# Disrupted development in the Congo

In July 2010, then US President Barack Obama signed into law the Dodd-Frank Wall Street Reform and Consumer Protection Act, drafted in response to the North Atlantic financial crisis of 2007–2008. Buried deep down in the Act's miscellaneous provisions, on page 839 of the 849-page document, was Section 1502, whose last-minute insertion into the Act was the outcome of a US campaign to sever the link between mining and conflict in the eastern Democratic Republic of the Congo (DRC). The campaign was informed by a series of reports highlighting the involvement of armed groups in mineral production and trade to finance their activities in the region.

The legislation required companies registered on the US stock market to report on an annual basis whether they had sourced tin, tantalum, tungsten, or gold from the eastern DRC or neighbouring countries and, if so, whether those minerals had financed conflict. Its passing was celebrated by US campaigners as a significant milestone in the struggle to help end the conflict. By preventing armed group profiteering from the local mineral trade, campaigners hoped, their capacity to wage conflict would be reduced.

At the time the legislation was passed, there was no way for US corporations such as Apple and Intel, or their European and Asian suppliers, to determine the origin of minerals sourced from the DRC or whether they had financed conflict. Consequently, rather than expose themselves to reputational risk or economic sanctions, most international buyers withdrew from the region.

A few months later, in September 2010, then DRC President Joseph Kabila announced a six-month suspension of all mining activities in the eastern provinces of North Kivu, South Kivu, and Maniema. This decision, without historical precedent, was motivated by two factors: first, the need to respond to the international attention generated by the passing of Dodd–Frank, second, as a furtherance of national strategy to industrialize mining in a part of the country where production was characterized by low levels of capital intensity (Sematumba 2011).

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The hardship generated by the presidential ban was severe and widespread. With few willing buyers once the suspension was lifted in March 2011 due to Dodd–Frank, it was also sustained. Mining was the most important source of employment in the region after agriculture, with several hundred thousand workers active in the sector (Geenen and Radley 2014). As documented by local research centre the Pole Institute at the time, the situation was characterized by the mass unemployment of miners, declining farmer incomes, parents unable to pay school fees, and the absence of basic food products such as sugar and salt in rural areas (Tegera 2011). To regain access to global markets, local miners had to await the arrival of mineral certification systems (and many continue to wait today, more than ten years on). These systems would, in theory, allow for the origin and conflict-free status of minerals sourced from the region to be determined.

Over time, the need for certification systems was strengthened by the passing of similar legislation and policy elsewhere. The Organisation for Economic Co-operation and Development (OECD) and the United Nations (UN) developed corporate guidelines for sourcing natural resources in high-risk areas such as the eastern DRC. In February 2012, the Congolese government ratified the OECD guidelines into national law. On 5 March 2014, the European Union introduced a voluntary 'conflict minerals' regulation scheme for all member states.¹

Foreign mining corporations, on the other hand, could more easily fulfil the requirements of Dodd-Frank. The logic went that as mining corporations tightly control the export of their product from the point of extraction to when it leaves the country, armed groups cannot extort profit from industrial production. Consequently, when the Canadian corporation Banro arrived in South Kivu province and began commercial production at its flagship Twangiza gold mine in September 2012 (forcibly displacing several thousand villagers and local miners from the land), US campaigners welcomed the development, and the mining firm was permitted to export its gold to international markets. As Bafilemba and Lezhnev (2015: 3) declared, writing for US advocacy organization the Enough Project, 'gold mines in South Kivu that were previously occupied by rebels are now certified conflict-free mines operated by the Canadian company Banro. The gold from those mines does not go to armed groups any longer. For the Enough Project and others involved in the campaign, Banro's arrival signalled a further marker of progress in efforts to bring peace and development to the region.

<sup>&</sup>lt;sup>1</sup> Similar logics are now repeating themselves ten years on as North American and Western European countries concerned with child labour and other human rights abuses connected to the local mining of Congolese cobalt, a critical energy transition metal, seek comparable remedies.

