

Chapter 27. Understanding and addressing ‘modern slavery’ in DRC-UK cobalt supply chains

James McQuilken

Orcid.org/0000-0003-2380-9569

Zahra Shirgholami

Orcid.org/0000-0002-6467-689X

Dylan McFarlane

Abstract

The UK’s – and the world’s – ‘green industrial revolution’ is intrinsically tied to the artisanal and small-scale mining (ASM) of cobalt in the Democratic Republic of Congo (DRC). This largely informal sector produces approximately 12-21% of the world’s cobalt each year – a vital component in the manufacture of electric vehicle batteries powering the global transition to a low carbon economy and employing as many as 200,000 cobalt miners in DRC as well as supporting hundreds of thousands more people in related livelihood activities. Yet many artisanal cobalt miners suffer dangerous working conditions, human rights abuses, and include children.

Addressing these issues of modern slavery in ASM is therefore vital to the achievement of all 17 of the United Nation’s Sustainable Development Goals (SDGs), including SDG1 No Poverty, SDG13 Climate Action, and crucially, SDG8 Decent Work Economic Growth which includes

Target 8.7 to ‘end modern slavery’ – the first international framework specifically using the term modern slavery.

However, with ASM largely absent from modern slavery policy formation, there are significant gaps in how the concept is applied and addressed in ASM and overlaps with existing responsible mineral sourcing legislation and initiatives. The aim of the chapter, therefore, is to enhance understanding of how the term modern slavery is applied to ASM activities, examine the accompanying modern slavery legislation regarding ASM, including the 2015 UK Modern Slavery Act, and explore how communities and companies perceive, report, and address such issues in their mineral supply chains. Based on an in-depth review of the literature and drawing on the findings of practical research and training workshops held in the UK and DRC (January-March 2020), four recommendations are made to better address modern slavery in DRC-UK cobalt supply chains. To maximise the development potential of DRC’s ASM cobalt industry, the chapter argues that aside from the moral responsibility, there is a need to clearly demonstrate the market-driven ‘business imperatives’ for companies to engage directly in ASM formalisation initiatives that unlock shared value and move beyond compliance with modern slavery and responsible mineral sourcing and reporting requirements.

Keywords: Modern slavery, artisanal and small-scale mining, cobalt, supply chain, sustainable development goals, Democratic Republic of Congo

Disclaimer

This chapter is based on the activities and findings of the research project ‘Confronting Modern Slavery in DRC-UK Mineral Supply Chains’ funded by the UK Foreign, Commonwealth & Development Office (FCDO) via the British Embassy Kinshasa in January-March 2020 and implemented by the international NGO Pact through its Mines to Markets programme. All opinions and views expressed and any errors contained within the book chapter are solely that of the authors and do not represent the FCDO, British Embassy Kinshasa, Pact, or Surrey Business School, University of Surrey in any way.

Acknowledgements

A special thank you to Professor Gavin Hilson for help with drafting text of an earlier version of the book chapter, Luc Assosa for managing the DRC project activities, and the Pact Mines to Markets experts, ASM communities, and all stakeholders for their time in undertaking and participating in the research and workshops in the DRC and UK, and the British Embassy for their support. The book chapter is dedicated to the late Dylan McFarlane a great friend and colleague who participated in the London workshop and supported with the written analysis included in the chapter.

Introduction

Today, at least 40.3 million people – 0.5% of the world’s population – are estimated to be victims of modern slavery (ILO, 2017). This umbrella term without a universal definition, refers to the most extreme forms of exploitation including ‘serfdom, forced labour, debt bondage, the worst forms of child labour, the sale of children, forced and early marriage, the sale of wives and inherited widows, trafficking in persons for exploitation and sexual slavery’ UN (2020a).

Modern slavery is a worldwide phenomenon, and particularly problematic in Africa, Asia and Pacific, and Europe and Central Asia ILO (2017) where it has become a depressing ‘feature’ of globalisation, crossing international supply chains and embodied within complex production networks (Henderson *et al.*, 2002; McQuilken and Hilson, 2018) that stretch across multiple corporations and geographies (Allain *et al.*, 2013; Crane, 2013; Locke, 2013). Scholarly debates and policy dialogues on modern slavery have galvanized on the back of calls for improved transparency in these international supply chains, especially those involved in the manufacture and delivery of clothing, textiles and food products to European and North American markets (e.g., Nandamuri *et al.*, 2018; Stevenson and Cole, 2018). The growing number of accounts of exploitation, bonded labour and modern slavery in these supply chains has culminated in regulatory action. In the UK, the main legislative response to date has been the implementation of the 2015 UK Modern Slavery Act (the ‘Act’).

Despite being largely overlooked in early policy formation on modern slavery, in recent years artisanal and small-scale mining (ASM) and quarrying, and particularly activities which take place in fragile states and conflict zones¹, such as the Democratic Republic of Congo (DRC) where over 1 million people are estimated to live as modern slaves (Minderoo Foundation, 2018), have featured more heavily in discussions. Calls for improved transparency and traceability in mineral supply chains and concerns over so-called ‘conflict minerals’ have led to design and implementation of a range of industry and NGO-led due diligence and responsible mineral sourcing initiatives and laws specifically targeting ASM over the past two decades (McQuilken, 2016; OECD, 2016, ITSCI, 2021a, see also Table 27.2 and Table 27.3).

Yet while many of these schemes include measures to address the different forms of modern slavery, few, if any, specifically use the term modern slavery nor the concept as the unit of analysis or framework for improving working conditions in ASM. At first look this omission is somewhat surprising given the clear commitment under the United Nations Sustainable Development Goals 8 of Decent Work and Economic Growth (SDG8), which includes Target 8.7 to: ‘take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms’. However, as is explored in this chapter, the term modern slavery is somewhat contested and confused and there are considerable overlaps with existing responsible mineral sourcing legislation and initiatives that tackle issues such as child labour and human rights abuses that fall under the umbrella of modern slavery.

The gaps between theory and practice are most pronounced when the concept of modern slavery is applied as a lens to the extractive industries, and as in the case presented in this chapter, especially in ASM given that discussions and legislation on modern slavery have included little, if any, consideration of mining activities, let alone the complexities and transboundary nature of the ASM sector's supply chains which the literature covers quite comprehensively. Accounts in the literature illustrate well how ASM supply chains are rooted in the informal economy, connect to activities that are largely poverty-driven and in hard-to-reach rural locations that depended heavily on large pools of manual labour for production (Hilson and Pardie, 2006; Van Bockstael, 2014; Verbrugge, 2015; Spiegel, 2015; Spiegel *et al.*, 2015; Aizawa, 2016; Tschakert, 2016; Lahiri-Dutt, 2018; McQuilken and Hilson, 2018; Hook, 2019). Combined, these factors have made ASM sites hotbeds for human rights abuses and in some cases, what many would likely consider illustrative examples of 'modern slavery' (Kelly *et al.*, 2014; Rustad *et al.*, 2016; Betancur-Corredor *et al.*, 2018; Chawatama and Oyelana, 2019), but to which only very occasionally has this label been used to describe such observed phenomena (e.g., Haider, 2017; Okyere, 2018; Johnston and Wray, 2019; Sovacool, 2021).

The aim of the chapter, therefore, is to enhance understanding of how the term modern slavery is applied to ASM activities, examine the accompanying modern slavery legislation regarding ASM, and the evolution and overlaps with existing responsible mineral sourcing legislation and initiatives. The chapter also explores how communities and companies perceive, report, and address such issues in their mineral supply chains to provide practical recommendations that can

help address modern slavery. The chapter uses the case study of DRC-UK ASM cobalt supply chains to explore these dynamics in detail for several key reasons. First, is the importance of DRC's ASM sector to the UK Government (2020) and their £12 billion Ten Point Plan for a 'green industrial revolution' unveiled in November 2020 as well as the world's decarbonisation agenda and achievement of SDG13 Climate Action. Specifically, through the production of cobalt – a key component of the cathodes in lithium-ion batteries that power electric vehicles (EVs) and store energy from renewable sources for load balancing. In the DRC approximately 150,000-200,000 artisanal miners extract 20-30% of the country's annual cobalt production (OECD, 2019). Combined with industrial mining output totalling approximately 100,000 tonnes in 2019 (USGS, 2020), DRC accounts for 60-70% of world cobalt supply meaning the country's ASM sector produces 12-21%.² Yet, while this position as the world's leading cobalt producer is set to change with the development and expansion of cobalt mines in Australia and Canada, the slow development of cobalt alternatives in battery technology, and increased demand bolstered by curbs on the sale of new petrol and diesel cars (BBC News, 2020) mean that the DRC is still predicted to retain a 48% global share of annual cobalt production by the year 2030. Indeed, these projections by the European Commission Joint Research Centre suggest a global cobalt supply deficit of 64,000 tonnes by 2030 (Dias et al., 2018).

Second, are concerns with so-called 'blood cobalt'. In the past five years alone, there has been considerable attention paid to the human rights abuses unfolding in DRC's largely unregulated ASM sector, particularly child labour, exploitative working conditions with poor pay, and sexual and gender-based violence (SGBV) (Amnesty International, 2016; Sanderson, 2019; Flanagan, 2020; Sovacool, 2021; ITSCI, 2021b). As Table 27.1 illustrates, it is for this reason that under

the flagship UK Government-led Faraday Battery Challenge (2017-2021), which included £274 million of investment to position the UK as a world-class leader in the automotive battery technology, six projects with a combined value of over £25 million cite ‘ethical’ and ‘sustainability’ concerns with ‘African blood cobalt’ as the reason for investigating cobalt alternatives UKI, (2019). Understanding and addressing modern slavery in ASM is therefore key to balancing these narratives and promoting the sector as a viable livelihood option and development opportunity.

<TABLE 27.1 HERE>

Table 27.1. Extracts from Faraday Battery Challenge projects showing ‘ethical’ reasons for moving away from cobalt use in fuel cells (UKI, 2019).

