrounding countries – the so-called “conflict minerals”.

69. The three parts of the management system are: (1) a standardized reporting template for suppliers; (2) a Risk Readiness Assessment tool for mining companies and mineral processors; and (3) a standard for auditing upstream companies' due diligence and sourcing practices. RBA, *Responsible Sourcing: Cobalt*, www.responsiblebusiness.org/media/docs/RRMI-Cobalt.pdf

70. “Menschenrechtliches Risiko-Assessment im Bereich Elektromobilität”, www.globalcompact.de/wAssets/docs/Menschenrechte/DGCN_HRRA_Abschlussbericht-Maerz-017.pdf. The project was financially supported by the Federal Ministry for Economic Development and Cooperation (BMZ).

71. The German Global Compact Network (DGCN) is a multi-stakeholder forum made up of more than 350 companies and more than 50 organizations from civil society, academia and the public sector. See www.globalcompact.de/en/.

72. www.csreurope.org/european-automotive-working-group-supply-chain-sustainability-1

73. Volkswagen AG letter to Amnesty, 7 April 2017.

74. www.csreurope.org

75. World Economic Forum, *Global Battery Alliance*, www.weforum.org/projects/global-battery-alliance

76. World Economic Forum, “Major Push to End the Hidden Human Toll and Pollution behind Smartphone and Electric Car Batteries”, 19 September 2017, www.weforum.org/press/2017/09/major-push-to-end-the-hidden-human-toll-and-pollution-behind-smartphone-and-electric-car-batteries

ASSESSMENT OF INDUSTRY-LED DEVELOPMENTS

Industry-led initiatives can be important platforms through which companies reach consensus, share information and set common expectations. The RCI and RRMI have both contributed to developing and disseminating an infrastructure of tools aligned with the OECD Guidance and similar standards for risk assessment, tracking and reporting in the cobalt supply chain. If widely adopted, these tools may eventually lead to a more responsible cobalt supply chain. It remains to be seen, however, whether the tools being developed within different sectors can be harmonized with each other and whether the various voluntary initiatives will have enough clout to get companies to use these tools effectively.

These industry-led initiatives have their limitations. Their mere presence is not enough to demonstrate that companies in the cobalt supply chain are meeting their responsibility to respect human rights. Widespread adoption of standardized templates and tools can promote efficiency, reduce compliance costs and enhance the up-to-date risk information available within a supply chain. But individual companies need to remain proactive. Each company still has an individual responsibility to respect human rights in its supply chain. Industry schemes can complement or verify – but not replace – individual company practice.

Any effort to make cobalt part of a common assurance scheme that would certify companies as “risk free” should be approached with caution. Participation in such programmes is not by itself a demonstration that companies are sourcing responsibly and performing due diligence in line with international standards. Companies need to be able to review the due diligence practices of smelters and refiners, and make their own decisions about

those companies’ practices. There must be adequate disclosure of human rights risks and abuses, as well as of any corrective actions taken to address them. Audit results, including those carried out as part of common assurance schemes like that being proposed by the RRMI, should be made public to ensure that they are robust and adequate.⁷⁷

So far, membership of these industry-led efforts remains limited and dominated by downstream, consumer-facing companies. These companies will need to put pressure on their suppliers in order to get upstream mine operators, traders and manufacturers to commit to responsible sourcing practices. However, a critical weakness of these industry initiatives is their voluntary nature. None say what steps, if any, they will take if participating companies fail to carry out human rights practices in line with international standards. Similarly, none of these explicitly state that companies must remediate actual harm they have caused, contributed to or benefited from, in line with international standards.

It would be much more effective if states would set clear expectations with respect to cobalt, human rights and supply chain due diligence. To date, however, most states have remained largely absent from these discussions. There is currently no law anywhere requiring transparency of human rights risks and abuses in cobalt trading. This significantly hinders efforts to end human rights abuses in the cobalt supply chain. Amnesty International recommended that the Congolese government expand its directive to include cobalt as a “designated mineral” for which companies must carry out OECD-style due diligence.⁷⁸ This would send a signal to the governments of cobalt-importing states that human rights risks and abuses linked to cobalt are a serious issue that must be addressed. However, to date the Congolese government has not taken any such action.

77. Global Witness and Amnesty International, *Digging for Transparency: How US companies are only scratching the surface of conflict minerals reporting* (Index: AMR 51/1499/2015), p. 26.

78. “*This is what we die for*”, p. 68. In 2012, the DRC incorporated the OECD Guidance into national law for companies in the 3TG supply chain; Arrêté Ministériel no 0057 du 29 février 2012 portant mise en œuvre du Mécanisme Régional de Certification de la Conférence Internationale sur la Région des Grands Lacs ‘CIRGL’ en République démocratique du Congo, 2012, mines-rdc.cd/fr/documents/Arrete_0057_2012.pdf

On 17 May 2017, the European Union (EU) approved the regulation of due diligence for 3TG mineral supply chains entering its jurisdiction.⁷⁹ However, responding to NGO advocacy, EU officials made clear that there was no appetite to include other minerals, such as cobalt, within the legal requirement.⁸⁰ Amnesty International considers this a significant missed opportunity for identifying, preventing, addressing and accounting

for human rights abuses in mineral supply chains. Significantly, although many European states have recently announced plans to ban petrol or diesel vehicles in the near future in favour of electric vehicles, none have taken steps to regulate human rights due diligence for cobalt supply chains or for any of the other minerals that go into making rechargeable batteries.

HUMAN RIGHTS ABUSES IN MINING COBALT IN SOUTHERN DRC

In April and May 2015, Amnesty International and Afrewatch conducted research in artisanal mining areas in southern DRC.

Researchers found that the vast majority of artisanal miners spent long hours every day working with cobalt, a potentially hazardous substance, without even the most basic of protective equipment, such as gloves, work clothes or facemasks. Many of the miners complained that they coughed a lot or had problems with their lungs. Researchers also spoke to women who complained of respiratory problems and pain as a result of carrying heavy loads and the physically demanding nature of the work. One woman described having to carry 50kg sacks of cobalt ore and told researchers: “*We all have problems with our lungs and pain all over our bodies.*”

Artisanal miners told researchers that they worked in mines that they dug themselves. Hand-dug mines could extend for tens of metres underground, often without any support to hold them up, and were poorly ventilated. There is no official data available on the number of fatalities, but miners said accidents were common as unsupported tunnels collapsed frequently. Pierre, a miner whose leg was broken when a tunnel caved in in 2011, said that “*mine collapses are frequent.*” He was hauled out of the mine by his co-workers and it took him six months to recover. Between September 2014 and December 2015 alone, the DRC’s UN-run radio station, Radio Okapi, carried reports of fatal accidents involving more than 80 artisanal miners in the former province of Katanga.

When Afrewatch researchers returned to the mining areas in March 2017, they found that at numerous unregulated sites across the former province of Katanga cobalt continued to be mined by hand, without protective equipment and in the same dangerous conditions.

The children interviewed by researchers in 2015 described the physically demanding nature of the work they did. They said that they worked for up to 12 hours a day in the mines carrying heavy loads. Even those children who were attending school worked before and at the end of the school day and for 10-12 hours during the weekend and in the school holidays. The children who were not attending school worked in the mines all year round. Paul, aged 14, started mining at the age of 12 and worked in tunnels underground. He told researchers he would often “*spend 24 hours down in the tunnels. I arrived in the morning and would leave the following morning.*”

79. EU Mineral Due Diligence Regulation, eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2017.130.01.0001.01.ENG&toc=0-J:L:2017:130:TOC.

80. In the beginning, a group of NGOs, including Amnesty International, pushed for the EU regulation to address all minerals, including cobalt. However, EU trade officials, member states and parliamentarians made it clear early in discussions that the regulation would only address the small category of minerals included in Dodd-Frank 1502 (3TG). See: Global Witness March 2014 press release, www.globalwitness.org/en/archive/proposed-eu-law-will-not-keep-conflict-resources-out-europe-campaigners-warn/ and joint September 2014 press release, www.amnesty.org/en/latest/news/2014/09/europe-ancompanies-allowed-reap-rewards-deadly-conflict-mineral-trade/



↑ Artisanal miners working in a hand dug mine, Kasulo, March 2017
 © Amnesty International/Afrewatch

Other children said that they worked in the open in high temperatures and in the rain. As with adult miners, they were exposed to high levels of cobalt on a consistent basis, but did not even have gloves or face masks. The children complained that they were often ill. “There is lots of dust, it is very easy to catch colds, and we hurt all over,” Dany, a 15-year-old boy, told researchers.

Several children said that they had been beaten, or seen other children being beaten, by security guards employed by mining companies when they trespassed onto company mining concessions. Security guards also demanded money from them.

Most children indicated that they earned between 1,000-2,000 Congolese Francs per day (US\$1-2). Traders paid children who collected, sorted, washed, crushed and transported minerals by the sack. The children had no way of independently verifying the weight of the sacks or the grade of the ore and so had to accept what the traders paid them, making them susceptible to exploitation.

In March 2017, when Afrewatch researchers returned to the same mining areas, they observed and documented children engaged in collecting, sorting, washing and transporting cobalt ore without any protective equipment.

In August 2017, the DRC government announced plans – supported by CDM – to close the artisanal mines, relocate the area’s 600 households and turn the area into a formal, industrial mine.⁸¹ In September 2017 there were violent protests by miners and residents over these plans.⁸² According to Radio Okapi, police used tear gas to disperse a group of miners who allegedly blocked roads and burned government offices in protest against the terms of a government-ordered relocation from Kasulo to a site at Samukinda. The same report said that “the site at Kasulo had already been assigned to the mining company CDM”, but this has not been confirmed.

81. Province de Lualaba, *Processus de délocalisation des habitants du site pilote de Kasulo vers Samukinda : économie du rapport et feuille de route*, 2017, on file with Amnesty International.
 82. Radio Okapi, *Kolwezi: les habitants de Kasulo protestent contre la délocalisation de leur quartier*, 16 September 2017, www.radiookapi.net/2017/09/16/actualite/societe/kolwezi-les-habitants-de-kasulo-protestent-contre-la-delocalisation-de

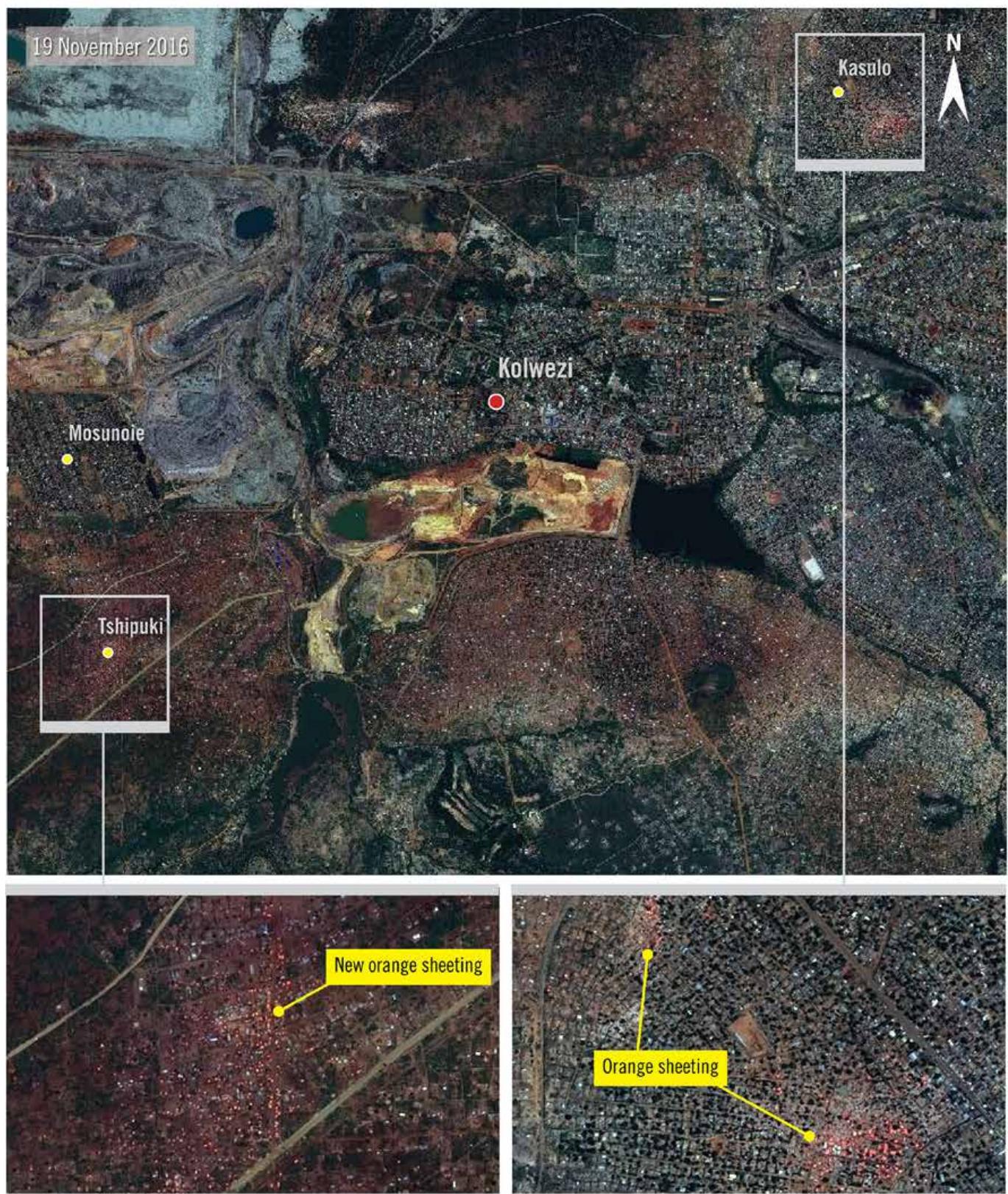
Meanwhile, elsewhere in Kolwezi, in an area known as Tshipuki, a new artisanal mining area came into existence in late 2016 and early 2017.⁸³ Satellite imagery of the site, located in a residential neighbourhood south of the Musonoie suburb of Kolwezi, shows signs of a rapid rise in activity starting in the last quarter of 2016 in the form of the orange tents used by miners to cover their digging.



↑ Children sort rocks containing cobalt ore by hand, March 2017
eye icon © Amnesty International/Afrawatch

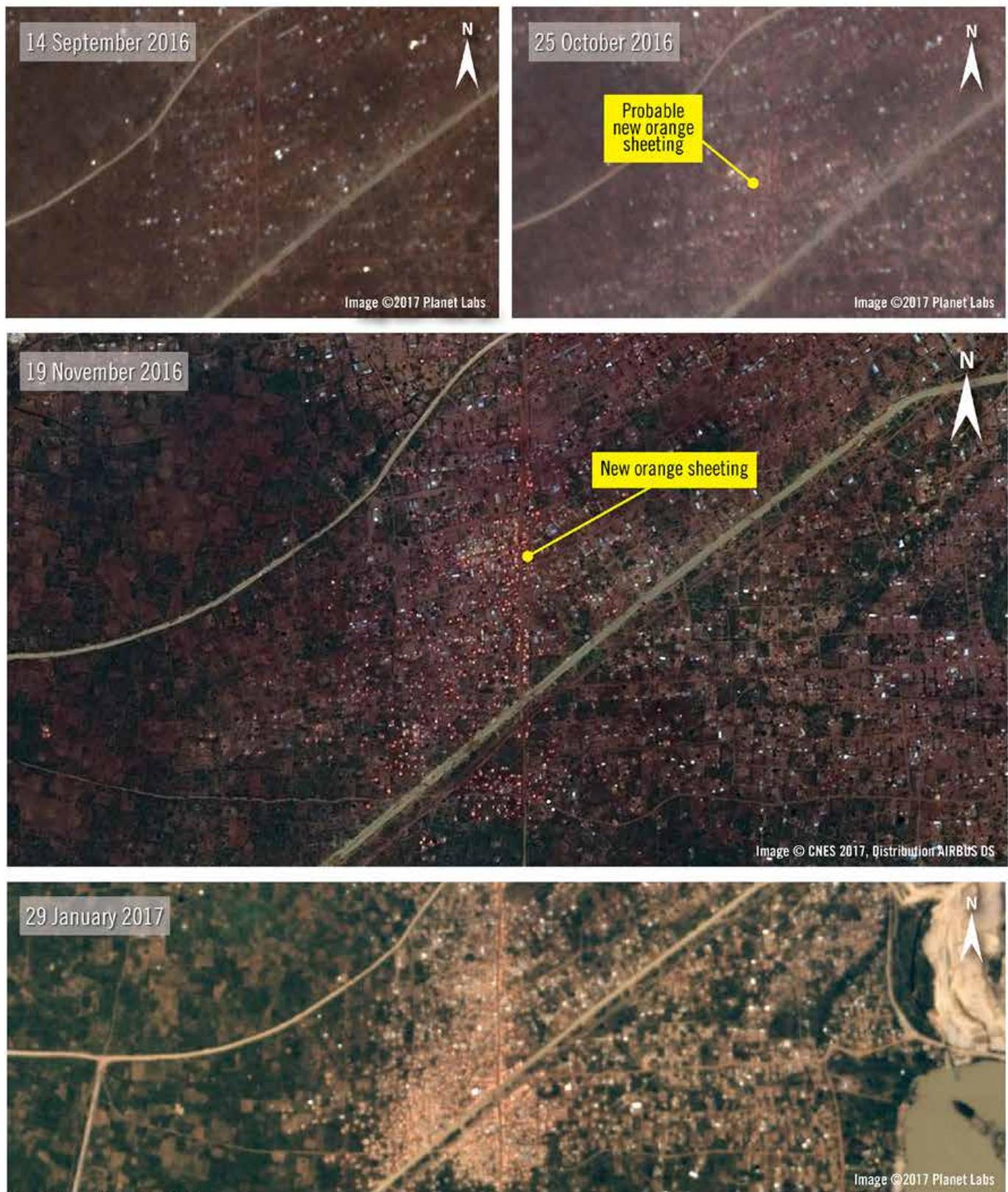
Two separate media investigations have also documented the continued presence of people, including children, working in hazardous conditions in artisanal mines since Amnesty International's original reporting. In June 2016, reporters from the Washington Post visited artisanal mining sites at Kawama and Tilwezembe, both located outside the city of Kolwezi. Like Amnesty International, they also tracked hand-dug cobalt from the Musombo market to CDM warehouses.⁸⁴ In February 2017, Sky News broadcasted images of children, some of whom they said were as young as four, engaged in tasks associated with artisanal cobalt mining. The report also claimed that traders purchasing the hand-dug minerals were selling their product to CDM.⁸⁵

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- 83. Afrawatch 2017 Report, pp. 5-7. Amnesty International is concerned that if these plans go ahead, there could be a serious risk of forced evictions and other human rights abuses. This is discussed in Chapter 4.
 - 84. T. Frankel, "The Cobalt Pipeline", Washington Post, 30 September 2016, www.washingtonpost.com/graphics/business/batteries/congo-cobalt-mining-for-lithium-ion-battery (T. Frankel, "The Cobalt Pipeline").
 - 85. Sky News, *Inside the Congo mines that exploit children*, 28 February 2017, news.sky.com/video/inside-the-congo-mines-that-exploit-children-10784310. In a letter to Amnesty International, Huayou Cobalt said that it sought more information from Sky News about the circumstances it described in its report but did not receive any response. Huayou Cobalt said it had arranged for company personnel to investigate the situation and that it would "take targeted measures and give more feedback to Amnesty International and other stakeholders" once the investigation was complete (Huayou Cobalt letter to Amnesty International, 27 March 2017). To date, Amnesty International has not received detail of any findings made in the course of any such investigation.



DRC
Kolwezi
Artisanal Mining

Imagery from 19 November 2016, shows orange sheeting in a new area of Kolwezi referred to as Tshipuki. The sheeting is similar to that found in the historical artisanal cobalt mining area in the Kasulo neighbourhood.



DRC
Kolwezi
Artisanal Mining

A five month time series of imagery between 1.5m and 4m in resolution, shows the change and growth in the Tshipuki area. On October 2016, imagery shows the area appears more congested since 14 September 2016. Imagery from 19 November 2016, clearly shows the congestion to be many new orange sheets. By 29 January 2017, less green space is visible and an increase in orange sheeting is possible, indicating growth in the community.



Artisanal miners bag up the cobalt extracted from their hand dug mine, Kasulo, March 2017
© Amnesty International/Afrewatch

3. INTERNATIONAL STANDARDS FOR MINERAL SUPPLY CHAIN DUE DILIGENCE

Companies have a responsibility to respect human rights wherever they operate in the world. As the UN Guiding Principles make clear, this responsibility exists independently of a state's ability or willingness to fulfil its own human rights obligations.⁸⁶ In other words, a company must still act to ensure respect for human rights in its business operations even when the state in which it operates has an inadequate regulatory framework or is either unable or unwilling to implement laws and regulations to protect against human rights violations and abuses.

The UN Guiding Principles make clear that in order to demonstrate respect for human rights, companies are required to perform due diligence.⁸⁷ Due diligence is an ongoing, proactive process through which companies “know and show” what they are doing about the potential or actual adverse effects of their business activities, including impacts connected to their supply chains.⁸⁸ In short, companies should take steps to identify, prevent, address and account for human rights risks and abuses in their supply chains.

The OECD Guidance provides a practical guide for how such due diligence should be carried out for cobalt and other mineral supply chains. It lays out a five step process for all companies involved in the mineral supply chain to follow. This states that companies should: establish strong company management systems; identify and assess risks in the supply chain; design and implement a strategy to

86. UN Guiding Principles, Principle 11 and commentary.

87. UN Guiding Principles, Principle 17.

88. UN Guiding Principles, Principles 15(b) and 17. As of 2011, these principles have also been reflected in the human rights chapter of the revised OECD Guidelines for Multinational Enterprises, which details the due diligence steps companies must take to ensure they respect human rights in their global operations. See OECD Guidelines for Multinational Enterprises, 2011, mneguidelines.oecd.org/guidelines

respond to those risks; carry out independent third-party audits of due diligence at identified points in the supply chain; and publicly report on supply chain due diligence policies and practices.⁸⁹ The 2015 CCCMC Guidelines are closely aligned to the five-step due diligence framework set out in the OECD Guidance (see Methodology).

The OECD applies to all conflict-affected and high-risk areas. It defines a high-risk area as one that “may include areas of political instability or repression, institutional weakness, insecurity, collapse of civil infrastructure and widespread violence. Such areas are often characterised by widespread human rights abuses and violations of national or international law.”⁹⁰ According to this definition, the region of the southern DRC featured in this report (previously known as Katanga province) would constitute a “high-risk area” owing to the presence of factors such as political instability, institutional weaknesses, insecurity, lack of human rights protections and intermittent episodes of violence.⁹¹

The OECD Guidance can be made mandatory through adoption into national or regional regulation and some jurisdictions have already made compliance with the OECD Guidance a legal requirement for certain minerals and geographic regions.⁹²

In addition to its normative value as an international standard, the OECD Guidance also sets out a model supply chain policy listing serious risks

that companies should be prepared to address.⁹³ Incorporation of these model policies into a company’s own supply chain policies should be considered a minimal expectation in terms of compliance with international standards. Though the model policy reflects some of the most common risks facing mineral supply chains, companies should carry out their own investigations to determine what other risks they may face in their specific operations.

The OECD Guidance sets out different due diligence responsibilities according to a company’s location in the supply chain. The upstream segment of the supply chain begins at the point of extraction and ends with the smelters or refiners that transform ores into metals. Companies in this part of the supply chain are expected to trace minerals back to mining sites; map the circumstances of extraction, trade, handling and export for the minerals they use; and provide this information to their customers.⁹⁴ The five-step due diligence framework set out in the OECD Guidance and CCCMC Guidelines identifies smelters and refiners as “choke points” in the supply chain deserving particular scrutiny for the presence of human rights risks and abuses.

The OECD Guidance establishes different due diligence requirements for “downstream” companies that process or use mineral products after they have gone through smelting or refining. It calls on these companies to identify the smelters or refiners in their supply chains and assess whether those companies are performing due diligence in compliance with

89. OECD Guidance, pp. 17-19.

90. OECD Guidance, p. 13.

91. For an assessment of human rights conditions in the DRC, see UN General Assembly, *Third joint report of seven United Nations experts on the situation in the Democratic Republic of the Congo*, 9 March 2011, www.un.org/en/ga/search/view_doc.asp?symbol=A/HRC/16/68.

92. In 2010, 34 OECD member states approved the OECD Guidance. The 11 member states of the International Conference on the Great Lakes Region, a regional body to which the DRC belongs, endorsed it under the Lusaka Declaration, adopted on 15 December 2010. (The 11 states are: Angola, Burundi, Central African Republic, Republic of Congo, Democratic Republic of the Congo, Kenya, Rwanda, Sudan, Tanzania, Uganda and Zambia, available at www.oecd.org/daf/inv/mne/47143500.pdf). Nine non-OECD members have also adhered to the OECD Guidance (Argentina, Brazil, Colombia, Costa Rica, Latvia, Lithuania, Morocco, Peru and Romania). See mneguidelines.oecd.org/mining.htm). In 2012, the DRC incorporated the OECD Guidance into national law for tin, tantalum, tungsten and gold, thereby requiring companies in the 3T and gold supply chain in the DRC to conduct due diligence (Arrêté ministériel n° 0057 du 29 février 2012 portant mise en œuvre du Mécanisme Régional de Certification de la Conférence Internationale sur la Région des Grands Lacs “CIRGL” en République Démocratique du Congo, 2012, mines-rdc.cd/fr/documents/Arrete_0057_2012.pdf).

93. These include: serious human rights risks (including torture, forced or compulsory labour, the worst forms of child labour and widespread sexual violence); direct or indirect support to non-state armed groups or public or private security that engage in illegal activity; and participation in corruption, money-laundering or illegal payments to government authorities. *OECD Guidance*, “Model Supply Chain Policy for a Responsible Global Supply Chain of Minerals from Conflict-Affected and High-Risk Areas”, pp. 20-24 (OECD Guidance, Model Supply Chain Policy).

international standards. Downstream companies are expected to use their leverage over upstream suppliers in order to get them to take any needed steps to mitigate identified risks.⁹⁵

The OECD Guidance sets out a mitigation strategy for companies to follow if risks are identified.⁹⁶ Depending on the circumstances, a company may either continue to trade with a supplier while pursuing risk mitigation, temporarily suspend trade pending ongoing risk mitigation, or disengage with a supplier where attempts at mitigation have failed or risk mitigation is considered unfeasible or unacceptable. As long as the business relationship remains in place, a company should take steps to demonstrate how it is using its leverage to mitigate the impact in question.

In the case of human rights abuses associated with artisanal mining activity, companies must be aware of the possibility that stopping trade can bring other types of harm to those same communities – not least, a threat to people's livelihoods.

If a company at any place in the supply chain discovers that it has either caused or contributed to human rights abuses through its business operations, the responsibility to respect human rights requires it to take an active part in remediation efforts, either by itself or in cooperation with other actors.⁹⁷ This necessitates that a company do more than simply discontinue a trading relationship with a supplier or embargo DRC cobalt once human rights risks have been identified in the supply chain. A company must itself take steps based on the situation, in

cooperation with other relevant actors, to ensure that the harm suffered by workers and others affected by abuses are remediated. For example, this would mean putting in place a coordinated action plan with national authorities, and as relevant with the help of international agencies and NGOs, to remove children from hazardous work, ensure that children are able to access education, provide support to children and their families, and monitor the children's situation. This responsibility to remediate continues even when a company suspends or discontinues a trading relationship with a supplier.⁹⁸

Which concrete measures are appropriate will depend on circumstances and require collaboration or coordination with other stakeholders, including government authorities, NGOs, child rights advocates and other local community actors.⁹⁹ Both children and adults who have been engaged in ASM cobalt mining activity should be identified and given immediate health assessments and access to longer-term monitoring and provided with necessary treatment. The goal of remedial measures targeting child labour should be to provide children below the age of 18 with appropriate alternatives to mining, such as free basic education or the vocational training necessary to support transition to work. To ensure that the removal of children from ASM activity does not have a negative impact on the livelihoods of families or put children's welfare at further risk, the company can ensure that adult family members engaged in ASM receive fair prices for cobalt or are provided with other safe work opportunities.

94. OECD Guidance, "Supplement on Tin, Tantalum and Tungsten", p. 32.
95. OECD Guidance, "Supplement on Tin, Tantalum and Tungsten", p. 33.

96. OECD Guidance, p. 18.

97. UN Guiding Principles, Principle 22 and commentary.

98. The OECD Guidance, Annex II: Model Supply Chain Policy, p. 20, section 2. Risk Mitigation should be interpreted in conjunction with the corporate responsibility to remedy human rights abuses within their supply chain.

99. Additional guidance can be found in ILO, *Eliminating the Worst Forms of Child Labour: A Practical Guide to ILO Convention No. 182*, 2002, www.ilo.org/wcmsp5/groups/public/---dgreports/---exrel/documents/publication/wcms_172685.pdf; OECD, Practical actions.



Women and children work at Lake Malo, Kapata, washing ore before the motorcyclists transport it to market, March 2017
© Amnesty International/Afrewatch

4. ACTIONS TAKEN BY HUAYOU COBALT

This is What We Die For identified Huayou Cobalt as a critical node – or “choke point” – in the cobalt supply chain. Based in China, Huayou Cobalt is one of the world’s largest producers of cobalt-containing compounds used to manufacture lithium-ion batteries.¹⁰⁰ Since it became established in the DRC in 2006, its 100% owned Congolese subsidiary

CDM has become one of the largest exporters of cobalt raw materials (mineral concentrates and smelted intermediate products) from the DRC.¹⁰¹ Huayou Cobalt began trading shares on the Shanghai Stock Exchange in January 2015 and had a market capitalization of more than US\$8.5 billion as of 2 November 2017.¹⁰²

CDM smelts cobalt ores and ships the resulting product from the DRC to Huayou Cobalt for refining and further processing.¹⁰³ As companies at the smelter/refiner level of the supply chain, international due diligence standards require Huayou Cobalt and CDM to identify where their minerals are

100. Darton Commodities Ltd, *Cobalt Market Review, 2016-2017*, January 2017, p. 9, on file with Amnesty International (Darton Commodities, *Cobalt Market Review*).