The passing of Dodd–Frank in July 2010 to the beginning of industrial gold production at Banro's Twangiza mine in September 2012 marked a tumultuous two-year period of eastern Congolese mining history. For local Congolese miners, certification schemes—however dubious in achieving their intended aims (Radley and Vogel 2015; Vogel 2022)—eventually trickled in, and buyers slowly returned. Yet, Banro's acquisition of research and exploitation permits, stretching across South Kivu's most valuable gold deposits, signalled the beginning of a shift towards a foreign corporate-led model of mining-based development not seen in the region since the collapse of industrial mining in the late 1990s following the onset of the First Congo War.

#### 1.1 Aims and contributions

This book, first and foremost, is an attempt to better understand how the shift in South Kivu from a locally based mining economy towards a foreign-owned model, signalled by Banro's arrival, has interacted with and influenced economic development and conflict trajectories in the province. While much of the book focuses on the period 2010 to 2019, covering the rise and fall of Banro, this is supplemented by travelling through the history, social relations, and economic organization of mining in South Kivu. This journey covers its colonial origins in the 1900s and the emergence of an alternative network of mining production and trade from around the 1950s, to the final decline of Belgian-owned mining in the 1990s and the sector's privatization, deregulation, and liberalization in the early 2000s, through to more recent efforts, from the mid-2010s onwards, to redress the perceived excesses of this earlier reform.

In addition, the book locates the dynamics observed in South Kivu in their broader national and regional context, which, over the past few decades, have similarly been characterized by a shift towards foreign corporateled industrial mining. Since the turn of the century, and as discussed in more detail in Chapter 2, the DRC has been one of seventeen mineral-rich, low-income countries (LICs) in Africa to have undergone a process of World Bank-financed mining-sector reform, resulting in the ceding of resource sovereignty to transnational corporations (TNCs) within a process of foreign-led mining (re)industrialization.<sup>2</sup> This process has been sustained

<sup>&</sup>lt;sup>2</sup> The term '(re)industrialization' is used when referring to this group as, for some countries, the process involves a reindustrialization of formerly declining or stagnant industrial mining sectors, such as in the DRC, while others are new to the process.

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by an African Mining Consensus (hereafter, Consensus) uniting international financial institutions, African governments, development agencies, and various strands of the academic literature.

The country grouping is derived from the twenty-four African LICs listed in the World Bank's fiscal year 2020 country classifications by income level, defined as countries with a gross national income (GNI) per capita of \$1,025 or less.<sup>3</sup> Each country was categorized as having either 'insignificant', 'modest', or 'high' levels of metals and mineral wealth.<sup>4</sup> Those with high levels of wealth comprise the mineral-rich African LIC group (Table 1.1).

The purpose of relating the case of the DRC to this country group is not to make abstract, universalizing claims that deny or dismiss the variety of individual countries' internal dynamics. The institutional political economy of each country, alongside the agency deployed by different groups and actors within it and the composition of its metal and mineral endowments, will be critical in determining the developmental effects of foreign-led mining (re)industrialization in specific settings.

Acknowledging this variation, the aim is twofold: first, to make grounded claims which generalize by detailing how the case of the DRC problematizes significant theoretical assumptions within the Consensus concerning the anticipated transformative impact of foreign-led mining (re)industrialization in an African LIC setting;<sup>5</sup> second, to foreground a set of structural constraints facing African LICs as they pursue forms of mining-led industrialization, however devised, in the shape of price volatility, enclavity, and low

Table 1.1 African LIC metal and mineral wealth

Insignificant or modest	High
Benin, Burundi, Gambia, Guinea-Bissau, Rwanda, Somalia, South Sudan	Burkina Faso, Central African Republic (CAR), Chad, DRC, Eritrea, Ethiopia, Guinea, Liberia, Madagascar, Malawi, Mali, Mozambique, Niger, Sierra Leone, Tanzania, Togo, Uganda

Sources: Author classification based on the World Bank's fiscal year 2020 country classifications by income level, US Geological Survey country reports (https://www.usgs.gov/centers/nmic/africa-and-middle-east#sl, accessed 12 August 2021), and the Artisanal and Small-Scale Mining Knowledge Sharing Archive (http://artisanalmining.org/Inventory, accessed 8 August 2021).