Third, is the UK’s role as a leader in tackling modern slavery abuses at home and abroad. As a global signatory to the SDGs which, as outlined, include the pledge to end modern slavery, its ambitious industrial growth and post-COVID19 economic recovery plans under the Ten Point Plan and Faraday Battery Challenge, and as an international leader being one of the first countries in the world to enact legislation on ending modern slavery, it is imperative that the UK aligns these overlapping objectives. By not engaging directly on addressing the human rights abuses common to artisanal cobalt mining in DRC there is a very real danger that the UK – and the world – will be unable to deliver on the true sustainability and ethical credentials of the green energy revolution. Moreover, there is a pressing development opportunity to be realised in

ensuring that one of the world's poorest countries where over 70% of the population – equivalent to 60 million people – live below the international poverty rate of less than US\$1.90 per day (World Bank, 2021) can also benefit from the extraction of their mineral resource endowment.

Set against this context, the book chapter draws on the findings of practical research and training workshops held in the UK and DRC funded by British Embassy Kinshasa (UK Foreign, Commonwealth & Development Office) and implemented by the international NGO Pact in January-March 2020 with government, artisanal small-scale mining communities, and industry as part of the 'Confronting Modern Slavery in DRC-UK Mineral Supply Chains' project. The methodologies of the research and training workshop activities are outlined in the discussion.

The chapter begins with a literature review on the origins of the modern slavery discourses and related international policy initiatives that have emerged over the past two decades generally as well as in relation to ASM. With this background, the review then focuses more specifically on the response of policymakers in the UK and DRC to addressing modern slavery in mineral supply chains. Next, in the second half of the chapter, the focus turns to looking beyond such legal requirements asking what are the market-based reasons for addressing modern slavery in ASM supply chains? Here, the key findings from the DRC and UK workshops are outlined, analysed, and discussed in detail to draw out key emerging themes from the discussions and identify actions. These themes are then used to develop four key recommendations to help inform policymaking and programming to address the issue of modern slavery in DRC-UK mineral supply chains.

An ‘umbrella term’: what is modern slavery in artisanal mining and how is it being addressed by policymakers and practitioners?

Modern slavery: definitions, origins, and foundations

Over the past decade, modern slavery has fast become a critical subject of debate in international human rights circles. Its precise definition, however, has and continues to be debated: whilst the different components that come under the umbrella of modern slavery, such as child labour and human trafficking, are defined in international law, the concept itself is not. Three definitions from separate global organisations can be compared. In 2012, practitioners and scholars drafted the *Bellagio–Harvard Guidelines on the Legal Parameters of Slavery* (Bellagio-Harvard Guidelines, 2012). The guidelines begin with the narrow definition of slavery found in the 1926 *Slavery Convention*, using this as a foundation to redefine the concept more contemporarily regarding an individuals’ loss of individual liberty and free movement. A second more recent definition of modern slavery published by the International Labour Organization in 2017 again outlines its use as an umbrella term that is undefined in law, as well as on limiting freedoms combined with the exertion of power over another person. A third definition from the Minderoo Foundation (2019, p.1), an NGO responsible for developing the Global Slavery Index³ also highlights it as an umbrella term that concerns taking away freedom and exploiting people through violence. Thus, there is general agreement of the constituents of modern slavery, but the lack of a singular comprehensive definition does create a degree of ambiguity and practical challenges, especially for companies seeking to identify and address such issues within their supply chains.

The UK Modern Slavery Act, 2015 instead provides a relatively comprehensive and encompassing definition of the offences that constitute modern slavery. These are divided into three areas: 1) slavery, servitude and forced or compulsory labour; 2) human trafficking; and 3) exploitation. Additionally, in Annex A of the ‘Transparency in Supply Chains etc. A practical guide’ Home Office, (2015, p.17) that accompanies the Act, modern slavery is defined to encompass: 1) slavery, servitude, and forced or compulsory labour; and 2) human trafficking. The guide then goes on to define each of these in turn as well as child labour and the worst forms of child labour (WFCL). This may help explain why, to its credit, most legislative instruments and policies now use the Act and accompany practical guide as a reference point. Indeed, an independent government review⁴ published in May 2019 ‘concluded that the definition of exploitation in the Act is sufficient’ (Field et al., 2019a, p.17) and enables enough flexibility for new and emerging forms of modern slavery that are not explicitly covered.

However, despite the Act providing a higher degree of clarity relative to other policy frameworks and legislation, it has not been designed with mineral supply chains in mind. Understanding how the Act interlocks with and builds upon existing legislation is therefore important to assess its effectiveness for the ASM sector. Indeed, it is worth noting that there has been a raft of legislation and policy frameworks implemented elsewhere specifically to prevent human rights abuses, including modern slavery, in global production networks since the turn of the century (Haynes, 2016; Hampton, 2019; Sands, 2019). Significantly, however, each move made was triggered by very specific phenomena, linked to contexts very different to those in which incidences of violence and modern slavery are taking place in DRC’s ASM supply chains. This

raises broader questions about the adaptability and ultimately applicability of such legislation considering the very different experiences which informed its design, to the specific concerns raised about ASM supply chains in the DRC.

Evolution of modern slavery legislation

There are two main areas of human rights literature and policy interventions that over the past two decades have laid important groundwork for the discourse on modern slavery and its related legislation (Table 27.1): 1) labour exploitation; and 2) sweatshop narrative. The first concerns labour exploitation, particularly involving children and other vulnerable groups. A logical starting point for this theme is 1999, when the International Labour Organization's (ILO) Convention 182 on the *Worst Forms of Child Labour* (WFCL) came into force (ILO, 1999b). Importantly, the Convention identifies in detail the *types* of work considered unacceptable for children, in the process laying the bedrock for legislation aimed at improving working condition for individuals in global supply chains. It identifies and details unlawful actions, including slavery, child trafficking, debt bondage, serfdom, forced labour, sexual exploitation of children and pushing boys and girls into illicit activities (ILO, 1999a).

On the other hand, subsequent efforts made by the ILO to identify the WFCL have not been able to fully account for the context and spectrum of livelihood activities. In short, although scholars have commended the attempt made to develop a comprehensive convention that seeks to identify different types of unacceptable labour practices (e.g., Noguchi 2002;2010; Edmonds, 2010) it has

been criticised for its general under appreciation of the hardships endured by hundreds of thousands of families, which, in turn, frequently leads to scenes of children ‘working’ being branded as exploitative labour (e.g., Bourdillon, 2006; Bhukuth, 2008; Hilson, 2012; Fontana and Grugel, 2015). While mining certainly falls under the WFCL (Table 27.2), the diversity under which ASM takes place set against the need to generalise the context to formulate policy creates a significant challenge: it has led to situations in which children who are genuinely being exploited at farms and mines being grouped with incidences where they are engaging in ‘light work’ and/or are conducting chores alongside their parents – tasks which the Convention permits (Bass, 2004; Hilson, 2010; 2011) – being portrayed as unacceptable ‘child labour’. The Convention has, nevertheless, raised awareness of, and sparked public concern over, exploitation of vulnerable labourers involved in global supply chains, most memorably giving rise to the ‘sweatshop’ discourse (Erçel, 2006; Arnold and Hartman, 2006; Snyder, 2010; Powell and Zwolinski, 2012; Sethi, 2014; Preiss, 2014).

In the context of policy formulation around modern slavery in DRC’s ASM sector, the emergence of the sweatshop narrative has been significant for two reasons. First, it clearly triggered a shift in public thinking about the global networks responsible for delivering goods to Western markets and which originate in developing countries, in particular the working conditions of the people producing these items. Public campaigns have since been waged against international companies such as Nike and Primark to change employment practices in their factories across Asia, sub-Saharan Africa and Latin America in particular (Harrison and Scorse, 2006; Adams, 2010). The evidence points to these actions stimulating a change in the corporate practices of these companies, and whilst explicit links have not been made, the burgeoning body

of work carried out in this area likely triggered – at least in part – the design and launch of a series of international codes and practices, such as the International Finance Corporation’s Equator Principles (2020); the UN Guiding Principles on Business and Human Rights (2011); and the OECD Guidelines for Multinational Enterprises (2011). These exposés have also been repeated for cobalt with leading international media houses including the Times running headlines such as ‘Blood batteries fuel the fortune of Elon Musk’ (Flanagan, 2020).

Second, the emergence of the sweatshop narrative seems to have coincided with more careful scrutinization of labour practices in developing countries. There has been a flood of investigations and analysis of bonded labour, which many believe to be a hallmark of ASM supply chains in the DRC. The literature (see e.g. Herzfeld, 2002; Satz, 2003; Basu and Chau, 2003; Cigno and Rosati, 2005; Aptel, 2016) focuses heavily on the experiences of not only vulnerable children but also women, whose rights in many developing countries are heavily suppressed, dynamics which though gradually improving in some geographies, gender empowerment frameworks in line with the SDGs are finding very challenging to change.

The gender theme dominates the other main area of human rights which has laid important groundwork for the discourse on modern slavery. The United Nations made the first move adopting *The Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children* as part of the Convention against Transnational Organized Crime in 2000 (it took effect in 2003). One of three ‘Palermo Protocols’ that make up the Convention, it was the first international instrument to recognize the 27 million people who fall under the UN’s

comprehensive definition of ‘trafficking’ (Shoaps, 2013). To summarise, growing recognition of, and regulatory response to, labour exploitation in global supply chains and human trafficking has helped to shape the discourse of modern slavery. But the specifics of the problem in ASM supply chains in sub-Saharan Africa and the DRC specifically warrant more comprehensive legislation and policy intervention than has been pursued.