101. Official export data from the DRC show that CDM was the top exporter of low-grade cobalt concentrate in 2014-2015 and ranked third in exports of both cobalt concentrate and cobalt hydroxide intermediaries in 2016 (Provincial Division of Mines, Katanga (Lubumbashi), *Statistiques des notes de débit relatives à la redevance minière émises de janvier à décembre/2015*, 5 January 2016, 2 January 2015, www.congomines.org/system/attachments/assets/000/001/084/original/Statistiques_2014.pdf ; Provincial Division of Mines, Katanga (Lubumbashi), *Statistiques des notes de débit relatives à la redevance minière émises de janvier à décembre/2015*, 5 January 2016, www.congomines.org/system/attachments/assets/000/001/085/original/Statistiques_2015.pdf ; Provincial Division of Mines/South Katanga (Lubumbashi), *Statistiques des notes de débit relatives à la redevance minière émises de janvier à décembre/2016*, 6 January 2017, www.congomines.org/system/attachments/assets/000/001/231/original/notes_de_d%C3%A9cembre_2016.pdf).

102. As of 2 November 2017, there were 592,677,000 shares outstanding in Huayou Cobalt, which closed at ¥96.41 (US\$14.46).

103. Huayou Cobalt can be considered a processor or refiner of cobalt hydroxide intermediaries that have gone through smelting by CDM or other companies, but when it uses cobalt concentrates (in which mineral rich ores are obtained through an industrial process of crushing and separation through a technology known as froth flotation) as feedstock, it is effectively smelting and refining the cobalt in its factories in China.

being extracted; develop a system of internal control over minerals as they travel from mine sites to its smelting operation (known as “chain of custody” or “traceability” systems); identify and address human rights risks and abuses along that chain; and publicly disclose steps taken to identify, assess and mitigate human rights risks and abuses in its business operations.¹⁰⁴

Allegations of child labour in Huayou Cobalt’s supply chain had been raised as early as 2008,¹⁰⁵ but, as explained in the 2016 report, the company failed to take adequate action to address these human rights concerns. Based on field investigations, Amnesty International concluded there was a high risk that cobalt in some of the products it sold may have been handled by children or otherwise mined in hazardous conditions involving human rights abuses.

TRACING ASM COBALT FROM THE DRC IN HUAYOU COBALT’S SUPPLY CHAIN

Like most Chinese refining operations, Huayou Cobalt relies on imported cobalt to feed its production.¹⁰⁶ According to its corporate reports, Huayou Cobalt obtains its cobalt raw materials from three principal sources: large international industrial mining operations, international mineral traders and mineral concentrates, and intermediate products produced by CDM.¹⁰⁷ CDM’s share of this supply has grown in recent years, especially after technological upgrades carried out in 2015.¹⁰⁸

Huayou Cobalt has said that CDM obtains 20%–30% of its cobalt-containing feedstock from ASM sources.¹⁰⁹ CDM puts the ore it receives through a crude smelting process that yields copper metal and a cobalt intermediary product made up mostly of cobalt hydroxide.¹¹⁰ These cobalt materials are transported by road to Durban, South Africa, then shipped onward to China for additional processing into products like cobalt tetroxide and cobalt sulfide, used to produce cathode materials for rechargeable batteries.¹¹¹ Huayou Cobalt has also established new plants in China to develop and produce more complex cobalt materials for use in the high-voltage batteries found in electric vehicles.¹¹²

Flow chart of the cobalt supply chain



104. OECD Guidance, p. 32.

105. S. Clark et al, “China Lets Child Workers Die Digging in Congo Mines for Copper”, Bloomberg, 23 July 2008, www.clb.org.hk/en/content/bloomberg-china-lets-child-workers-die-digging-congo-mines-copper

106. According to USGS data, China produces only around 6% of the world’s mined cobalt (USGS, *Mineral Commodity Summaries 2017*, p. 53). Analysts estimate that Chinese cobalt refineries imported around 94% of its cobalt feedstock in 2016 (Darton Commodities, *Cobalt Market Review*, p. 29).

107. Huayou Cobalt, Annual Report 2016, p. 9.

108. Huayou Cobalt, Annual Report 2015, March 2016, p. 16, www.huayou.com/downloadRepository/e50251b8-3a74-4aee-a264-d06d6a9b6ad2.PDF (Huayou Cobalt, Annual Report 2015). Huayou Cobalt reported that CDM provided nearly 70% of its total supply of cobalt raw material in 2015 (Huayou Cobalt, Annual Report 2015, p. 18), with that share dropping to around 50% in 2016 (Huayou Cobalt, Annual Report 2016, p. 13).

109. Huayou Cobalt’s Due Diligence and Audit, p. 16.

110. Huayou Cobalt, *Prospectus for Second Phase of Short-term Financing Bills of 2015*, August 2015, pp. 68-69, pg.jrj.com.cn/acc/CN_DISC/BOND_NT/2015/09/06/103050178_ls_00000000000001cpry.pdf (Huayou Cobalt, 2015 Short-term Financing Bills Prospectus).

111. Huayou Cobalt, 2015 Short-term Financing Bills Prospectus, p. 70.

112. Darton Commodities, *Cobalt Market Review*, p. 9.

INITIAL STEPS IN RESPONSE TO 2016 REPORT

Given that both CDM and Huayou Cobalt act as a smelter in the cobalt supply chain researched in this report and that CDM is 100% owned and managed by Huayou Cobalt, the two companies are treated as one for the purposes of the analysis below.

Shortly after publication of *This is What We Die For*, Huayou Cobalt acknowledged in a letter that its past effort to investigate human rights risks and abuses in its supply chain had been inadequate.¹¹³ Over the following months, Huayou Cobalt took a series of steps aimed at meeting its responsibilities under international standards and strengthening its supply chain management and corporate social responsibility systems.

Huayou Cobalt sent representatives to consult with experts at the OECD in Paris and carry out an initial fact-finding exercise in the DRC in February 2016.¹¹⁴ The company reported that they also met with DRC government mining officials and visited the same artisanal mining site at Kasulo where Amnesty International researchers documented child labour and serious health and safety violations.¹¹⁵

Huayou Cobalt reportedly faced pressures from some of its downstream customers in the months after Amnesty International's report was published. An anonymous source from an unnamed battery company told the industry publication *Metal Bulletin*: "In the past, only major international buyers asked for assurance for non-conflict material

or human right protections, but now, even small buyers are asking for assurance that we are not using products from Huayou or CDM." The same source reported that some companies were even seeking assurances that suppliers were not sourcing cobalt from the DRC, but did not indicate if or how those companies were verifying such assurances.¹¹⁶

Despite pressure from its purchasers to eliminate ASM cobalt from its supply chain, Huayou Cobalt has said that it would not "cut and run" in order to avoid risk.¹¹⁷ In a November 2016 letter to Amnesty International, the company wrote: "[T]erminating business with the DRC can exacerbate poverty in the DRC and worsen the social risks associated with ASM."¹¹⁸ In March 2017, Huayou Cobalt wrote that, because a large part of the impoverished local labour force relies on artisanal mining, even a temporary suspension of purchases could negatively affect "tens of thousands of workers and their families who rely on artisanal mining".¹¹⁹

This suggests that Huayou Cobalt is aware that it risks causing an even greater negative impact if it suddenly abandons the market for ASM cobalt that it and its downstream customers have long profited from.¹²⁰ This awareness is a positive starting point, but it is not enough. Given Huayou Cobalt's dominant market position, the scale of its operations in the DRC and its history of failing to respect human rights in its cobalt supply chain practices, it can and must demonstrate that it is taking specific and effective steps to ensure that the ASM cobalt it uses is mined responsibly in ways that are safe and respect human rights.

113. "[U]pon thoroughly and carefully reviewing the report released by Amnesty International, it occurs to me that previously Huayou Cobalt still lacked sufficient awareness for the protection of Human Rights, the ensuing consequence of which are corresponding measures with deficiency in their rigor and systematicness" (Huayou Cobalt letter to Amnesty International, 21 January 2016).

114. Huayou Cobalt, *Implement Responsible Supply Chains*, pp. 6-7.

115. Huayou Cobalt, *Implement Responsible Supply Chains*, pp. 7, 11-15; "This is what we die for", pp. 19-21.

116. L. Lin, "Huayou urges cobalt customers to back it as it promises due diligence", *Metal Bulletin*, 3 March 2016, www.metalbulletin.com/Article/3533158/Huayou-urges-cobalt-customers-to-back-it-as-it-promises-due-diligence.html

117. Huayou Cobalt letter to Amnesty International, 27 November 2016.

118. Huayou Cobalt letter to Amnesty International, 27 November 2016.

119. Huayou Cobalt letter to Amnesty International, 27 March 2017.

120. The UN Guiding Principles state that, when a company considers ending a business relationship because it lacks the leverage to prevent or mitigate adverse impacts, it should "take[e] into account credible assessments of potential adverse human rights impacts of doing so" (Commentary to Principle 19). Likewise, both the UN Guiding Principles and the OECD Guidance make clear that companies are responsible for taking corrective action to remediate those harms to which it has contributed "even if the company disengages from the relationship through which it contributed to the impact." See Centre for Research on Multinational Corporations (SOMO), *Should I stay or should I go?*, April 2016, p. 6, www.somo.nl/wp-content/uploads/2016/04/Should-I-stay-or-should-I-go-4.pdf (SOMO, *Should I stay or should I go?*).

HUAYOU COBALT'S DUE DILIGENCE POLICIES

Huayou Cobalt has adopted a supplier due diligence policy. Supplier commitments are also incorporated into legal agreements with local traders. In March 2016, the company set up a high-level Social Responsibility Working Committee responsible for promoting supply chain due diligence throughout the enterprise, while implementation of policies and related actions at the company level (including CDM) is overseen by a task force led by Huayou Cobalt's Corporate Social Responsibility Director.¹²¹

Since January 2017, Huayou Cobalt has required suppliers to sign three documents: Due Diligence Policy for a Responsible Global Supply Chain of Cobalt,¹²² Suppliers' Code of Conduct¹²³ and Supplier Standard for Responsible Sourcing of Cobalt.¹²⁴ These documents, which are available on the company's website, promote the standards and are broadly aligned with the model supplier codes set out in the OECD Guidance and the CCCMC Guidelines.

According to its policies, Huayou Cobalt will "immediately suspend or disengage with" any upstream supplier found to be at risk of sourcing from or linked to any party involved in the worst forms of child labour; any form of torture or other cruel, inhuman or degrading treatment; forced or compulsory labour; other gross human rights violations or abuses, including widespread sexual violence; or war crimes or other serious violations

of international humanitarian law. The policy also prohibits giving direct or indirect support to non-state armed groups, bribery, money laundering and other violations of the law.¹²⁵ This text fully aligns with the OECD Guidance's Model Policy.

Huayou Cobalt's Supplier Standard prohibits suppliers from using cobalt if they cannot demonstrate due diligence in accordance with OECD/CCCMC standards and satisfy Huayou Cobalt's reporting and sourcing requirements.¹²⁶ Suppliers are required to provide Huayou Cobalt with "reasonable documentary evidence" of their "reporting, sourcing and due diligence activities" upon request. They are also required to notify Huayou Cobalt of any changes in their supply chains that might indicate the presence of human rights abuses.¹²⁷ Huayou Cobalt's "Supplier Standard" also requires all suppliers of cobalt products to adopt its Due Diligence Policy and disseminate this policy to their own upstream suppliers.¹²⁸

In March 2017, Huayou Cobalt told Amnesty International it had sent copies of its supply chain policy documents to all suppliers.¹²⁹ A third-party audit report said Huayou Cobalt had sent these suppliers questionnaires and checklists to solicit information that could be used in supply chain mapping and risk assessment.¹³⁰ Huayou Cobalt told Amnesty International that its "suppliers have uneven awareness of due diligence and don't always actively cooperate in carrying out this work, especially the large international mining companies".¹³¹

121. Huayou Cobalt, 2016 *Corporate Social Responsibility Report*, April 2017, pp. 23-24, en.huayou.com/downloadRepository/33ad0043-b857-4181-9c0a-fb4c9057d057.pdf

122. Huayou Cobalt, Due Diligence Policy for a Responsible Global Supply Chain of Cobalt, January 2017, en.huayou.com/downloadRepository/fe9f0fcfdf12-4b6e-8431-d5ee23c39844.pdf (Huayou Cobalt, Due Diligence Policy for a Responsible Global Supply Chain of Cobalt).

123. Huayou Cobalt, Suppliers' Code of Conduct, January 2017, en.huayou.com/downloadRepository/e6cefb0e-c623-4a9a-a29e-3ed3e6a89c96.pdf

124. Huayou Cobalt, Supplier Standard for Responsible Sourcing of Cobalt, January 2017, en.huayou.com/downloadRepository/49407ec9-ca3a-43ee-8b88-2cec3bea0850.pdf (Huayou Cobalt, Supplier Standard for Responsible Sourcing of Cobalt).

125. Huayou Cobalt, Due Diligence Policy for a Responsible Global Supply Chain of Cobalt.

126. Huayou Cobalt, Supplier Standard, item 4.1.

127. Huayou Cobalt, Supplier Standard, item 4.2.

128. Huayou Cobalt, Supplier Standard, item 4.1.

129. Huayou Cobalt letter to Amnesty International, 27 March 2017.

130. DNV-GL Business Assurance Korea, Ltd, *Audit Report on Huayou Cobalt*, 26 July 2017, p. 7, www.lgchem.com/upload/file/principle/Audit_Report_on_Huayou_Cobalt.pdf (DNV-GL, Audit Report on Huayou Cobalt).

131. Huayou Cobalt letter to Amnesty International, 27 March 2017.

Huayou Cobalt said that it arranged for supply chain due diligence training sessions to be carried out for suppliers in the DRC and additional sessions were held to train suppliers regarding CDM's policies and expectations for due diligence.¹³² However, the company reported that, as of May 2017, only three of 54 suppliers that went through this training had agreed to comply with its new requirements.¹³³

Huayou Cobalt says that its efforts to exercise leverage over its suppliers have been weakened by the presence of other large buyers who do not face the same pressure to undertake supply chain due diligence because they have not been publicly identified as having supply chain risks.¹³⁴ The company recently claimed that 1,000-2,000 metric tons of ASM cobalt was continuing to enter the global cobalt supply chain through continued trade at markets like Musombo.¹³⁵ Amnesty International has not been able to verify this claim on the ground, however it has noted that official mineral production statistics suggest an overall increase in purchases of ASM cobalt materials from the region during the first half of 2017 and that CDM's share was small compared to other companies.¹³⁶

According to Huayou Cobalt, CDM notified all of its suppliers on 3 April 2017 that from 15 April onwards it would stop purchasing ASM cobalt from suppliers that do not know the source of their minerals, lack a strong system for controlling risks and do not have a "proper tracking system" for the path of minerals from mine sites to point of sale.¹³⁷

In March, Huayou Cobalt reported that it had suspended business with two direct suppliers after those entities were found to be at risk of supplying cobalt connected to child labour.¹³⁸ However, Huayou Cobalt did not provide any further detail about its findings, such as the names of the suppliers concerned, the locations of mine sites identified as at risk of using child labour, what evidence of child labour was identified or how Huayou Cobalt would measure improvement on the part of these suppliers.

Both the OECD Guidance and CCCMC Guidelines encourage companies to prioritize continued trade throughout mitigation efforts when supply chain risks or abuses have been identified.¹³⁹ If the risks or abuses require temporary suspension of trade, mitigation efforts should be pursued with clear targets set for resuming trade. Supplier disengagement should be a last resort pursued only when mitigation efforts have failed or a company "deems risk mitigation not feasible or unacceptable".¹⁴⁰ In other words, the priority should be risk mitigation, not risk avoidance. If companies respond to risks with suspension or disengagement without encouraging appropriate mitigation measures, there is danger that at-risk suppliers will simply continue "business as usual" in trade with other companies.

Huayou Cobalt has not disclosed enough information about its process of supplier risk assessment and risk mitigation to determine whether its actions are in line with international standards.

132. Huayou Cobalt letter to Amnesty International, 27 November 2016. The capacity-building project was an initiative of Huayou Cobalt, Apple, Pact and RCS Global. Pact conducted due diligence training for CDM's cobalt suppliers at the second tier and above. RCS was responsible for assessing these suppliers and producing corrective action plans. The first session was held in November 2016, and subsequent sessions were carried out in April 2017 (*Huayou Cobalt, Updates on Actions and Controls*, p. 13; Huayou Cobalt, Due Diligence Management System Training Conducted in DRC, 18 May 2017, en.huayou.com/downloadRepository/118de76f-80f2-4ebe-b90b-fdf10106f488.pdf).

133. Huayou Cobalt, *Updates on Actions and Controls*, p. 39.

134. Huayou Cobalt letter to Amnesty International, 27 March 2017.

135. Huayou Cobalt's Due Diligence and Audit, p. 48. As detailed in *This is what we die for*, when purchasing traders ask no questions relating to where the cobalt was sourced, by whom, when, or if conditions involved human rights abuses or violations.

136. Mining authorities reported that more than 66,000 metric tons of cobalt concentrate, a product associated with low-grade ASM ores, was produced for export during the first half of 2017, compared to just over 44,000 metric tons for all of 2016. CDM accounted for less than 4% of the total for the first half of 2017 (Provincial Division of Mines/South Katanga (Lubumbashi), *Statistiques des notes de débit relative à la redevance minière du premier trimestre 2017*, congomines.org/system/attachments/assets/000/001/268/original/Statisatiques_premier_trimestre_2017.pdf; Provincial Division of Mines/South Katanga (Lubumbashi), *Statistiques des notes de débit relative à la redevance minière du deuxième trimestre 2017*, congomines.org/system/attachments/assets/000/001/318/original/Statistique_deuxi%C3%A8me_trimestre_2017-1-2.pdf; Provincial Division of Mines/South Katanga (Lubumbashi), *Statistiques des notes de débit relatives à la redevance minière émises de janvier à décembre/2016*, 6 January 2017, www.congomines.org/system/attachments/assets/000/001/231/original/notes_de_d%C3%A9cembre_2016.pdf

137. Huayou Cobalt, *Updates on Actions and Controls*, p. 21.

138. Huayou Cobalt letter to Amnesty International, 27 March 2017.

139. OECD Guidance, p. 18; CCCMC Guidelines, pp. 28-29.

140. OECD Guidance, p. 18.

SUPPLY CHAIN MAPPING AND RISK MITIGATION STRATEGIES

In 2016, Huayou Cobalt engaged a consultant, RCS Global, to help map its supply chain back to mines, identify relevant risks and design a responsible cobalt supply chain management system in line with international standards.¹⁴¹ Huayou Cobalt reported that RCS Global completed this mapping and assessment work in September 2016. The consultancy then designed a supply chain management system made up of 23 tools, which it handed over to Huayou Cobalt in January 2017.¹⁴² Huayou Cobalt reported that management and employees at Huayou Cobalt and CDM were trained to implement these tools between February and April 2017.¹⁴³ The company told Amnesty International that the head of its Corporate Social Responsibility Department spent more than a month in the DRC carrying out a second phase of supply chain mapping and engagement with suppliers and government officials.¹⁴⁴

Huayou Cobalt unveiled details of its plans for managing risks associated with ASM cobalt at a meeting of the RCI in May 2017.¹⁴⁵ Under its Responsible ASM Sourcing system, Huayou Cobalt identified two types of ASM cobalt mines in CDM's supply chain and has taken different approaches to managing risks at each.

TYPE 1 MINES

"Type 1 Mines" are former industrial mining sites that the authorities have turned over to artisanal

mining cooperatives for permitted exploitation. These sites are not in residential areas and Huayou Cobalt claims that "[i]t is easy to control risks like child labour...at these mines".¹⁴⁶ Two "Type 1 Mine" sites have been identified, at Tilwezembe and Shabara (Kawama) and CDM has made arrangements with mine owners, mining cooperatives, suppliers and government authorities to make each a "model ASM mine".¹⁴⁷ CDM says it is working with stakeholders to put in place strong controls at the sites to ensure they are not accessible to children and that necessary measures have been implemented to protect the health and safety of miners.¹⁴⁸ Extracted ores are warehoused at each site and sold to a single, qualified trader.¹⁴⁹ The minerals are then transported under a system of seals intended to ensure material arriving at CDM can be tracked back to a single place of production and trade.¹⁵⁰

This type of "closed loop" system reduces the number of upstream actors between the mines and CDM by cutting out the buying houses in markets like those at Musompo and Kapata. By shortening the upstream side of the supply chain and structuring it so that miners only sell to a designated trader that can demonstrate due diligence, adequate recordkeeping and other responsible practices, CDM has sought to be in a better position to perform its own due diligence and demonstrate responsible purchasing to downstream customers.

The arrangement at these sites may also facilitate stronger monitoring and better enforcement of the prohibition against child labour. However, there are further risks that need to be mitigated. For

141. Huayou Cobalt letter to Amnesty International, 27 March 2017. The terms of reference were not made public, but Huayou Cobalt told Amnesty International in the same letter that RCS Global would collect information from different stakeholders in the supply chain, including miners, cooperative representatives, warehouse managers, local traders, government officials, CDM staff members and representatives from civil society.

142. Huayou Cobalt letter to Amnesty International, 27 March 2017. According to Huayou Cobalt, these "include a development and management guide, documentation of processes and procedures, survey questionnaires, checklists and other tools needed for the [supply chain due diligence] system to operate effectively" (Huayou Cobalt letter to Amnesty International, 27 November 2017).

143. Huayou Cobalt letter to Amnesty International, 27 March 2017.

144. Huayou Cobalt, *Updates on Actions and Controls*, p. 9.

145. Huayou Cobalt, *Updates on Actions and Controls*.

146. Huayou Cobalt, *Updates on Actions and Controls*, p. 16.

147. Huayou Cobalt, *Updates on Actions and Controls*, p. 19.

148. Huayou Cobalt, *Updates on Actions and Controls*, p. 22.

149. Huayou Cobalt, *Updates on Actions and Controls*, p. 23. The trader has been identified as Kazadi Sony Alain. See RCS Global, Second-party assessment: Huayou Cobalt's Responsible ASM supply chain in the DRC, 26 May 2017, p. 2, on file with Amnesty International (RCS Global, Second-party assessment).

150. Huayou Cobalt, *Updates on Actions and Controls*, pp. 40-50.

example, personnel from RCS Global who visited the two “model mine sites” in April 2017 as part of a “second-party assessment”¹⁵¹ noted the presence of both private security personnel and public security forces (including members of the armed forces and national intelligence service).¹⁵² *This is What We Die For* included multiple allegations of physical abuse and extortion perpetrated by private security personnel on artisanal miners, including children beaten by guards hired to keep children out of mining areas.¹⁵³ Any effort to restrict access to or remove children from these sites must be done in a way that does not expose those children to harm.

Amnesty International has also documented a number of serious human rights violations carried out by Congolese security forces.¹⁵⁴ Although evaluators said they “had no reason to believe that these agents were involved in activities beyond ensuring safety and the rule of law”, the presence of security personnel presents clear risks to miners’ human rights as is recognized by the OECD.¹⁵⁵ Huayou Cobalt has failed to publicly disclose any measures it has put in place to identify, prevent and address the human rights risks posed by security personnel.

These mine sites must also take adequate steps to ensure the health and safety of all miners. According to its evaluation of the mining operation at Shabara (Kawama), RCS Global saw “very little use of protective equipment” by miners, open pits of uncertain depth at risk of caving in, workers transporting material from mines to the warehouse in heavy bags on their backs and no first-aid kit or personnel on site.¹⁵⁶

TYPE 2 MINES

“Type 2 Mines” are located inside residential neighbourhoods, like the ones described above at Kasulo and Tshipuki.¹⁵⁷ Huayou Cobalt says that the presence of communities living alongside and, in many cases, on top of “Type 2 Mine” sites make it much more difficult to control risks, especially the risk of child labour.¹⁵⁸ Huayou Cobalt says that it suggested that the provincial government in Lualaba take immediate action to suspend mining pending the completion of steps to place the sites under a mining permit, relocate households and businesses occupying the sites and secure the sites with a fence. This would allow these “Type 2” sites to be turned into the kind of “model artisanal mine” site described above, with more regulated conditions of mining and trade.¹⁵⁹

It is not clear, however, that Huayou Cobalt has given adequate consideration to the risk that such a plan may result in serious negative human rights impacts, such as forced eviction. Any actions to relocate households from land to be placed under a mining permit must be carried out in a way that protects the rights of affected individuals and communities. Under international human rights law, evictions may only be carried out as a last resort, once all other feasible alternatives to eviction have been explored in genuine consultation with all affected people, and appropriate procedural protections must be in place.¹⁶⁰ Governments need to ensure that no one is rendered homeless or vulnerable to the violation of other human rights as a consequence of eviction, compensating people for all losses and providing adequate alternative housing to those who cannot provide for themselves.¹⁶¹

151. A “second-party” audit is “an external audit performed on a supplier by a customer or by a contracted organization on behalf of a customer” (American Society for Quality website, ass.org/learn-about-quality/auditing). Because RCS Global was under contract with Huayou Cobalt and advised it on the development of Huayou Cobalt’s due diligence programme, the assessment cannot be considered an independent third-party audit. RCS Global states that its assessment should be used “towards the improvement of practices” (RCS Global, Second-party assessment, pp. 2, 9).

152. RCS Global, Second-party assessment, pp. 5, 7. RCS recommended that CDM take steps to clarify the roles, contracts and remuneration methods of all security forces active at its mine sites.

153. “*This Is What We Die For*”, pp. 30-31, 34-35.

154. www.amnesty.org/en/countries/africa/democratic-republic-of-the-congo/report-democratic-republic-of-the-congo/

155. These risks are reflected in the “Model Supply Chain Policy” found in both the OECD Guidance and CCCMC Guidelines (OECD Guidance, pp. 22-23; CCCMC Guidelines, pp. 16-17).

156. RCS Global, Second party assessment, p. 5. The US government advises people at risk of exposure to cobalt dust to wear respirators, impervious clothing, gloves and “face shields” (US Department of Health and Human Services and US Department of Labor, “Occupational Health Guideline for Cobalt Metal Fume and Dust”, September 1978, www.cdc.gov/niosh/docs/81-123/pdfs/0146.pdf).

157. Huayou Cobalt, *Updates on Actions and Controls*, p. 17.

158. Huayou Cobalt, *Updates on Actions and Controls*, p. 17.

159. Huayou Cobalt, *Updates on Actions and Controls*, p. 30.

160. Committee on Economic, Social and Cultural Rights, General Comment 7: The Right to adequate housing (Article 11.1 of the Covenant): forced evictions, 20 May 1997, UN Doc E/1998/22, annex IV, www.escr-net.org/resources/general-comment-7 (General Comment 7).

161. General Comment 7, especially paras 3, 11-16.

There are signs that efforts to deal with "Type 2" sites like Kasulo and Tshipuki are not being carried out with the necessary transparency and in a way that protects the rights of affected individuals and communities. Genuine consultation with affected individuals or families about the timing of the eviction, resettlement, compensation and other mitigation measures to address resulting harms is needed. The government of Lualaba province formally announced a ban on mining at Kasulo and Tshipuki on 19 April 2017.¹⁶² Local civil society organizations have since accused the provincial authorities of a plan to relocate residents of Kasulo without adequate consultation, impact assessment or other safeguards to protect the rights of people there.¹⁶³ Amnesty International is concerned that if these plans go ahead, there could be a serious risk of forced evictions and other human rights abuses. According to Radio Okapi, which is run by the United Nations, police used tear gas to disperse a group of miners who allegedly blocked roads and burned government offices in protest against the terms of a government-ordered relocation from Kasulo to a site at Samukinda. The same report said that "the site at Kasulo had already been assigned to the mining company CDM", but this has not been confirmed.¹⁶⁴ Under the UN Guiding Principles, corporate responsibility to respect human rights requires that companies "[a]void causing or contributing to adverse human rights impacts through their own activities, and address such impacts when they occur".¹⁶⁵ Whether or not Huayou Cobalt/CDM directly takes part in government actions to remove people from Kasulo or other "Type 2" sites, it may have knowledge that these are occurring or are likely to occur. The company must act responsibly and

should be carrying out due diligence to identify, prevent, address and account for human rights violations and abuses linked to the creation of any permitted mining zone that it seeks to control or benefit from.

DISCLOSURE AND OTHER ACTIONS

Huayou Cobalt says that it will carry out second- or third-party inspections of suppliers "from time to time" in order to monitor compliance with its due diligence requirements.¹⁶⁶ More generally, the company has committed to "publish the progress of due diligence management regularly through the company's website and other media".¹⁶⁷ It has published details of policies and selected actions on its website, in both Chinese and English, and through its annual reporting on corporate social responsibility.¹⁶⁸

Huayou Cobalt shared with Amnesty International summary results of the "second-party" audit of its supply chain due diligence policies and practice in the DRC carried out by RCS Global in April 2017 but has not otherwise made the results public, either in full or in summary.¹⁶⁹

Huayou Cobalt did publish a summary report of an independent third-party audit carried out by Liz Muller & Partners in June 2017.¹⁷⁰ The report concluded that Huayou Cobalt had established "sufficient policies, resources and actions of a management system to address [its] priority

162. Provincial Government of Lualaba, "Point de presse de son Excellence Monsieur le Gouverneur sur l'exploitation minière artisanale interdite à Kasulo et Tshipuki", 19 April 2017, www.lualaba.gouv.cd/point-de-presse-de-son-excellence-monsieur-le-gouverneur-sur-l-exploitation-miniere-artisanale-interdite-a-kasulo-et-tshipuki
163. "Déclaration de la synergie des organisations de la société civile de Lualaba ouvrants dans le secteur des ressources naturelles sur la délocalisation illégale de Kasulo, la cité Gécamines Kolwezi, les villages Kabamba, Mukoma, Kandiba, Bloc III et le quartier Kabilia", 31 August 2017, www.congomines.org/system/attachments/assets/000/001/306/original/Communiqué_sur_Kasulo.pdf
164. Radio Okapi, *Kolwezi: les habitants de Kasulo protestent contre la délocalisation de leur quartier*, 16 September 2017, www.radiookapi.net/2017/09/16/actualite/societe/kolwezi-les-habitants-de-kasulo-protestent-contre-la-delocalisation-de
165. UN Guiding Principles, Principle 13(a).
166. Huayou Cobalt letter to Amnesty International, 27 March 2017.
167. Huayou Cobalt letter to Amnesty International, 27 March 2017.
168. All of these materials can be found at www.huayou.com/shehui.html (Chinese) and en.huayou.com/shehui/columnsId=100.html (English).
169. Huayou Cobalt did not respond to Amnesty International's request to review a copy of the full audit report.
170. Letter from Liz Muller & Partners to Huayou Cobalt, 6 July 2017, en.huayou.com/downloadRepository/8bea7424-3537-4282-8a2f-a2daeb2f3aed.pdf (Liz Muller & Partners, Audit Letter).

issues: child labor, human rights and mining under conflict conditions” and that it should “feel proud of its accomplishments to date”.¹⁷¹ Huayou Cobalt also underwent another audit in July 2017 by a consultant hired by one of its downstream customers, LG Chem. LG Chem shared a copy of this report with Amnesty International,¹⁷² but it is unclear whether and how either company might make the results available to the broader public.