<sup>&</sup>lt;sup>3</sup> Use of the dollar sign refers to US dollars throughout, unless otherwise stated.

<sup>&</sup>lt;sup>4</sup> The categorization is based on a qualitative reading of US Geological Survey country reports combined with a quantitative appraisal of the Artisanal and Small-Scale Mining Knowledge Sharing Archive's database. The former provides detailed information on country-level metal and mineral reserves. The latter collates published data to estimate the country-level number of miners engaged in labour-intensive forms of mining, which serves as a good proxy for metal and mineral reserves.

<sup>&</sup>lt;sup>5</sup> This follows Cornish's (2020) conceptualization of generalization as a communicative and dialogical process, where generalizability is not categorically asserted but left for the epistemic community of readers to determine.

labour absorption. These constraints, observed in the DRC, are theorized as generalizable to other mineral-rich African LICs based upon the group's peripheral position in the global economy, unable to control demand for their commodity exports (heightening their exposure to price volatility), at comparably low levels of industrial development (heightening their exposure to enclavity), and with abundant supplies of labour (heightening their need for high levels of labour absorption). By drawing attention to these structural impediments, the book hopes to highlight the challenges facing African LICs as they pursue peripheral forms of mining-based development and how these might best be confronted.

The idea of peripherality has come in for much criticism by post-development and decoloniality scholars as well as, more recently, by main-stream development studies academics keen to disassociate themselves from what they see as a colonial project and for whom twenty-first-century convergence through the 'rise of the South' has challenged the intellectual and moral relevance of this analytical framing (see, e.g., Horner and Hulme 2019). The North–South binary, they contend, is based upon a simplified, antiquated, and derogatory bifurcation of the world into centres and peripheries. Given these critiques, it is worth briefly stating how the term is understood in this book and why it is used.

Peripheries and centres are never static but are constantly in flux over the long run. From the tenth to the twelfth centuries, Europe was part of the global periphery, with Asia and the Middle East holding the centre (Amin 2011). The emergence of capitalism in Western Europe and its uneven spread globally through imperialist expansion and colonial conquest placed the near entirety of the global South—Asia, Africa, and Latin America—in a subordinate position within a new world order. By the mid-twentieth century, the global centres of wealth and power were firmly located in Western Europe and North America.

There is no doubting that the world has experienced profound change over the past several decades, in particular the rise of China and East Asia more broadly. Notwithstanding these changes, contemporary structuralists have drawn attention to the continued monopoly of technology and capital flows in the global North and the resultant technological and industrial subordination of countries and regions in the periphery of the capitalist world economy (Ocampo et al. 2009; Montes 2014; Akyüz 2017). The highly uneven distribution of COVID-19 vaccines in the wake of the 2020 pandemic—determined by which nations had the required manufacturing capacity and which had

<sup>&</sup>lt;sup>6</sup> While the exact timing and origins of the emergence of capitalism are debated, there is broad agreement that it took place in Western Europe at some point between the thirteenth and eighteenth centuries.

the most influence over the institutions of international governance (such as to uphold intellectual property rights)—provides a modern exemplar of how peripherality plays out in the global economy and at what human cost.

Despite the critiques mounted around the concept, then, this book adopts the position that:

It is nonetheless still useful to frame the contemporary challenges of development in terms of peripherality. The concept reflects certain common asymmetries and constraints that continue to structure the lagging and subordination of the global South in the current world order, even despite the monumental changes and variations, and without denying the importance of Southern agency.