<TABLE 27.2 HERE>

Table 27.2. Timeline of foundational international regulations and frameworks concerning labour exploitation, modern slavery, and conflict minerals

The Response: industry initiatives

There has undoubtedly been an increased focus on the issue of modern slavery since the passage of the Victims of Trafficking and Violence Protection Act and the United Nations Palermo Protocols in 2000 (Datta and Bales, 2014). The United Nations was the first to act on the issue in principle by including as part of the SDGs in 2015, under SDG Target 8.7 (Table 27.2). The groundwork for the DRC and UK to combat modern slavery was laid by the UN even before the unveiling of the SDGs, with the implementation of the UN Guiding Principles on Business and Human Rights (UNGPs) (United Nations, 2011), and the revised OECD Guidelines for Multinational Enterprises (OECD, 2011). Both were unveiled in 2011 and combined, stipulate what business should do in relation to human rights, as well as how they should do it (Ruggie and Nelson, 2011). But it is the OECD Guidelines and accompanying OECD Due Diligence

Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High Risk Areas (DDG) that have been most influential in addressing modern slavery in the sector, becoming the de facto international standard for companies working in the region.

The timing of the DDG was impeccable because it responded to public pressure for greater accountability in extractive industries. In 2006, a UN Special Representative of the Secretary-General on Business and Human Rights found that oil, gas and mining accounted for two-thirds of reported cases of industry-related human rights abuses (Cernic, 2008). Although dealing with a specific geographical area, implementation of the DDG was a comprehensive response to this concern aimed at tackling a sizable piece of this problem. It seeks to ‘promote accountability and transparency in the supply chain of minerals from conflict-affected and high-risk areas’ and features two industry-specific supplements: 1) for tin, tantalum, and tungsten (3Ts Supplement) and 2) gold (Gold Supplement). One of its primary uses for many companies, and especially those that form part of supply chains connected to publicly listed organisations in the US, has been to ensure compliance with Section 1502 of the 2010 Dodd Frank Act. The Dodd Frank Act requires US companies to provide an annual independently verified report on whether the 3T and gold minerals – but not cobalt – in their products originate from the DRC or adjoining countries, and if so, include ‘a description of the measures taken by the person to exercise due diligence on the source and chain of custody of such minerals’ so as to ensure they are ‘conflict free’ (Dodd Frank Act, 2010, p. 839). Yet, although it was a radical step forwards in addressing the financing of conflict and associated human rights and modern slavery-related abuses, with the first reports due nine months following the enactment of Section 1502 its introduction left many companies and mining communities in a challenging position to develop robust systems to track and trace

the origins of minerals in such a short timeframe. The DDG stepped into this void outlining a five-step framework to ensure the responsible sourcing and reporting of minerals.

At the same time, several private sector industry initiatives also emerged. Although individual companies hold the primary responsibility for ensuring due diligence is conducted, many industry and especially business associations began developing chain-of-custody programmes on behalf of their members to ensure a coordinated, effective, and efficient response. Many, if not all, are based on the DDG and indeed to date five programmes⁵, which together account for over 90% of gold refining, 95% of tantalum and 85% of tin production, have been assessed against the DDG to determine their alignment and provide recommendations as needed.

A snapshot of the main industry-led initiatives for cobalt is provided in Table 27.3. Crucially, although none explicitly mention modern slavery, these programmes along with the DDG do cover areas such as human rights abuses and WFCL that fall under the umbrella definition. Further, given that they have been developed to help companies respect human rights, observe international humanitarian law in situations of armed conflict, and develop transparent mineral supply chains the experiences of developing such programmes as well as understanding the gaps that remain, especially in regard to the intersection with the parameters of the UK Modern Slavery Act, can provide important lessons for mounting a more targeted response on the issue.

<TABLE 27.3 HERE>

Table 27.3. Select Industry-led Cobalt initiatives

It is also important to note that having emerged against the background of the Dodd-Frank Act, and OECD Diligence Guidance, many, if not all, are by design focused on traceability and transparency as a means to ensure responsible mineral production that does not finance conflict or human rights abuses through chain of custody from mine to market. Thus, while some initiatives, such as International Tin Supply Chain Initiative (ITSCI), do include additional activities including capacity building and training of local actors with artisanal miners and government agencies, the reality is that a far greater level of resourcing and targeted programming is needed to address the systemic issues driving modern slavery in mineral supply chains. Recognising these shortcomings, in a recent report by the OECD examining the due diligence challenges and opportunities in cobalt and copper supply chains the (OECD, 2019, p.57) provides a range of recommendations for different stakeholders across the supply chain to strengthen engagement with the ASM sector. For companies, the report authors suggest organisations take a much more direct and engaged approach actively sourcing from legitimate artisanal miners and building their capacity, representing a significant step forwards and well beyond due diligence reporting.

The Response: UK Government

From government, as indicated, it is the UK which has led the way with its 2015 Modern Slavery Act. The Act was the first piece of legislation enacted to use the term ‘modern slavery’ and which explicitly target ‘slavery’ as opposed to ‘human trafficking’ (Broad and Turnbull, 2019). Covering a wide-range of subjects, the act provided a win-win for the then Theresa May Government. On the one hand, it responded to national and international pressures to address the

subject of modern slavery, and on the other hand, in light of escalating concerns surrounding immigration, it provided a fairly humanitarian means of stemming inflows of aspiring refugees (Broad and Turnbull, 2019).

It is for this reason that the UK is seen by many as trailblazer in this context. With a range of inputs from civil society and ministers, and corresponding redrafts, the Act has unquestionably strengthened the UK's framework to combat modern slavery (Hampton, 2019). But with the UK being the first country to implement a National Action Plan to operationalize the UN Guiding Principles on Business and Human Rights, the impact of its moves should be viewed in more of a global context, as doing so seems to have spurred parallel action in other countries. The Government of Canada, for example, commissioned a report, *A Call to Action: Ending the use of all forms of Child Labour in Supply Chains* (Government of Canada, 2018) which led to the swift passing of Bill C-423 ('An Act respecting the fight against certain forms of modern slavery through the imposition of certain measures and amending the Customs Tariff') in December 2018. The Australian Government, (2018) drafted its Modern Slavery Act at approximately the same time, in which it defines modern slavery 'to incorporate conduct that would constitute an offence under existing human trafficking, slavery and slavery-like offence provisions set out in Divisions 270 and 271 of the Commonwealth Criminal Code'. In 2017 the United States launched its Program to End Modern Slavery, a foreign assistance program authorized by the government into which US\$100 million has been channelled to date. This included awarding US\$25 million to the NGO, the Global Fund to End Modern Slavery, which has coordinated funding focused on eliminating the trafficking of overseas Filipino and Vietnamese migrant workers, as well as combating sex trafficking in Maharashtra, India and Vietnam.

Up until implementation of the UK's Act, modern slavery was perceived to be a developing world phenomenon heavily detached from the West. But Nolan et al. (2019) provide a timely reminder of how 'Legislative, policy, advocacy and other responses to the modern slavery phenomenon by states, businesses and civil society are not taking place in a normative vacuum' (p 7). The scrutiny of multinationals since the passing of the UK's Act is a testament to this. It was seen as novel because of its Clause 54 (Table 27.2), which demands that companies with annual turnovers of £36 million or more – estimated at the time of implementation of the Act to be in the range of 12,000 corporations – produce a public disclosure statement describing their activities and providing assurance that modern slavery is not taking place within their supply chains (Craig, 2017; Hampton, 2019).

There are several concerns with the strength of the Act in terms of effecting change, especially when considering the unique dynamics found in the mining sector which appears as a legislative 'blind spot' despite many of the UK's mining companies meeting the reporting criteria. First, Clause 54 is criticised by some for being weak because there are no formal sanctions imposed on violators other than civil proceedings in court (Craig, 2017). Despite the actions taken by industry, governments and donors to combat modern slavery, there are legitimate concerns about whether enough is being done. The greatest of these voiced repeatedly by policymakers and NGOs is that the responsibility for reporting is placed entirely on individual companies, and that there are no mandatory requirements on what to include or penalties for non-compliance. Under

the current version of the Act companies may state that they have not taken any steps to address the issue in their supply chains and are not required to act.

Second, concerns the appropriateness of legislation. In the UK, despite the advances made by the Act, there was criticism after its implementation. Whilst Clause 54 provided a benchmark, with naming and shaming expected to pressure companies to maintain high standards, there was concern that it was insufficient when applied practically. The initial draft of the Act was criticised for being weak, due largely to protracted delays, debates and bureaucracy. This meant that Clause 54 was a late insertion made largely in response to criticism from the NGO community (Craig, 2019) explaining why the Act carries no consequences for noncompliance. Companies can largely report on what they wish, and when the Act was initially passed fewer than half of the companies mandated to report under Clause 54 were doing so. The Act also does not require these companies to report on issues most pertinent to reducing the vulnerability of workers in supply chains. Companies, therefore, tend to report on philanthropic activities, and their collaborative work with NGOs (Bloomfield and LeBaron, 2017). This could, of course, be due to – once again – the ambiguity surrounding the term ‘modern slavery’. In the case of the UK, however, it may be more because the formative years leading up to the Act focused on the trafficking of adults and children for sexual exploitation, and little on labour exploitation and bonded labour in supply chains (Craig, 2019).

This leads to the third concern which is whether, even with growing public concern over corporate behaviour, companies would pay greater attention to their supply chains if not required

to. There is the view that although ‘Slavery is an abhorrent practice and while it is technically a crime under international law, it is important to realize that it remains a viable and profitable management practice for business’ (Banerjee, 2020, p. 1). There may be some truth to this claim: certain studies have shown that since the observation was made that a sizable share of companies are in noncompliance of the Act, industry performance has not changed. Under the Act, companies, which played a significant role in its design, have shown a preference toward weak regulatory initiatives and partnerships with NGOs (LeBaron and Rühmkorf, 2017). The reality is that corporate social responsibility and other voluntary programs may be unable to keep pace with the breadth of societal demands and incentives that drive them Chin, (2019), a serious concern given the complexities of DRC mineral supply chains. Research on the 350 largest publicly-listed companies in the UK have yielded mixed results: that compliance with modern slavery reporting varies depending on firm size, its history of reporting on sustainability issues, network involvement, and industry and headquarter base (Flynn, 2019). This is especially significant for mineral supply chains in DRC, which as expected, have several layers; the majority feature hidden networks and actors who engage with others. Perhaps a more effective approach would be to better understand and quantify the business drivers, economic impacts as well as the real and reputational risks that may influence a company to actively engage with and address the issues directly.