REMEDIATION AND OTHER ACTIONS ON THE GROUND

There are few clear signs that either Huayou Cobalt or CDM has carried out remediation efforts for the children and adults who have been harmed through participation in hazardous ASM of the cobalt.¹⁷³ Huayou Cobalt reports that it has signed an agreement with the Good Shepherd Sisters charity (*Sœurs du Bon Pasteur*)¹⁷⁴ to provide annual financial support to its programmes aimed at delivering services to children in the artisanal mining sector of Kolwezi.¹⁷⁵ The company has said that it has discussed a “remediation plan” with the charity,¹⁷⁶ but more information is needed to assess how any remediation plan will address the specific harms identified in Amnesty International’s 2016 report.

In April 2017, CDM initiated construction of a new school building near the Kasulo neighbourhood and artisanal mining area that could provide places for more than 300 students.¹⁷⁷ While building a school in an impoverished area can have merit, it is unclear how it will specifically be linked to removing the children from the mines, addressing the root causes

of child labour, and remediating the harm suffered. International standards make clear that remedial actions should be carefully calibrated to ensure they respond in a meaningful and effective way to the problem of child labour. One of the most common problems with corporate construction projects is the failure to ensure that the infrastructure is usable (for example, that it can be staffed sustainably) or free and accessible to children and their families (by ensuring they are not subject to any direct or indirect costs for education). It is beyond the scope of this report to assess the value of the school construction as a means of addressing the risks of child labour, and neither Huayou Cobalt nor CDM provided any further evidence that the school had mitigated the risk of child labour by removing children from mine sites and reintegrating them into schools.

ASSESSMENT OF HUAYOU COBALT/CDM DUE DILIGENCE TO DATE

The OECD Guidance requires upstream companies to trace minerals back to mining sites; map the circumstances of extraction, trade, handling and export for the minerals used; design and implement a strategy to respond to identified risks in order to prevent or mitigate adverse impacts; and provide this information to customers.¹⁷⁸

Since January 2016, Huayou Cobalt has taken steps to establish a cobalt supply chain due diligence policy and management system in line with international standards, to investigate and map its supply chain and to start to mitigate risks associated

171. Liz Muller & Partners, Audit Letter. The report identified “several areas that Huayou Cobalt has not implemented sufficiently” and noted, in particular, that not all suppliers were providing specific information as to the origin (mine or smelter) of cobalt containing material and recommended that Huayou Cobalt expand its due diligence “to all sources of cobalt in the DRC (including LSM) as well as other regions, with a priority on those identified as higher risk for conflict or child labor and other human rights abuses”.

172. DNV-GL, *Audit Report on Huayou Cobalt*.

173. Any person or group that has suffered violation of their rights should be entitled to adequate reparation, which can take the form of restitution, compensation, rehabilitation, satisfaction and guarantees of non-repetition. See Amnesty International, *Injustice Incorporated: Corporate Abuses and the Human Right to Remedy* (Index: POL/30/001/2014), pp. 17-18.

174. www.buonpastoreint.org/

175. Huayou Cobalt letter to Amnesty International, 27 November 2017.

176. Huayou Cobalt’s Due Diligence and Audit, p. 35.

177. Huayou Cobalt’s Due Diligence and Audit, p. 42.

178. OECD Guidance, Supplement on Tin, Tantalum and Tungsten, p. 32.

with artisanal mining. Huayou Cobalt's policies are consistent with the model supply chain policies set out in the OECD Guidance and CCCMC Guidelines. The company says it is trying to get traders in the DRC to comply, though there has apparently been limited uptake by suppliers and there has not been enough time to evaluate implementation of the relevant policies.

Though making clear that it will not tolerate child labour in its supply chain, the company has also declared that it would continue purchasing ASM cobalt in the DRC to avoid creating a negative impact on households dependent on artisanal mining. Instead of cutting out artisanal supplies entirely, it says it has taken steps to establish a "responsible ASM supply chain" to manage risks while continuing to purchase from artisanal miners.¹⁷⁹ This approach to the problem demonstrates that the company is aware that, in addressing human rights risks and abuses in its supply chain, it must try to avoid causing or contributing to other serious negative human rights consequences.

Based on its reporting to Amnesty International, Huayou Cobalt appears to have conducted a detailed supply chain mapping and risk identification process in the DRC.

Nevertheless, much more concrete detail is needed about potential and actual risks the company has identified in the DRC, as well as results of Huayou Cobalt's risk assessment activity. For example, while generally acknowledging the risk of child labour at sites like Kasulo and Tshipuki, the names and locations of buying houses, ASM traders and mining sites or specific findings regarding child labour or health and safety issues are unreported. Without this information, it is difficult to assess the quality and effectiveness of Huayou Cobalt's risk assessment and mitigation work.

Responding to Amnesty International's assessment of its disclosure practices, Huayou Cobalt said:

"In the absence of legal or generally acknowledged due diligence guidelines and

clear requirements regarding due diligence information reporting, and when other companies are not subject to the same scrutiny as Huayou, we believe that it will create an unfair business environment if Huayou unilaterally makes detailed due diligence investigation public. Even so, Huayou is currently the most transparent business in the industry."

This position underscores the need to enact legal requirements for corporate human rights due diligence reporting.

Huayou Cobalt's strategy for "responsible ASM mining" has largely focused on addressing the risk of child labour, but it needs to demonstrate that it is addressing and accounting for risks and abuses that may arise in connection with this mitigation effort. While its "closed-loop" responsible ASM sites ("Type 1 Mines") may help to increase traceability and control over the ASM cobalt in CDM's supply chain regarding the involvement by children, audits suggest these sites may pose risks to miners' health and safety and risks associated with the presence of public and private security forces. In connection with "Type 2 Mines", Huayou Cobalt should also be taking steps to mitigate the risk of forced evictions and potential loss of livelihood for affected individuals arising from the government's plan to turn unauthorized ASM areas in residential neighbourhoods, such as Kasulo, into regular mining sites under government permit.

Given the dynamic nature of the situation on the ground in the DRC, Huayou Cobalt must adopt a holistic, ongoing approach to identifying, preventing, addressing and accounting for risks in its cobalt supply chain. Aside from the two "Type 1" it has identified, Huayou Cobalt must make clear, if and when additional sources of ASM cobalt are added to its supply chain, what measures it has taken to identify and mitigate human rights risks associated with those suppliers or mine sites. This would need to include details of relevant suppliers, mining sites, trading locations and transport routes, among other details. The company should also be carrying out

179. Huayou Cobalt's Due Diligence and Audit, pp. 24-27.

due diligence on its LSM suppliers, including its own mining operations.

Huayou Cobalt's work to initiate more responsible sourcing practices in the future is positive, but it also needs to take responsibility for a long history of trade in ASM cobalt that was not sourced responsibly. It should strengthen its efforts to identify and provide remedy to those children and adults who have suffered harms in the past.

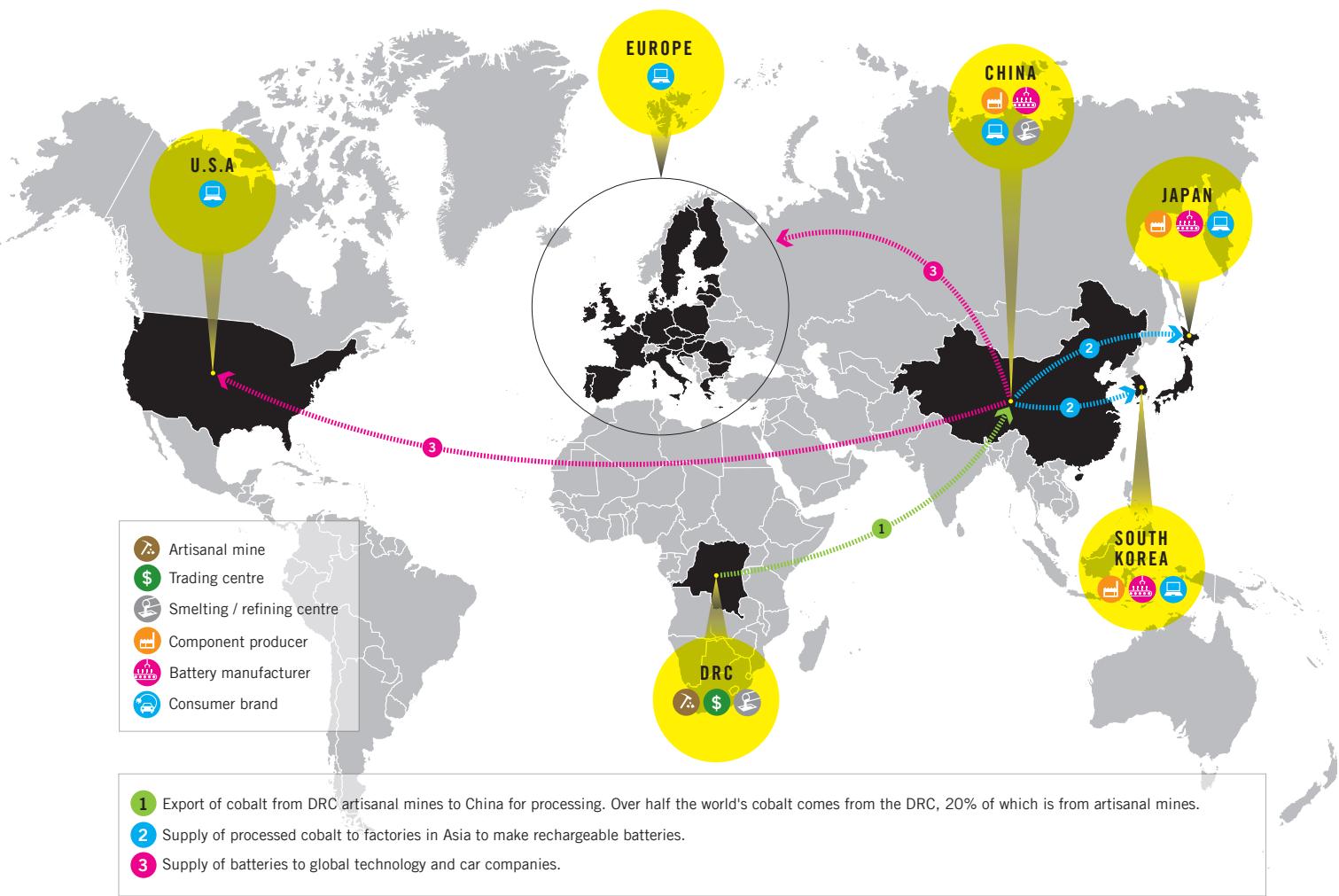
Amnesty International has found that Huayou Cobalt has made a good effort to demonstrate its intention to implement supply chain due diligence. Its willingness to seek to prioritise child labour is positive. It has demonstrated to other companies at the same level of the supply chain that taking steps to manage human rights risks can be accomplished in a relatively short amount of time. Moving forward,

the company must demonstrate additional progress within the next 24 months.

Until more smelters in the DRC start making similar demands and the market for responsibly sourced cobalt grows, it may prove challenging to change the practices of many traders. This underscores the need for the DRC to legally require companies operating in the former Katanga region to conduct supply chain due diligence on cobalt in line with the five-step OECD framework. It also highlights the need for downstream companies to be vigilant about performing due diligence over cobalt sourced from other cobalt smelters operating in the DRC that may be purchasing ASM ores.

Huayou Cobalt's response to Amnesty International's assessment can be found at: <https://www.amnesty.org/en/documents/afr62/7424/2017/en/>

Movement of cobalt from artisanal mines in the DRC to the global market





Buying houses at the Musompo market on the outskirts of Kolwezi, where artisanal miners sell the cobalt and copper they have mined in the artisanal mines surrounding the city, May 2015.

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5. ASSESSING DOWNSTREAM COMPANIES

In late 2015, Amnesty International contacted 26 companies it believed were likely using cobalt mined in the DRC under hazardous conditions or handled by children.¹⁸⁰ These companies were identified during research for *This is What We Die For* using information from corporate documents and other public sources to piece together potential supply chains involving companies with either direct or indirect business relationships with Huayou Cobalt.

None of the downstream companies contacted in the lead up to the 2016 report had conducted due

diligence over their cobalt supply chains in line with international standards, even though many had “zero tolerance” policies for child labour. This was despite the clearly established corporate responsibility to respect human rights set out in the UN Guiding Principles, the applicability of the OECD Guidance to all minerals (including cobalt) sourced from high-risk areas and previous reports of child labour being linked to cobalt mining in the DRC.¹⁸¹

In this chapter, Amnesty International considers changes those companies have made to their cobalt human rights due diligence policies and practices since 2016 and evaluates them against the international standards discussed in Chapter 3. In March 2017, Amnesty International wrote letters to 29 companies posing a series of questions relating to any updated cobalt due diligence policies and practices. The assessment in this chapter is structured around five key questions which reflect the content of those letters and correspond to

180. Amnesty International contacted a further five companies in August 2016, see Amnesty International, “Electric Cars: Running on Child Labour?”, 30 September 2016, www.amnesty.org/en/latest/news/2016/09/electric-cars-running-on-child-labour/

181. The US Department of Labor has listed cobalt as a good produced by child labour since at least 2009 (US Department of Labor, *List of Goods Produced by Child Labor or Forced Labor*, www.dol.gov/ilab/reports/child-labor/list-of-goods/).

international standards. The five questions are set out below with a summary of what will be considered under each one. This is followed by a consolidated assessment of companies' performance in each category based on all of the responses received from companies, as well as other public information. The chapter presents an overview of some of the key issues emerging from the various responses. Fuller details, with company-by-company breakdowns, can be found in Annex "1".

THE FIVE QUESTIONS

QUESTION 1: HAS THE COMPANY INVESTIGATED ITS SUPPLY LINKS TO THE DRC AND HUAYOU COBALT?

Companies need to know if any of their cobalt comes from the DRC so that they can ensure a proper response to well documented risks and abuses linked to cobalt mining there. As stated in Chapter 3, the former province of Katanga in the DRC featured in this report constitutes a "high-risk area" due to the presence of factors including: political instability, institutional weaknesses, insecurity, lack of protections for human rights and intermittent episodes of violence.¹⁸² Clear red flags exist, which companies cannot ignore. The DRC is by far the world's largest source of cobalt and the poor conditions of its artisanal mines, as well as the presence of children working in them, have been reported publicly in the past.

This question assesses what companies say they have done to trace the origins of their cobalt supply and investigate possible links to Huayou Cobalt or other smelters and refiners that use DRC cobalt. Amnesty International looked for evidence that a company had made an effort to check into all of

its supplier relationships and confirm information they were given. To receive a rating of adequate demonstration of compliance with international standards (highest rating), companies must show that they have taken steps, such as on-site checks or audits, to verify documentation or other information provided by suppliers.

QUESTION 2: DOES THE COMPANY HAVE ROBUST POLICIES AND SYSTEMS IN PLACE FOR DETECTING HUMAN RIGHTS RISKS AND ABUSES IN ITS COBALT SUPPLY CHAIN?

Under this question, Amnesty International expects to see clear evidence that companies are using their policies for responsible sourcing, supplier management and human rights to detect and address risks related to cobalt. The organization expected companies' policies either to make an explicit reference to cobalt as a material requiring due diligence in line with international standards or provide some other demonstration that broader policies directed at minerals or raw materials were being applied to the cobalt supply chain. Adequate demonstration of compliance with international standards would require a company to make clear how the effectiveness of its policy is measured, who is responsible for implementation and who in the company's management is ultimately responsible for oversight and accountability.

QUESTION 3: HAS THE COMPANY TAKEN ACTION TO IDENTIFY "CHOKE POINTS" AND ASSOCIATED HUMAN RIGHTS RISKS AND ABUSES?

The OECD Guidance expects downstream companies to be able to perform risk assessments of all smelters and refiners, which act as "choke points"

¹⁸². For an assessment of human rights conditions in the DRC, see UN General Assembly, *Third joint report of seven United Nations experts on the situation in the Democratic Republic of the Congo*, 9 March 2011, www.un.org/en/ga/search/view_doc.asp?symbol=A/HRC/16/68.

in the supply chain. Under this question, Amnesty International assessed whether companies had gone further than asking direct suppliers about sourcing relationships. A rating of adequate demonstration of compliance with international standards would require a company to show that it has identified all of its cobalt smelters and refiners and begun investigating them for the presence of “red flag” risks and abuses requiring a response.

QUESTION 4: HAS THE COMPANY DISCLOSED INFORMATION ABOUT THE HUMAN RIGHTS RISKS AND ABUSES IN ITS COBALT SUPPLY CHAIN?

Transparency is critical to good supply chain due diligence. Companies were assessed on the extent to which they publicly disclose information about their cobalt human rights due diligence policies and practices, the identities of smelters and refiners, and related risk assessments. To receive a rating of adequate demonstration of compliance with international standards under this question, a company needs not only to disclose the names and locations of its smelters/refiners but also specific details about any human rights risks or impacts that were identified in the course of risk assessment.

QUESTION 5: HAS THE COMPANY TAKEN STEPS TO MITIGATE RISKS OR REMEDIATE HARMS RELATED TO ITS COBALT SUPPLY CHAIN?

Assessment under this question aims to capture what steps companies are taking to mitigate the risks they have identified in their supply chain, as well as provide remedy for negative impacts they have caused or contributed to or benefitted from in their operations, as required by the UN Guiding Principles. Amnesty International considered companies’ participation in joint initiatives and how they were using leverage to try to shape supplier behaviour. A rating of adequate demonstration of compliance with international standards (highest

rating) required companies to provide information about actions taken in response to specific risks or harms identified in their cobalt supply chains.

For each of the above questions, companies received one of the following ratings:

- No demonstration or no response from company
- Minimal demonstration
- Moderate demonstration
- Adequate demonstration

Please refer to Methodology for detail of how these ratings for each question were used to produce the aggregate company assessment ratings.

 Charles, 13 years old, works with his father in the afternoons and goes to school in the morning when he has the money. Charles sorts and washes the minerals, before helping to transport them to a nearby trading house, which buys the ore, May 2015. © Amnesty International and Arewatch



DOWNSTREAM COMPANIES CONTACTED:

Cathode materials manufacturers	Battery cell manufacturers	Computer, communication & consumer electronics companies	Electric vehicle manufacturers
Hunan Shanshan Energy Technology Co., Ltd*	Amperex Technology Co., Ltd	Apple Inc.	BMW Group
L & F Co., Ltd	BYD Co., Ltd**	Dell Technologies	Daimler AG
Ningbo Shanshan Co., Ltd*	Coslight Technology International Group	HP Inc.	Fiat-Chrysler Automobiles NV
Tianjin B & M Science & Technology Joint Stock Co., Ltd	LG Chem Ltd	Huawei Technologies Co., Ltd	General Motors Co.
	Samsung SDI Co., Ltd	Lenovo Group Ltd	Renault Group
	Shenzhen BAK Battery Co., Ltd	Microsoft Corp.	Tesla Inc.
	Sony Corp***	Samsung Electronics Co., Ltd	Volkswagen AG
	Tianjin Lishen Battery Joint-Stock Co., Ltd	Vodafone Group Plc	
		ZTE Corp.	

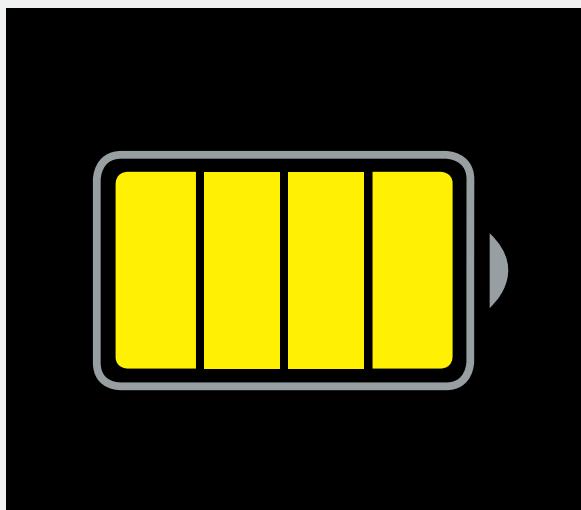
*Hunan Shanshan Energy Technology Co., Ltd, is a wholly owned subsidiary of Ningbo Shanshan Co., Ltd.

**BYD Co., Ltd is also an electric vehicle manufacturer.

***In September 2017, Sony completed the transfer of its battery cell business to Murata Manufacturing Co., Ltd. Group and is also a computer, communication and consumer electronics company.

TIME TO RECHARGE

Amnesty International has used a battery icon to illustrate the strength of each company's performance in relation to key due diligence criteria. Four bars means a battery is fully charged. The strength of a battery's charge reflects both its capacity and potential. When companies put systems in place and take action to carry out due diligence in their mineral supply chains, they are creating capacity and demonstrating potential to conduct their business in a more responsible way. A lithium-ion battery needs to be recharged regularly in order to do its job properly. Similarly, supply chain due diligence needs to be a regular and continuous process in order for it to be effective. Without a steady flow of information coming in, ongoing review of risk and regular performance tracking, a company's supply chain due diligence will not perform its function.



↑
Battery icon

QUESTION 1: HAS THE COMPANY INVESTIGATED ITS SUPPLY LINKS TO THE DRC AND HUAYOU COBALT?

None of the companies approached before the 2016 report said that they had been in touch with Huayou Cobalt or traced where the cobalt in their products had come from prior to being contacted by Amnesty International. Some of the companies were unable to say definitively whether cobalt used in their products came from the DRC or had been processed by Huayou Cobalt. Others denied that the cobalt they used came from the DRC or had any links to Huayou Cobalt but did not provide any information that would allow those claims to be verified. Amnesty International considered both types of response to be evidence of companies' inadequate due diligence over their cobalt supply chains.

In March 2017, Amnesty International asked companies for information about the origins of cobalt used in their products within the past five years. Companies were asked whether any of that cobalt originated in the DRC and whether they had identified Huayou Cobalt or any of its subsidiaries (including CDM) in their supply chains. Each letter presented companies with summary information about specific relationships with battery suppliers or cathode-material manufacturers that Amnesty International identified through its research to be using cobalt materials from Huayou Cobalt. If a company claimed that Huayou Cobalt and its subsidiaries were not in its supply chain, Amnesty International requested that it provide evidence of how it arrived at that conclusion, including details of steps taken to verify information provided by third-parties. Companies acknowledging the presence of Huayou Cobalt and its subsidiaries in their supply chain were asked to provide assessments of the adequacy of Huayou Cobalt's due diligence practices.

All but six of the 28 downstream companies

presented evidence of having investigated these links in some form. For the purposes of assessment, Amnesty International looked at whether companies had sought affirmations or declarations from suppliers about sourcing relationships. Researchers looked for evidence that companies were taking further steps to investigate, by seeking documentation to support suppliers' sourcing claims and conducting checks to verify information through on-site inspections or other means.

Downstream companies need to identify the countries of origin for the cobalt they use in order to know what human rights impacts the smelters and refiners in their supply chain need to account for. If a company claims that none of its cobalt originates in the DRC, therefore, it should be prepared to present evidence to support that claim. Companies should be able to show the steps they have taken to obtain and verify any information, including details from smelters and refiners about their upstream chain of custody. The best way for downstream companies to get this information is from the smelters and refiners themselves, who should have a chain of custody or traceability system in place to track the ores they use back to the mines. Not all smelters and refiners have implemented such systems effectively, however, making it difficult for downstream companies to get an accurate picture of where their cobalt comes from. This lack of transparency is amplified if refiners mix raw materials from multiple sources in their production process.

COMPANY RESPONSES

To obtain accurate information about the origins of cobalt in its supply chain, a company is expected to investigate all of its relevant suppliers, but some responses gave the impression that only the particular relationships put forward by Amnesty International had been investigated. This shows that the company used a limited approach to determine the source of its cobalt. For example, Lenovo told Amnesty International that it had not identified Huayou Cobalt or any of its subsidiaries in its supply

chain, but it only mentioned its investigation of Tianjin Lishen, one of the two battery suppliers that Amnesty International identified in its letter to the company.¹⁸³ Lenovo did not say whether it had investigated the other battery supplier or why it provided no information about that supplier.

Even when companies looked at more than one supplier, they provided little, if any, evidence of having taken steps to verify declarations or other information they were provided by suppliers. For example, Volkswagen reported receiving declarations from its battery suppliers that neither Huayou Cobalt nor any of its subsidiaries were in their supply chains.¹⁸⁴ However, Volkswagen did not provide information about what, if anything, it had done to verify those supplier claims and it did not address Amnesty International's question about whether other smelters or refiners in its supply chain had sourced cobalt from the DRC. For this reason, the company received a rating of "minimal" demonstration of expectations under this question.

Sony, which until recently was both a producer of lithium-ion batteries and a consumer of battery cells manufactured by other companies,¹⁸⁵ said that it had investigated a total of 14 suppliers, including seven battery suppliers and seven suppliers of cobalt-containing battery components. It did not disclose which companies it investigated, what those investigations involved or whether it took additional steps to verify information provided by suppliers.¹⁸⁶ Sony said five of its suppliers identified the DRC as a source of cobalt in their products and two of those five identified Huayou Cobalt as a supplier. Sony said it "underst[ood] that Huayou Cobalt has begun the due diligence process to identify human rights risks in its supply chain" but did not provide

any assessment of Huayou Cobalt's due diligence practices, as the international standards require.¹⁸⁷ While it is positive that Sony investigated its supply chain and identified Huayou Cobalt as being in it, it received a rating of "minimal" demonstration of expectations because it did not disclose any salient information about its investigations or measures taken to verify supplier responses.

Supplier declarations about sourcing relationships need to be backed up by credible evidence and companies ought to take additional steps to check that evidence as part of its due diligence. Tesla has reported that it requests its battery suppliers to provide "certificates of origin for raw materials, documentation and descriptions of risk management and mitigation policies" and says it visits suppliers "as necessary" to "observe, review and discuss these risks and how they are addressed". The company says it also uses third-party audits to ensure direct suppliers are complying with laws and policies regarding "child labor, human rights abuses and other issues that affect responsible sourcing".¹⁸⁸ Since Tesla is taking these extra steps to check and verify documentation provided by suppliers, it was given the highest rating of "adequate" demonstration of expectations under this question.

HP also received an "adequate" rating based on its description of having taken additional steps to investigate links to Huayou Cobalt. It reported having "initiated onsite procurement audits with relevant battery suppliers" that included inspection of materials and review of purchasing documents.¹⁸⁹ Based on declarations that its battery suppliers received from their own suppliers, HP concluded that "cobalt processed by Huayou [Cobalt] was likely less than 5% of [its] total cobalt usage in 2016".¹⁹⁰

183. Lenovo letter to Amnesty International, 24 March 2017.

184. Volkswagen letter to Amnesty International, 7 April 2017.

185. In September 2017, Sony announced it had completed the sale of its battery business to Murata Manufacturing Group (Sony press release, 1 September 2017, www.sony.net/SonyInfo/News/Press/201709/17-077E/index.html).

186. Sony letter to Amnesty International, 27 March 2017.

187. Sony letter to Amnesty International, 27 March 2017.

188. Tesla Conflict Minerals Report, 2017, www.sec.gov/Archives/edgar/data/1318605/000156459017011856/tesla-ex101_76.htm.

189. HP letter to Amnesty International, 19 May 2017.

190. HP letter to Amnesty International, 19 May 2017.

HP did not comment on the percentage of its cobalt supply which is sourced from the DRC more generally, which could be much higher and would also warrant careful consideration.

When downstream companies do not carry out these kinds of checks, it can lead to an inaccurate picture of where their cobalt comes from and wrong conclusions about risks. This problem comes out in the responses from several companies that acknowledged Huayou Cobalt in their supply chains but claimed that the cobalt it had provided did not come from the DRC. In the absence of any information about steps taken to verify this, it appears that these companies are ignoring the realities of their cobalt supply chains. Samsung Electronics cited information received from Samsung SDI in reporting to Amnesty International that “Huayou [Cobalt]’s material is from New Caledonia, not from DR Congo”.¹⁹¹ Tesla reported that it purchased a small number of lithium-ion battery cells from a supplier that used cobalt materials from Huayou Cobalt but that “none of this cobalt is from Congo Dongfang Mining (CDM) and none of this cobalt material originates in the DRC”.¹⁹² General Motors did not say directly whether Huayou Cobalt had been identified in its supply chain but did relate receiving assurances from one of its battery suppliers, LG Chem, that it “does not source cobalt or cathode material with cobalt from the DRC”.¹⁹³

Such claims appear connected to the use of customs documentation known as “certificates of origin” by lithium-ion battery suppliers LG Chem and Samsung SDI in 2016. Huayou Cobalt has said that one of the things its customers requested it to do after

Amnesty International’s 2016 report was to “provide certificates of origin to prove [materials were] not from DRC”. Samsung SDI told Amnesty International in August 2016 that it had reviewed certificates of origin provided by an unnamed supplier as part of its supply chain investigation.¹⁹⁴ LG Chem told the Washington Post in 2016 that it had begun requesting L & F, one of its cathode materials suppliers known to purchase cobalt from Huayou Cobalt, to provide certificates of origin for every purchase.¹⁹⁵

Both Samsung SDI and LG Chem have publicly said that materials they purchased from Huayou Cobalt contained cobalt smelted in New Caledonia, rather than the DRC.¹⁹⁶ As evidence of its claim, LG Chem provided Amnesty International with copies of two certificates of origin from late 2015 and early 2016, reflecting shipments of smelted cobalt material from New Caledonia to China.¹⁹⁷ While it can be assumed that the cobalt reflected in these two shipments did originate in New Caledonia, these certificates of origin show only that Huayou Cobalt purchased some non-DRC cobalt to use in its production process. New Caledonia is a source of nickel-cobalt ores for the global market, but its output is only a tiny fraction of the mined output from the DRC.¹⁹⁸ The amount of cobalt reflected in these two shipments from New Caledonia is dwarfed by the Congolese cobalt Huayou Cobalt receives from CDM.¹⁹⁹

Even if the amount of cobalt contained in the products Huayou Cobalt sells to its customers matches the amounts in shipments of raw material from New Caledonia, it still does not necessarily mean that those products contain only non-DRC

191. Samsung Electronics letter to Amnesty International, 5 April 2017.

192. Tesla letter to Amnesty International, 7 April 2017.

193. General Motors letter to Amnesty International, 5 April 2017.

194. Samsung SDI letter to Amnesty International, 31 August 2016.

195. T. Frankel, “The Cobalt Pipeline”.

196. T. Frankel, “The Cobalt Pipeline”; Samsung SDI, *2016 Progress Report*, p. 25.

197. Annex to LG Chem letter to Amnesty International, 12 April 2017. These documents reflect two shipments of a commodity listed as “intermediate product of cobalt metallurgy”, dated 8 December 2015 and 8 March 2016, from Prony Bay, New Caledonia, to the port of Zhapu, Shanghai. This commodity classification indicates that the cobalt material in question had undergone some form of initial smelting before leaving New Caledonia.