(Fischer 2015: 704)

By 'force of example' (Flyvbjerg 2006), the book hopes to demonstrate the continued relevance of peripherality for understanding the specificity of development challenges in African LICs, the various mechanisms through which North-South (or centre-periphery) inequalities continue to be sustained and reproduced, and how different groups resist and seek to transform their conditions by forging alternative paths of social and economic change.

By returning to, and adapting, some of the classic critiques of peripheral development, the book also aims to challenge the academic and development industry wave of African resource optimism for TNC-led mining (re)industrialization that so heavily characterized the 2000s and 2010s and appears to live on unabated in the 2020s, driven this time round by the mineral and metal intensity of the hoped-for global transition to low-carbon economies and societies in the coming decades (a point I return to at more length in the concluding Chapter 8).

In addition, the book offers a reframing of how we—as development studies scholars, social scientists, policymakers, and practitioners—write, think about, and discuss African mining, away from a focus on artisanal, small-scale, or large-scale and towards distinguishing more clearly between different forms based on capital intensity and ownership. The habitual discursive framing contrasts 'artisanal and small-scale mining' (ASM) with 'large-scale mining' (LSM) or, more simply still, artisanal mining with industrial mining.

Pierre (2020: 87) has argued that, in the African context, the use of artisanal falls into a racial vernacular of development that 'thrives on the construction of a notion of fundamental African racial difference (and white Western normativity) while rendering the unequal institutional and material relations of resource extraction [. . .] through terms that sediment cultural narratives of this presumed African inferiority'. A cursory scan of the literature

on African mining makes this apparent. Artisanal mining and miners are frequently labelled as 'primitive', 'simplified', 'basic', 'inefficient', 'rudimentary', and 'unproductive' and industrial mining as 'efficient', 'modern', 'complex', and 'productive'. A similar framing can be observed in the description of state-owned African mining enterprises, typically cast as inefficient, mismanaged, and corrupt.

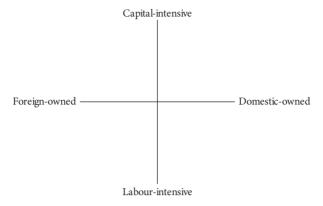
This vernacular, in turn, feeds into an underlying teleology in which the backward and inefficient techniques of African miners, or corrupt and mismanaged state-owned African enterprises, should be replaced by more modern, complex, and efficient forms of production and technology embodied by the foreign mining corporation. This teleology has, no doubt, contributed to and helped sustain the African Mining Consensus, discussed in more detail in section 1.2, which adheres to this line of thinking. However, the teleology fails to account for the potential developmental advantages of African artisanal mining or, conversely, why industrial mining in this setting might be undesirable. It dismisses greater relative labour intensity as inefficient and unproductive and deems ownership and choices of technology unimportant in favour of prioritizing rapid productivity growth by advancing to the technological frontier of heavily industrialized mining as quickly as possible.

As will be shown in this book, both perspectives are problematic. To the first, labour-intensive production can be highly valuable in a context of widespread unemployment and rapidly growing populations, especially when it generates higher wages than those available in the surrounding economy. To the second, operating under foreign ownership at the technological frontier can shift the distribution of value generated by productive activity away from domestic groups and towards overseas firms, directors, and shareholders.

For these reasons, this book replaces the ASM/artisanal-LSM/industrial framing with descriptors based on ownership—domestic-owned mining (DOM) and foreign-owned mining (FOM)—and the relative capital or labour intensity underpinning production (Figure 1.1). Ownership, here, is understood in the traditional Marxist sense of ownership over the means of production coupled with the developmentalist understanding of strategic ownership and control over a firm or industry.

Within this schema, most social science mining books from the past decade or so have tended to focus exclusively on either capital-intensive FOM or labour-intensive DOM. With the notable exception of Verbrugge and Geenen (2020), few existing publications provide a framework that allows for an

<sup>&</sup>lt;sup>7</sup> See Engels (2022) for a more in-depth discussion along a similar line of analysis.