It underscores a fourth issue, which is the effectiveness of the DDG in offsetting these shortcomings. The concern is that the guidance is nonbinding, calling on member states to ‘promote its observance by companies operating in or from their territories, and to take measures to “actively support” the integration of the framework for due diligence and the model supply

chain policy into corporate management’ (Cullen, 2016, p. 758). Thus while the DDG and raft of associated industry initiatives have helped ensure mining activities do not continue to finance conflict and include traceability, transparency, and chain of custody to ensure that supply chains are free of human rights abuses, WFCL, and other issues that fall under the modern slavery umbrella, they are not designed nor conceived to address the issue directly but instead orientated around ‘responsible sourcing’ and preventing contribution to conflict (Diemel and Hilhorst, 2019). This means that while the DDG and associated initiatives are part of the solution, a different yet complimentary approach is needed to address modern slavery in DRC-UK mineral supply chains head on. Indeed, a recent publication by the OECD (2019) on DRC’s interconnected cobalt supply chains explicitly recommends that companies actively engage in ASM formalisation activities, including sourcing from and building the capacity of ASM operators.

Moving beyond legal requirements: what are the market-based reasons for addressing modern slavery in ASM supply chains?

Moving beyond the clear moral imperatives as well as the due diligence and legal reporting requirements placed on companies, what could a different, complementary, market-based approach to addressing modern slavery in ASM look like? This section outlines the main findings from the research and training workshops held in the UK and DRC as part of the project ‘Confronting Modern Slavery in DRC-UK Mineral Supply Chains’. To begin, a brief contextual and methodological overview of the surveys and workshop formats is given, before then

reporting on the main emerging themes from each. These themes are then developed into specific recommendations to conclude the chapter.

UK survey and workshop

Held in central London on Wednesday 26th February 2020, the UK workshop was designed to understand how UK businesses identify and remediate modern slavery in mineral supply chains, provide practical training and guidance on the issue, and support momentum among industry to act. A total of 39 representatives (excluding five Pact staff) from a diverse array of UK organisations, including government, consulting and advisory firms, industry and manufacturers, business member associations and responsible sourcing experts, and academia participated. The workshop began with all participants taking an online survey with seven open-ended questions lasting approximately 15 minutes to determine their existing understanding of modern slavery and capture what measures they think are needed to address it. Next, participants listened to a presentation on the importance of ASM by Professor Gavin Hilson, before then dividing into six breakout groups to complete two separate research and training tasks over the course of several hours and report their findings back to the room each time. The findings of the survey and breakout discussions are analysed here.

The results of the survey largely confirm attitudes described in the literature review. There is a general understanding of modern slavery related to the ‘sweatshop’ narrative, although some nuances are emerging. For example, in response to the survey question ‘what do you understand

modern slavery to be?’ the term ‘forced labour’ was repeated multiple times (Figure 27.1) indicating an understanding that slavery goes beyond human trafficking and forced marriage. Many also noted issues such as poor working conditions for low pay under coercion, lack of consent, and powerlessness suggesting a better understanding modern slavery in line with international definitions examined in the literature review. Some references made to other definitions by the World Economic Forum and UN also clarify that supply chain actors understand the basic issues and available information from global actors on the topic.

However, although there is a good understanding of the basic principles of modern slavery in mineral supply chains, actions to address modern slavery appear to be lacking. For example, in answer to the question ‘what measures is your organisation currently taking to address modern slavery?’ while several respondents noted they had reviewed policies and shared information across their supply chain, only two respondents mentioned education and training, and no survey respondents reported undertaking on-the-ground interventions to address modern slavery. The survey also asked, ‘what additional measures are needed to address modern slavery?’ with four key themes standing out. First, was the suggestion to engage private sector investors: 63% of responses specifically mentioned targeting businesses, companies, investors to address modern slavery. Second was a need to improve governance with 58% of participants identifying political stability, government action, reporting requirements, and enforcement to address modern slavery. Third, was that 42% identified the need to cooperate, strengthen partnerships, and coordinate across sectors and between actors, including directly with communities. Fourth was the suggestion that industry should work with communities and civil society and academia. Education and engaging communities, researchers, and civil society was identified by 46% of

participants as key to addressing modern slavery, although specific training interventions were not clearly identified. More support and guidance is therefore clearly needed to identify practical actions to help companies address modern slavery in their mineral supply chains.

<FIGURE 27.1 HERE>

Figure 27.1. What do you understand modern slavery to be?

Following the individual survey and short presentation on ASM, as part of the research activities participants were split into six groups according to their stakeholder category and using flipcharts asked to identify the ingredients of a responsible mineral supply chain. Reporting back to the room, five key themes began to emerge, and it was clear there was a demand for action. First there was a clear consensus that transparency, traceability, and accountability are needed to know the origins and conditions under which minerals and downstream products are produced, and, as a tool to support wider formalisation efforts. Second was the need to understand ASM dynamics and the local context, these include the incentives and barriers to wider formalisation and recognition of the sector as an important livelihood activity. This finding was interesting in that it demonstrates a pre-existing awareness of the nuances, dynamics and ‘realities’ of ASM which can often be characterised negatively, however, the presentation on ASM given after the survey and before the group discussions may have influenced participants’ views of the sector. The third ingredient identified of a responsible mineral supply chain was the need to work through existing structures and the importance of trust to ensure that initiatives addressing

modern slavery are sensitive to local dynamics and build on the existing relationships and human capital where possible. Relatedly, participants agreed on the importance of time – that change is an incremental process requiring concerted effort over 20+ year timelines. Fourth was the need to recognise the global interconnectedness and circularity of supply chains. For example, a transition away from cobalt use in batteries to other metals due to modern slavery issues could result in thousands of people losing their livelihood, a lost national development opportunity for DRC, and could displace the issue to other minerals and geographies. Fifth, and finally, partnerships and collaboration were identified as being needed at all levels and between all stakeholders across the supply chain and service sectors to share ideas and existing models and work together to address the modern slavery. Indeed, many stakeholders, and particularly those from different industry-led responsible sourcing initiatives, remarked that the time spent networking with others was one of the most useful features of the workshop. This type of peer-to-peer exchange could therefore be more formally facilitated in future.

In the second part of the day focused on training participants remained in their groups and were first asked to examine key extracts of the 2015 UK Modern Slavery Act on their own, making notes as they read through it to identify any key points of interest. These notes were then collected in and analysed later. Next, each group was asked to draw a mineral supply chain on a flip chart and map modern slavery risks and identify possible mitigation measures at each stage, and again report their discussions back to the room. The notes on the Act and flip chart discussions identified some common themes which also reflect the critiques outlined in the literature review.

In their notes on the Act, many participants reported the need for clearer definitions with some recommending better guidance on what is expected in the modern slavery statement with identifiable measures to follow. However, an accompanying reporting guidance document to the Act already exists and it is unclear whether participants were aware of it, regardless, overall, more clarity on reporting especially for mineral supply chains is needed for companies. There was a clear consensus that the Act and reporting needs to be tailored to the ASM sector. For example, health and safety is key in mining, so ensuring this as part of modern slavery legislation for mine workers could help make it fit for purpose. The word accountability came up repeatedly and many participants thought that the Act allowed for ‘a deflection of responsibilities’ and is weak as there are no requirements for what to report on nor to follow-up with any action. Making Clause 54 of the Act tougher through mandatory reporting alongside annual financial statements, independent verification and following up on efforts to address the modern slavery issues reported as well as financial penalties were all suggestions to make organisations more accountable. In addition to this ‘stick’ approach, participants also noted that companies must be supported to have meaningful impact and go beyond ‘tick-box’ exercises.

During the discussion of their flip chart mineral supply chain diagrams, additional suggestions to address modern slavery in mineral supply chains were contextualised against the background of wider efforts needed to support formalisation of ASM. Participants highlighted that wider formalisation efforts for the sector ‘go together with reducing slavery and servitude’.

Suggestions included improved financial management and accounting such as enabling ASM producers to register with bank accounts, so that they are paid via ‘e-wallets’ instead of cash, in

turn helping with transparency and traceability efforts, and increasing their legitimacy. Leasing of equipment to increase yields, wealth and create incentives for formalisation were also suggested, along with supporting access to international metal prices, again in efforts to reduce information asymmetries and enhance the wealth generating potential of the sector by stabilising prices at the mine 'fence'. Perhaps most interesting was that there was genuine interest from downstream stakeholders to be part of effective formalisation programmes. Rather than suggesting that ASM should simply be removed from mineral supply chains to become compliant with the legislation, there was a very clear consensus from the room that in addressing the issue of modern slavery a genuine market-driven opportunity exists to improve the lives of ASM operators and their communities as well as for national wealth creation.

Undertaking additional research and sensitisation programmes to quantify the 'risk' and economic cost posed by not doing anything to address modern slavery in mineral supply chains would help demonstrate further to companies the need to address the issue, especially for those organisations that are not yet engaged on the issue. For cobalt, it is already becoming clear that by not engaging with the modern slavery and human rights abuse issues ASM has in DRC the global image and long-term viability of the entire cobalt industry is at risk. Initiatives such as the Faraday Battery Challenge highlighted in the literature review are already underway to help battery manufacturers develop alternative fuel cell technology to cobalt (Table 27.1).

DRC survey and workshops

To begin the DRC research and training, which occurred over several months (January-March 2020), a field survey administered directly and in focus groups was undertaken in three mining

areas to better understand the extent and issues of modern slavery in artisanal communities. The survey was also supported with two human centred design (HCD) workshops to better understand the drivers and dynamics of modern slavery. Though the total number of survey and HCD workshop participants was large at 417 people, the results are not statistically representative given that the research design did not take a quantitative approach and sampling strategy to ensure a representative sample (Table 27.4). However, the findings and related analysis are still relevant in providing a snapshot and qualitative overview of the situation on the ground in these communities. It is this information that is needed to understand the context that ASM activities, and relatedly modern slavery issues, that are taking place in and to begin to identify possible solutions and that inform the recommendations in the final section.