198. USGS, *Mineral Commodity Summaries 2017*, p. 53.

199. Combined, the two shipments reflected in the certificates of origin provided by LG Chem show delivery of more than 290 metric tons of cobalt content to Huayou Cobalt for processing. By comparison, one industry analyst estimates that CDM exported 4,300 metric tons of cobalt content from the DRC in 2016 (Darton Commodities, *Cobalt Market Review*, p. 25).

cobalt. Before drawing such a conclusion, one would need to have a clearer understanding of how Huayou Cobalt handles raw materials from different suppliers prior to and during its production process, such as whether it segregates DRC cobalt from non-DRC cobalt or keeps cobalt from ASM and LSM sources separate. Amnesty International asked both Samsung SDI and LG Chem to explain how they had verified the adequacy and accuracy of certificates of origin as evidence of the origins of cobalt contained in Huayou Cobalt's products, but neither company responded directly to this request.

There are signs that Samsung SDI is now aware that certificates of origin do not provide a complete picture of either origins of or risks associated with cobalt in processed materials. In May 2017, the company said that it "urged Huayou to undertake a third-party audit to verify the accuracy and adequacy" of claims that its cobalt originated in New Caledonia and that Huayou Cobalt confirmed that an audit would take place in 2017.²⁰⁰ It also said: "Samsung SDI recognizes that asking for a certificate that the Cobalt does not originate from the DRC creates incentives for misconduct and falsification given the substantial majority of Cobalt comes from the DRC anyway. There is no assurance that any brand's Cobalt will never come from the DRC or that a certificate would protect the massive system of Cobalt material value chain from ever having DRC material come into their product."²⁰¹ Amnesty International welcomes Samsung SDI's acknowledgement and change of its position.

Although it has not said so publicly, LG Chem should now also have this awareness following a third-party audit on Huayou Cobalt carried out in 2017 on its behalf. Auditors found a need for Huayou Cobalt to improve in several areas, notably its system of material traceability, which they deemed "neither

sufficiently robust for an effective Chain of Custody nor an effective traceability system for cobalt".²⁰² Auditors confirmed that Huayou Cobalt "does not maintain a traceability system during the production process (e.g. bags used for respective production lots)" and noted that it was not yet able to trace shipments from international LSM suppliers or international traders.²⁰³ The auditors also noted that the volume of cobalt ore from CDM's "Type 1" "model mines" represented a "small fraction compared to the total volume of cobalt processed by CDM" and that CDM's smelting process involves mixing ASM and LSM cobalt.²⁰⁴

For its part, Huayou Cobalt acknowledged in a communication to Amnesty International that "certificates of origin are different from a traceability system and do not serve the purpose of identifying risks". It said that, as of the end of September 2016, it would no longer use these documents to respond to customer inquiries about risks in its supply chain.²⁰⁵ This change of position is a positive development.

Amnesty International's 2016 report should have made clear to companies throughout the supply chain that cobalt products sold by Huayou Cobalt may have links to child labour and hazardous mining practices in the DRC. With that awareness, they should have initiated a robust process of due diligence based on international standards to identify whether Huayou Cobalt or other smelters using cobalt materials from the DRC were in their supply chain. Then, they should have begun a process to examine smelters' due diligence practices to see whether they were properly managing risks associated with their DRC supply chains.

Instead of looking for evidence that risks were being managed by the smelters and refiners in their

200. Samsung SDI, 2016 *Progress Report*, p. 25.

201. Samsung SDI, 2016 *Progress Report*, p. 15.

202. DNV-GL, *Audit Report on Huayou Cobalt*, p. 6.

203. DNV-GL, *Audit Report on Huayou Cobalt*, p. 6.

204. DNV-GL, *Audit Report on Huayou Cobalt*, p. 6.

205. Huayou Cobalt letter to Amnesty International, 27 November 2016.

supply chain, Samsung SDI and LG Chem started by looking for evidence that the risks did not apply to them. They acknowledged Huayou Cobalt's presence in their supply chains but accepted claims that Huayou Cobalt was only using cobalt from non-DRC sources before reviewing traceability information on the company's supply chain. Both companies should have questioned those claims more from the beginning, as should the downstream companies that accepted those claims.

Even though early use of certificates of origin by Samsung SDI and LG Chem contributed to an incomplete understanding of the possible extent of downstream companies' supply chain links to cobalt mined by children or under unsafe conditions in the DRC, both companies have also shown signs of better due diligence practice by conducting additional checks, such as audits or on-site inspections, to verify information provided by suppliers.

Samsung SDI reported making on-site visits to "four sub-suppliers of cobalt precursor and seven direct suppliers of cathode materials" between May and August 2016 and said in May 2017 that it had begun conducting third-party audits of its cobalt smelters and refiners.²⁰⁶ As discussed later in this chapter, Samsung SDI's process of supplier investigation has enabled it to identify all of its cobalt smelters and refiners.

LG Chem provided Amnesty International with the cover page of a 2016 third-party Supplier Social Responsibility Assessment conducted on L & F (though not details of the audit itself).²⁰⁷ It has also published details of the third-party audit of Huayou Cobalt's supply chain due diligence noted

above, which made a number of recommendations to strengthen Huayou Cobalt's due diligence systems and practices but did not involve an on-site investigation of the company's operations in the DRC or identify the presence of specific human rights risks or abuses in its supply chain.²⁰⁸

OVERALL ASSESSMENT

For this question, Amnesty International assessed companies on the basis of what they say they have done to trace the origins of their cobalt supply and investigate possible links to Huayou Cobalt or other smelters and refiners that use DRC cobalt. Companies like Apple, HP, BMW and Tesla received higher ratings for showing that they were taking steps to verify documentation or other information provided by suppliers about sourcing relationships. Despite very problematic practices early on, LG Chem and Samsung SDI later improved to show evidence of fuller due diligence practices when it comes to supply chain investigation. This change accounts for their high rating. Most of the companies surveyed continued to make claims about cobalt sourcing without providing evidence of additional investigations. Full details of Amnesty International's assessment of these and other companies can be found in the Appendix.

The downstream companies contacted for this report are mostly still in the dark about the extent of their connection to Huayou Cobalt/CDM or cobalt sourced from the DRC. None of these companies can claim to be unaware of human rights risks associated with cobalt from the DRC. That knowledge should lead companies to take responsible action to investigate and manage that risk, not simply avoid it.

206. Samsung SDI, *2016 Progress Report*, pp. 6, 20.

207. Annex to LG Chem letter to Amnesty International, 12 April 2017.

208. DNV-GL, *Audit Report on Huayou Cobalt*.

QUESTION 1: HAS THE COMPANY INVESTIGATED ITS SUPPLY LINKS TO THE DRC AND HUAYOU COBALT?

Cathode materials manufacturers	Hunan Shanshan Energy Technology Co., Ltd	minimal
	L & F Co., Ltd	minimal
	Tianjin B & M Science & Technology Joint Stock Co., Ltd	no action
	Amperex Technology Co., Ltd	minimal
Battery cell manufacturers	BYD Co., Ltd	no action
	Coslight Technology International Group	no action
	LG Chem Ltd	adequate
	Samsung SDI Co., Ltd	adequate
	Shenzhen BAK Battery Co., Ltd	no action
	Sony Corp.	minimal
	Tianjin Lishen Battery Joint-Stock Co., Ltd	moderate
	Apple Inc.	adequate
Computer, communication & consumer electronics companies	Dell Technologies	moderate
	HP Inc.	adequate
	Huawei Technologies Co., Ltd	no action
	Lenovo Group Ltd	minimal
	Microsoft Corp.	minimal
	Samsung Electronics Co., Ltd	minimal
	Vodafone Group Plc	minimal
	ZTE Corp.	minimal
	BMW Group	adequate
	Daimler AG	minimal
Electric vehicle manufacturers	Fiat-Chrysler Automobiles NV	minimal
	General Motors Co.	minimal
	Renault Group	minimal
	Tesla Inc.	adequate
	Volkswagen AG	minimal

QUESTION 2: DOES THE COMPANY HAVE ROBUST POLICIES AND SYSTEMS IN PLACE FOR DETECTING HUMAN RIGHTS RISKS AND ABUSES IN ITS COBALT SUPPLY CHAIN?

In the 2016 report, Amnesty International concluded that most downstream companies it contacted had general codes of conduct and internal policies that required suppliers to respect human rights and not employ children. Many of these companies explicitly stated that they had a “zero tolerance” policy when it came to child labour in their supply chains. However, none provided details of specific investigations and checks that they had undertaken to identify and address child labour in their cobalt supply chains. None of the companies said that they had been in touch with Huayou Cobalt prior to receiving Amnesty International’s letter. Based on the above, Amnesty International concluded that all of these companies’ practices fell below international standards since each was failing to identify, prevent, address and account for human rights abuses in cobalt supply chains.

In March 2017, Amnesty International contacted companies again to see if they had developed a supply chain due diligence policy for cobalt in line with international standards. Companies were asked whether cobalt was covered by their supply chain due diligence policy and whether the policy incorporated or otherwise made reference to the five-step framework in the OECD Guidance. They were also asked how the policy had been communicated, monitored and enforced in respect to supplier relationships and who at the management level of their companies was responsible for implementation. There were also questions about whether policies prioritized risk mitigation by suppliers over suspension and whether companies had exclusive ASM or LSM sourcing policies.

In assessing company responses, Amnesty International looked at companies’ policies related to human rights, supply chain management or mineral sourcing. Companies with no clear policy were considered to be taking no action. Companies received a rating of “minimal” if those policies demonstrated a general recognition of international due diligence standards and human rights responsibilities. A higher rating of “moderate” performance was given to companies with policies that either made explicit reference to cobalt as a material requiring due diligence in line with international standards or provided some other demonstration that broader policies directed at minerals or raw materials were being applied to the cobalt supply chain. Amnesty International considered a company to be demonstrating “adequate” performance (highest rating) if it contained a clear explanation of how its policies would be used to identify, address and account for human rights risks in the cobalt supply chain. This includes details about how supply chain due diligence will be implemented and monitored, who is responsible at senior levels for its effective implementation and what steps a company is expected to take if it identifies any of these risks or impacts in its operations or supply chain and how information about such risks or impacts should be disclosed.

COMPANY POLICIES ON COBALT

Similar to 2016, most companies responding to Amnesty International’s request for information made reference to existing human rights policies, supplier codes of conduct or supply chain management policies that set out certain ethical and legal responsibilities for suppliers and sub-suppliers. Many also noted having policies on supply chain due diligence for tin, tantalum, tungsten and gold (3TG, also commonly referred to as “conflict minerals”) from the DRC or surrounding areas, as required under Section 1502 of the Dodd-Frank Act

in the USA.²⁰⁹ This reflects the fact that the number of companies with policies that specifically intend to identify, prevent, address and account for human rights abuses associated with cobalt is still quite small.

Microsoft's Responsible Sourcing of Raw Materials Policy states: "We view the need to address the issues associated with the harvesting, extraction and transportation of raw materials as a global responsibility applicable to all substances used in our products – unbounded by specific materials or locations."²¹⁰ This statement of intention is positive. However, there is no indication as to how this broad policy will be implemented in relation to "all substances" including cobalt. Given the breadth of its operations and product range, much more detail is required to see how this policy will be made effective. The policy makes clear that Microsoft expects its suppliers to carry out due diligence according to the OECD Guidance for "conflict minerals", but these requirements are limited to 3TG. The company's policy does not make clear that companies in its cobalt supply chain are held to the same expectation as those in its 3TG supply chains. For these reasons, Amnesty International considers Microsoft to be meeting only "minimal" demonstration of the expectations under this question.

Volkswagen said that supply chain due diligence is part of its sustainability requirements for business partners and that "these requirements cover all

minerals and materials", even though cobalt is not explicitly mentioned. The company stated further: "Whilst we specifically mention tantalum, tin, tungsten and gold, our due diligence is certainly not limited to these minerals."²¹¹ However, the referenced policy states that Volkswagen "expects its suppliers to avoid the direct or indirect use of minerals that are found to be conflict-affected" but says nothing about minerals sourced from "high-risk" areas, which also require due diligence according to the OECD Guidance.²¹² The company's Conflict Resources Policy makes explicit reference to the due diligence requirements of the OECD Guidance,²¹³ but it has not made clear that companies in its cobalt supply chain are also required to meet the expectations set by this policy. To be clear about its intention, Volkswagen should state that the OECD Guidance applies to all the minerals in its products sourced from high-risk or conflict-affected areas. This statement would align with the OECD's expectations and result in a higher rating than the "minimal" demonstration of expectations that Volkswagen has received under this question.

Tesla reported that its Human Rights and Conflict Minerals Policy requires suppliers to perform due diligence consistent with the OECD Guidance, but also specified that its contracts make suppliers accountable for "performing conflict minerals due diligence aligned with the OECD Guidance as required by Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act", which only applies to 3TG.²¹⁴ Similarly, computer-maker

209. Section 1502 of the US Dodd-Frank Act says that those companies must do due diligence on their supply chain that conforms to a "nationally or internationally recognized due diligence framework" (US Securities and Exchange Commission (SEC) Final Rule, Item 1.01(c)(1)(i)). At this time, the only such recognized framework is the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas. Step 1 of the OECD's five-step framework provides for companies to adopt a supply chain due diligence policy. While Section 1502 of the US Dodd-Frank Act and the SEC implementing rule remain in force, the SEC Division of Corporate Finance announced in April 2017 that it would "not recommend enforcement action" if companies do not undertake and report on their supply chain due diligence efforts under the law (www.sec.gov/news/public-statement/corfin-updated-statement-court-decision-conflict-minerals-rule). The impact of this decision on future company reports under Section 1502 is yet to be seen.

210. Microsoft, Responsible Sourcing of Raw Materials, download.microsoft.com/download/6/3/E/63E96048-33F6-4DB3-9915-8B974A2A91C7/Responsible_Sourcing_of_Raw_Materials.pdf

211. Volkswagen letter to Amnesty International, 7 April 2017.

212. Volkswagen AG, Volkswagen Group requirements regarding sustainability in its relationships with business partners, April 2016, [www.volkswagenag.com/presence/nachhaltigkeit/documents/policy-intern/2016%20Conflict%20Resources%20Policy%20EN.pdf](http://www.volkswagenag.com/presence/nachhaltigkeit/documents/policy-intern/2016%20Code%20of%20Conduct%20for%20Business%20Partners%20DE-EN.pdf)

213. Volkswagen AG, Volkswagen Conflict Resources Policy as of 27.05.2016, 27 May 2016, www.volkswagenag.com/presence/nachhaltigkeit/documents/policy-intern/2016%20Conflict%20Resources%20Policy%20EN.pdf

214. Tesla letter to Amnesty International, 7 April 2017.

Lenovo acknowledged that “at this time cobalt is not part of [its] conflict minerals reporting program”, noting that “consistent with overall industry direction” its focus to date has been on establishing systems to address its 3TG supply chains and ensure compliance with the relevant legal requirements of the Dodd-Frank Act.²¹⁵ This failure to address cobalt in their policies has resulted in Tesla’s and Lenovo’s rating of “minimal” demonstration of expectations under this question.

These companies already recognize that detailed policies are needed to identify and address the serious human rights risks and abuses associated with conflict minerals. Through their conflict mineral policies, they demonstrate awareness of the expectations and practical framework for action set out in the OECD Guidance. The 2016 report, along with other public investigations, makes it clear that the risks and abuses connected with cobalt from the DRC require companies to take an identical approach. These companies’ policies currently fall below international standards, including the OECD’s Model Policy which reflects a minimum expectation.

Only a handful of companies have to date extended the scope of their mineral supply chain due diligence policies to make explicit reference to cobalt. For the most part, these companies have also made clear that senior company personnel are accountable for monitoring the policy and ensuring that it is implemented in a way that is both robust and effective.

On 1 January 2017, Apple put in place an updated Supplier Responsibility Standard that made clear reference to cobalt as a mineral for which supplier due diligence is required. Apple’s policy requires suppliers to have a due diligence policy consistent

with the OECD Guidance and to require all mineral processors (including smelters and refiners) in a supplier’s supply chain to be able to track their mineral supplies to the level of the mining company or mining site.²¹⁶ Among the companies surveyed, Apple’s policy is the most detailed in terms of its articulation of expectations for suppliers and sub-suppliers with respect to risk assessment, risk mitigation and due diligence transparency.

In 2016, Samsung SDI made changes to its Supplier Code of Conduct requiring suppliers to have a system in place to track the origin and supply chain for cobalt, including smelters, and to require sub-suppliers to certify the origin of minerals used and communicate that information to Samsung SDI upon request.²¹⁷ Dell recently adopted a due diligence policy for cobalt and published a summary of its actions to date in accordance with the OECD Guidance.²¹⁸ Apple, Samsung SDI and Dell all were rated “adequate” under this question.

Although Chinese battery maker Amperex Technology Company Ltd (ATL) did not respond to Amnesty International’s request for information, the company officially published details of a new set of policies under the title Due Diligence Working Instruction for Responsible Mineral Supply Chain in June 2017.²¹⁹ If implemented, the policy and associated measures will enable ATL to perform due diligence in line with the OECD Guidance on its mineral supply chains for a variety of materials, including 3TG, cobalt, lithium and graphite. The policy does not, however, include enough information to enable an assessment of how the company will implement the policy, so the company’s rating was “moderate”.

Chinese cathode material producer Hunan Shanshan was the only company in its sector to report adoption

215. Lenovo letter to Amnesty International, 24 March 2017.

216. Apple Inc., Responsible Sourcing of Minerals, Supplier Responsibility Standard, 1 January 2017, images.apple.com/supplier-responsibility/pdf/Apple-Supplier-Responsible-Standards.pdf (Apple, Responsible Sourcing of Minerals).

217. Samsung SDI, Samsung SDI Supplier Code of Conduct (v. 1.01), Item D(7). www.samsungsdi.com/upload/download/sustainable-management/Supplier_Code_of_Conduct_v1.01.pdf

218. Dell Technologies, *2017 Responsible Raw Materials Sourcing Report*, pp. 3-5, si.cdn.dell.com/sites/doccontent/corporate/corp-comm/en/Documents/sourcing-report.pdf

219. Amperex Technology Co., Ltd (ATL), Due Diligence Working Instruction for Responsible Mineral Supply Chains, 22 June 2017, www.atlbattery.com/static/upload/file/20170622/1498099787201421.pdf (ATL, Due Diligence Working Instruction).

of policies and supplier codes explicitly requiring due diligence for cobalt, but the company did not provide enough information about these policies to enable more than a rating of “moderate”.

LG Chem,²²⁰ BMW²²¹ and HP²²² have also recently updated their respective supplier policies to make clear reference to cobalt as a target mineral requiring battery-related suppliers to perform due diligence in accordance with the OECD Guidance. This is a positive move. These policies, however, are less developed than Apple or Samsung SDI's in that they do not list or indicate that they will list cobalt smelters and refiners. They also do not indicate an intention to disclose their assessments of the adequacy of their smelters and refiners due diligence practices. For these reasons, these three companies also received ratings of “moderate” under this question.

OVERALL ASSESSMENT

Eight of the 28 downstream companies reviewed in this report have adopted due diligence policies that make clear reference to cobalt since 2016. All of these acknowledge the OECD Guidance as the recognized standard and practical framework for conducting due diligence to identify and address human rights risks and abuses associated with cobalt. This is progress compared to 2016, when no company had such policies for cobalt.

Based on the responses provided to Amnesty International, the other 20 downstream companies covered here have been slow in or resistant to adopting clear policies for due diligence in their cobalt supply chains. This is despite the fact that most of these companies already have policies for managing risks associated with “conflict minerals”,

showing that they are capable of setting clear and detailed policies to address human rights impacts for mineral supply chains – particularly when required to do so by law.

Failure to set clear policy for cobalt means that these companies are not complying with their international human rights responsibilities, as clearly set out in the UN Guiding Principles and OECD Guidance. This is despite knowing that cobalt mined by children and adults in hazardous conditions is likely entering their supply chains, as the findings of the 2016 report, confirmed by journalists’ investigations, make clear.

Downstream companies and industry initiatives looking to establish new policies for responsible mineral sourcing and supply chain due diligence must ensure that those policies make clear not only what suppliers and sub-suppliers are expected to do but also what internal company management will do when risks are identified and how accountability will be ensured.

Miners use chisels, mallets and other hand tools to mine for cobalt ore tens of metres under the ground in Kasulo, a residential neighbourhood of Kolwezi, May 2015. (Still taken from footage shot by a miner using a GoPro camera for Amnesty International) © Amnesty International and Afrewatch



220. LG Chem, LG Chem Code of Conduct for Suppliers, www.lgchem.com/upload/file/principle/LGChem_Code_of_Conduct_for_Suppliers_ENG.pdf

221. BMW Group, BMW Group Supplier Sustainability Policy, May 2017, www.bmwgroup.com/content/dam/bmw-group-websites/bmwgroup_com/responsibility/downloads/en/2017/BMW%20GROUP%20Supplier%20Sustainability%20Policy.pdf

222. HP Inc., HP Supply Chain Social and Environmental Responsibility Policy, May 2017, h20195.www2.hp.com/V2/GetDocument.aspx?docname=c04797682

QUESTION 2: DOES THE COMPANY HAVE ROBUST POLICIES AND SYSTEMS IN PLACE FOR DETECTING HUMAN RIGHTS RISKS AND ABUSES IN ITS COBALT SUPPLY CHAIN?

Cathode materials manufacturers	Hunan Shanshan Energy Technology Co., Ltd	moderate
	L & F Co., Ltd	no action
	Tianjin B & M Science & Technology Joint Stock Co., Ltd	no action
	Amperex Technology Co., Ltd	moderate
Battery cell manufacturers	BYD Co., Ltd	minimal
	Coslight Technology International Group	no action
	LG Chem Ltd	moderate
	Samsung SDI Co., Ltd	adequate
	Shenzhen BAK Battery Co., Ltd	no action
	Sony Corp.	minimal
	Tianjin Lishen Battery Joint-Stock Co., Ltd	minimal
	Apple Inc.	adequate
Computer, communication & consumer electronics companies	Dell Technologies	adequate
	HP Inc.	moderate
	Huawei Technologies Co., Ltd	minimal
	Lenovo Group Ltd	minimal
	Microsoft Corp.	minimal
	Samsung Electronics Co., Ltd	minimal
	Vodafone Group Plc	minimal
	ZTE Corp.	minimal
Electric vehicle manufacturers	BMW Group	moderate
	Daimler AG	minimal
	Fiat-Chrysler Automobiles NV	minimal
	General Motors Co.	minimal
	Renault Group	minimal
	Tesla Inc.	minimal
	Volkswagen AG	minimal

QUESTION 3: HAS THE COMPANY TAKEN ACTION TO IDENTIFY “CHOKE POINTS” AND DETECT HUMAN RIGHTS RISKS AND ABUSES?

In March 2017, Amnesty International put questions to downstream companies to see whether they were moving beyond policy statements and investigating their cobalt supply chains in line with international standards. This question builds on Question 1 and considers a company’s broader approach to detecting human rights risks and abuses in its cobalt supply chain. In addition to the question about their sourcing relationships with the DRC and Huayou Cobalt, Amnesty International asked companies more general questions about how they verify representations made to them by direct suppliers about their cobalt supply chains. Researchers asked whether companies’ engagement had gone beyond direct suppliers and how they assessed the due diligence measures undertaken by smelters and refiners in their supply chains.

Most of the downstream companies that responded to Amnesty International reported doing the minimum and contacting direct suppliers to obtain information about sourcing relationships, particularly those previously identified as connected to Huayou Cobalt. To assess a company’s investigation and identification actions more generally, Amnesty International looked for evidence of a system of engagement beyond direct suppliers and with relevant suppliers and sub-suppliers to develop a full picture of its cobalt-sourcing relationships beyond Huayou Cobalt.

The OECD Guidance states that downstream companies with conflict-affected or high-risk mineral supply chains should focus on the identification of supply chains to the level of the smelter or refinery.²²³ Mineral ore can be traced as it moves from mines to various trading points before reaching a smelter or refinery. The OECD Guidance recognizes smelters and refineries as the crucial “choke points” between the upstream and downstream segments of the supply chain. It is at these points that it is still relatively easy to ask basic questions about where minerals come from; how those minerals are extracted, transported and sold; and whether there are any serious human rights risks along the way.

COMPANY RESPONSES

A main way that companies obtain the information needed to map their supply chains is through supplier surveys or risk assessment questionnaires. Companies – including Samsung SDI,²²⁴ Dell,²²⁵ Vodafone²²⁶ and BMW²²⁷ – described some type of general supplier survey aimed at mapping their cobalt supply chain and associated risks.

According to Apple’s Responsible Sourcing of Minerals standard, its suppliers are required to map and report on their supply chains for relevant minerals (including cobalt) annually, unless it requests more frequent mapping.²²⁸ Suppliers are expected to identify all associated subcontractors, suppliers and mineral processors, as well as the country of origin of all relevant minerals.²²⁹ Apple requires mineral processors (smelter, refiner or recycler) in its supply chain to map their own supply chains to either the mining level or trading level, depending on how materials were originally sourced. All mining companies in Apple’s supply chain are

²²³ OECD Guidance, pp. 32-33.

²²⁴ Samsung SDI, *2016 Progress Report*, p. 12.

²²⁵ Dell letter to Amnesty International, 3 April 2017.

²²⁶ Vodafone letter to Amnesty International, 27 March 2017.

²²⁷ BMW email to Amnesty International, 6 April 2017.

²²⁸ Apple, Supplier Responsibility Standard, 1 January 2017, pp. 85, 89.

²²⁹ Apple, Supplier Responsibility Standard, p. 85.

required to identify specific mines, “including, where applicable, artisanal mining responsible sourcing systems”.²³⁰

Apple has also created a Risk Readiness Assessment tool through which mineral and metals producers and processors provide a self-assessment of their practices against a set of issue areas under five broad categories: governance, labour and working conditions, environment, community and business and human rights.²³¹ The results of this mapping are intended to show how companies are performing in comparison to the “median level of practice” as defined under relevant standards.²³²

Apple’s system for mapping its cobalt supply chain and associated risks appears relatively robust and suitable for carrying out due diligence in accordance with international standards. Apple’s Risk Readiness Assessment tool has been made available, through the EICC/RRMI for other companies in the electronics industry to use.²³³ Similar supplier surveys are being developed by CSR Europe for the automotive industry.²³⁴ These tools, if widely adopted by companies in the cobalt supply chain, would go a long way towards giving companies the information needed to track their supply chains and identify red flag risk areas.

Harmonizing expectations across industries will be one key factor for ensuring that upstream suppliers comply with these exercises.²³⁵ If all companies in the supplier network have an effective management system in place to track and communicate this type of information, then identifying the smelters and refiners in the supply chain should be fairly

straightforward. However, if any node in the supply chain lacks such a system or has a system that is inadequate – or if information from upstream companies is not being regularly communicated – then there are likely to be large gaps in the supply chain map.

IDENTIFYING “CHOKE POINTS” AND INVESTIGATING “RED FLAG” RISKS

Amnesty International also looked for evidence that companies had identified the smelters and refiners in their supply chains and begun reviewing factual information about such things as country of mineral origin and route of travel from the mine, in order to identify the presence of “red flags” requiring enhanced due diligence. Dell was one company that reported being at this stage, saying that surveys of its lithium-ion battery suppliers had enabled it to identify the names and locations of 30 smelters and/or mines in its cobalt supply chain. It conceded, however, that its mapping effort was still a “work in progress” and that not all of its suppliers had yet provided it with the information it required.²³⁶ Samsung SDI²³⁷ and Apple²³⁸ also reported reaching this level, although Apple has not yet publicly reported on countries of origin for cobalt.

In response to Amnesty International’s findings, the following companies said that they had reached the stage of identifying their cobalt smelters/refiners: BMW, General Motors, HP, Samsung Electronics, Tesla and Volkswagen. Since these companies have not yet provided additional information to support these claims, Amnesty International can only accept them at face value.

230. Apple, Supplier Responsibility Standard, p. 86.

231. For the 31 specific issue areas under these categories, see RBA, Risk Readiness Assessment Issue Areas, www.responsiblebusiness.org/media/docs/RRACriteria.pdf

232. RBA, *Risk Readiness Assessment (RRA): How it Works*, www.responsiblebusiness.org/standards/rra/how-it-works

233. Apple letter to Amnesty International, 28 April 2017; www.responsiblebusiness.org/standards/rra

234. European Automotive Group Working Group on Supply Chain Sustainability, Self-Assessment Questionnaire on CSR/Sustainability for Automotive Sector Suppliers, August 2016, www.csreurope.org/sites/default/files/SAQ_August_2016

235. This is one of the key functions of the RCI (RCI, Review of RCI actions to date and current progress, 5 May 2017, on file with Amnesty International).