**Figure 1.1** Forms of mining production *Source*: Author creation.

investigation into how these two interact and with what developmental consequences, along with an elucidation of the variation that exists between the two poles, from labour-intensive FOM to more capital-intensive, industrializing forms of DOM. This book attempts to offer such a perspective.

Through this framework, the book aims to engage and contribute to the broad literature on global value chains (GVCs), which, over the past decade or so, has helped to generate great enthusiasm around the economically transformative potential of TNC-led mining (re)industrialization in Africa. GVC analysis was mainstreamed by the development industry in the 2010s as a central focus of contemporary development efforts in the global South (Werner et al. 2014). The literature is primarily concerned with the institutional and regulatory contexts in which domestic firms in low- and middle-income countries (LMICs) can integrate into and 'upgrade' within TNC-led GVCs to higher value-added activities, both in mining and other sectors and industries (Gereffi et al. 2005; Gereffi 2014).9

In the African commodities sector, GVC scholarship has provided much insight into how, and in what contexts, policy interventions can strengthen (or undermine) the position of domestic firms in global mining value chains. It has been generally uncritical, though, of the underlying assumption that African governments should focus on integrating domestic firms and actors

<sup>&</sup>lt;sup>8</sup> I follow Suwandi (2015) here by taking the position that the GVC, global production network, and global commodity chain approaches are reasonably overlapping as the terms are used interchangeably, and so GVC is used to encompass all three.

<sup>&</sup>lt;sup>9</sup> The literature on African mining is heavily clustered among high- and middle-income countries such as South Africa, Nigeria, Sudan, Zambia, and Ghana. This even though low-income countries comprise more than half of the national economies on the continent.

into, and 'upgrading' them (moving to higher value-added activities) within, a model of capital-intensive FOM.<sup>10</sup> The book challenges this assumption by drawing attention to the developmental potential of pre-existing forms of labour-intensive DOM and a consideration of how TNC arrival can marginalize and disrupt these forms of mining, leading to an intensification of local conflict rather than its reduction or resolution.

In so doing, this book extends the conventional mining GVC analytical framework to incorporate a wider consideration of not only how value is created and distributed in mining GVCs but also from where (and whom) it is transferred within this process, what use is made of the value by those who capture it, and with what effects on social relations, economic development, and conflict. Here, the book connects to an emergent area of research on African resource nationalism (Jacob and Pederson 2018; Kinyonde and Huggins 2019; Pederson et al. 2019), which takes a more critical view of capital-intensive FOM and gives greater analytical space to the developmental role of labour-intensive, DOM alternatives.

Finally, the book conceptualizes economic development as a process achieved through increasing labour productivity (measured as the output per unit of labour time) and sustained by capital accumulation (Fischer 2014:14). Usually, such economic development encompasses a transformative process, commonly referred to as structural transformation, in which productive resources move from low-productivity to higher-productivity sectors and activities. By relating mining to this specific understanding of economic development as structural transformation, the book connects to and complements non-extractive industry literatures, in particular those on developmental states and industrial policy, which share a common interest in studying transformative processes of social and economic development and—for the more critical strands—the various forms of polarization, marginalization, and exclusion to which these processes inevitably give rise (Cramer et al. 2020).

The book's contribution here is in drawing attention to the role of African capitalists, a neglected group in scholarship on African statism and industrial policy (Behuria 2019). A recent body of work attempting to correct this imbalance has focused on large African corporations and conglomerates, or Diversified Business Groups (Behuria 2019; Andreoni and Sial 2020; Itaman and Wolf 2021). The book builds on and expands this line of enquiry by focusing, in contrast, on 'capitalism from below' (Byres 1996).

<sup>&</sup>lt;sup>10</sup> The work of Hilson and Ovadia (2020) provides a notable exception.