<TABLE 27.4 HERE>

Table 27.4. Summary of DRC research and training activities

Aspects of modern slavery were found to be present across all field survey locations. The following data and descriptions are from the Kolwezi part of the field survey administered to 159 people in two mining communities outside of Kolwezi town working at four different artisanal cobalt-copper mining sites (Table 27.4). The findings (Figure 27.2) generally reflect what has already been widely publicised in the media, however the research shows that the lens of modern slavery is useful in determining the different forms and extent (despite the definitional challenges outlined in the literature review).

<FIGURE 27.2 HERE>

Figure 27.2.

Almost all survey respondents including women, men, youth, and children reported the existence of physical violence in the ASM sector. Respondents noted that government agents present in the mining facilities are corrupt and keep silent about the complaints they receive from miners about their exploitation, and that some mining companies, notably those run by Chinese operators, make people work without rest from six to 20 hours with a salary of US\$5 per day. Child labour was also a significant issue again reported by almost all respondents. Due to poverty most parents are accompanied by their children to mine sites while other children are engaged in collecting minerals following heavy rains. However, many children are engaged in lighter work such as carrying the minerals on their heads and sifting and sorting the minerals, though with the possibility of damaging physical impacts on growth and development from heavy loads and with no safety protection. Another form of child exploitation found was under payment by traders who weigh bags of cobalt minerals using hands instead of scales and pay below market price.

SGBV was also commonly reported, reflected in 48 survey respondents identifying the presence of sexual exploitation. For example, respondents reported that to be granted access to ASM sites some women are coerced into sexual intercourse, and underage girls working in restaurants at mine sites often marry of miners because of the influence of money. Debt bondage was also

found with nine people reporting its presence. Without access to formal finance and tailored services for ASM, it is common for miners take loans from traders and then sell them their minerals or have them confiscated to pay off the debt, often more than the original loan value. One example given was the case of a miner whom following a bite from a guard dog in a cobalt mine took out a loan to fund medical treatment. In general, labour standards are poor at mine sites, with limited to no personal protective equipment, and no enforcement concerning working conditions by state agents. Most interesting from the survey results, were the reasons given for the underlying drivers of modern slavery. Many, if not all, relate to poverty including a lack of alternative employment options including in decent, safe, and responsible ASM operations, in the case of child labour to fund basic needs and education as well as an absence of parental responsibility, and poor supervision of mining by qualified State services. Additionally, most victims of modern slavery identified in industrial and ASM operations are children and women, showing their vulnerability.

Following the survey, training workshops took place with government, civil society, mining, and community representatives (Table 27.4). These were undertaken by Pact's expert field team within the administrative districts and communities in and around the cobalt region of Kolwezi, and ASM regions of Luena, and Malemba-Nkulu. In total 45 people took part in three multi-day training workshops. The first workshop comprising an 'integrated technical and organisational capacity assessment' focused on assessing the existing capacity of local level institutions to address modern slavery in ASM, before helping to co-develop remediation plans for the issues identified. The training included local representatives of the Ministry of Social Affairs; Gender, Family and Humanitarian Affairs (Ministère des Affaires Sociales). Several key issues were

identified during the training and analysis. The first related to mine site level modern slavery issues and abuses, including violence, sexual abuse, labour standards, and exploitation by more powerful operators, Chinese operators were singled out. Second was the lack of state support and apparent interest in addressing the issue, with participants saying state agents are not strongly committed, imposed specific cobalt buyers on artisanal miners rather than allowing them freedom to choose, and that some are corrupt. A third area highlighted was the lack of social protection measures and in particular the impact of mining companies on surrounding communities.

Two further OECD DDG workshops were held in Kolwezi and Luena with other local government and ASM sector stakeholders to provide training regarding modern slavery and make recommendations to improve. The main findings support accounts in the literature and research. Namely, the almost total absence of monitoring of supply chains by mining companies and cooperatives, the presence of the WFCL, absence of policy and procedures to identify modern slavery abuses in ASM, limited knowledge on DDG by most ASM cooperatives, and failure to comply with minimum standards of working. Participants provided a range of suggestions to improve which are reflected in the recommendations made in the final part of the book chapter.

Recommendations and conclusion

This final section details four key recommendations emerging from the project research, discussions, and training. Though drawn from research on artisanal cobalt mining against the background of the 2015 UK Modern Slavery Act, the recommendations are also applicable to other Western governments and mineral stakeholders. While seemingly straightforward, actualising them will require significant resources over several decades, and collaboration between international and national policymakers, industry, and most importantly, working directly with ASM communities themselves.

Sensitisation, training, and capacity building

All workshops in the UK and DRC received positive feedback. There is a clear need however to provide additional activities to sensitise stakeholders across the ASM space on the issue of modern slavery in all its forms. At the local level there is a need, and indeed interest from stakeholders including miners and communities themselves, to build the capacity of community leaders to be able to identify, report, and help eliminate modern slavery practices in artisanal mining in their community.

Better understanding of modern slavery by local actors is also key, training, communications and awareness raising activities such as discussion forums and interactive workshops, radio broadcasts, informational posters, and infographics with contact numbers to report abuses tailored to the local context and languages could all help. There is also a need to strengthen the capacities of judicial institutions to be able to enforce the law in respect to modern slavery in

mineral supply chains and ensure that the existing legal frameworks – especially the UK Modern Slavery Act – adequately reflect the issues present in ASM. There is clear appetite from downstream actors for greater penalties and enforcement for non-compliance of annual reporting.

Build on existing initiatives and mechanisms

As identified in the literature review, there are already many different initiatives addressing responsible mineral sourcing, with many focused on due diligence and traceability from mine to market. Rather than seek to create an entirely new initiatives, working with existing stakeholder groups and through business member associations to develop programmes that building on existing groundwork and leaning will ensure that interventions can be more effective, efficient, targeted and sustainable. Indeed, many UK workshop participants expressed an interest in learning more about existing models of what works and what does not. Meanwhile, upstream mining stakeholders in DRC suggested facilitating the establishment of specific support or sensitisation mechanism for victims of slavery by artisanal and industrial mining actors.

Multi-stakeholder collaboration, starting with interested parties

The issues at hand are deep-rooted and complex, while some industry initiatives have made better progress in terms of action on the ground than others. It is only through a multi-stakeholder approach can progress be made. However, due to the large numbers of organisations involved, multi-stakeholder initiatives can be slow to progress due to a need to reach consensus. Indeed, some existing private sector-led multi-stakeholder initiatives have made very limited

progress to date with little, if any, action on the ground, meaning it is important to identify those parties that are genuinely interested in and able to effect change. Working through membership organisations could help increase support and build the consensus and trust necessary to address the issue. In DRC, there is also a clear need to ensure a joined-up approach between existing initiatives as well as government agencies, civil society, and local partners to avoid duplication and maximise efforts for the elimination of all forms of modern slavery practices in the mining sector in general, and ASM in particular.

There is a market-driven ‘business imperative’ for companies to act

Even if they are not directly engaged with mining operations in DRC, some downstream cobalt actors are beginning to understand the inherent risk and business imperative of not addressing the poor responsible sourcing practices for the wider image of global cobalt production. As illustrated in Table 27.2 and outlined in a recent policy brief by McQuilken (2021) the direction of travel over the past decade has been increasingly stringent due diligence and reporting requirements coupled with greater expectation for companies to be socially responsible and positively impactful. Aside from the moral responsibility, by not engaging proactively now companies miss the opportunity to better understand their supply chains which can unlock opportunities for action and growth, and risk being precluded from business in future should they not meet minimum standards or suffer a crisis due to modern slavery abuses in their supply chains that requires costly emergency remediation. Additionally, initiatives are already underway to switch to alternative battery minerals, in part, due to the poor image of cobalt from DRC (Table 27.1), while the environmental, social, and corporate governance performance of

businesses are increasingly important factors used by financial institutions to determine short and longer-term investment in current and future ventures. Quantifying and qualifying the negative economic impacts that can be lost by doing nothing, and the positive impacts that can be gained by addressing the underlying issues of modern slavery in ASM and wider responsible sourcing is needed to demonstrate the return on investment for companies and unlock the business imperative to act. There is also a need to ‘speak the language’ of companies and build trust to work together on what is a sensitive topic, rather than naming and shaming.

Conclusion

Tackling modern slavery in ASM should not be seen in isolation. Working on the issue can provide an entry-point to meet other reporting requirements and contribute to achieving global and industry initiatives and expectations. This includes the UN SDGs, Target 8.7 of which is to eradicate modern slavery. For example, the links between ASM and all 17 SDGs (de Haan, Dales, McQuilken, 2020) mean tackling modern slavery also requires addressing other issues in ASM supply chains thereby serving as a platform to help achieve no poverty (SDG1), gender equality (SDG5), decent work and economic growth (SDG8), responsible consumption and production (SDG12), and climate action (SDG13). Tackling modern slavery in DRC-UK ASM supply chains and aligning the aims of global business, industry, and development initiatives is needed to truly deliver on the credentials of the green industrial revolution and ensure the promised transformation also delivers for DRC and its ASM communities.