236. Dell Technologies letter to Amnesty International, 3 April 2017.

237. Samsung SDI, *2016 Progress Report*, p. 20.

238. Apple letter to Amnesty International, 28 April 2017.

Once a downstream company has mapped its cobalt supply chain and identified its smelters and refiners, it should then regularly assess the adequacy of due diligence practices being employed by those smelters and refiners to ensure they are in line with the downstream company's policies and standards. If gaps or other problems are discovered, downstream companies can work with their smelter or refiner to make improvements. If a company identifies unaddressed risks or harms associated with a smelter or refiner, it can take steps to mitigate or address them.

Tesla told Amnesty International: "We have visited many cobalt mines and processing plants that support Tesla's main supply chain...This includes mines in the DRC, other African nations, Australia and elsewhere." The company said that it uses these visits to discuss the risks companies face and what measures those companies have in place to address those risks. Tesla indicated in general terms that those risks included chain of custody controls "to combat illegal or artisanal ore use" and "child labor onsite" but did not provide an account of how these or other risks were affecting specific suppliers or what concrete measures were being put in place.²³⁹ The lack of transparency regarding Tesla's assessments of its smelters and refiners contributed to the company's rating of only "moderate" demonstration of expectations under this question.

Compliance audits are another tool that companies typically use to review the due diligence practices of their suppliers. Apple, in conjunction with the CCCMC and RCS Global, has developed a standardized audit protocol intended to be used at the smelter/refiner level for cobalt.²⁴⁰ At the end of 2016, it reported that three of its six cobalt smelters or refiners had undergone audits and that the rest were "participating" in the audit process.²⁴¹ Samsung SDI, the only other company to date that has disclosed its full list of cobalt smelters and

refiners, reported that only four had undergone audits as of May 2017 and that three more were expected to complete the auditing process by the end of 2017.²⁴²

Independent third-party audits of due diligence practices can be useful for gathering needed information about a supplier's performance of human rights due diligence, but they cannot provide the whole picture. As part of their own due diligence practices, downstream companies must take the steps set out in the OECD Guidance (that is, identify their smelters and assess the adequacy of their due diligence practices). To meet the OECD standard, a downstream company should not simply rely on (and review information from) a third-party audit of their smelter. In assessing the adequacy of the smelter's due diligence practices, they should also obtain and review other relevant information such as its supply chain policies, information on the country where the smelter sources from and other relevant information in the public domain (such as UN and NGO reports). Additionally, where an audit is carried out on behalf of the downstream company, the findings of that audit, particularly in relation to human rights risks and abuses, should be disclosed.

OVERALL ASSESSMENT

Though most downstream companies have reported a higher level of engagement with suppliers since the publication of *This is What We Die For* in 2016, only Apple and Samsung SDI have shown that they are able to identify all of their cobalt smelters and refiners. Apple reported mapping back its cobalt supply chain to mines in the DRC, and has demonstrated that it is possible for downstream companies to achieve even more visibility over their supply chains.²⁴³

239. Tesla letter to Amnesty International, 7 April 2017.

240. Apple letter to Amnesty International, 2 November 2017.

241. Apple, Apple Smelter and Refiner List, December 2016, images.apple.com/supplier-responsibility/pdf/Apple-Smelter-and-Refiner-List.pdf (Apple Smelter and Refiner List).

242. Samsung SDI, 2016 Progress Report, p. 20.

243. Apple Inc., Apple's Commitment to Responsible Sourcing, 26 August 2016, images.apple.com/supplier-responsibility/pdf/Apple-Commitment-to-Responsible-Sourcing.pdf

Although most companies are not meeting international standards for identifying and preventing human rights abuses in their supply chain, many already map their supply chains for other purposes to track quality assurance, improve efficiency and limit business risks. These existing systems can

be adapted for the purposes of human rights due diligence, bearing in mind that human rights due diligence focuses on external risks deriving from a company's business, rather than risks to the business itself.

QUESTION 3: HAS THE COMPANY TAKEN ACTION TO IDENTIFY “CHOKE POINTS” AND IDENTIFY HUMAN RIGHTS RISKS AND ABUSES?

Cathode materials manufacturers	Hunan Shanshan Energy Technology Co., Ltd	minimal
	L & F Co., Ltd	minimal
	Tianjin B & M Science & Technology Joint Stock Co., Ltd	no action
Battery cell manufacturers	Amperex Technology Co., Ltd	no action
	BYD Co., Ltd	no action
	Coslight Technology International Group	no action
	LG Chem Ltd	minimal
	Samsung SDI Co., Ltd	adequate
	Shenzhen BAK Battery Co., Ltd	no action
	Sony Corp.	minimal
	Tianjin Lishen Battery Joint-Stock Co., Ltd	minimal
Computer, communication & consumer electronics companies	Apple Inc.	adequate
	Dell Technologies	moderate
	HP Inc.	moderate
	Huawei Technologies Co., Ltd	no action
	Lenovo Group Ltd	no action
	Microsoft Corp.	no action
	Samsung Electronics Co., Ltd	moderate
	Vodafone Group Plc	minimal
	ZTE Corp.	minimal
Electric vehicle manufacturers	BMW Group	moderate
	Daimler AG	minimal
	Fiat-Chrysler Automobiles NV	minimal
	General Motors Co.	moderate
	Renault Group	no action
	Tesla Inc.	moderate
	Volkswagen AG	moderate

QUESTION 4: HAS THE COMPANY DISCLOSED INFORMATION ABOUT THE HUMAN RIGHTS RISKS AND ABUSES IN ITS COBALT SUPPLY CHAIN?

In the 2016 report Amnesty International found that none of the companies had publicly disclosed salient information about human rights risks and abuses in line with international standards.

In March 2017, Amnesty International asked companies whether and how they publicly disclose their human rights due diligence policies and practices, including the identities of all cobalt smelters and refiners in their supply chains and details of their assessments of the due diligence practices of those cobalt smelters and refiners. Companies were also asked whether they regularly publish details of independent audits or other checks carried out to verify the origins of cobalt and the nature of human rights risks or abuses associated with specific companies or locations of extraction or trading. Public disclosure of all of this information is necessary to be considered adequate performance of due diligence in line with international standards.

COMPANY RESPONSES

Most of the manufacturers of electronics and electric vehicles Amnesty International looked at are already publishing supply chain-related policies, usually through their websites. As noted in the discussion above under Question 2, however, only a few of these companies have made detecting and addressing human rights risks and abuses linked to cobalt an explicit target for supply chain due diligence.

As one moves upstream along the supply chain, companies become progressively less transparent about their due diligence policies and processes. The larger battery manufacturers surveyed, such as LG Chem,²⁴⁴ Samsung SDI²⁴⁵ and Sony,²⁴⁶ are publishing basic details of their human rights due diligence policies and practices for cobalt. Among the Chinese battery manufacturers contacted, ATL recently published its Due Diligence Working Instruction for Responsible Mineral Supply Chain, which describes a policy and associated measures for due diligence on the supply chains for a variety of materials, including cobalt.²⁴⁷ Tianjin Lishen's website communicates a policy on "conflict minerals" that does not appear to apply to cobalt.²⁴⁸ None of the other Chinese battery manufacturers contacted has published details about their supply chain management policies or practices.

The same lack of basic disclosure is evident for the Chinese and Korean producers of cathode materials contacted for this report: Hunan Shanshan, Tianjin B & M and L & F. Despite being members of the RCI, none of these companies are currently publishing any policies or other information related to human rights risks and abuses beyond the occasional broad commitments to corporate social responsibility.

Companies that carry out supply chain due diligence for designated "conflict minerals" in compliance with Section 1502 of the Dodd-Frank Act are also supposed to disclose information about the steps they have taken to identify the country of origin of the minerals and the smelters or refiners in their supply chain, as well as whether those smelters and refiners are demonstrating necessary due diligence.²⁴⁹

244. LG Chem, Sustainability Management System, www.lgchem.com/global/sustainability/sustainability-introduction/principle

245. Samsung SDI, Supply Chain Responsibility, www.samsungsdi.com/sustainable-management/sustainability/supply-chain-responsibility.html

246. Sony, Responsible Procurement of Raw Materials for Environment and Human Rights, 23 August 2017, www.sony.net/SonyInfo/csr_report/sourcing/materials/index3.html

247. ATL, Due Diligence Working Instruction.

248. Tianjin Lishen, Social Responsibility, en.lishen.com.cn/textContent.aspx?cateid=182&bigcateid=171

249. Global Witness and Amnesty International, *Digging for Transparency*, pp. 11-12.

Until very recently, however, no companies were reporting this sort of information for their cobalt supply chains. As noted above, Apple was the first company to publicly identify all of the cobalt smelters and refiners in its supply chain as of the end of 2016 and included an indication of whether each company had completed Apple's Risk Readiness Assessment and undergone a third-party audit of its due diligence.²⁵⁰ Apple's report did not, however, include any public detail about the countries where these smelters and refiners were sourcing their cobalt or any information about specific human rights abuses that it identified, prevented, or addressed for different cobalt smelters or refiners. Apple is therefore only partially meeting the OECD disclosure requirement.

Samsung SDI has since joined Apple in publishing a list of its 19 cobalt smelters and refiners, though it has acknowledged that it still has a way to go to get a better understanding of those companies' own supply chains and due diligence systems.²⁵¹ Like Apple, Samsung SDI is only partially meeting the OECD disclosure requirement because it does not disclose any specific information about human rights abuses that it has identified, prevented or address for different cobalt smelters or refiners.

Other than these two companies, none of the other companies contacted for this report are publicly reporting annual details of their cobalt smelters and refiners or assessments of the adequacy of their smelters' and refiners' due diligence practices. None are therefore in compliance with international standards for supply chain human rights due diligence.

PUBLIC DISCLOSURE OF SMELTER/REFINER ASSESSMENTS

Companies that use cobalt should report formally, regularly and publicly on the actions taken to

identify, prevent or mitigate human rights risks and address actual harms to be fully in line with international standards. Amnesty International believes that downstream companies are not demonstrating that they are identifying, preventing, and addressing human rights abuses in line with the UN Guiding Principles and OECD Guidance. In addition to publishing the identities of smelters and refiners, it is essential that companies also report on their assessments of the due diligence practices of their smelters and refiners. These should include details of the effectiveness of any systems in place to trace mineral supplies back to their source, map supply chains and identify the conditions of extraction and trading. A crucial element of public reporting should be the disclosure of the actual or potential human rights abuses.

Assessments of the adequacy of cobalt smelter and refiner human rights due diligence practices should not be wholly reliant on third-party audits or certification schemes. As discussed above, audits and certification schemes are tools to assist companies in carrying out due diligence. Audit results may feed into a company's assessment of a supplier's ability to identify and manage risks, but they cannot substitute for due diligence. When audits are performed, the results should be disclosed to enable public verification of whether they are robust enough to hold suppliers accountable.

For its part, Samsung SDI has expressed reluctance about disclosing audit results for its smelters and refiners at this stage of implementation in the cobalt supply chain. In its progress report, it wrote:

"Since the Cobalt industry is still at a very early stage in this due diligence journey, even though we understand the urge of publishing the full audit results, in the spirit of an inclusive approach, we would like to preserve the privacy of our customers as well"

250. Apple Smelter and Refiner List.

251. Samsung SDI, *2016 Progress Report*, p. 20.

as our suppliers, and give everyone the time to understand the complexity of the situation and incorporate our policy requirement accordingly. We envision a day not too far from today where every Cobalt smelter will take pride in seeing its audit records being published.”²⁵²

Amnesty International cannot consider any downstream company to be in basic compliance with international standards until it publicly discloses its assessments of the due diligence practices of smelters and refiners. Both the OECD Guidance and CCCMC Guidelines set forth clear transparency standards requiring downstream companies like Samsung SDI to publicly report on its due diligence policies and practices. Furthermore, the detailed implementation standards that have been developed for 3TG make clear that downstream companies’ reporting should include disclosure of smelters and refiners and assessments of those companies’ due diligence practices, including actions taken in response to potential or identified risks.²⁵³

OVERALL ASSESSMENT

So far, only Apple and Samsung SDI, two of the companies that have gone the furthest in investigating their supply chains, have publicly disclosed the names of their smelters and refiners. Most downstream companies have not made enough progress in investigating their supply chains to publish this sort of information. Even Apple and Samsung SDI, which are showing partial compliance with the relevant transparency standards, have not yet disclosed details of their assessments of their smelters’ and refiners’ due diligence, including specific details of any risks or impacts that were identified.

In communication with Amnesty International prior to publication of this report, Samsung SDI stated:

“We are of the opinion that, at this stage, disclosing assessments of the due diligence practices of one downstream company’s smelters/refiners could be counterproductive and may discourage smelters/refiners to get audited.” The company added, however, that it “would be happy to engage with Amnesty and the rest of the industry [in] an open discussion on this topic, to understand best practices and ways to proceed to encourage smelters to participate”. Amnesty International does not accept this position. Without public disclosure, it is impossible to assess the relevance and effectiveness of a company’s due diligence actions in terms of meeting its responsibility to respect human rights.

Miners climb out of a mine shaft by placing their hands and feet in holes carved out of the sides of the pit shaft. They use a rope attached to a beam stretched over the mouth of the pit as support. Sometimes the rope cuts and miners fall, a miner told researchers, May 2015
 © Amnesty International and Arewatch



252. Samsung SDI, *2016 Progress Report*, p. 20.

253. OECD Guidance, pp. 53, 113.

QUESTION 4: HAS THE COMPANY DISCLOSED INFORMATION ABOUT THE HUMAN RIGHTS RISKS AND ABUSES IN ITS COBALT SUPPLY CHAIN?

Cathode materials manufacturers	Hunan Shanshan Energy Technology Co., Ltd	no action
	L & F Co., Ltd	no action
	Tianjin B & M Science & Technology Joint Stock Co., Ltd	no action
Battery cell manufacturers	Amperex Technology Co., Ltd	minimal
	BYD Co., Ltd	no action
	Coslight Technology International Group	no action
	LG Chem Ltd	minimal
	Samsung SDI Co., Ltd	moderate
	Shenzhen BAK Battery Co., Ltd	no action
	Sony Corp.	minimal
	Tianjin Lishen Battery Joint-Stock Co., Ltd	no action
Computer, communication & consumer electronics companies	Apple Inc.	moderate
	Dell Technologies	minimal
	HP Inc.	minimal
	Huawei Technologies Co., Ltd	minimal
	Lenovo Group Ltd	minimal
	Microsoft Corp.	minimal
	Samsung Electronics Co., Ltd	minimal
	Vodafone Group Plc	minimal
	ZTE Corp.	no action
	BMW Group	minimal
Electric vehicle manufacturers	Daimler AG	minimal
	Fiat-Chrysler Automobiles NV	minimal
	General Motors Co.	minimal
	Renault Group	no action
	Tesla Inc.	minimal
	Volkswagen AG	minimal

QUESTION 5: HAS THE COMPANY TAKEN STEPS TO MITIGATE HUMAN RIGHTS RISKS OR REMEDIATE HARMS RELATED TO ITS COBALT SUPPLY CHAIN?

In the 2016 report, Amnesty International concluded that none of the companies it had contacted were taking steps to identify and prevent human rights abuses related to cobalt. Considering this, it is no surprise that most companies have still not taken steps to mitigate human rights risks or remediate actual harms associated with their cobalt supply chains.

When a company identifies potential risks and negative human rights impacts in its supply chain, it must start to take appropriate actions in response. In March 2017, Amnesty International asked downstream companies to describe steps they may have taken, either individually or in collaboration with others, to address human rights risks and abuses, such as the worst forms of child labour, associated with artisanal cobalt mining. Companies were requested to provide information about specific instances in which they had taken action in response to risks or harms identified in their supply chains.

The goal of effective due diligence measures should be “to prevent [negative] impacts from occurring in the first place, to prevent reoccurrence when they do occur and to mitigate any remaining residual impacts”.²⁵⁴ If a company discovers that it has either caused or contributed to human rights abuses through its business operations, the responsibility to respect human rights requires it to take active part in remediation efforts, either by itself or in cooperation with other actors.²⁵⁵

For this assessment, Amnesty International considered what steps companies were taking to

exercise leverage and shape supplier behaviour. Participation in joint initiatives and general supplier training on relevant issues was considered to be a minimal step in the direction of mitigation. Companies were expected to provide information about actions taken in response to specific risks or harms identified in their supply chains.

COMPANY RESPONSES

Many of the consumer-facing companies in the electronics and automotive industries responded to questions about mitigation and remediation by mentioning that they were taking part in one or more of the joint industry initiatives that have recently emerged, such as the RCI or the RRMI. While it may be useful for companies to join these initiatives, they cannot simply point to their membership of the RCI or the RRMI as evidence that they are addressing risks in their supply chains. As international standards make clear, companies always maintain an individual responsibility to respect human rights in their supply chains.

As discussed above in Chapter 2, industry initiatives can be useful platforms for company collaboration and information sharing, and can assist in developing risk mitigation and remediation strategies. Effective design of mitigation strategies may in fact depend on broad collaborative efforts including business, government authorities and non-governmental actors. However, none of the industry initiatives mentioned earlier in this report make clear what remediation efforts, if any, should be taken if actual harm is found in individual supply chains. As discussed in Chapter 2, inherent weaknesses exist in industry initiatives given their voluntary nature and the general reluctance to expose or penalize participating companies for failing to conduct human rights due diligence in line with international standards.

254. OECD, *Due Diligence Guidance for Responsible Business Conduct* (consultation draft), p. 20.

255. UN Guiding Principles, Principle 22 and commentary.

The recent study of child labour in artisanal cobalt mines in the DRC by the Center for Effective Global Action (CEGA) at the University of California, Berkeley, which was funded by members of the RCUI, is an example of one way that initiatives like these can help to coordinate efforts on common risks.²⁵⁶ Having a better understanding of the root causes of child participation in artisanal mining in the DRC should, in theory, lead to the development of effective, long-term solutions. However, support for collective mitigation measures aimed at child labour may not be adequate to address all of the risks and harms existing in a company's own supply chains. Better transparency about each company's own risk assessment and the actions being taken in response is still needed to ensure that companies' efforts match up with their actual risks.²⁵⁷

When a company identifies potential risks or negative human rights impacts in its supply chain, it should prioritize the most serious risks and try to use its ability to influence the behaviour of relevant suppliers and sub-suppliers – known as leverage – to compel those companies to take the corrective steps needed to prevent or mitigate these risks.

One way that companies exert leverage over their supply chains is through supplier trainings or capacity-building efforts. Several companies reported having taken steps to enhance the capacity of their suppliers to carry out due diligence. Dell said that it had held a training session with its battery suppliers to provide guidance on the company's expectations with respect to supply chain due diligence and that this training "focused specifically on cobalt and emphasized the importance of increasing transparency and collaborating across the industry as we build up the systems needed to conduct audits and reporting".²⁵⁸

General Motors reported that training on sustainability issues, including child labour, was

being provided to direct suppliers through the Automotive Industry Action Group (AIAG),²⁵⁹ but there was no indication that this included any special focus on issues related to the cobalt supply chain. Fiat-Chrysler said that it led the formation of a Cobalt/Mica Working Group within the AIAG to help promote applicable standards to relevant suppliers. BMW said that it holds regular sustainability workshops with its first-tier suppliers during which it discusses "all relevant issues on human rights/social standards and risk management within the supply chain" and that it has taken part in at least one such workshop focused on issues related to cobalt. It is unclear at this stage whether any of these supplier training efforts have actually led to better due diligence over cobalt supply chains.

Leverage over suppliers also takes the form of contractual obligations requiring compliance with a supplier code of conduct, including specific human rights provisions. These obligations often prescribe a set of actions to be taken in cases of non-compliance, up to and including termination of business relationships.

As noted in Chapter 3, companies may respond to supplier risks by either continuing to trade with a supplier while pursuing risk mitigation, temporarily suspending trade pending ongoing risk mitigation, or disengaging with a supplier after failed attempts at mitigation or where risk mitigation is considered unfeasible or unacceptable. The appropriate option depends on the circumstances, including the severity of the impact, but there is a clear expectation that when possible a company will exhaust other options at mitigation before terminating a business relationship.

Apple announced a suspension of ASM cobalt in products procured from Huayou Cobalt after broadcast news reports showed the continued presence of child labour in artisanal mining activity with alleged links to CDM.²⁶⁰ In a letter to Amnesty

256. Faber et al, *Artisanal Mining, Livelihoods, and Child Labor in the Cobalt Supply Chain of the Democratic Republic of Congo*, 6 May 2017, escholarship.org/uc/item/17m9g4wm.

257. Shift et al, *Doing business with respect for human rights: A guidance tool for companies*, 2d ed., 2016, pp. 69-70, www.businessrespecthumanrights.org/image/2016/10/24/business_respect_human_rights_full.pdf.

258. Dell letter to Amnesty International, 3 April 2017.

259. General Motors letter to Amnesty International, 5 April 2017.

260. See Chapter 3.

International, Apple said that it had “requested that such artisanal mined material be appropriately segregated from the rest of the cobalt being supplied to Apple’s supply chain” and that it would accept ASM cobalt in its supply chain “[i]f Huayou Cobalt can establish that its artisanal cobalt is sourced responsibly in accordance with Apple’s rigorous standards and verified by an independent third-party audit”.²⁶¹ As of the date of publication, Apple told Amnesty International that its suspension of ASM cobalt procurement from Huayou Cobalt remained in effect.²⁶²

Amnesty International understands that Apple’s decision came after about a year of continued engagement with Huayou Cobalt on mitigation efforts after the publication of the 2016 report, both bilaterally and through organizations like the RCI.²⁶³ Because Apple has not made public details of its “concerns surrounding [Huayou Cobalt’s] ability to ensure responsible sourcing practices”²⁶⁴ or any audits aimed at monitoring those concerns, Amnesty International cannot evaluate whether its continued suspension is justified. In any case, Apple’s suspension of ASM cobalt or discontinuation of this trade with Huayou Cobalt does not alter its responsibility to take corrective measures if it has benefitted from actual harm in its supply chain.

Volkswagen reported that it had carried out interview-based risk assessments with five battery cell suppliers in 2016 in order to “understand the companies’ CSR [Corporate Social Responsibility] strategies and Due Diligence concepts with regard to their Cobalt, Lithium, Nickel and Graphite sourcing”.²⁶⁵ The company said that investigations by its battery suppliers led to “temporary suspension

of purchases in some supply chains until further due diligence efforts have been put in place”.²⁶⁶ Since Volkswagen has not disclosed the nature or location of the identified risks, the companies involved or even whether the suspended purchases involved cobalt, it is impossible for Amnesty International to evaluate if appropriate risk mitigation has been undertaken.

Very few downstream companies contacted for this report could point to actions being taken to address specific human rights risks and abuses identified in their cobalt supply chains. As noted earlier, the companies funding the CEGA research in the DRC all articulated a hope that its data and other findings could be used to design targeted and effective mitigation and remediation efforts for child labour. This research is still ongoing, however, and it is too soon to assess its impact on any particular programmes that may have been initiated on the ground.

In response to Amnesty International’s question about remediation of actual human rights impacts in its supply chain, Microsoft reported that it had provided financial support for NGO-led projects targeting child labour and the problems of ASM involving other minerals and areas of the DRC, but it is unclear what impact, if any, these projects will have on the artisanal cobalt sector.²⁶⁷

Apple reported that it had provided funding to organizations working on projects to end child labour and other human rights abuses associated with mining in the southern DRC copper belt. In response to Amnesty International’s request, the company said it would publicly report on the results of these programmes “as they become available”.²⁶⁸ Regular

261. Apple letter to Amnesty International, 28 April 2017.

262. Apple email to Amnesty International, 6 September 2017.

263. For example, Huayou Cobalt said that it had engaged with Apple “to gain a better understanding of the processes and actions required to develop a responsible supply chain” (Huayou Cobalt letter to Amnesty International, 4 August 2016) and played a role in supporting a capacity-building project for CDM’s ASM suppliers in the DRC (Huayou Cobalt letter to Amnesty International, 27 March 2017).

264. Apple letter to Amnesty International, 28 April 2017.

265. Volkswagen letter to Amnesty International, 7 April 2017.

266. Volkswagen letter to Amnesty International, 7 April 2017.

267. Microsoft letter to Amnesty International, 31 March 2017.

268. Apple letter to Amnesty International, 28 April 2017.

public reporting on such projects is an essential part of how companies account for their actions to remedy negative human rights impacts.

Without further details of specific efforts made by Apple to address instances of child labour or other human rights abuses found to exist in its cobalt supply chain, Amnesty International cannot give Apple a full rating in this category.

OVERALL ASSESSMENT

In line with international standards, companies have a responsibility to mitigate and take corrective measures for harm suffered because of their failure to respect human rights at any point during their operations. Simply discontinuing a trading relationship with a supplier or embagoing DRC cobalt once human rights risks have been identified in the supply chain does not fulfil this requirement. If human rights abuses have occurred at any point in the supply chain, the company must, in cooperation with other relevant actors, such as its suppliers and national authorities, take action to remediate the harm suffered by the people affected.

Amnesty International was unable to give any company a full rating of “adequate” for risk mitigation and remediation of harm. Many of the companies have responded to concerns about human rights impacts connected to cobalt by joining one of the initiatives that have recently been established. However, given the likelihood that cobalt mined by children and adults either is or has entered their supply chains in the past, more targeted action is required in line with international standards.

With respect to risk mitigation, some companies gave specific details of how they had used various forms of leverage to try to change supplier behaviour and increase capacity to perform due diligence. But since most of the companies contacted for this report had not yet gotten very far in the supply chain investigation and risk-identification process, few were in a position to address specific risks or harms in their supply chains.

Where companies have begun using the risk assessment process to try to prevent their supply chains from involvement with serious human rights abuses like child labour, they must not ignore questions of how their business activities may have caused or contributed to those same abuses in the past.



*Women and children washing mineral ore,
March 2017*
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QUESTION 5: HAS THE COMPANY TAKEN STEPS TO MITIGATE HUMAN RIGHTS RISKS OR REMEDIATE HARMS RELATED TO ITS COBALT SUPPLY CHAIN?

Cathode materials manufacturers	Hunan Shanshan Energy Technology Co., Ltd	minimal
	L & F Co., Ltd	minimal
	Tianjin B & M Science & Technology Joint Stock Co., Ltd	minimal
Battery cell manufacturers	Amperex Technology Co., Ltd	no action
	BYD Co., Ltd	no action
	Coslight Technology International Group	no action
	LG Chem Ltd	minimal
	Samsung SDI Co., Ltd	moderate
	Shenzhen BAK Battery Co., Ltd	no action
	Sony Corp.	minimal
	Tianjin Lishen Battery Joint-Stock Co., Ltd	minimal
Computer, communication & consumer electronics companies	Apple Inc.	moderate
	Dell Technologies	moderate
	HP Inc.	minimal
	Huawei Technologies Co., Ltd	minimal
	Lenovo Group Ltd	minimal
	Microsoft Corp.	minimal
	Samsung Electronics Co., Ltd	minimal
	Vodafone Group Plc	no action
	ZTE Corp.	no action
	BMW Group	moderate
Electric vehicle manufacturers	Daimler AG	minimal
	Fiat-Chrysler Automobiles NV	moderate
	General Motors Co.	minimal
	Renault Group	minimal
	Tesla Inc.	moderate
	Volkswagen AG	moderate

OVERALL CONCLUSIONS: DOWNSTREAM COMPANIES' COBALT SUPPLY CHAIN DUE DILIGENCE PRACTICES

According to prevailing international standards, companies that use DRC cobalt in their products should be sourcing that mineral responsibly. Therefore, they should be aware of, and address, the risks associated with its extraction and trading. Many red flags exist in relation to cobalt extraction in the DRC. More than half of the world's cobalt is mined there in high-risk areas. The fact that children work in these artisanal mining areas – and the hazardous conditions under which people are extracting cobalt more generally – have been reported for years.²⁶⁹

In January 2016 – despite existing evidence and knowledge of clear risks associated with cobalt mining in the DRC – not one of the 26 companies mentioned in *This is What We Die For* had carried out human rights due diligence over its cobalt supply chain. In fact, very few downstream companies that were purchasing cobalt, or products containing cobalt, were taking steps to meet even the most basic due diligence requirements.

In contrast to companies' deafening silence on these issues in the past, more are now willing to admit at a general level that there are serious human rights problems associated with cobalt. In large part, this is a function of how much is riding on the "clean energy revolution" and the ubiquity of technologies powered by lithium-ion batteries. The companies behind mobile communications or electric vehicles want to be associated with green and sustainable solutions to urgent problems like pollution and climate change, not with child labour in one of the most impoverished parts of the world.

AGGREGATE ASSESSMENT OF COMPANY PERFORMANCE

Despite this progress, there is still huge room for improvement.

Amnesty International's aggregate assessment of actions reported by the downstream companies surveyed for this report shows that almost half (43%) are failing to demonstrate even a "minimal" degree of compliance with international due diligence standards. This includes nearly half of the cathode-materials producers and battery-cell manufacturers surveyed. It also includes some of the world's leading technology brands, such as Microsoft and Huawei, as well as automaker Renault. These companies have "empty batteries" – they received zero bars for their efforts.

A third of the downstream companies surveyed were doing slightly better – showing "minimal" demonstration of cobalt supply chain due diligence. These companies typically may have begun looking into whether cobalt from the DRC is entering their supply chain, but they have still not identified all of their smelters and refiners or shown that they are conducting robust risk assessments. Few of these companies have adopted policies that explicitly recognize cobalt as a material requiring human rights due diligence.

Seven of 28 downstream companies named in this report are demonstrating either "moderate" or "adequate" compliance with international due diligence standards. BMW, Dell, HP and LG Chem have all made improvements to their systems for identifying and addressing risks related to the cobalt in their supply chains. Tesla has some of the components of a robust human rights due diligence system for cobalt. But all of these companies still need to do more in terms of disclosing the identities of smelters and refiners and associated risks and abuses.

²⁶⁹ For example, O. Guerin, Orla, *DR Congo's child miner shame*, BBC News, 12 June 2006, news.bbc.co.uk/1/hi/5071172.stm.