<sup>&</sup>lt;sup>11</sup> Capital accumulation refers here, in the Marxian sense, to the accumulation of the produced means of production, such as machines and infrastructure.

It does so through the analytical primacy given to the rural emergence of a Congolese capitalist class via their engagement with labour-intensive DOM and the struggles they face operating on the margins of a mining landscape dominated by foreign corporations, whose presence has been facilitated and legitimized by proponents of the African Mining Consensus.

### 1.2 The African Mining Consensus

The African Mining Consensus is not without its dissenters. It is contested, refuted, and resisted, both on the ground and by policymakers and scholars. The Consensus is also not hegemonic in the Gramscian sense that its realization has been achieved through consent rather than coercion. As will become clear in this book, and as others have illustrated (Engels and Dietz 2017), coercion has been a central guiding tenet. The contention is that, in recent decades, the Consensus has been the dominant discourse and conceptual framework nourishing and directing mining strategy and policy on the continent.

Theoretically, the Consensus is founded on the premise that African countries should leverage their comparative advantage in metals and minerals to drive productivity growth and that the resultant distribution of value from these productivity gains will stimulate the structural transformation of local and national African economies. For this, state-owned enterprises (SOEs) and local forms of labour-intensive mining are both deemed unsuitable. The former is characterized as corrupt and mismanaged and the latter as an inefficient, low-productivity, subsistence activity with links to conflict financing. The Consensus holds, instead, that mining (re)industrialization should be led by the superior expertise and efficiency of foreign corporations.

The World Bank (1992) laid the early groundwork for this position in its landmark 1992 report, A Strategy for African Mining. In the report, the decline and stagnation of capital-intensive DOM in the 1970s and 1980s was explained by 'inward-looking, import-substitution economic policies and state ownership and control of productive facilities' (World Bank 1992: 9). Labour-intensive DOM was brandished as 'illegal' and 'inefficient' and as 'having brought problems of law and order, safety, environmental degradation, and the loss of potential government revenue' (World Bank 1992: 42). Instead, African governments were told, with no lack of clarity, 'The private sector should take the lead. Private investors should own and operate mines' (World Bank 1992: xiii). Managed in this way, the report continued, the African mining sector 'can provide important benefits in terms of exports,

foreign exchange earnings, and tax receipts to support economic recovery and growth in Africa' (World Bank 1992: x). The state's role was to privatize SOEs as soon as possible, as a signal to investors that they intended to pursue a foreign corporate-led mining strategy. Nearly thirty years on, the Bank remains wedded to the idea that capital-intensive FOM can form 'growth poles' on the continent (World Bank 2010; Hilson 2019).

Economic and social science scholarship has provided some support to this position, arguing that, if properly managed, capital-intensive FOM can drive sustainable development (Botin 2009; Richards 2009; Addison and Roe 2018). This includes in the DRC, where Garrett and Lintzer (2010: 419), assessing whether TNC-led copper and cobalt industrialization can drive growth and development in the country, concluded with 'a cautious yes.' De Putter and Decrée (2013: 60–61) argued that, under the right conditions, a corporate-owned industrial mining sector can benefit 'all Congolese.' <sup>12</sup>

African and international development agencies have adopted a similar position. The African Development Bank's (AfDB) flagship 2013 report, *Structural Transformation and Natural Resources*, argued that 'Africa must work on its strengths. The continent has a strong comparative advantage in natural resources, either in the form of energy, minerals, or agriculture. These can be the drivers of structural transformation through linkages, employment, revenue, and foreign investment' (AfDB 2013: 112–113). Similarly, in the foreword to the 2012 report *Promoting Industrial Diversification in Resource Intensive Economies*, the Director-General of the United Nations Industrial Development Organization (UNIDO) commented:

The ongoing boom in commodity prices offers numerous opportunities for resource-rich low- and middle-income countries in sub-Saharan Africa and Central Asia. For one, commodity producers—both governments and firms—have gained access to growing financial surpluses which, in turn, provide funds for investment in industrial diversification to complement the resources sector. Both the direct and indirect income generated by the commodities sector furthermore has the potential to spur industrial development through the establishment of a domestic market and the generation of new export opportunities which facilitate employment creation and economic growth.