References

- Adams, W., (2010). *Profile of American apparel: US manufacturing and strong brand recognition bring success*: Textile Outlook International, V. 143, pp. 174-187.
- Aizawa, Y., (2016). *Artisanal and Small-Scale Mining as an Informal Safety Net: Evidence from Tanzania*: Journal of International Development, 28(7), pp. 1029-1049.
<https://doi.org/10.1002/jid.3242>
- Allain, J., Crane, A., LeBaron, G. and Behbahani, L., (2013). *Forced labour's business models and supply chains*: Joseph Rowntree Foundation.
- Amnesty International., (2016). *"This is what We Die For": Human Rights Abuses in the Democratic Republic of the Congo Power the Global Trade in Cobalt*.
- Aptel, C., (2016). *Child slaves and child brides*: Journal of International Criminal Justice, 14(2), pp. 305-325. <https://doi.org/10.1093/jicj/mqv078>
- Arnold, D.G. and Hartman, L.P., (2006). *Worker rights and low wage industrialization: How to avoid sweatshops*: Human Rights Quarterly, 28(3), pp. 676-700.
<https://www.jstor.org/stable/20072757>
- Australian Government., (2018). *Modern Slavery Act*. Available at:
legislation.gov.au/Details/C2018A00153 (Accessed 3 March 2020).
- Banchirigah, S.M., and Hilson, G., (2010). *De-Agrarianization, Re-Agrarianization and Local Economic Development: Re-Orientating Livelihoods in African Artisanal Mining*

Communities: Policy Sciences, 43(2), pp. 157–180. <https://doi.org/10.1007/s11077-009-9091-5>

Banerjee, B., (2020). *Modern Slavery Is an Enabling Condition of Global Neoliberal Capitalism: Commentary on Modern Slavery in Business*: *Business & Society*, 60(2), pp. 415-419. <https://doi.org/10.1177/0007650319898478>

Bashwira, M.-R., Cuvelier, J., Hilhorst, D., and van der Haar, G. (2014). *Not only a man's world: Women's involvement in artisanal mining in eastern DRC*: *Resources Policy*, 41(1), pp. 109-116. <https://doi.org/10.1016/j.resourpol.2013.11.002>

Bass, L. (ed.) (2004). *Child labour in Sub-Saharan Africa*. Boulder, Colorado: Lynne Rienner Publishers.

Basu, A.K., and Chau, N.H., (2003). *Targeting Child Labor in Debt Bondage: Evidence, Theory, and Policy Implications*: *The World Bank Economic Review*, 17(2), pp. 255–281. <https://www.jstor.org/stable/3990138>

Bellagio Harvard Guidelines. (2012). *Bellagio-Harvard guidelines on the legal parameters of slavery*.

Betancur-Corredor, B., Loaiza-Usuga, J.C., Denich, M. and Borgemeister, C., (2018). *Gold mining as a potential driver of development in Colombia: Challenges and opportunities*: *Journal of Cleaner Production*, v. 199, pp. 538-553. <https://doi.org/10.1016/j.jclepro.2018.07.142>

- BGR., (2019). *Mapping of the Artisanal Copper-Cobalt Mining Sector in the Provinces of Haut-Katanga and Lualaba in the Democratic Republic of the Congo*. Bundesanstalt für Geowissenschaften und Rohstoffe.
- Broad, R., and Turnbull, N., (2019). *From Human Trafficking to Modern Slavery: The Development of Anti-Trafficking Policy in the UK*: *European Journal of Criminal Policy and Research*, v. 25, pp. 119-133. <https://doi.org/10.1007/s10610-018-9375-4>
- Cernic, J., (2008). *Corporate Responsibility for Human Rights: Critical Analysis of the OECD Guidelines for Multinational Enterprises*: *Hanse Law Review*, v. 4, pp. 71-102. <https://ssrn.com/abstract=1317263>
- Chawatama, C.T., and Oyelana, A.A., (2019). *Artisanal gold mining in Zimbabwe: Prospects and challenges for the low income groups in the Chegutu mining district*: *Journal of Human Ecology*, 68 (1-3), pp. 26-41. <https://doi.org/10.31901/24566608.2019/68.1-3.3167>
- Cigno, A., and Rosati, F.C., (2005). *The Economics of Child Labour*. OUP Oxford. pp. 1-250.
- Cobalt Institute. (2020). *The Cobalt Industry Responsible Assessment Framework (CIRAF)*. Available at: <https://www.cobaltinstitute.org/ciraf.html> (Accessed 4 February 2021)
- Craig, G., (2017). *The UK's Modern Slavery Legislation: An Early Assessment of Progress*: *Social Inclusion*, 5 (2), pp. 16–27. <http://dx.doi.org/10.17645/si.v5i2.833>
- Crane, A., (2013). *Modern slavery as a management practice: Exploring the conditions and capabilities for human exploitation*: *Academy of Management Review*, 38(1), pp. 49–69. <https://doi.org/10.5465/amr.2011.0145>

- Cullen, H., (2016). *The irresistible rise of human rights due diligence: Conflict minerals and beyond*: George Washington International Law Review, 48 (4), pp. 743-780.
- Datta, M.N., and Bales, K. (2014). *Slavery in Europe: Part 2, testing a predictive model*: Human Rights Quarterly, 36(2), pp. 277-295. <https://www.jstor.org/stable/24518055>
- de Haan, J., Dales, K., McQuilken, J., (2020). *Mapping Artisanal and Small- Scale Mining to the Sustainable Development Goals*. Available at:
<https://www.pactworld.org/library/mapping-artisanal-and-small-scale-mining-sustainable-development-goals> (Accessed 19 May 2021)
- de Silva, J., Strauss, T., and Morisho, N., (2019). *The Mutoshi Pilot Project. Local economic impact of a project aimed at formalizing artisanal and small-scale mining*. Trafigura.
<https://www.trafigura.com/brochure/the-mutoshi-pilot-project>
- Deloitte., (2020). *Electric Vehicles, Setting a course for 2030*. Available at:
<https://www2.deloitte.com/uk/en/insights/focus/future-of-mobility/electric-vehicle-trends-2030.html> (Accessed 12 March 2020)
- Dias, A., Blagoeva, D., Pavel, C., and Arvanitidis, N., (2018). *Cobalt: demand-supply balances in the transition to electric mobility*: EUR 29381 EN, Publications Office of the European Union, Luxembourg, <https://doi.org/10.2760/97710>
- Diemel, J.A., and Hillhorts, D.J.M., (2019). *Unintended consequences or ambivalent policy objectives? Conflict minerals and mining reform in the Democratic Republic of Congo*: Development Policy Review, 37(4), pp. 453-469. <https://doi.org/10.1111/dpr.12372>

Dodd-Frank Act (2010). *DODD-FRANK WALL STREET REFORM AND CONSUMER*

PROTECTION ACT. Available at: <https://www.congress.gov/111/plaws/publ203/PLAW-111publ203.pdf>

Edmonds, E.V., (2010). 'Selection into worst forms of child labor', in Akee, R.K.Q., Edmonds, E.V., and Tatsiramos, K. (ed.) *Child Labor and the Transition between School and Work* (Research in Labor Economics, v. 31), Emerald Group Publishing Limited, Bingley, pp. 1-31. [https://doi.org/10.1108/S0147-9121\(2010\)0000031004](https://doi.org/10.1108/S0147-9121(2010)0000031004)

EC. (2017). *The EU's new Conflict Minerals Regulation. A quick guide if you're involved in the trade in tin, tungsten, tantalum or gold.*

https://trade.ec.europa.eu/doclib/docs/2017/march/tradoc_155423.pdf

EC. (2020). *The EU Anti-trafficking Directive 2011/36/EU*. Available at:

https://ec.europa.eu/anti-trafficking/legislation-and-case-law-eu-legislation-criminal-law/directive-201136eu_en (Accessed 12 March 2020)

EPs. (2020). *The Equator Principles*. Available at: [https://equator-principles.com/wp-](https://equator-principles.com/wp-content/uploads/2020/01/The-Equator-Principles-July-2020.pdf)

[content/uploads/2020/01/The-Equator-Principles-July-2020.pdf](https://equator-principles.com/wp-content/uploads/2020/01/The-Equator-Principles-July-2020.pdf) (Accessed 12 March 2020)

Erçel, K. (2006). *Orientalization of exploitation: A class-analytical critique of the sweatshop discourse: Rethinking Marxism*, 18(2), pp. 289-306.

<https://doi.org/10.1080/08935690600578950>

EU. (2011). *Directive 2011/36/EU of the European Parliament and of the Council of 5 April 2011 on preventing and combating trafficking in human beings and protecting its victims, and replacing Council Framework Decision 2002/629/JHA: Official Journal of the*

European Union. Available at: https://ec.europa.eu/anti-trafficking/sites/antitrafficking/files/directive_thb_1_101_15_april_2011_1.pdf (Accessed 12 March 2020)

EU. (2017). *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*. Available at: <http://data.europa.eu/eli/reg/2017/821/oj> (Accessed 12 March 2020)

Field F., Miller, M., and Butler-Sloss, B., (2019). *Independent Review of the Modern Slavery Act 2015: Final Report*.

Flanagan, J., (2020). *Blood batteries' fuel the fortune of Elon Musk*. Available at: <https://www.thetimes.co.uk/article/blood-batteries-fuel-the-fortune-of-elon-musk-qkhlvp5dr#:~:text=Cobalt%2C%20a%20key%20component%20in,being%20labelled%20%E2%80%9Cblood%20batteries%E2%80%9D> (Accessed 4 February 2021).

Flynn, A., (2019). *Determinants of corporate compliance with modern slavery reporting*. *Supply Chain Management: 25*(1), pp. 1-16. <https://doi.org/10.1108/SCM-10-2018-0369>

Franks, D. M., Pakoun, L, and Ngonze, C. (2016). *Development Minerals: Transforming a neglected sector in Africa, the Caribbean and the Pacific*. New York, USA: United Nations Development Programme.

GBA. (2020). *Global Battery Alliance*. Available at: <https://www.weforum.org/global-battery-alliance> (Accessed 4 February 2021).

Government of Canada. (2018). *Bill C-423*. Available at: www.parl.ca/DocumentViewer/en/42-1/bill/C-423/first-reading (Accessed 4 March 2020).

Haider, H. (2017). *Modern slavery in the DRC*. K4D Helpdesk Research Report series. Institute of Development Studies, Brighton.