The best performing companies overall have been Apple and Samsung SDI, which showed “adequate” demonstration in three of the five categories assessed by Amnesty International. Both performed well in terms of policies and supply chain investigation practices, but fell short in terms of disclosure of human rights risks and abuses in their cobalt supply chains.

The overwhelming majority of companies are failing to show any specific evidence of having taken steps to mitigate risks or remedy harms identified in their own supply chains.

SECTOR SPECIFIC FINDINGS:

All of the downstream companies contacted for this report can be divided into four sectors along the cobalt supply chain: consumer-facing computer and electronics, consumer-facing automotive, battery cell manufacturers and manufacturers of cathode materials.

The consumer-facing computer and electronics sector performed the best. Amnesty International found these companies have generally made a commitment to improve human rights due diligence in their cobalt supply chains. Few companies have, however, shown that they have identified their cobalt smelters or refiners in line with the OECD Guidance. Of the nine companies in this sector, most reported membership in one or more voluntary industry initiative, which demonstrates minimal commitment. Disclosure of specific human rights risks and abuses identified in supply chains is weak across the board, as is demonstration of specific mitigation and remediation efforts.

Amnesty International found that, as a group, companies in the consumer-facing automotive sector were lagging behind their counterparts in the computer and electronics sector. Of the eight companies in this sector, only one had made explicit reference to cobalt as a material requiring OECD-level due diligence. This is despite the OECD itself issuing a clarification in 2016 that the OECD Guidance applies to cobalt. None of these companies

are disclosing the identities of their cobalt smelters or refiners, as required under international standards. Though many companies have joined voluntary industry-led initiatives to address human rights risks associated with cobalt and other raw materials, none is currently disclosing specific human rights risks or abuses identified in their supply chains. In light of the amount of cobalt the companies in this sector consume and are expected to consume in the next years as the demand for electric vehicles grows, much more action is urgently needed.

Of the eight battery cell manufactures, only two showed more than nominal progress in developing effective human rights due diligence policies and practices for cobalt. LG Chem and Samsung SDI demonstrated steps to improve their performance. Initially, they focused on certificates of origin to confirm if Huayou Cobalt had supplied them with DRC cobalt. Samsung SDI subsequently acknowledged these are insufficient.

Amnesty International found that the companies producing cobalt-containing cathode materials for lithium-ion batteries performed relatively poorly in their performance of supply chain human rights due diligence, despite knowledge that cobalt mined by children and adults in hazardous conditions is likely entering their supply chains. Overall, these companies are still failing to demonstrate respect for human rights.

On the whole, manufacturers of rechargeable batteries and battery components have not shown the same commitment to undertake human rights due diligence as companies further downstream. The number and quality of responses to Amnesty International’s requests for information dropped significantly among these companies as compared to those with consumer-facing business. These companies in the middle and upper segments of the cobalt supply chain must no longer be allowed to benefit from their relative invisibility to the public. Much more transparency and accountability should be expected from them by both their downstream customers and the states in which they are headquartered.

TRENDS AMONG DOWNSTREAM COMPANIES

The absence of “accounting” for the human rights risks and abuses in corporate operations continues to be very problematic. Without public disclosure, it is impossible to assess the relevance and effectiveness of a company’s due diligence actions in terms of meeting its responsibility to respect human rights. Their batteries are not yet “fully charged.” Apple is the only company that disclosed that human rights risks existed in its supply chain involving artisanal cobalt from Huayou Cobalt. This was largely in response to Amnesty International’s 2016 report. Yet even Apple has not made any other information about human rights risks or abuses linked to its other cobalt supply chains public.

Amnesty International found that too many companies continue to rely on certificates of origin as proof that cobalt is not sourced from the DRC without conducting other checks. Certificates of origin do not provide a full picture of the human rights risks or abuses associated with cobalt in processed materials. Also, as discussed earlier, Samsung SDI has acknowledged there is a risk that certificates of origin may be falsified. Many companies are still hiding behind voluntary industry initiatives when it comes to meeting their responsibility to respect human rights. Companies may find it helpful to participate in these initiatives

in order to maximize resources, tools and leverage. Nevertheless, they always maintain an individual responsibility to identify, prevent, address and account for human rights abuses in their cobalt supply chains under international standards.

Many companies implied or stated that they face fewer or no risks of contributing to, or benefiting from, human rights abuses because they source only from LSM operations. This position is overly simplistic. Human rights risks and abuses can be linked to all cobalt mining operations, and a company’s responsibility to respect human rights exists in all situations. Despite making blanket statements, companies failed to provide proof in their responses that they made efforts to verify representations by large scale smelters that they do not buy a portion of their cobalt from artisanal sources. This type of information should be publicly disclosed.

No company has explicitly recognised any human rights abuses within their current or past cobalt supply chain operations. As a result, they provided no information as to how they are addressing any actual abuses. Where a company has contributed to, or benefited from, child labour or adults working in hazardous conditions, it continues to have a responsibility to remediate this harm.

OVERALL COMPANY RATINGS

Company		Aggregate rating	1. Has the company investigated its supply links to the DRC and huayou cobalt?	2. Does the company have robust policies and systems in place for detecting human rights risks and abuses in its cobalt supply chain?	3. Has the company taken action to identify “choke points” and identify human rights risks and abuses?	4. Has the company disclosed information about the human rights risks and abuses in its cobalt supply chain?	5. Has the company taken steps to mitigate human rights risks or remediate harms related to its cobalt supply chain?
CATHODE MATERIALS MANUFACTURERS	Hunan Shanshan Energy Technology Co., Ltd		Minimal	Moderate	Minimal	No action	Minimal
	L & F Co., Ltd		Minimal	No action	Minimal	No action	Minimal
	Tianjin B & M Science & Technolgy Joint Stock Co., Ltd		No action	No action	No action	No action	Minimal
BATTERY CELL MANUFACTURERS	Amperex Technology Co., Ltd		Minimal	Moderate	No action	Minimal	No action
	BYD Co., Ltd		No action	Minimal	No action	No action	No action
	Coslight Technology International Group		No action	No action	No action	No action	No action
	LG Chem Ltd		Adequate	Moderate	Minimal	Minimal	Minimal
	Samsung SDI Co., Ltd		Adequate	Adequate	Adequate	Moderate	Moderate
	Shenzhen BAK Battery		No action	No action	No action	No action	No action
	Sony Corp.		Minimal	Minimal	Minimal	Minimal	Minimal
	Tianjin Lishen Battery Joint-Stock Co., Ltd		Moderate	Minimal	Minimal	No action	Minimal
COMPUTER, COMMUNICATION & CONSUMER ELECTRONICS COMPANIES	Apple Inc.		Adequate	Adequate	Adequate	Moderate	Moderate
	Dell Technologies		Moderate	Adequate	Moderate	Minimal	Moderate
	HP Inc.		Adequate	Moderate	Moderate	Minimal	Minimal
	Huawei Technologies Co., Ltd		No action	Minimal	No action	Minimal	Minimal
	Lenovo Group Ltd		Minimal	Minimal	No action	Minimal	Minimal
	Microsoft Corp.		Minimal	Minimal	No action	Minimal	Minimal
	Samsung Electronics Co., Ltd		Minimal	Minimal	Moderate	Minimal	Minimal
	Vodafone Group Plc		Minimal	Minimal	Minimal	Minimal	No action
	ZTE Corp.		Minimal	Minimal	Minimal	No action	No action
	BMW Group		Adequate	Moderate	Moderate	Minimal	Moderate
ELECTRIC VEHICLE MANUFACTURERS	Daimler AG		Minimal	Minimal	Minimal	Minimal	Minimal
	Fiat-Chrysler Automobiles NV		Minimal	Minimal	Minimal	Minimal	Moderate
	General Motors Co.		Minimal	Minimal	Moderate	Minimal	Minimal
	Renault Group		Minimal	Minimal	No action	No action	Minimal
	Tesla Inc.		Adequate	Minimal	Moderate	Minimal	Moderate
	Volkswagen AG		Minimal	Minimal	Moderate	Minimal	Moderate



An artisanal miner sorts cobalt ore on the shore of Lake Malo, Kapata, on the outskirts of Kolwezi, DRC. Despite the health risks of exposure to cobalt the miner is not wearing a facemask, gloves or any protective clothing. May 2015

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CONCLUSION AND RECOMMENDATIONS

"We want to ensure that everyone benefits from the growing demand for alternative energy. It is vital that future energy supplies include ethically sourced storage solutions. Unfortunately, there is almost a 100% chance that your smartphone or electric vehicle contains cobalt that comes from child workers in artisanal mines."

– Benedikt Sobotka, CEO, Eurasian Resources Group²⁷⁰

State action is urgently needed. The DRC government has an obligation to protect people from abuses of their rights to land at work and health by putting in place and enforcing adequate safeguards for artisanal miners working in unauthorized areas. The DRC government's renewed commitment to eliminating child labour in the mining sector

by 2025 is an encouraging development. If the government follows through on this commitment to protect the rights of Congolese children and takes the necessary actions to regulate and monitor the ASM sector, protect children from the worst forms of child labour and ensure that they have access to free and compulsory education, it will bring significant improvements to the lives of future generations.

While there is an urgent need to eradicate child labour, the DRC must not lose sight of its obligations to protect adult miners from human rights abuses as well. Strengthening and enforcing laws and regulations covering the ASM sector must be a priority, with the creation of new ZEAs and stronger inspection and monitoring. However, the government must also take steps to prevent and address human rights abuses associated with large-scale industrial mining.

Other states, such as UK, Korea and China, should play a more meaningful role by legally requiring greater transparency of human rights risks and abuses in cobalt supply chain practices. Under

270. World Economic Forum, "Major Push to End the Hidden Human Toll and Pollution behind Smartphone and Electric Car Batteries", 19 September 2017, www.weforum.org/press/2017/09/major-push-to-end-the-hidden-human-toll-and-pollution-behind-smartphone-and-electric-car-batteries

international human rights law, all states have a duty to protect against human rights abuses by all actors, including businesses throughout their global operations. This includes enacting and enforcing laws requiring corporate due diligence and public disclosure in relation to cobalt and other minerals from conflict-affected and high-risk areas.

Almost two years after Amnesty International first revealed the scale of the problem, none of the 29 companies named in this report are carrying out human rights due diligence on their cobalt supply chains in line with international standards. This is despite knowledge that human rights risks and abuses are intrinsically linked to cobalt mining in the DRC.

Huayou Cobalt, the company at the centre of *This is What We Die For*, has acknowledged the need to improve its ASM cobalt sourcing practices so that these comply with international standards. This is significant. Huayou Cobalt has adopted new supplier due diligence policies and taken initial steps towards more responsible sourcing of ASM cobalt by CDM. It has stated it is willing to seek solutions to identified human rights issues in its supply chain, rather than simply carrying on business as usual. While serious concerns continue to exist in its supply chain, this is a starting point.

Other cobalt smelters in the DRC or refiners sourcing from the DRC need to follow suit in order for actual human rights abuses on the ground to stop.

More companies based in China need to commit to responsible cobalt sourcing. The role of the CCCMC in promoting due diligence standards and helping to coordinate the RCI has been positive, but Chinese companies have been slow to respond to risks in the cobalt supply chain. Chinese companies occupy

a dominant position among cobalt smelters and refiners (including several with mining and smelting operations in the DRC) as well as at other mid-stream manufacturing levels of the rechargeable battery value chain. Therefore, if these companies do not begin carrying out due diligence in line with international standards, they could undermine efforts already being taken to establish a viable market for more responsibly sourced cobalt. The active involvement of Chinese companies in supply chain due diligence over cobalt is critical considering that Chinese battery producers are gearing up to supply the expected boom in Chinese-manufactured electric vehicles in the decades to come.

There is clearly a global consensus among governments, business and civil society that transparent corporate human rights due diligence is an essential element in preventing human rights abuses in the mineral trade.

Now is the right time to act. In recent months, more governments, primarily in Europe and Asia, have announced plans to ban sales of vehicles powered by petrol or diesel engines or set sales targets for electric vehicles.²⁷¹ These government policies are promising in terms of addressing climate change, but they ignore the wider human rights picture. Governments must now go beyond policy statements and require companies to act responsibly by producing ethical batteries not associated with human rights abuses or environmental harm. This is not just a question of cobalt. Recent research has shown that the mining of other raw materials that are used in batteries, as well as the production of batteries, can have negative human rights and environmental impacts.²⁷² The goal must be to develop not only an ethical cobalt supply chain but also ethical batteries to power the “clean energy revolution”.

271. These countries include Austria, China, Denmark, France, Germany, India, Ireland, Japan, the Netherlands, Norway, Portugal, South Korea, Spain and the UK. See A. Petroff, “These countries want to ditch gas and diesel cars”, CNN Money, 26 July 2017, money.cnn.com/2017/07/26/autos/countries-that-are-banning-gas-cars-for-electric/index.html

272. See for example, Friends of the Earth Europe, “Lithium Factsheet,” 2013, https://www.foeeurope.org/sites/default/files/publications/13_factsheet-lithium-gb.pdf.

TIME TO RECHARGE

In line with international standards, companies have an independent responsibility to respect human rights. Corporate due diligence alone is not the entire solution to human rights abuses found in Congolese cobalt supply chains. But companies that are not performing due diligence in line with international standards risk contributing to, and benefitting from, these abuses. With demand for rechargeable batteries expected to rise in years to come, there will be growing pressure to tap into as much of the DRC's rich cobalt supply as possible. This underscores the need for companies to improve their human rights due diligence practices for cobalt as well as other minerals used to make these batteries.

While risks such as child labour are most acute in the ASM sector, companies are not exempt from supply chain due diligence simply because they claim to get cobalt exclusively from industrial mines, either in the DRC or elsewhere. Human rights risks and abuses can be linked to all cobalt mining operations, including the LSM sector, as research by Amnesty International has shown.²⁷³ Instead of abandoning ASM cobalt for "safer" sources of the mineral, companies that have been using ASM cobalt up to now should be using their leverage over suppliers to ensure that ASM cobalt is mined safely and responsibly. Where conditions of artisanal mining cannot be improved, all companies sourcing from the DRC, along with the DRC government, should support the transition of miners to fair alternative livelihoods.

If the risks are clear, so are the available practical solutions. There is no excuse for continued disregard for international standards. It is time for companies to recharge their batteries, respect human rights and demonstrate publicly that they are sourcing cobalt responsibly.

RECOMMENDATIONS TO THE GOVERNMENT OF THE DEMOCRATIC REPUBLIC OF THE CONGO (DRC)

ALL MINISTRIES MENTIONED BELOW SHOULD:

- Follow through on the public commitment made at the meeting in Kinshasa in August 2017 to implement all of Amnesty International's recommendations made in the 2016 report. This should include creating an inter-departmental working group in which members have clearly designated responsibilities and developing a timeline for implementation which is publicly available by mid-2018.
- Follow through on the public commitment made at the meeting in Kinshasa in August 2017 to end child labour by 2025. The Ministry of Mines, as the leading department, should act in coordination with other government agencies (referenced below), specialized international agencies, donor governments and international and national NGO experts, to develop and make public by mid-2018 a comprehensive operational plan with a clear implementation strategy, including:
 - Establishing sub-objectives with clear deadlines and responsibilities designated to relevant individuals;
 - Conducting a baseline study to establish the extent as well as root causes and drivers for the prevalence of child labour in the mineral sector;
 - Prioritizing the appropriate remediation of child miners;
 - Creating a robust and permanent system to monitor the presence and well-being of children in mining areas on an ongoing basis; and
 - Advancing joint action with relevant government

²⁷³ Amnesty International, *Open for Business?: Corporate Crime and Abuses at Myanmar Copper Mine* (Index: ASA 16/003/2015); Amnesty International, *Bulldozed: How a Mining Company Buried the Truth About Forced Evictions in the Democratic Republic of the Congo* (Index: AFR 62/003/2014); Amnesty International, *Mining and Human Rights in Senegal: Closing the Gaps in Protection* (Index: AFR 49/002/2014); and Amnesty International, *Profits and Loss: Mining and Human Rights in Katanga, Democratic Republic of the Congo* (Index: AFR 62/001/2013).

departments to improve child protection and social welfare issues, and provide free access to education and vocational training for children under the age of 18.

THE MINISTRY OF MINES SHOULD:

- Create new authorized artisanal zones (*Zones d'exploitation artisanale* or ZEAs) in accessible and productive mine sites. Through SAESSCAM (Service d'Assistance et d'Encadrement du Small Scale Mining), support the formalization of mining activities and the creation of miners' co-operatives.
- Regularize unauthorized mining areas where this is possible, taking into account safety and policy considerations. Where this is not possible, support artisanal miners in moving to other authorized sites and help create alternative employment options.
- Provide all artisanal miners, including those in unauthorized mining areas, with safety equipment, such as boots, protective headgear and appropriate face masks.
- As a matter of priority, provide technical support and health and safety training, through SAESSCAM, to artisanal miners in unauthorized mining areas.
- Ensure that SAESSCAM has the mandate and sufficient resources to provide technical and other support to all artisanal miners, including those working in unauthorized mining areas.
- Revise Note Circulaire no 002/CAB.Min/Mines/01/2011 to include cobalt in the list of designated minerals for which corporate due diligence is legally required.

THE MINISTRY OF LABOUR SHOULD

- Remove children from artisanal mining and, in cooperation with the Ministry of Mining, Ministry of Gender, Women and Children and Ministry of Education, put in place measures to address children's health, physical, educational, economic and psychological needs. Ensure that reintegration activities are aligned with income-generating opportunities available within the community.

- Ensure that the labour inspectorate has sufficient resources and training to monitor and enforce labour laws in artisanal mining areas and to address the worst forms of child labour.
- Systematically collect, monitor and make available information on child labour complaints as well as the types and numbers of inspections conducted, citations issued, prosecutions undertaken, and penalties applied in relation to child labour violations.
- In cooperation with the Ministry of Health, put in place health monitoring and treatment services for artisanal miners to assess and treat occupational diseases.

THE MINISTRY OF EDUCATION SHOULD:

- Remove financial and other barriers to accessing primary education and provide for free and compulsory education, as decreed by President Joseph Kabila in 2010.
- Reintegrate into the school system children whose education has been disrupted because of their involvement in artisanal mining.

THE MINISTRY OF JUSTICE SHOULD:

- Investigate reports that officials are extorting illegal payments from artisanal miners. Those suspected of having perpetrated offences must be prosecuted according to international fair trial standards and preventative measures must be put in place to avoid any recurrences.

PARLIAMENT AND THE PRIME MINISTER SHOULD:

- Revise the age for compulsory education to 16 years to be equivalent to the minimum age for employment.
- Amend/revise the Mining Code and Regulations to include adequate labour and safety standards which are applicable to all artisanal miners.
- Revise the Mining Code to include requirements on all buying houses to conduct human rights due diligence on cobalt and other minerals that

they buy from artisanal miners and to refer artisanal miners to SAESCCAM for support where they encounter poor working conditions.

- Implement in full and adequately resource the National Action Plan to Combat the Worst Forms of Child Labour.
- Ratify ILO Convention No. 155 on Occupational Safety and Health, 1981; ILO Convention No. 176 on Safety and Health in Mines, 1995; and the African Charter on the Rights and Welfare of the Child.
- Seek international assistance and cooperation, including technical cooperation, as necessary, to implement these recommendations.

FOR THE GOVERNMENT OF LUALABA PROVINCE TO

- Initiate a process of genuine consultation on the timing for evictions, conditions of resettlement, compensation and other mitigation measures to address resulting harms with individuals and families living in Kasulo and other areas potentially designated as Type 2 Mines by Huayou Cobalt/CDM prior to any evictions occurring.

RECOMMENDATIONS TO THE GOVERNMENT OF THE PEOPLE'S REPUBLIC OF CHINA:

THE GENERAL ADMINISTRATION OF QUALITY SUPERVISION INSPECTION AND QUARANTINE OF THE PEOPLE'S REPUBLIC OF CHINA (AQSIQ) SHOULD:

- Add cobalt to the scope of any proposed regulation placing mandatory human rights due diligence obligations on Chinese mineral importers, exporters, smelters and refiners and ensure that those obligations are in line with the OECD Guidance.

THE MINISTRY OF COMMERCE OF THE PEOPLE'S REPUBLIC OF CHINA SHOULD:

- Identify all Chinese companies with cobalt-smelting operations in the DRC and initiate a review of all of their supply chain due diligence processes with a view to assessing whether they are adequate for identifying, preventing, and mitigating human rights risks.
- With respect to the Measures for the Administration of Overseas Investment:
 - Amend Article 20 to add "respect human rights throughout all business operations" to the list of company obligations.
 - Enact policies with reference to Article 24 requiring companies that extract, process, trade, transport, or use mineral products from conflict-affected or high-risk areas to disclose the steps being taken to manage and mitigate human rights risks in their business operations.

THE STANDING COMMITTEE OF THE NATIONAL PEOPLE'S CONGRESS SHOULD:

- Amend Article 5, Paragraph 1 of the Company Law of the People's Republic of China to add "respect human rights throughout all business operations" in relation to the statutory obligations for Chinese companies.

THE CHINESE CHAMBER OF COMMERCE OF METALS MINERALS & CHEMICALS IMPORTERS & EXPORTERS SHOULD:

- Call on Chinese companies, in addition to Huayou Cobalt, to put in place processes for conducting supply chain due diligence following the five-step process set out in the OECD Guidance and CCCMC Guidelines and to report publicly on the steps taken by each company to manage and mitigate human rights risks in its business operations.
- Publish a list of all Chinese-owned companies either smelting cobalt in the DRC or importing

cobalt from the DRC for further refining and call on these companies to report publicly on their human rights due diligence in line with the CCCMC Guidelines.

- Work with companies, audit experts, and NGOs to formulate audit protocols and standards for cobalt and other mineral resources beyond tin, tantalum, tungsten and gold.

list of minerals requiring mandatory human rights due diligence in line with the OECD Guidance.

- Call on member states to legally require companies to conduct human rights due diligence on their mineral supply chains and report publicly on their due diligence policies and practices, in accordance with international standards.

RECOMMENDATIONS TO OTHER HOME STATES (COUNTRIES WHERE MULTINATIONAL COMPANIES THAT TRADE IN OR PURCHASE COBALT ARE HEADQUARTERED)

- Legally require companies to conduct human rights due diligence on their mineral supply chains and report publicly on their due diligence policies and practices in accordance with international standards.
- Provide international cooperation and assistance to the government of the DRC to support its efforts to extend labour protections to all artisanal miners and remove children from the worst forms of child labour.
- Ensure that all national policies promoting electric vehicle use also require that the rechargeable batteries used are ethically mined, manufactured and recycled.

RECOMMENDATIONS TO THE OECD

- Develop a mechanism and accompanying tools under which adhering states are required to formally report and are assessed, on a rotating three-year basis, on measures taken to ensure that the OECD Guidance is being implemented by companies operating in or from their jurisdiction.
- Call on states to legally require companies to conduct human rights due diligence on their mineral supply chains, and report publicly on their due diligence policies and practices, in accordance with international standards.
- Encourage AQSIQ to add cobalt to the scope of any proposed regulation placing mandatory due diligence obligations on Chinese mineral importers, exporters, smelters and refiners and ensure that those obligations are fully in line with the OECD.

RECOMMENDATIONS TO THE INTERNATIONAL CONFERENCE ON THE GREAT LAKES REGION (ICGLR)

- Call on member states, including the DRC, to legally require companies to add cobalt to the

RECOMMENDATIONS TO OECD MEMBER AND ADHERING STATES

- Improve efforts to promote the implementation of the OECD Guidance by:
 - Taking effective steps to ensure that companies operating in or from their jurisdiction are identifying, preventing, addressing and accounting for – at a minimum – all of the risks outlined in Annex

- II of the OECD Guidance (Model Supply Chain Policy);
- Regularly, reliably and publicly reporting to the OECD on state efforts to promote and monitor its implementation by companies operating in or from their jurisdictions;
- Nominating a body within government that is responsible for overseeing, regularly assessing and promoting observance of the OECD Guidance. This body should also identify and maintain a list of companies operating in or from the state's jurisdiction and that fall within the scope of the OECD Guidance.

RECOMMENDATIONS TO COMPANIES

ALL COMPANIES TRADING IN COBALT SHOULD:

- Conduct supply chain due diligence for cobalt and other minerals and publicly disclose their due diligence policies and practices in accordance with international standards, including how human rights risks are identified, prevented and addressed in global operations.
- Reject the use of certificates of origin as sole proof of origin for the purposes of determining whether enhanced risk assessment is required as part of human rights due diligence for cobalt or other minerals.
- Take remedial action, in cooperation with other relevant actors, if human rights abuses have occurred at any point in a supply chain relationship. Revise due diligence and other policies to clarify what corrective measures will be taken by the company if human rights abuses exist at the point of extraction, in the mining areas themselves and at other points in the supply chain (including but not limited to the factories of suppliers).
- Take action to develop rechargeable batteries that are ethically mined, manufactured and recycled.

HUAYOU COBALT SHOULD:

- Scale up action – in cooperation with national authorities, international agencies and civil society – to remediate the harms suffered by adult and child artisanal miners from whom the company has been sourcing cobalt. This includes developing and implementing a plan to remove children from the worst forms of child labour, support children's reintegration into the school system and address children's health, physical, educational, economic and psychological needs.
- Address human rights risks throughout its business operations, with particular focus on the elimination of human rights abuses in the cobalt supply chain of its wholly owned subsidiary, Congo Dongfang International Mining SARL (CDM).
- Continue to conduct/expand supply chain due diligence efforts for cobalt and other minerals and publicly disclose bi-annually steps taken to identify and address all human rights risks and abuses in accordance with international standards, including in relation to Type 1 and Type 2 artisanal mines, as well as its LSM Congolese cobalt suppliers.
- Publish quarterly updates disclosing details of its cobalt supply chain due diligence, providing chain of custody or traceability information (including the names and locations of traders and all locations of mineral extraction) or all minerals used by CDM and detailed assessments, mitigation plans and audits carried out in relation to CDM.
- Publicly disclose actions taken in connection with the formalization of "Type 2" ASM mine sites like the one at Kasulo, including details of any negotiations, payments and risk assessments.
- Through CDM, work along with government authorities to prevent any forced evictions and immediately engage in a process of genuine consultation with people who may be affected by any relocation about the timing of evictions, resettlement, compensation and other mitigation measures to address resulting harms.

ALL COMPANIES THAT REFINE OR RE-PROCESS COBALT OUTSIDE THE DRC SHOULD:

- Identify smelters, mineral concentrators or other entities responsible for exporting cobalt materials from the DRC and contractually require them to provide detailed chain of custody or traceability information identifying all mine sites, transport routes and intermediate traders or processors for each shipment of material in line with the OECD Guidance.
- Make all of the above information available on a disaggregated basis to downstream purchasers, auditors or other institutions authorized to collect such information and report annually on supply chain due diligence actions taken, including specific details of any human rights risks or abuses identified and details of any audits carried out.

DOWNSTREAM COMPANIES IN HUAYOU COBALT'S COBALT SUPPLY CHAIN SHOULD:

- Conduct supply chain due diligence for cobalt and other minerals and publicly disclose their due diligence policies and practices in accordance with international standards, including the identity of smelters (ASM and LSM) in their supply chain and their actual or potential associated human rights risks.
- Take action, in cooperation with other relevant actors, such as its smelters and national authorities, to remediate the harm suffered by people whose human rights have been abused at any point in the supply chain. This includes ensuring that a plan is put in place and implemented to remove children from the worst forms of child labour, support children's reintegration into the school system and address children's health, physical, educational, economic and psychological needs.

ANNEX 1

COBALT INDICATORS FOR DOWNSTREAM COMPANIES	
1. Has the company investigated its supply links to the DRC and Huayou Cobalt?	
<i>Company has sought affirmations about cobalt sourcing from its suppliers</i>	
<i>Company has sought relevant documentation (e.g. certificates of origin or other trade documents) from suppliers</i>	
<i>Company has carried out additional checks (e.g. on-site inspections, audits) to verify documentation provided by suppliers regarding sourcing relationships</i>	
2. Does the company have robust policies and systems in place for detecting human rights risks and abuses in its cobalt supply chain?	
<i>Company has a general conflict minerals, supply chain or human rights policies with minimal reference to international standards but unclear application for cobalt</i>	
<i>Company has policies with explicit reference to cobalt and compatibility with the OECD Guidance model supply chain policy</i>	
<i>Company indicates how the effectiveness of its policy is measured, who is responsible for implementation and who in the company's management is ultimately responsible for oversight and accountability</i>	
3. Has the company taken action to identify “choke points” and associated human rights risks and abuses?	
<i>Company has made inquiries to direct suppliers about their sourcing relationships</i>	
<i>Company has identified its smelters/refiners and begun to review initial factual information needed to identify risks</i>	
<i>Company has carried out reviews of the due diligence policies and practices of its smelters/refiners with regard to international standards</i>	
4. Has the company disclosed information about the human rights risks and abuses in its cobalt supply chain?	
<i>Company publishes general information about its due diligence policies and practices</i>	
<i>Company discloses information about its smelters/refiners</i>	
<i>Company discloses assessments of the due diligence practices of its smelters/refiners</i>	
5. Has the company taken steps to mitigate risks or remediate harms related to its cobalt supply chain?	
<i>Company has given support to general mitigation/remediation actions through joint actions not tied to risk/harm specifically tied to its own supply chain</i>	
<i>Company has conducted cooperative efforts with its own suppliers, such as training or other capacity-building</i>	
<i>Company has taken direct mitigation/remediation action to address risks/harms identified within its own supply chain</i>	

ANNEX 2

CATHODE MATERIALS MANUFACTURERS

OVERALL SECTOR PERFORMANCE:

Companies in this segment of the supply chain performed relatively poorly in their supply chain human rights due diligence, according to Amnesty International's assessment of company replies and public statements. The Korean company L & F was the only company out of the three in this sector to respond to the organization's March 2017 letter, although Hunan Shanshan provided some information just prior to publication of this report. Overall, these companies are still failing to take action and demonstrate respect for human rights, despite knowledge that cobalt mined by children and adults in hazardous conditions is likely entering their supply chains.