(UNIDO 2012: 7)

<sup>&</sup>lt;sup>12</sup> The doctoral thesis of Dr Augustin Matata Ponyo (2017)—who served under President Joseph Kabila as minister of finance (2010–2012) and the prime minister (2012–2016)—went further still, arguing that mining reindustrialization was central to the period of macroeconomic recovery and stability after the end of the Congo Wars in 2002.

African governments have embraced a similar logic and, often working in close collaboration with the World Bank, have reformed their policy and regulatory frameworks accordingly (as described in greater depth in Chapter 2). While the African Mining Vision, adopted by African Heads of State at the 2009 African Union (AU) summit, was part of a push to assert greater national resource sovereignty on the continent, implementation has been poor (Graham 2022; Maphanga 2022). The reality at the national level has remained a model of mining-based industrialization which prescribes a central role to foreign corporations. Even the African Mining Vision itself, while departing from the World Bank by advocating various forms of state intervention to develop stronger linkages with other sectors of the economy, adheres to the general Consensus vision of capital-intensive FOM as a potentially 'viable component of an integrated and sustainable growth and development strategy for Africa' (AU 2009: 5).

In developing this position, African governments and development agencies have been influenced and guided by a body of GVC scholarship which has been optimistic about the potential for capital-intensive FOM to drive broader-based processes of structural transformation and industrialization on the continent. In the early 2010s, two of the most influential commodity-focused GVC policy papers were published, arguing that 'the enclave mentality to diversification in low-income [African] economies is an anachronism' (Kaplinsky et al. 2011: 29), and in the right conditions, TNC-led mining in African LICs can 'provide a considerable impetus to industrialization' (Morris et al. 2012: 414). This was because:

The global mining industry has [...] undergone a radical restructuring of its historically dominant production model. Mines have moved away from a high level of vertical integration towards outsourcing almost every stage in the mining process to independent firms. This incorporates not only the provision of equipment and capital goods, as well as inputs such as chemicals, but also key knowledge services.

(Kaplinsky et al. 2011: 15)

Inspired by these papers, and GVC analysis more broadly, much of the scholarly and development industry literature on African mining throughout the remainder of the decade focused on whether, and how, African states can make better use of local content and localization policies to strengthen the position of domestic firms and the contribution of capital-intensive FOM to economic development and industrialization (Bloch and Owusu 2012; UNIDO 2012; AfDB 2013, 2016; Esteves et al. 2013; Farole and Winkler

2014; World Bank 2015; Hansen et al. 2016; Ovadia 2016; Ramdoo 2016; UNDP 2016; Dziwornu 2018).<sup>13</sup>

Governments have been less enthusiastic about labour-intensive DOM. This has primarily been because of its perceived low productivity and inefficiency, as initially stated by the World Bank in its 1992 report, limiting its desirability as a poverty-alleviating, transformative development strategy. The following depiction from the African Mining Vision is typical:

Working from a low capital and asset base, most ASM activities are of a rudimentary nature, with little mechanization (shovels, hoes, picks, and wheelbarrows are the tools commonly used). Where there is mechanization, equipment and techniques are inefficient and hazardous to the environment and to the miners. In consequence, productivity, ore recovery and yields are low and income remains at subsistence level. This hinders re-capitalization and upgrading of mining operations and keeps small-scale miners in a vicious cycle of poverty.

(AU 2009: 27)

Due to this kind of framing, labour-intensive DOM has been peripheral to mining development strategies on the continent. While policy frameworks have acknowledged its existence and importance to rural livelihoods, these same frameworks have tended 'to constrain rather than encourage artisanal mining' (Bryceson and Jønsson 2014: 19). This can be seen most clearly in the procedurally complex, bureaucratically burdensome, and financially costly demands made of African miners to formalize and legalize their activity (Banchirigah and Hilson 2010).