Hampton, D.B., (2019). *Modern Slavery in Global Supply Chains: Can National Action Plans on Business and Human Rights Close the Governance Gap?* *Business and Human Rights Journal*, 4 (2), pp. 239–263. <https://doi.org/10.1017/bhj.2019.16>

Harrabin, R. (2020). *Ban on new petrol and diesel cars in UK from 2030 under PM's green plan*. Available at: <https://www.bbc.co.uk/news/science-environment-54981425> (Accessed 4 February 2021).

Harrison, A., and Scorse, J. (2006). *Improving the conditions of workers? Minimum wage legislation and anti-sweatshop activism*: *California Management Review*, 48 (2), pp. 144-160. <https://doi.org/10.2307/41166342>

Haynes, J., (2016). *The Modern Slavery Act (2015): A legislative Commentary*: *Statute Law Review*, 37 (1), pp. 33-56. <https://doi.org/10.1093/slr/hmv024>

Henderson, J., Dicken, P., Hess, M., Coe, N., and Yeung, H.W.C., (2002). *Global production networks and the analysis of economic development*: *Review of international political economy*, 9(3), pp. 436-464. <https://doi.org/10.1080/09692290210150842>

Hentschel, T., Hruschka, F., and Priester, M., (2002). *Global Report on Artisanal and Small-scale Mining*. Minerals Mining and Sustainable Development (MMSD) Project,

International Institute for Environmental Development, London. Available at:
<https://pubs.iied.org/sites/default/files/pdfs/migrate/G00723.pdf>

Herzfeld, B., (2002). *Slavery and gender: Women's double exploitation: Gender and Development*, 10 (1), pp. 50-55. <https://doi.org/10.1080/13552070215898>

Hilson, G., (2010). *Child Labour in African Artisanal Mining Communities: Experiences from Northern Ghana: Development and Change*, 41(3), pp. 445-473.
<https://doi.org/10.1111/j.1467-7660.2010.01646.x>

Hilson, G., (2011). *Child Labour Artisanal Mining in Sub-Saharan Africa: A Critical Overview*. United Nations 19th Annual Conference on Sustainable Production and Consumption, July 02, New York City.

Hilson, G., (2012). *Family Hardship and Cultural Values: Child Labor in Malian Small-Scale Gold Mining Communities: World Development*, 40(8), pp. 1663-1674.
<https://doi.org/10.1016/j.worlddev.2012.03.017>

Hilson, G., and Pardie, S., (2006). Mercury: An agent of poverty in Ghana's small-scale gold-mining sector: *Resources Policy*, 31(2), pp. 106-116.
<https://doi.org/10.1016/j.resourpol.2006.09.001>

ILO. (1999a). *C182 - Worst Forms of Child Labour Convention, 1999 (No. 182)*. Available at:
https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C182 (Accessed 4 February 2021).

- ILO. (1999b). *Social and labour issues in small-scale mines*. International Labour Office. Geneva. Available at: https://www.ilo.org/wcmsp5/groups/public/---ed_dialogue/---sector/documents/meetingdocument/wcms_714371.pdf (Accessed 20 January 2020)
- ILO. (2017). *Global estimates of modern slavery: Forced labour and forced marriage*. International Labour Organisation. Geneva. Available at: https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_575479.pdf (Accessed 20 January 2020)
- ITSCI. (2021a). *The ITSCI Programme for Responsible Mineral Supply Chains*. Available at: <https://www.itsci.org/> (Accessed 19 May 2021)
- ITSCI. (2021b). *Summaries of incidents and resolution*. Available at: <https://www.itsci.org/incident-summaries-public/> (Accessed 19 May 2021)
- Jackson, S., (2002). *Making a killing: Criminality and coping in the Kivu war economy*: Review of African Political Economy, 29 (93-94), pp. 517-536.
<https://www.jstor.org/stable/4006794>
- Johnston, K.L., and Wray, B., (2019). *Modern slavery legislation and the mining industry: Expected impacts*: Canadian Mining Journal, 140 (5), p. 6.
- Kelly, J.T.D., King-Close, A., and Perks, R., (2014). *Resources and resourcefulness: Roles, opportunities and risks for women working at artisanal mines in South Kivu, Democratic Republic of the Congo*: Futures, v. 62, pp. 95-105.
<https://doi.org/10.1016/j.futures.2014.04.003>

- Lahiri-Dutt, K., (2018). *Extractive peasants: reframing informal artisanal and small-scale mining debates*: Third World Quarterly, 39(8), pp. 1561-1582.
<https://doi.org/10.1080/01436597.2018.1458300>
- LeBaron, G., and Rühmkorf, A., (2017). *Steering CSR Through Home State Regulation: A Comparison of the Impact of the UK Bribery Act and Modern Slavery Act on Global Supply Chain Governance*: Global Policy Journal, 8(S3), pp. 15–28.
<https://doi.org/10.1111/1758-5899.12398>
- LME. (2020). *LME RESPONSIBLE SOURCING*. Available at: <https://www.lme.com/en-GB/About/Responsibility/Responsible-sourcing> (Accessed 4 February 2021).
- Locke, R. M. (2013). *The promise and limits of private power: promoting labour standard in a global economy*. Cambridge University Press.
<https://doi.org/10.1017/CBO9781139381840>
- Mantz, J.W. (2008). *Improvisational economies: Coltan production in the eastern Congo*: Social Anthropology, 16 (1). pp. 34-50. <https://doi.org/10.1111/j.1469-8676.2008.00035.x>
- Maystadt, J.-F., De Luca, G., Sekeris, P.G., and Ulimwengu, J., (2014). *Mineral resources and conflicts in DRC: A case of ecological fallacy?* Oxford Economic Papers, 66(3) pp. 721-749. <https://doi.org/10.1093/oep/gpt037>
- McQuilken, J., and Hilson, G., (2018). *Mapping Small-scale Mineral Production Networks: The Case of Alluvial Diamonds in Ghana*: Development and Change, 49(4), pp. 978–1009.
<https://doi.org/10.1111/dech.12403>

McQuilken, J., (2021). *Tackling modern slavery in DRC-UK mineral supply chains to deliver on the green industrial revolution*. Available at: <https://www.pactworld.org/library/tackling-modern-slavery-drc-uk-mineral-supply-chains-deliver-green-industrial-revolution> (Accessed 19 May 2021).

Minderoo Foundation. (2018). *The Global Slavery Index 2018*.

Nandamuri, P.P., Jain, R.R., and Gnanamkonda, V., (2018). ‘Corporate supply chains and the challenge of labor standards: The Indian perspective’, in Ulas Akkucuk (ed.) *Handbook of Research on Supply Chain Management for Sustainable Development*, IGI Global, pp. 75-103. <https://doi.org/10.4018/978-1-5225-5757-9>

NCA. (2020). *National Crime Agency*. Available at: <https://www.nationalcrimeagency.gov.uk/what-we-do/crime-threats/drug-trafficking/county-lines> (Accessed 4 February 2021).

Nolan, J. and Ford, J., (2019). *Regulating transparency and disclosure on modern slavery in global supply chains a “conversation starter” or a tick box exercise”? A research project supported by a grant under CPA Australia’s global research perspectives program.*

OECD (2011). *OECD Guidelines for Multinational Enterprises*, OECD Publishing. <http://dx.doi.org/10.1787/9789264115415-en>

OECD. (2012). *2011 Update of the OECD Guidelines for Multinational Enterprises Comparative table of changes made to the 2000 text*. OECD Publishing. <http://www.oecd.org/daf/inv/mne/49744860.pdf>

OECD. (2016). *OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas: Third Edition*. OECD Publishing. Paris.

<http://dx.doi.org/10.1787/9789264252479-en>

OECD. (2019). *Interconnected supply chains: a comprehensive look at due diligence challenges and opportunities sourcing cobalt and copper from the Democratic Republic of the Congo. Responsible Business Conduct*. OECD Publishing.

OECD. (no date). *A Global Standard, Towards responsible mineral supply chains*. OECD Publishing.

Okyere S., (2018). 'Moral Economies and Child Labour in Artisanal Gold Mining in Ghana', in Brace L., O'Connell Davidson J. (eds.) *Revisiting Slavery and Antislavery*. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-319-90623-2_9

Oshionebo, E., (2013). *The OECD guidelines for multinational enterprises as mechanisms for sustainable development of natural resources: Real solutions or window dressing*: Lewis & Clark Law Review, 17 (2), pp. 545-590.

Noguchi, Y., (2002). *ILO convention No. 182 on the worst forms of child labour and the convention on the rights of the child*: International Journal of Children's Rights, 10 (4), pp. 355-369. <https://doi.org/10.1163/157181802100380717>

Noguchi, Y., (2010). *20 years of the convention on the rights of the child and international action against child labour*: International Journal of Children's Rights, 18 (4), pp. 515-534. <https://doi.org/10.1163/157181810X528012>

- Preiss, J., (2014). *Global labor justice and the limits of economic analysis*: Business Ethics Quarterly, 24 (1), pp. 55-83. <https://doi.org/10.5840/beq20141272>
- Powell, B., and Zwolinski, M., (2012). The Ethical and Economic Case Against Sweatshop Labor: A Critical Assessment. *Journal of Business Ethics*, v. 107, pp. 449-472. <https://doi.org/10.1007/s10551-011-1058-8>
- RCI. (2016). *Responsible Cobalt Initiative: Chinese Chamber of Commerce for Metals, Minerals & Chemicals (CCCMC) Importers & Exporters and the Organisation for Economic Co-operation and Development (OECD), 2016*. Available at: <http://www.respect.international/responsible-cobalt-initiative-rci/> (Accessed 12 March 2020).
- RMI. (2020). *Responsible Minerals Initiative*. <http://www.responsiblemineralsinitiative.org/> (Accessed 12 March 2020).
- Ruggie, J., and Nelson, T., (2015). *Human rights and the OECD guidelines for multinational enterprises: Normative innovations and implementations challenges*: *Brown Journal of World Affairs*, 22(1), pp. 99-127. <https://www.jstor.org/stable/24591004>
- Rustad, S.A., Østby, G., and Nordås, R., (2016). *Artisanal mining, conflict, and sexual violence in Eastern DRC*: *Extractive Industries and Society*, 3 (2), pp. 475-484. <https://doi.org/10.1016/j.exis.2016.01.010>
- SAEMAPE. (2018). *Direct communication with Service d'Assistance et d'Encadrement de l'Exploitation Minière Artisanale et à Petite Echelle*. Pact.