BEST PERFORMER(S): Hunan Shanshan

POOR PERFORMER(S):

SIGNS OF POTENTIAL: L & F

NO RESPONSE PROVIDED: Tianjin B & M

Company	Performance
<p>Hunan Shanshan Energy Technology Co., Ltd (China)</p> <p>Annual Turnover: CNY 2.5 billion (US\$ 375 million) (financial report for the year ending 31 December 2016)</p> <p>Annual net profit: CNY 236.8 million (US\$ 35.5 million) (financial report for the year ending 31 December 2016)</p> 	<p>Amnesty International did not receive a response from Hunan Shanshan to its March 2017 letter (simultaneously sent to parent company Ningbo Shanshan). On this basis, the organization's initial assessment was that Hunan Shanshan was failing to demonstrate a minimal degree of due diligence in line with international standards.</p> <p>After Hunan Shanshan was presented with this assessment, it stated in a November 2017 communication that it had not received the March 2017 letter and offered a number of details to clarify its actions.</p> <p>Hunan Shanshan said that it began communicating its human rights expectations for cobalt to its suppliers at the end of 2015. It said it revised its purchase agreements to require suppliers to take steps and be fully accountable for reasonably ensuring that cobalt and 3TG in their products does not directly or indirectly fund or support serious violations of human rights by armed groups in the DRC or other countries; to ensure that raw materials they obtain do not have problems connected to violations of human rights, labour rights or environmental protection and that they do not use minerals from conflict areas including the DRC.</p> <p>Hunan Shanshan said that it established a supply chain due diligence system for cobalt and issued supply chain due diligence policies, a supplier code of conduct and supplier risk management measures. It said that all of its cobalt suppliers had also issued supplier codes of conduct and required their suppliers to comply. It did not provide copies of these documents, making it impossible to verify whether they are compliant with international standards.</p> <p>However, Hunan Shanshan also said that it underwent a third-party audit by RCS Global in March 2017 and that auditors subsequently confirmed measures the company had taken to improve problem issues identified in its supply chain due diligence system. The company did not specify what those issues were.</p> <p>Hunan Shanshan also said that it had been investigated by several downstream customers, including Apple, LG Chem, Samsung SDI and Volkswagen, and that the steps they have taken "met with customers' approval".</p> <p>There is no evidence that Hunan Shanshan is publicly disclosing information about its human rights due diligence practices, as international standards require. Hunan Shanshan confirmed that it is a member of the Responsible Cobalt Initiative (RCI).</p>

L & F Co., Ltd

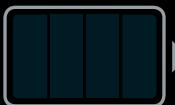
(South Korea)

Annual Turnover:

KRW 249.73 billion
 (US\$ 223.88 million)
 (financial report for the year ending 31 December 2016)

Annual net profit:

KRW 5.69 billion
 (US\$ 5.10 million)
 (financial report for the year ending 31 December 2016)



L & F said that Huayou Cobalt had provided it with a “definitive affirmation that neither in the past nor will they do so moving forward, supply any Cobalt compounds to L & F Co., Ltd that have been extracted in the DRC mines, deploying artisanal miners that violate international labor standards and norms”. The company did not disclose detail of any additional information or documents it had sought in order to verify or monitor the assurance Huayou Cobalt provided. L & F also did not disclose if it had any other suppliers of Congolese cobalt, despite Amnesty International’s question about this.

L & F has not publicly disclosed details of relevant due diligence policies, only reporting to Amnesty International that its “leadership team is fully subscribed to the best management practices as our customary corporate policy”. L & F says it is aware of potential risks in its cobalt supply chain and reports having a joint action plan with Huayou Cobalt but has not disclosed any details about what this plan entails. The company has expressed a commitment to work with suppliers to “take all necessary steps to prevent any identified violations in [its] supply chain” and is a member of the RCI, according to information provided by the CCCMC.

L & F is failing to carry out human rights supply chain due diligence over its cobalt supply chain in line with international standards. This is despite knowledge that cobalt mined by children and adults in hazardous conditions is likely entering its supply chain. It still has considerable room for improvement of its policies and practices. While positive that L & F is transparent about its trading relationship with Huayou Cobalt and has sought assurances from Huayou Cobalt regarding issues raised in the 2016 report, it is unclear what specific due diligence measures the company has put in place to verify these.

Disclosure of any cobalt human rights due diligence policies and practices is missing, making it unclear how L & F’s commitment to work with suppliers translates into meaningful action. It is also unclear if L & F is looking at human rights risks and abuses associated with LSM cobalt suppliers. More transparency is needed.

Tianjin B & M Science & Technology Joint Stock Co., Ltd

(China)

Annual Turnover:

No Info

Annual net profit:

No Info



Tianjin B & M did not respond to Amnesty International’s request for information. This shows an unwillingness to engage on cobalt human rights supply chain issues. The company is a member of the RCI, according to information provided by the CCCMC. Membership in an industry initiative alone is clearly insufficient.

Despite being a member of the RCI, Tianjin B & M is not currently publishing policies or anything else related to human rights risks and abuses beyond the occasional broad commitment to corporate social responsibility. This failure to publish even basic information about human rights due diligence policies and practices shows that it is failing to respect human rights in its cobalt supply chain. Tianjin B & M has not done anything to improve its cobalt human rights supply chain due diligence practices and is among the worst performers of the 29 companies contacted. The disappointing lack of action by Tianjin B & M suggests that actors in the middle of the supply chain, which are hidden from the public eye, are using their invisibility to contribute to, and benefit from, human rights abuses.

Tianjin B & M has failed to identify, prevent, address and account for human rights risks and abuses in its cobalt supply chain as required under international standards. This is despite knowledge that cobalt mined by children and adults in hazardous conditions is likely to be entering its supply chain.

BATTERY CELL MANUFACTURERS

OVERALL SECTOR PERFORMANCE:

Five of the eight battery cell manufacturers contacted for this report demonstrated at least minimal performance of supply chain due diligence in line with international standards. The two Korean battery manufacturers have demonstrated steps to improve their performance. Chinese battery manufacturers did not respond to Amnesty International's March 2017 request for information, and three have shown no evidence of due diligence policies and practices for cobalt. The disappointing lack of action by many companies in this sector suggests that some actors in the middle of the supply chain, which is hidden from the public eye, are using their invisibility to contribute to, and benefit from, human rights abuses.

BEST PERFORMER(S): Samsung SDI

POOR PERFORMER(S): Sony, Tianjin Lishen

SIGNS OF POTENTIAL: LG Chem

NO RESPONSE PROVIDED: ATL, BYD, Coslight, Shenzhen BAK

Company	Performance
Amperex Technology Co., Ltd (China) Annual Turnover: No info Annual net profit: No info 	<p>Amperex Technology Co., Ltd (ATL) did not respond to Amnesty International's 2017 request for information. This is unfortunate and reflects an unwillingness to engage on these issues. In February 2016, ATL wrote that it had "launched a probe into [its] suppliers and, pursuant to the feedbacks received from our suppliers as of today, no involvement in the matter of concern of the Amnesty International January 2016 Report has been found".</p> <p>According to information published on its website, in April 2017 ATL officially released a new set of policies under the title Due Diligence Working Instruction for Responsible Mineral Supply Chain. The policies and associated measures are intended to enable the company to perform due diligence on its mineral supply chains for a variety of materials, including "conflict minerals" (3TG), cobalt, lithium and graphite. ATL's due diligence policy makes explicit reference to the CCCMC Guidelines, OECD Guidance and other related measures issued by EICC and RCI.</p> <p>ATL's policies require it to query cobalt suppliers about sub-supplier relationships and source of mineral origin. Clear responsibilities are set out for various company units at various levels. But the company has not yet demonstrated that these policies are being implemented, and it has not indicated whether it has identified smelters/refiners in its supply chain.</p> <p>ATL has failed to identify, prevent, address and account for human rights risks and abuses in its cobalt supply chain as required under international standards. It has taken some steps since January 2016, however it still has considerable room for improvement of its policies and practices, particularly with respect to disclosure of its cobalt smelters and refiners and information about identified risks and mitigation or remediation efforts.</p>
BYD Co., Ltd (China) Annual Turnover: CNY 100.2 billion (US\$ 14.4 billion) (financial report for the year ending 31 December 2016) Annual net profit: CNY 5.48 billion (US\$ 789.12 million) (financial report for the year ending 31 December 2016) 	<p>BYD did not respond to Amnesty International's request for information. This shows an unwillingness to engage on cobalt human rights supply chain issues.</p> <p>According to information published on its website, BYD has adopted a general policy with respect to supply chain management for "conflict minerals" (tin, tungsten, tantalum and gold) that makes reference to the Organisation for Economic Co-operation and Development's Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas (OECD Guidance). There is no indication that this policy applies to the company's cobalt supply chain.</p> <p>As a result, BYD continues to fail to respect human rights in its cobalt supply chain. BYD has not done anything to improve its cobalt human rights supply chain due diligence practices and is among the worst performers of the 29 companies contacted. The disappointing lack of action by BYD is particularly regrettable, considering that it is contributing to, and benefitting from, human rights abuses as both a supplier of lithium-ion battery cells for major electronics manufacturers and a major manufacturer of electric vehicles using these batteries.</p>

Coslight Technology International Group (China)

Annual Turnover:
CNY 4.83 billion
(US\$ 695.52 million)
(financial report for the year ending 31 December 2016)

Annual net profit:
CNY 158.93 million
(US\$ 22.9 million)
(financial report for the year ending 31 December 2016)



Coslight did not respond to Amnesty International's request for information. This shows an unwillingness to engage on cobalt human rights supply chain issues. There is no public information available suggesting that it has conducted even basic human rights checks on its cobalt supply chain. As a result, it continues to fail to respect human rights in its cobalt supply chain. Coslight has not done anything to improve its cobalt human rights supply chain due diligence practices and is among the worst performers of the 29 companies contacted. The disappointing lack of action by Coslight suggests that actors in the middle of the supply chain, which are hidden from the public eye, are using their invisibility to contribute to, and benefit from, human rights abuses.

LG Chem Ltd (South Korea)

Annual Turnover:
KRW 20.66 trillion
(US\$ 17.12 billion)
(financial report for the year ending 31 December 2016)

Annual net profit:
KRW 1.28 trillion
(US\$ 1.06 billion)
(financial report for the year ending 31 December 2016)



LG Chem has reported inquiries to and audits of only one of its suppliers of cathode materials, L & F Co., Ltd, and only one of its sub-suppliers of cobalt-containing materials, Huayou Cobalt. LG Chem acknowledged the presence of cobalt from Huayou Cobalt in its supply chain which is positive, but it has claimed on the basis of certificates of origin that this cobalt originated from New Caledonia, rather than the DRC. These claims are difficult to accept without stronger evidence, and even Huayou Cobalt has acknowledged that these certificates are unreliable for the purposes of identifying supply chain risks.

LG Chem also claimed on the basis of assurances from a supplier letter from Glencore that DRC cobalt in its supply chain comes from an "LSM product that has no child labor or human rights issues", but it provided no detail about how it verified or monitors those assurances. The extent of LG Chem's engagement with suppliers and sub-suppliers beyond this is unclear and the company has not shown evidence of thorough risk assessment. LG Chem appears to accept Glencore's statement without further interrogation and despite international standards requiring that it conduct human rights due diligence on its suppliers more broadly.

LG Chem has adopted policies requiring supplier due diligence for cobalt in line with international standards, and these policies are being managed and monitored by senior company personnel. LG Chem has published some details of its policies and practices with respect to due diligence for cobalt supply chains, but it has not disclosed details of how those policies are being implemented. It has not identified its cobalt smelters/refiners or specific information about human rights risks or abuses it has identified in its supply chain.

LG Chem is a member of the RCI, but no information is available about its mitigation or remediation efforts directed at human rights risks or abuses identified in its own cobalt supply chain.

LG Chem provided Amnesty International with the cover page of a 2016 third party Supplier Social Responsibility Assessment conducted on L & F (though not details of the audit itself). It also sent details of its third party audit of Huayou Cobalt's supply chain due diligence since the beginning of 2017, which included no on-site investigation of the company's supply chain in the DRC. The report made a number of recommendations to strengthen Huayou Cobalt's due diligence systems and practices but did not identify the presence of specific human rights risks or abuses associated with the supply chain. While it is positive that LG Chem has shared the results of its audit of Huayou Cobalt with Amnesty International, the scope of that audit is limited and does not sufficiently address risks associated with Huayou Cobalt's operations in the DRC.

Amnesty International found that LG Chem has made some improvements to its cobalt supply chain policies and practices, but these do not yet conform to international standards. LG Chem must adopt a more robust approach. It still has room for additional improvement, particularly in terms of disclosure of its cobalt smelters and refiners and information about identified human rights risks and abuses, mitigation or remediation efforts.

Samsung SDI Co., Ltd

(South Korea)

Annual Turnover:
KRW 5.20 trillion
(US\$ 4.31 billion)
(financial report for the year ending 31 December 2016)

Annual net profit:
KRW 211.1 billion
(US\$ 170 million)
(financial report for the year ending 31 December 2016)



Samsung SDI said it is implementing due diligence over its cobalt supply chain in line with the OECD Guidance, which it called “the only available standard that clearly addresses [due diligence] practices and proposes a structured approach to the problem [of supply chain risk]”. It stated in its 2016 Progress Report on Responsible Cobalt Supply Chain that: “Samsung SDI is committed to lead through example and work with existing suppliers and others...to prevent and mitigate the adverse impact of questionable Cobalt, for example with focus on choke points (such as smelters and refiners), practical training, capacity building, government lobbying, exploring alternative livelihoods, partnerships across multiple players (such as the RCI), immediate actions on the ground, etc”.

Samsung SDI has taken steps to trace its supply chain back to the smelter/refiner level, identified the countries of origin of its cobalt supplies and begun to assess the due diligence practices of its 19 smelters and refiners, including Huayou Cobalt. Samsung SDI said it had conducted surveys of its direct suppliers and performed on-site checks of suppliers’ and sub-suppliers’ compliance with international standards. The company has identified cobalt in its supply chain originating in the DRC, though it claims that cobalt sourced from Huayou Cobalt originated exclusively from New Caledonia. The evidence for this claim is unverified, unconvincing and highly problematic, especially considering that both Huayou Cobalt and Samsung SDI have acknowledged the limitations of certificates of origin for the purposes of risk assessment.

Samsung SDI has policies requiring supplier due diligence for cobalt in line with international standards and these policies are being managed and monitored by senior company personnel. In its 2016 progress report, Samsung SDI publicly identified all of its cobalt smelters/refiners as of the end of 2016, as well as countries of cobalt origin.

Samsung SDI is showing moderate compliance with the relevant transparency standards but still has room for improvement because it has not yet disclosed details of its assessments of their smelters’ and refiners’ due diligence, including specific details of any risks or impacts that were identified. Although Samsung SDI has expressed reluctance about disclosing audit results for its smelters and refiners at this stage of implementation, Amnesty International maintains that public disclosure of such information is necessary to be considered in compliance with international standards for human rights due diligence.

Samsung SDI is a member of the RCI and provided support for the Center for Effective Global Action (CEGA) study, but while it has taken efforts with its suppliers and sub-suppliers to increase awareness and enforce OECD/CCMC Guidance, it has not disclosed details of any mitigation or remediation efforts directed at risks or abuses identified in its own cobalt supply chain.

Amnesty International considers that Samsung SDI has made a good effort to bring its policies and practices for sourcing cobalt responsibly in line with international standards. It is the best performer among the surveyed battery cell manufacturers. However, its practices still fall short of international standards. It still has much to do, particularly when it comes to verification of supplier information, disclosure of information about its assessment of its suppliers’ risks and mitigation or remediation efforts.

Shenzhen BAK Battery Co., Ltd

(China)

Annual Turnover:
No info

Annual net profit:
No info



Shenzhen BAK Battery did not respond to Amnesty International’s request for information. This shows an unwillingness to engage on cobalt human rights supply chain issues. There is no public information available suggesting that it has conducted even basic human rights checks on its cobalt supply chain. As a result, it continues to fail to respect human rights in its cobalt supply chain. Shenzhen BAK Battery has not done anything to improve its cobalt human rights supply chain due diligence practices and is among the worst performers of the 29 companies contacted. The disappointing lack of action by Shenzhen BAK Battery suggests that actors in the middle of the supply chain, which are hidden from the public eye, are using their invisibility to contribute to, and benefit from, human rights abuses.

Sony Corp.

(Japan)

Annual Turnover:

¥ 7.60 trillion
 (US\$ 68.33 billion)
 (financial report for the year ending 31 March 2017)

Annual net profit:

¥127.56 billion
 (US\$ 1.14 billion)
 (financial report for the year ending 31 March 2017)



Sony reported conducting supplier investigations in 2016 and 2017 and identified cobalt in its supply chain originating in the DRC or from Huayou Cobalt. No additional detail was provided about which companies it investigated, what those investigations involved or whether it took additional steps to verify information provided by suppliers.

Sony's Supply Chain Code of Conduct follows the Electronic Industry Citizenship Coalition (EICC) Code of Conduct, which does not currently address cobalt in its section on responsible mineral sourcing.

Sony has made some details of its human rights due diligence policies and practices public, but it has not disclosed details of how those policies are being implemented with respect to cobalt or identified its cobalt smelters/refiners. This lack of transparency of key information, which is required by the OECD Standard, is problematic.

Sony is taking part in both the RCI and Responsible Raw Minerals Initiative (RRMI) and provided support for the CEGA study, but it has not disclosed details of any mitigation or remediation efforts directed at risks or abuses identified in its own cobalt supply chain. Membership in industry alliances alone is insufficient for fulfilling due diligence responsibilities.

Amnesty International found that Sony's human rights due diligence practices in its cobalt supply chain fall far short of international standards. This is despite knowledge that cobalt mined by children and adults in hazardous conditions is likely entering its supply chain. This lack of progress is disappointing, especially considering that Sony was, until September 2017 when it transferred its battery business, both a top producer of lithium-ion battery cells for other companies and a major global electronics brand. Given its substantial market size and influence as a major electronics company, it has the power to improve practices both within the chain as well as on the ground. Sony has taken some steps since January 2016, but it still has considerable room for improvement of its policies and practices, particularly with respect to making cobalt an explicit target of due diligence and disclosure of its cobalt smelters and refiners and information about identified risks and mitigation or remediation efforts.

Tianjin Lishen Battery Joint-Stock Co., Ltd

(China)

Annual Turnover:

No info

Annual net profit:

No info



Amnesty International did not receive a response from Tianjin Lishen to its March 2017 letter and concluded, in the absence of other information, that the company was failing to demonstrate a minimal degree of due diligence in line with international standards.

After Tianjin Lishen was presented with this assessment, offered a number of details of what it had done.

Tianjin Lishen said that its agreements with suppliers explicitly prohibit use of child labour and conflict minerals. It is not clear from the small portion of the agreement text provided by the company whether it makes clear that "conflict minerals" is understood to include cobalt. Ordinarily, it would not.

Tianjin Lishen said it requested its suppliers to provide documentation regarding the origins of the cobalt raw materials they used and requested them not to use cobalt from artisanal mines.

Tianjin Lishen said that it carried out corporate social responsibility audits of its suppliers regarding the origins of the materials they used. However, the copy of the audit questionnaire it provided to support this only included questions about 3TG and did not mention cobalt.

Tianjin Lishen said that it "does not have good channels for disclosure" and does not currently publish information related to its cobalt supply chain. The company did not provide Amnesty International with sufficient detail of steps it has taken with respect to mitigation or remediation of harms to enable assessment on this point.

COMPUTER, COMMUNICATION & CONSUMER ELECTRONICS COMPANIES

OVERALL SECTOR PERFORMANCE:

Companies in this sector have generally adopted a commitment to improving due diligence over their cobalt supply chains and are beginning to put that commitment into action. Few companies have shown that they have identified the cobalt smelters/refiners in their supply chains. Most companies reported membership in one or more initiative formed to address risks related to cobalt and other raw materials. However, disclosure of specific risks and abuses identified in supply chains is weak across the board, as is demonstration of specific mitigation and remediation efforts.

BEST PERFORMER(S): Apple Inc.

POOR PERFORMER(S): Huawei Technologies, Lenovo Group, Microsoft Corp., ZTE

SIGNS OF POTENTIAL: Dell Technologies, HP Inc.

NO RESPONSE PROVIDED: None

Company	Performance
Apple Inc. (USA) Annual Turnover: US\$ 229.23 billion (financial report for the year ending 30 September 2017) Annual net profit: US\$ 48.35 billion (financial report for the year ending 30 September 2017) 	<p>Apple claims to have full transparency over its cobalt supply chain to the smelter/refiner level, including Huayou Cobalt. Apple reported: "Earlier this year [2017] we directed that Huayou Cobalt temporarily suspend providing artisanal mined cobalt to the Apple supply chain due to concerns surrounding its ability to ensure responsible sourcing practices." However, the company has said only that it had "concerns surrounding [Huayou Cobalt's] ability to ensure responsible sourcing practices" and has not furnished further details about what those concerns were.</p> <p>In a letter to Amnesty International, Apple said that it had "requested that such artisanal mined material be appropriately segregated from the rest of the cobalt being supplied to Apple's supply chain" and that it would accept ASM cobalt in its supply chain "[i]f Huayou Cobalt can establish that its artisanal cobalt is sourced responsibly in accordance with Apple's rigorous standards and verified by an independent third party audit". As this report was being finalized, Apple told Amnesty International that its suspension of ASM cobalt procurement from Huayou Cobalt remained in effect.</p> <p>Apple's published list of smelters and refiners does not indicate whether those companies source cobalt from the DRC, but Apple confirmed in a letter sent prior to publication that all of them do.</p> <p>On 1 January 2017, Apple put in place an updated Supplier Responsibility Standard with updated due diligence requirements for companies in its supply chains for relevant minerals, including cobalt. Apple explicitly lists cobalt among the minerals for which it requires supplier due diligence in line with international standards. Apple reports that its "commitment to responsible business practices and the Supplier Code of Conduct is overseen by the highest levels of [the] company".</p> <p>Among the downstream companies surveyed, Apple's policy is the most detailed in terms of its articulation of expectations for suppliers and sub-suppliers with respect to risk assessment, risk mitigation and due diligence transparency. As part of its supplier due diligence programme, Apple requires all suppliers to map and report on their cobalt supply chains and any particular risks identified. Apple has provided suppliers with risk assessment tools and developed auditing standards to track performance and identify areas needing improvement. In April, Apple told Amnesty International: "In the case of cobalt, 100% of the identified smelters/refiners in Apple's supply chain are now undergoing independent third party audits." Disclosure of audit procedures and results is needed to confirm that they are effective in holding companies accountable for responsible mining and sourcing practices.</p> <p>Apple's system for mapping its cobalt supply chain back to mines and associated risks appears relatively robust and suitable for carrying out human rights due diligence in accordance with international standards.</p>

Apple Inc. (*continued*)

Apple discloses information about its due diligence policies and practices. It has publicly identified all of its cobalt smelters/refiners as of the end of 2016 and indicated whether those companies have completed Apple's Risk Readiness Assessment and undergone third party audits. The company has acknowledged that cobalt in its supply chain comes from the DRC, but it has not identified other countries of origin or disclosed details of its assessments of the due diligence of smelters/refiners other than Huayou Cobalt, including those sourcing LSM cobalt. This gap in information disclosure needs to be addressed to assess whether Apple is verifying sourcing claims made by all of its smelters and refiners in line with the OECD standard.

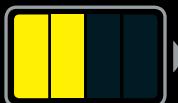
Apple helped establish the RCI and is actively supporting the RRMI. It helped to fund research on artisanal mining in the DRC by the CEGA. It also reports supporting child labour prevention programmes in the DRC that are being implemented by the US non-profit organization Pact, though more detail is needed to assess their value and whether these programmes are targeting specific risks or abuses identified in the company's supply chain.

Amnesty International considers Apple to be a company leading in efforts to identify, prevent, address and account for human rights abuses in its cobalt supply chain in line with international standards. Since 2016, Apple has actively engaged with Huayou Cobalt to identify and address child labour, in particular, in its supply chain. The result of these efforts is unclear as Apple has suspended the purchase of ASM cobalt from the smelter. It is positive that Apple has disclosed the names of its smelters; however, gaps in information continue to exist. It still has much to do, particularly when it comes to disclosure of information about its assessment of its suppliers' risks and mitigation or remediation efforts.

Dell Technologies (USA)

Annual Turnover:
US\$ 61.64 billion
(financial report for the year ending 3 February 2017)

Annual net profit:
US\$ -1.72 billion
(financial report for the year ending 3 February 2017)



Dell said that in January 2016 it "surveyed [its] battery suppliers and other key suppliers to understand their cobalt supply chain, current traceability, and sourcing policies". In 2017, Dell's supplier survey added questions to get a better understanding of suppliers' policies and due diligence procedures, as well as the potential cobalt supply chains of non-battery suppliers. Dell reports that it has surveyed 28 suppliers, 17 of which have confirmed selling lithium-ion battery components to Dell. Through its suppliers, Dell has identified the names and locations of 30 smelters and/or mines.

In 2017, Dell announced that it had "broadened [its] responsible raw material management system to include cobalt" and that it was implementing the OECD Guidance for sourcing cobalt and "expected suppliers to follow this same framework and to participate in [its] cobalt due diligence processes and capability building efforts around responsible minerals sourcing". Cobalt was also added to the scope of Dell's Supply Chain Operations Steering Committee, which oversees the company's Responsible Raw Materials Program.

Dell said: "We are continuing to investigate whether Huayou Cobalt, CDM, or any high-risk smelters are used in the lower levels of our supply chain...Our mapping initiative is a work in progress, and we believe that there is a strong possibility that Huayou Cobalt or CDM is in our supply chain. To date, some of our suppliers have given us complete information tracing the source of their cobalt back to the mines of origin, but not all suppliers have provided the level of disclosure that we require. The suppliers that have disclosed the highest level of transparency have not reported a trading relationship with Huayou Cobalt or CDM."

Dell disclosed information about its cobalt due diligence work in its first Responsible Raw Material Sourcing Report, published in June 2017. Dell does not publicly disclose the names of cobalt smelters or refiners or specific information about human rights risks or abuses it has identified in its supply chain.

Dell reported active membership of both the RRMI and RCI and said that "[t]hrough these industry-coordinated approaches, we are building the infrastructure necessary to map the cobalt supply chain and to certify smelters and mining companies with the right due diligence practices to safeguard against child labor and other human rights violations". The company also reported holding supplier training sessions "focused specifically on cobalt and emphasiz[ing] the importance of increasing transparency and collaborating across the industry as we build up the systems needed to conduct audits and reporting".

Amnesty International considers Dell's implementation of supply chain policies and procedures to be promising. Since 2016, it has taken steps to identify, prevent and address human rights abuses arising in its cobalt supply chain. However, its practices do not yet conform to international standards. It still has much to do, particularly when it comes to disclosure of smelters/refiners and actual identified supply chain risks, as well as mitigation or remediation efforts.

HP Inc.

(USA)

Annual Turnover:US\$ 48.24 billion
(financial report for the year ending 31 October 2016)**Annual net profit:**US\$ 2.5 billion
(financial report for the year ending 31 October 2016)

HP “initiated on-site procurement audits with relevant battery suppliers to identify the cobalt smelters that may be in [its] supply chain”. These audits “included inspections of the labelling of cobalt-containing materials within the manufacturing operations as well as reviewing purchase orders by the manufacturing operations”. HP reported that “battery-related suppliers representing 99% of spend have been audited”.

HP also said: “Because the supply of cobalt to our suppliers occurs through a web of supply chain actors, and because neither HP nor our suppliers have a direct business relationship with Huayou Cobalt or their mining subsidiary, our suppliers relied on declarations made with respect to the sourcing of their suppliers. Based on the information we obtained from our suppliers, we believe cobalt processed by Huayou was likely less than 5% of our total cobalt usage in 2016.” Amnesty International takes the position that HP’s responsibilities to conduct mitigation and remediation should be based on the nature of the risks and abuses that have been identified as part of its due diligence assessment of Huayou Cobalt, not on the size of Huayou Cobalt’s share of its total cobalt usage. HP did not comment on the percentage of its cobalt supply that is sourced from the DRC more generally, which could be much higher and would also warrant careful consideration.

In May 2017, HP added cobalt due diligence expectations to its Supply Chain Social and Environmental Responsibility Policy. The company has demonstrated its efforts to monitor and manage human rights risks in its supply chains for 3TG but has not yet shown evidence of how its policies will be implemented for cobalt. The extent of its supply chain risk assessment actions remains unclear.

HP publishes information about its supply chain due diligence policies and practices in its annual sustainability report and on its website, but it has not publicly identified its smelters/refiners or specific information about human rights risks or abuses it has identified in its supply chain.

HP is a member of both the RCI and RRMI, but it has not disclosed details of any mitigation or remediation efforts directed at risks or abuses identified in its own cobalt supply chain. Amnesty International found that HP has made some improvements to its supply chain policies and practices with respect to cobalt, but that these do not yet conform to international standards. It still has room for additional improvement, particularly in terms of disclosure of its cobalt smelters and refiners and information about identified risks and mitigation or remediation efforts.

Huawei Technologies**Co., Ltd**

(China)

Annual Turnover:CNY 521.57 billion
(US\$ 75.10 billion)
(financial report for the year ending 31 December 2016)**Annual net profit:**CNY 37.05 billion
(US\$ 5.34 billion)
(financial report for the year ending 31 December 2016)

Huawei responded to Amnesty International’s request for information, but failed to address questions in detail. Huawei reported that it carried out “special assessments of 977 suppliers as part of its conflict mineral management program in order to inspect whether they were employing responsible purchasing practices according to industry standards”. There is no indication that any of these “special assessments” looked at cobalt specifically. Huawei did not provide any further information about these assessments or disclose the identities of any suppliers.

Huawei is an example of a leading technology brand that has been slow to make explicit reference to cobalt in its supply chain management policies and practices. According to information published on its website, Huawei has adopted a general policy with respect to supply chain management for “conflict minerals” (tin, tungsten, tantalum and gold), but there is no indication that this policy conforms to international standards or that it applies in any way to the company’s cobalt supply chain. The absence of a human rights due diligence policy shows that even basic provisions have not been put in place.

Huawei is a member of the RCI and has mentioned its effort to “partner with other industry players to design sustainable solutions aimed at addressing human rights and labour issues in the cobalt supply chain”. Huawei has provided no specific detail of any actions it has independently taken to carry out due diligence over its own supply chain or information about any specific mitigation or remediation activity. This is clearly insufficient.