- Sanderson, H., (2019). *Congo, child labour and your electric car*. Available at:
<https://www.ft.com/content/c6909812-9ce4-11e9-9c06-a4640c9feebb> (Accessed 19 May 2021).
- Sands, M., (2019). *UDHR and Modern Slavery: Exploring the Challenges of Fulfilling the Universal Promise to End Slavery in All Its Forms*: *The Political Quarterly*, 90 (3), p. 430-438. <https://doi.org/10.1111/1467-923X.12712>
- Satz, D., (2003). *Child labor: A normative perspective*: *World Bank Economic Review*, 17 (2), pp. 297-309. <https://www.jstor.org/stable/3990140>
- Sethi, P., (2014). *The Wal-Mart affair – where implausible deniability is the coin of the realm*: *Corporate Governance*, 14 (3), pp. 424-451. <https://doi.org/10.1108/CG-10-2013-0112>
- Shift. (2011). *UN Guiding Principles on Business and Human Rights*. Available at:
<https://www.shiftproject.org/un-guiding-principles/> (Accessed 12 March 2020).
- Shoaps, L.L., (2013). *Room for improvement: Palermo Protocol and the Trafficking Victims Protection Act*: *Lewis & Clark Review*, 17 (3), pp. 931-972.
- Smith, J.H., (2011). *Tantalus in the Digital Age: Coltan ore, temporal dispossession, and "movement" in the Eastern Democratic Republic of the Congo*: *American Ethnologist*, 38 (1), pp. 17-35. <https://doi.org/10.1111/j.1548-1425.2010.01289.x>
- Sovacool, B.K., (2021). *When subterranean slavery supports sustainability transitions? power, patriarchy, and child labor in artisanal Congolese cobalt mining*: *The Extractive Industries and Society*, 8 (1), pp. 271-293. <https://doi.org/10.1016/j.exis.2020.11.018>

- Spiegel, S., Keane, S., Metcalf, S., and Veiga, M., (2015). *Implications of the Minamata Convention on mercury for informal gold mining in Sub-Saharan Africa: From global policy debates to grassroots implementation?* *Environment, Development and Sustainability*, 17, pp. 765-785. <https://doi.org/10.1007/s10668-014-9574-1>
- Spiegel, S.J., (2015). *Shifting Formalization Policies and Recentralizing Power: The Case of Zimbabwe's Artisanal Gold Mining Sector: Society and Natural Resources*, 28 (5), pp. 543-558. <https://doi.org/10.1080/08941920.2015.1014606>
- Stevenson, M., and Cole, R., (2018). *Modern slavery in supply chains: a secondary data analysis of detection, remediation and disclosure: Supply Chain Management*, 12(3), pp. 81–99. <https://doi.org/10.1108/SCM-11-2017-0382>.
- Stoop, N., Verpoorten, M., and van der Windt, P. (2019). *Artisanal or industrial conflict minerals? Evidence from Eastern Congo: World Development*, v. 122, pp. 660-674. <https://doi.org/10.1016/j.worlddev.2019.06.025>
- Snyder, J., (2010). *Exploitation and sweatshop labor: Perspectives and issues: Business Ethics Quarterly*, 20 (2), pp. 187-213. <http://www.jstor.org/stable/25702393>
- Tschakert, P., (2016). *Shifting discourses of vilification and the taming of unruly mining landscapes in Ghana: World Development*, v. 86, pp. 123-132. <https://doi.org/10.1016/j.worlddev.2016.05.008>
- Modern Slavery Act. (2015). *Modern Slavery Act 2015*. Available at: <http://www.legislation.gov.uk/ukpga/2015/30/contents/enacted> (Accessed 20 January 2020)

Morrison and Foerster LLP, (2021). *EU Set to Introduce Mandatory Environmental and Human Rights Due Diligence Law*. Available at:
<https://www.lexology.com/library/detail.aspx?g=ab945361-e236-405d-8193-4d4088373bf4#:~:text=EU%20Set%20to%20Introduce%20Mandatory%20Environmental%20and%20Human%20Rights%20Due%20Diligence%20Law,-Morrison%20%26%20Foerster%20LLP&text=On%2010%20March%202021%2C%20the,diligence%20within%20their%20value%20chains>. (Accessed 19 May).

UK Government. (2020). *The Ten Point Plan for a Green Industrial Revolution Building back better, supporting green jobs, and accelerating our path to net zero*. Available at:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/936567/10_POINT_PLAN_BOOKLET.pdf (Accessed 19 May 2021).

UKI. (2019). *Faraday Battery Challenge: funded projects to date*. Available at:
https://faraday.ac.uk/wp-content/uploads/2019/10/FaradayBatteryChallenge_FundedProjects_Sep2019.pdf
(Accessed 20 January 2020).

UN. (2001). *55/25 United Nations Convention against Transnational Organized Crime. Resolution adopted by the General Assembly*. Available at:
https://www.unodc.org/pdf/crime/a_res_55/res5525e.pdf (Accessed 20 January 2020)

UN. (2011). *UN Guiding Principles on Business and Human Rights: Implementing the United Nations 'Protect, Respect and Remedy' Framework*. Available at:
https://www.ohchr.org/documents/publications/guidingprinciplesbusinesshr_en.pdf
(Accessed 12 March 2020).

- UN. (2018). *Global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development*. A/RES/71/313, E/CN.3/2018/2. Available at: <https://unstats.un.org/sdgs/indicators/indicators-list/> (Accessed 12 March 2020).
- UN. (2020a). *The Human Faces of Modern Slavery*. United Nations Voluntary Trust Fund on Contemporary Forms of Slavery. Available at: www.ohchr.org/Documents/Issues/Slavery/UNVTCFS/UNSlaveryFund.pdf (Accessed 12 March 2020)
- UN. (2020b). *United Nations Convention against Transnational Organized Crime and the Protocols Thereto*. Available at: <https://www.unodc.org/unodc/en/organized-crime/intro/UNTOC.html> (Accessed 12 March 2020).
- UNICEF. (2012). *The State of the World's Children 2012: Children in an Urban World*. Available at: https://www.unicef.org/childsurvival/drcongo_62627.html (Accessed 12 March 2020).
- U.S. Customs and Borders Protection. (2021). *Forced Labor*. Available at: <https://www.cbp.gov/trade/programs-administration/forced-labor> (Accessed 19 May 2021)
- USGS. (2020). *Cobalt Data Sheet: Mineral Commodities Summary*. United States Geological Survey. Available at: <https://pubs.usgs.gov/periodicals/mcs2020/mcs2020-cobalt.pdf> (Accessed 12 March 2020)
- Van Bockstael, S., (2014). *The persistence of informality: Perspectives on the future of artisanal mining in Liberia*: Futures, v. 62, pp. 10-20. <https://doi.org/10.1016/j.futures.2014.02.004>

Verbrugge, B., (2015). The Economic Logic of Persistent Informality: Artisanal and Small-Scale Mining in the Southern Philippines. *Development and Change*, 46 (5), pp. 1023-1046.

<https://doi.org/10.1111/dech.12189>

White & Case. (2019). *US Customs & Border Protection Enforces Forced Labor Prohibition in First Action Against Vessel*. Available at: <https://www.whitecase.com/publications/alert/us-customs-border-protection-enforces-forced-labor-prohibition-first-action> (Accessed 19 May 2021).

World Bank. (2019). *Implementation Completion and Results Report. IDA H5890 TF10744 On A Grant In The Amount of SDR 33.1 Million (US\$50 Million Equivalent) To The Democratic Republic Of Congo For The Growth With Governance In The Mineral Sector (P106982) April 18, 2019*. Energy and Extractives Global Practice. Africa Region.

Available at:

<http://documents1.worldbank.org/curated/en/872481557158663580/text/Democratic-Republic-of-Congo-Growth-with-Governance-in-the-Mineral-Sector-Project.txt> (Accessed 12 March 2020)

World Bank. (2021). *The World Bank in DRC*. Available at:

<https://www.worldbank.org/en/country/drc/overview> (Accessed 19 May 2021).

¹ The ASM-related literature and mineral policy frameworks typically refer to these as ‘conflict-affected and high-risk areas’ (CAHRAs) ‘identified by the presence of armed conflict, widespread violence or other risks of harm to people’ (OECD, 2016, p.13).

² Estimates of cobalt ASM production vary due to informality of the sector making it difficult to obtain accurate data as well as fluctuations due to seasonality, international cobalt prices, and workers switching between minerals and

sectors. The percentage contribution of ASM to global supply is calculated based on the following extract from the OECD, (2019 p.11): ‘The DRC is considered to be producing an estimated 60-70% of the world’s cobalt, 20-30% of which is artisanal production’.

³ The Global Slavery Index measures modern slavery by country and provides analysis against achieving Sustainable Development Goal 8, target 8.7 to end modern slavery.

⁴ In July 2018, the Home Secretary, at the request of the Prime Minister, announced an independent review of the Modern Slavery Act 2015 to be conducted by Frank Field MP (chair), Maria Miller MP and Baroness Butler-Sloss.

⁵ These are: The Conflict Free Smelter Initiative (CFSI); International Tin Supply Chain Initiative (ITSCI); London Bullion Association Responsible (LBMA) Gold Guidance; Responsible Jewellery Council (RJC) Code of Practices and Chain of Custody; Dubai Multi Commodities Centre (DMCC) Rules for Risk Based Due Diligence in the Gold and Precious Metals Supply Chain.