In particular, the company needs to make cobalt an explicit target of its supply chain due diligence policies and implement that policy through more extensive engagement with its relevant suppliers and disclose details of its cobalt smelters and refiners and information about identified risks and mitigation or remediation efforts.

Lenovo Group Ltd

(China)

Annual Turnover:US\$ 43.03 billion
(financial report for the year ending 31 March 2017)**Annual net profit:**US\$ 530.44 million
(financial report for the year ending 31 March 2017)

Lenovo said that it conducted an investigation to determine whether “inhumanely mined cobalt from the DRC ever existed in Tianjin Lishen’s supply chain”. It said it hired a consultant to visit Tianjin Lishen (one of its battery suppliers) and review that company’s documentation and compliance with relevant requirements in its factory and supply chain.

Lenovo said: “The investigation concluded with a declaration from Tianjin Lishen that it has an existing agreement with its main suppliers that requires them to meet the human rights, labor rights and environmental protection compliance standards of its customers. Tianjin Lishen also facilitated compliance declarations that covered these topics from its major suppliers.” It is impossible to assess the adequacy of Lenovo’s risk assessment process, without disclosure of what, if any, risks or abuses were uncovered during the investigation or the steps taken to verify declarations made by Tianjin Lishen.

Lenovo said that “CDM and Huayou Cobalt have not been otherwise identified as cobalt processors in either Lenovo’s or Motorola Mobility’s supply chain” and that it “[had] not previously detected human rights abuses in the cobalt supply chain”.

Other than this investigation of Tianjin Lishen, there is no indication that Lenovo sought information from other suppliers or sub-suppliers or is engaged in any ongoing, proactive process of due diligence to identify and address risks in its cobalt supply chain.

Lenovo acknowledged that “at this time cobalt is not part of [its] conflict minerals reporting program”, noting that “consistent with overall industry direction” its focus to date has been on establishing systems to address its supply chains for “conflict minerals” (tin, tantalum, tungsten and gold) and ensure compliance with the relevant requirements of the US Dodd-Frank Act. Its failure to conduct adequate human rights checks over its cobalt supply chain is in breach of international standards and underscores the need for legal regulation to require that companies conduct human rights supply chain due diligence for cobalt.

Lenovo publicly discloses its due diligence policies and practices through an annual sustainability report and its website. However, it does not currently disclose smelters/refiners or specific information about human rights risks or abuses it has identified in its cobalt supply chain.

Lenovo reported that it is a member of the RRMI and said it “support[s] industry led efforts to try to address potential issues in the cobalt supply chain”. It has not disclosed details of any mitigation or remediation efforts directed at its own cobalt supply chain.

Amnesty International found that Lenovo is failing to carry out supply chain due diligence over its cobalt supply chain in line with international standards. This is despite knowledge that cobalt mined by children and adults in hazardous conditions is likely entering its supply chain. This lack of progress is disappointing, especially considering Lenovo’s position as a major global electronics brand. In particular, it needs to make cobalt an explicit target of its supply chain due diligence policies and implement that policy through more extensive engagement with its relevant suppliers and disclose details of its cobalt smelters and refiners and information about identified risks and mitigation or remediation efforts.

Microsoft Corp.

(USA)

Annual Turnover:US\$ 89.95 billion
(financial report for the year ending 30 June 2017)**Annual net profit:**US\$ 21.20 billion
(financial report for the year ending 30 June 2017)

Microsoft told Amnesty International: “We are engaged with all Microsoft battery suppliers to assess their compliance with our Responsible Sourcing of Raw Materials policy and ensure they are also pushing compliance to their sub-tier suppliers. While we are actively involved in these efforts across our supply chain, because we are several layers removed from the original mine and the prevalence of in-region co-mingling of materials, we are unable to say with absolute assurance that any or none of our cobalt sources can be traced to Huayou Cobalt or any of its subsidiaries.” This response demonstrates little progress compared to the response the company provided to Amnesty International in connection with the 2016 report.

Microsoft has not made cobalt an explicit target of its supply chain management policies and practices. Microsoft’s Responsible Sourcing of Raw Materials policy states: “We view the need to address the issues associated with the harvesting, extraction and transportation of raw materials as a global responsibility applicable to all substances used in our products -- unbounded by specific materials or locations.” Microsoft has a clear supply chain due diligence policy with respect to conflict minerals, but it is unclear how this policy and associated reporting requirements are being applied to its cobalt supply chain, if at all. Broad, overarching policies for raw materials may provide a useful starting point for managing supply chain risks, but more specific information is required to see if and how Microsoft operationalises its policies to identify, prevent, address and account for human rights abuses in its cobalt supply chain.

Microsoft Corp. (continued)

Microsoft publicly discloses information about its general human rights due diligence policies and practices and reports that it will share the results of its Responsible Sourcing of Raw Materials policy in 2018. At this stage, it is impossible to know what, if anything, this report will say about Microsoft's cobalt supply chain.

Microsoft is a member of the RRMI. It reported partnerships with several NGOs working on issues related to artisanal and small-scale mining and child labour in the DRC, but not specifically on projects related to cobalt. While it is positive that Microsoft is engaging on related issues, the information provided is too general. At this stage, these partnerships cannot be taken as evidence that Microsoft is engaged in risk mitigation for its cobalt supply chain.

Amnesty International found that Microsoft is failing to carry out human rights due diligence over its cobalt supply chain in line with international standards. This is despite knowledge that cobalt mined by children and adults in hazardous conditions is likely entering its supply chain. This lack of progress is disappointing, especially considering Microsoft's position as a major global electronics brand. In particular, it needs to make cobalt an explicit target of its supply chain due diligence policies and demonstrate that it is implementing that policy. It also needs to disclose details of its cobalt smelters and refiners and information about identified risks and mitigation or remediation efforts.

Samsung Electronics Co., Ltd

(South Korea)

Annual Turnover:
KRW 201.87 trillion
(US\$ 167.55 billion)
(financial report for the year ending 31 December 2016)

Annual net profit:
KRW 22.73 trillion
(US\$ 18.87 billion)
(financial report for the year ending 31 December 2016)



Samsung Electronics told Amnesty International that it checked with its battery supplier, Samsung SDI, after learning from the media that Huayou Cobalt had been "linked to human rights issue sourcing from its subsidiary in DR Congo". It concluded on the basis of that communication that cobalt in its supply chain from Huayou Cobalt originated from New Caledonia, not the DRC. Amnesty International considers this conclusion to be based on dubious sources that have not been thoroughly verified, including by Samsung itself.

Samsung Electronics has supply chain due diligence policies covering "conflict minerals" (tin, tantalum, tungsten and gold, or 3TG) with no clear applicability to cobalt. Although Samsung Electronics appears to be tracking its 3TG supply chains, it provided no evidence of any ongoing, proactive process of due diligence aimed at tracking its cobalt supply chain.

In its 2016 sustainability report, Samsung Electronics acknowledged the presence of "human rights violations and environmental degradation" connected with cobalt extraction and wrote: "Samsung is well aware of the corporate world's responsibilities and roles with problems caused by the mining of minerals. As a result, we have pledged to redouble our efforts and find ways to resolve these challenges by listening to greater numbers of stakeholders and actively participating in joint initiatives." However, the company has not identified its cobalt smelters/refiners or disclosed specific information about human rights risks or abuses it has identified in its supply chain.

Samsung Electronics is a member of the RRMI, but it has not disclosed details of any mitigation or remediation efforts directed at risks or abuses identified in its own cobalt supply chain. Its membership in an industry alliance alone is insufficient when it comes to meeting its due diligence responsibilities.

Amnesty International found that Samsung Electronics is not carrying out human rights due diligence over its cobalt supply chain in line with international standards. This is despite knowledge that cobalt mined by children and adults in hazardous conditions is likely entering its supply chain. This lack of progress is disappointing, especially considering Samsung's position as a major global electronics brand. It has taken some steps since January 2016, but it still has considerable room for improvement in its policies and practices, particularly with respect to making cobalt an explicit target of due diligence, verification of supplier information and disclosure of its cobalt smelters and refiners and information about identified risks and mitigation or remediation efforts.

Vodafone Group Plc (UK)

Annual Turnover:
€ 47.63 billion
(US\$ 51.14 billion)
(financial report for the year ending 31 March 2017)

Annual net profit:
€ -6.08 billion
(US\$ -6.5 billion)
(financial report for the year ending 31 March 2017)



Vodafone reported that it investigated relevant suppliers following Amnesty International's report to identify cobalt smelters in the supply chain of its branded products. It said that, on the basis of information provided by its suppliers, neither Huayou Cobalt nor any of its subsidiaries had been identified as smelters of cobalt in those products. Vodafone provided no details of any efforts it made to verify representations made by suppliers.

Vodafone acknowledged that "the information provided was not complete" and said "it can be extremely challenging for our suppliers to trace down (what can be several further layers in the supply chain) to the smelter" and "it can take some time to provide robust and complete information". It said: "We will continue to work with our suppliers to improve the quality and completeness of the information." It is not clear whether the company is engaged in an ongoing, proactive process of due diligence aimed at tracking its cobalt supply chain.

Vodafone provided no details of other DRC sourced cobalt entering its supply chain, despite Amnesty International's question about this. This suggests that it has taken a very narrow approach to considering human rights risks and abuses arising in its cobalt supply chain.

The company has supply chain due diligence policies for "conflict minerals" (3TG) but no clear targeting of cobalt. It does not disclose the identities of smelters/refiners or information about risk assessments or other due diligence actions.

Vodafone reports generally on the implementation of its supply chain due diligence and conflict minerals reporting, but does not currently report on its cobalt supply chain. The company has provided no detail of any mitigation or remediation action it has taken with respect to cobalt risks or abuses in its supply chain.

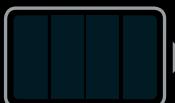
Amnesty International found that Vodafone is failing to carry out supply chain due diligence over its cobalt supply chain in line with international standards. This lack of progress is disappointing. In particular, Vodafone needs to make cobalt an explicit target of its supply chain due diligence policies and demonstrate that it is implementing that policy. It also needs to disclose details of its cobalt smelters and refiners and information about identified risks and mitigation or remediation efforts.

Vodafone stated that the company "is not a customer of Tianjin Lishen and that company does not appear on any previous supplier lists as far as back 2012."

ZTE Corp. (China)

Annual Turnover:
CNY 101.23 billion
(US\$ 14.57 billion)
(financial report for the year ending 31 December 2016)

Annual net profit:
CNY -1.41 billion
(US\$ -203 million)
(financial report for the year ending 31 December 2016)



ZTE claimed that it "has never directly or indirectly sourced cobalt from the DRC" and "neither Huayou Cobalt nor its subsidiaries are part of ZTE's supply chain". The company did not provide further detail of the "internal investigations" that led it to this conclusion.

ZTE requires its suppliers to sign and strictly abide by its corporate social responsibility agreement and code of conduct, which contains provisions on human rights and child labour, but provisions on "responsible mineral sourcing" limit focus to tin, tungsten, tantalum and gold and the company pointed out that "treating cobalt as a conflict mineral is a matter of controversy". This position highlights the need for legal provisions to be put in place to require companies to carry out due diligence to prevent serious human rights abuses associated with cobalt mining.

ZTE said that it conducted an "investigation into upstream suppliers" after being contacted by Amnesty International, but no indication was provided as to what this investigation entailed or whether it is carrying out ongoing, proactive due diligence aimed at tracking its cobalt supply chain. ZTE has not been identified as a member of any initiatives related to responsible cobalt sourcing and does not publish details of policies or actions it is taking to identify or address human rights risks in its cobalt supply chain.

ELECTRIC VEHICLE MANUFACTURERS

OVERALL SECTOR PERFORMANCE:

As a group, the companies in the electric vehicle sector are lagging behind their counterparts in the computer, communication and consumer electronics sector when it comes to due diligence over their cobalt supply chains. Only one company surveyed has made explicit reference to cobalt as a material requiring particular due diligence, even though many of the rest are already following the OECD Guidance for their 3TG supply chains. None are disclosing the identities of their cobalt smelters/refiners, as required under international standards. Though many companies have joined industry-led joint initiatives to address risks associated with cobalt and other raw materials, none is currently disclosing specific risks or abuses identified in connection with their supply chains. In light of the amount of cobalt the companies in this sector are expected to consume, much more action is urgently needed.

BEST PERFORMER(S): BMW Group, Tesla Inc.

POOR PERFORMER(S): Renault Group, Daimler AG

SIGNS OF POTENTIAL: Volkswagen AG

Company	Performance
BMW Group (Germany) Annual Turnover: € 94.16 billion (US\$ 99.08 billion) (financial report for the year ending 31 December 2016) Annual net profit: € 6.91 billion (US\$ 7.27 billion) (financial report for the year ending 31 December 2016) 	<p>BMW reported that it had tracked five sources of cobalt within its supply chain, two of which have been identified as using cobalt from the DRC. The company has carried out audits of at least some of these suppliers and uses supplier questionnaires and site visits to track implementation of standards. BMW says that it has not identified “uncontrolled high risk artisanal mining material and specifically material from Huayou [Cobalt] and its subsidiaries” in its supply chain.</p> <p>According to BMW's Supplier Sustainability Policy (revised May 2017): “With regard to the conflict minerals tin, tungsten, tantalum and gold, as well as other raw materials, such as cobalt, the BMW Group establishes processes in accordance with the [OECD Guidance] and expects its suppliers to do the same. Smelters and refiners without adequate, audited due diligence processes in place should be avoided.” It is unclear if or how BMW's policy applies to LSM-sourced cobalt or how it is monitoring its LSM suppliers.</p> <p>BMW publishes information about its policies and general due diligence practices and included a general description of its response to the problems connected to cobalt in its 2016 sustainability report, but it does not currently publish information about its cobalt smelters or make public its assessments of those companies' due diligence practices. Since BMW's policy requires suppliers to adhere to the OECD Guidance, its failure to disclose information required under this standard demonstrates inconsistency. This lack of disclosure is a clear weakness on the company's part.</p> <p>BMW has taken part in the activities of the RCI as an observer and helped to fund research on artisanal mining in the DRC by the CEGA. It reports holding regular sustainability workshops with suppliers and has taken part in at least one such workshop focused on issues related to cobalt. The company has provided no detail of any mitigation or remediation action it has taken with respect to cobalt risks or abuses in its supply chain.</p> <p>Amnesty International found that BMW has made some improvements in its supply chain policies and practices with respect to cobalt, but these still fall below international standards required to identify, prevent, address and account for human rights abuses. Although BMW is the best performer among the surveyed electric vehicle manufacturers, BMW still has much to do, particularly when it comes to disclosure of smelters/refiners and actual identified supply chain risks, as well as mitigation or remediation efforts.</p>

Daimler AG

(Germany)

Annual Turnover:

€ 153.26 billion
 (US\$ 161.28 billion)
 (financial report for the year ending 31 December 2016)

Annual net profit:

€ 8.78 billion
 (US\$ 9.24 billion)
 (financial report for the year ending 31 December 2016)



In its response to Amnesty International, Daimler said neither Huayou Cobalt nor its subsidiaries were “direct suppliers”, that it “does not engage in direct purchasing of Cobalt of any kind” and that it does not “purchase any products directly from the DRC or from companies situated there”. Daimler has shown no evidence of having investigated its cobalt supply chain beyond its direct suppliers or that it has identified the smelters/refiners in its cobalt supply chain. Its position reflects an attempt to ignore its responsibility to conduct human rights due diligence in its cobalt supply chain in line with international standards.

Daimler’s Supplier Sustainability Standards (dated June 2013) contain general language regarding suppliers’ obligations to respect human rights but do not contain specific language regarding responsible sourcing of minerals. The company says it “supports an effective and practicable approach to ensuring the responsible procurement of raw materials”, but it is unclear whether the company requires supplier due diligence for cobalt in line with international standards.

Daimler publishes general details of its sustainability policies and practices on an annual basis. It has not disclosed details of any supplier due diligence policy for minerals other than conflict minerals and has not disclosed the names of the smelters or refiners in its cobalt supply chain. Daimler is a member of the European Automotive Working Group on Supply Chain Sustainability and said that it helped initiate a pilot project on human rights risk assessment in the electromobility sector, with a focus on components of high-voltage batteries, including cobalt. No further information about this pilot is provided, including how it links to identifying, preventing, addressing and accounting for human rights risks and abuses identified in Daimler’s own cobalt supply chain.

Amnesty International found that Daimler is not carrying out human rights due diligence over its cobalt supply chain in line with international standards. This is despite knowledge that cobalt mined by children and adults in hazardous conditions is likely entering its supply chain. Daimler’s lack of progress is disappointing, especially considering the company’s position as a major global automotive brand. Daimler has taken some steps since January 2016, but it still has considerable room for improvement of its policies and practices. In particular, Daimler needs to make cobalt an explicit target in its supply chain due diligence policies and demonstrate that it is implementing that policy. It also needs to disclose details of its cobalt smelters and refiners and information about identified risks and mitigation or remediation efforts.

Fiat-Chrysler Automobiles NV

(Italy)

Annual Turnover:

€ 111.02 billion
 (US\$ 116.83 billion)
 (financial report for the year ending 31 December 2016)

Annual net profit:

€ 1.81 billion
 (US\$ 1.90 billion)
 (financial report for the year ending 31 December 2016)



Fiat-Chrysler did not say whether any of the cobalt in its supply chain originates in the DRC. It has stated that neither Huayou Cobalt nor any Huayou subsidiaries have been identified in Fiat-Chrysler’s supply chain. However, the company has shown no evidence of having investigated its cobalt supply chain beyond its direct suppliers or of having identified the smelters/refiners in its cobalt supply chain.

Fiat-Chrysler referenced its Code of Conduct and Sustainability Guidelines for Suppliers, which set out general expectations with respect to human rights and supply chain management. The company reports that its policies on human rights and working conditions “do not contain specific references to the sourcing of cobalt”, but maintains that the guidelines “cover human rights and fair working conditions in connection with the sourcing of any raw material”. However, it is unclear how this policy and associated reporting requirements are being applied to identify, prevent, address and account for human rights abuses in its cobalt supply chain, if at all. More specific information is required.

Fiat-Chrysler discloses its general due diligence policies but does not publicly identify the smelters or refiners in its cobalt supply chain or disclose its assessments of those companies’ due diligence practices. This falls short of the OECD Guidance and needs to be addressed. Fiat-Chrysler is a member of the RRMI and reported having led the formation of a Cobalt/Mica Working Group within the AIAG to help promote applicable standards to relevant suppliers. No other details have been provided. The company has provided no detail of any mitigation or remediation action it has taken with respect to cobalt risks or abuses identified in its supply chain.

Amnesty International found that Fiat-Chrysler is not carrying out human rights due diligence over its cobalt supply chain in line with international standards. This is despite knowledge that cobalt mined by children and adults in hazardous conditions is likely entering its supply chain. It has taken some steps since January 2016, but it still has considerable room for improvement of its policies and practices, particularly with respect to making cobalt an explicit target of due diligence and disclosure of its cobalt smelters and refiners and information about identified risks and mitigation or remediation efforts.

General Motors Co. (USA)

Annual Turnover:
US\$ 166.4 billion
(financial report for the year ending 31 December 2016)

Annual net profit:
US\$ 9.4 billion
(financial report for the year ending 31 December 2016)



General Motors reported receiving an assurance from LG Chem stating that it “does not source cobalt or cathode material with cobalt from the DRC”. This assurance was reportedly based on certificates of origin, but General Motors did not make clear what steps, if any, it took to verify LG Chem’s declaration or whether LG Chem is the only relevant supplier of cobalt-containing products in its supply chain. Without verification or assessment of additional sources of information, it is clear that certificates of origin are inadequate for determining the presence of supply chain risks or abuses. Even Huayou Cobalt has acknowledged that these certificates are unreliable for the purposes of identifying supply chain risks.

There is no evidence that General Motors has otherwise engaged in any ongoing, proactive process of human rights due diligence to identify and address risks or abuses in its cobalt supply chain.

General Motors’ supply chain policies do not specify cobalt as a material requiring particular supplier due diligence. Without this, it is unclear what attention it gives to human rights risks and abuses linked to cobalt. The absence of a human rights due diligence policy shows that even basic provisions have not been put in place for cobalt.

General Motors publishes general information about its supplier code of conduct and sustainability promotion, but it does not identify cobalt smelters/refiners or other details of its due diligence over its cobalt supply chain. This falls short of the OECD Guidance, and these shortcomings need to be addressed.

General Motors is a member of the RRMI. Although it reports providing training to its suppliers on a number of subjects related to human rights, it is unclear whether any of these trainings have had a particular focus on how to identify, prevent, address and account for human rights abuses in cobalt supply chains. The company has provided no detail of any mitigation or remediation action it has taken directed at human rights risks or abuses identified in its cobalt supply chain.

Amnesty International found that General Motors is failing to carry out supply chain due diligence over its cobalt supply chain in line with international standards. This is despite knowledge that cobalt mined by children and adults in hazardous conditions is likely entering its supply chain. This lack of progress is disappointing, especially considering the company’s position as a major global automotive brand. In particular, General Motors needs to make cobalt an explicit target of its supply chain due diligence policies and demonstrate that it is implementing that policy. It also needs to disclose details of its cobalt smelters and refiners and information about identified risks and mitigation or remediation efforts.

Renault Group (France)

Annual Turnover:
€ 51.24 billion
US\$ 53.92 billion
(financial report for the year ending 31 December 2016)

Annual net profit:
€ 3.54 billion
US\$ 3.73 billion
(financial report for the year ending 31 December 2016)



In December 2016, Renault reported it had requested LG Chem to investigate its cobalt supply chain and concluded, based on the results of that investigation, that there was no “linkage between the cobalt used to make the batteries of Renault’s electric vehicles and the cobalt originated from the mines Amnesty [International] is referring to in its report”.

Renault is a member of the RRMI but has provided no detail of any mitigation or remediation action it has taken with respect to cobalt risks or abuses in its supply chain.

Renault is a member of a strategic partnership, the Renault-Nissan-Mitsubishi Alliance (formerly known as the Renault-Nissan Alliance). Under this alliance, the companies jointly develop batteries and other components. A provision for the “Responsible procurement of minerals” exists under a corporate social responsibility policy for the Renault-Nissan Mitsubishi Alliance which: “Require businesses to comply with laws regarding responsible procurement of minerals and to proceed their due diligence for conflict minerals/Indicate whether the minerals included in the materials or component parts, have social contagion pertaining to human rights or environment. If contagion is suspected or confirmed, identify and deploy actions for alternative sourcing or mineral substitution.”

There is no information saying how this policy will be implemented within the different partners’ operations and to identify, prevent, address and account for human rights abuses within actual mineral supply chains.

Amnesty International found that Renault continues to fail to carry out supply chain due diligence over its cobalt supply chain in line with international standards. This is despite knowledge that cobalt mined by children and adults in hazardous conditions is likely entering its supply chain. In particular, it needs to make cobalt an explicit target of its supply chain due diligence policies and implement that policy through more extensive engagement with its relevant suppliers and disclose details of its cobalt smelters and refiners and information about identified risks and mitigation or remediation efforts.

Tesla Inc.

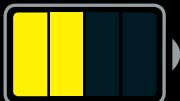
(USA)

Annual Turnover:

US\$ 7 billion
 (financial report for the year ending 31 December 2016)

Annual net profit:

US\$ -773 million
 (financial report for the year ending 31 December 2016)



Tesla said it has a “transparent understanding” of the supply chain of its major lithium-ion battery cell producer, Panasonic, and that Huayou Cobalt is not part of that supply chain. It said it purchases “a small number” of lithium-ion battery cells from other manufacturers and that one of those companies had sourced components from Huayou Cobalt but “none of this cobalt is from [CDM] and none of this cobalt material originates in the DRC”. Tesla did not describe what steps, if any, it took to verify the origins of cobalt used by Huayou Cobalt.

Tesla said that the “overwhelming majority” of the cobalt in its batteries originates in “Southeast Asia and other non-DRC places” but that a “single large commercial mining company in the DRC” supplied “a fraction” of this cobalt within the past five years.

Tesla also said: “We have visited many cobalt mines and processing plants that support Tesla’s main supply chain, as well as potential future suppliers. This includes mines in the DRC, other African nations, Australia and elsewhere. We discuss the major risks they face and the practices they have implemented to mitigate these risks, including: chain of custody controls and iterative checks performed from mining until customer delivery to combat illegal or artisanal ore use; on-site security and access control; hiring practices and management engagement to protect against child labor onsite; internal and third party audit practices; engagement with local communities to maintain a positive social license to operate.”

These actions suggest that Tesla is taking steps to identify, prevent and address human rights abuses in its cobalt supply chain. However, disclosure with respect to important information is missing (for example, which other African nations, which suppliers and what major risks are associated with specific suppliers).

Tesla has policies covering human rights and conflict minerals (3TG), but there is no indication that its conflict minerals policy extends to its cobalt supply chain. Ordinarily, these policies would not.

Tesla does not publicly identify any of the smelters and refiners in its cobalt supply chain or its assessments of the due diligence practices of those smelters and refiners. It also does not disclose any information in connection with any independent audits or other checks taken to verify the origins or source of cobalt in its supply chain or risks associated with specific companies or locations of extraction or trading. These practices do not conform to the OECD Guidance.

Tesla said that it has “not identified any major risks such as child labor at our suppliers (all large commercial operations) to this point” and that it “directly confirmed that our suppliers prohibit these practices and actively address the associated risks”. Amnesty International questions the claim that Tesla’s cobalt suppliers are free from risk. The company has not disclosed the process it has undertaken to reach this conclusion, and it is difficult to accept the statement without further qualification. The lack of information about the company’s risk assessment process has contributed to its relatively low overall assessment, despite some otherwise good signs of performance.

It is unclear what, if anything, Tesla is doing to monitor the actions its suppliers are taking to address supply chain risks, especially risks other than child labour.

Tesla said that it is “aware of and evaluating a number of new international collaborative initiatives that are working to develop plans and establish practices to address social and environmental risks in cobalt production and responsibility throughout the supply chains”. Tesla said they engage with suppliers on risk, but provided no detail on any remediation.

Amnesty International found that Tesla is taking steps to identify, prevent and address human rights abuses in its cobalt supply chain at a general level. This is positive.

The company appears to have investigated its supply chain for risks associated with Huayou Cobalt, but it is unclear that its risk assessment practices are capturing risks connected to other suppliers. The company still has room for additional improvement, particularly in terms of disclosure of its cobalt smelters and refiners and information about identified risks and mitigation or remediation efforts.

Volkswagen AG
(Germany)

Annual Turnover:
€ 217.27 billion
(US\$ 228.63 billion)
(financial report for the year ending 31 December 2016)

Annual net profit:
€ 5.38 million
(US\$ 5.66 million)
(financial report for the year ending 31 December 2016)



Volkswagen reported that its battery suppliers “confirmed in letters signed by their responsible VPs that neither Huayou Cobalt nor any Huayou subsidiaries (including CDM) are part of [its] supply chain”. The company did not explain what steps it had taken, if any, to verify those declarations. It also did not indicate if it sourced cobalt from the DRC more generally, despite Amnesty International’s question about this.

Volkswagen referred to the OECD Guidance in its Volkswagen Conflict Resources Policy, but this policy does not make explicit reference to cobalt. Volkswagen has not shown that it holds suppliers of cobalt-containing materials to this policy, although it says that its supplier requirements “cover all minerals and materials” and is not limited to 3TG.

Volkswagen said that it requires its suppliers to “pass smelter specific questions down the value chain” and is in the process of trying to identify the relevant smelters and refiners in its supply chain. It interviewed personnel from five battery suppliers about their cobalt supply chains and reported “temporary suspension of purchases in some supply chains until further due diligence efforts have been put in place”.

Volkswagen publishes information about its due diligence policies and practices through its website and in its annual sustainability report, but it does not currently disclose information about its smelters or refiners as it is still in the process of tracking its supply chain.

Volkswagen reported that it launched a cobalt-specific campaign in cooperation with the European Automotive Working Group on Supply Chain Sustainability to engage with suppliers on their cobalt supply chains and assess the capacity of suppliers and sub-suppliers to trace their supply chains “down to the source of raw materials”. The company is also a member of the Global Battery Alliance. Volkswagen has provided no detail of any remediation action it has taken to address cobalt risks or abuses identified in its supply chain.

Amnesty International found that Volkswagen’s cobalt supply chain human rights due diligence practices currently fall short of conforming to international standards. Volkswagen has taken some steps since January 2016, but it still has considerable room for improvement in its policies and practices, particularly with respect to making cobalt an explicit target of due diligence and disclosure of its cobalt smelters and refiners and information about identified risks and mitigation or remediation efforts.

Amnesty International provided companies featured in this Annex with the opportunity to respond to our findings as indicated in the Methodology. Copies of the companies’ responses can be accessed at: <https://www.amnesty.org/en/documents/afr62/7418/2017/en/>



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TIME TO RECHARGE

CORPORATE ACTION AND INACTION TO TACKLE ABUSES IN THE COBALT SUPPLY CHAIN

Our world is increasingly powered by lithium-ion rechargeable batteries, ranging from the ones found in smartphones and laptop computers, to those in electric vehicles. As use of these technologies becomes more and more widespread, it is time to ask how clean the so-called “clean energy revolution” really is.

Cobalt, much of it coming from the Democratic Republic of the Congo (DRC), is an element critical to powering the batteries behind this revolution. Research first published by Amnesty International and Afrewatch in 2016 showed how cobalt mined by children and adults in hazardous conditions in the DRC enters the supply chains of many of the world’s biggest brands.

This report examines how much these companies’ cobalt-sourcing practices have improved since then. Amnesty International has assessed the policies and practices of 29 companies, including many of the world’s leading consumer electronics companies and automakers, aimed at identifying, preventing, addressing and accounting for human rights abuses in their cobalt supply chains.

The report concludes that while there have been signs of progress by some companies, too many continue to lag behind. Significantly, none are disclosing meaningful information about the human rights risks and abuses in their supply chains as required under international standards. Without this, it is impossible to assess the relevance and effectiveness of corporate actions to respect human rights. This underscores the need for states to enact legal requirements for human rights due diligence reporting.