In the DRC, for example, Congolese miners must work in officially recognized zones d'exploitation artisanale (ZEA)—artisanal exploitation zones. Within these zones, miners must self-organize into cooperatives, apply for individual exploitation cards, and comply with security and environmental regulations, with each requirement carrying a sizeable financial cost (Geenen and Radley 2014). Progress has been slow. In South Kivu, as of 2017, only seven ZEAs covering an area of 250 square kilometres had been established. This contrasts sharply with the 16,000 square kilometres covered by foreign-owned mineral research and exploitation permits that same year. At the national level, in the early 2010s, the concessions owned by

<sup>&</sup>lt;sup>13</sup> Local content refers to the local procurement of goods and services, while localization is intended as a broader concept, which incorporates an additional focus on firm capacity, skills training, and industrial development.

<sup>&</sup>lt;sup>14</sup> South Kivu Provincial Ministry of Mines mining permit data set, 2017.

foreign gold mining corporations covered 83 per cent of the DRC's known gold reserves (Mupepele 2012).

The result for African miners, illustrated by Geenen (2014: 279) in the case of the DRC, is a formalization process that 'criminalizes everyone who does not comply with the regulations' and dispossesses those 'who do not and cannot obtain an official title, often to the advantage of actors with more financial capital, such as industrial companies'. The criminalization of African miners, cast by policy frameworks as illegally encroaching on a concession once it has been assigned to a corporation, paved the way for their forced displacement (a phenomenon discussed at more length in section 2.3).

An additional reason for marginalizing labour-intensive DOM in favour of capital-intensive FOM has been the belief that while the former contributes to conflict, the latter can help to alleviate it. Since the turn of the century, academics, Western advocacy organizations, and UN reports have drawn attention to the relationship in Africa between labour-intensive DOM and conflict. This body of work has taken theoretical inspiration from the scholarship of Collier and Hoeffler (2002), who argued that contemporary conflict was motivated more by potential profits in easy-to-access natural resources than by social or political grievance.

This literature has had two waves. The first wave was focused on labour-intensive diamond mining in West Africa, depicted as 'blood diamonds' (Lujala et al. 2005; Olsson 2006; Rodgers 2006). As with the work of Collier and Hoeffler, it was predominantly based around economic modelling and econometrics. The second wave focused on 'conflict minerals' in Central Africa, with particular attention on the DRC but also neighbouring Burundi, Rwanda, and Uganda (Cuvelier and Raeymaekers 2002; Garrett and Mitchell 2009; Global Witness 2009; Rustad et al. 2016).

One of the arguments made in this literature is that, as touched upon in the chapter opening, TNC-led supply-chain management prevents armed group profiteering from production, alleviating conflict intensity. The economist Ola Olsson (2006), the principal early proponent of this line of thought, observed that Botswana and Namibia achieved better development outcomes and witnessed lower levels of conflict from diamond production than Angola, the DRC, and Sierra Leone. Olsson interpreted these divergent outcomes as due to the presence of the industrial diamond transnational De Beers in the former group compared to the presence of local mining (and the absence of De Beers, or a foreign corporate counterpart) in the latter group.

A similar logic can be found in the 'conflict minerals' literature, which has drawn attention to the fact that 'rebel groups compete [over natural

resources] to extract maximum commercial and material benefits' (Cuvelier and Raeymaekers 2002: 5). Local forms of mining thus finance conflict, and an alternative is required. The alternative, as with diamonds in West Africa, is to be found in the foreign mining corporation, whose efficient supply-chain management 'can help limit revenues for armed actors operating in the informal market' (Bafilemba and Lezhnev 2015: 3). In this way, this literature conjoins itself with the other strands reviewed in this section to bolster belief in the developmental preference for, and potential of, capital-intensive FOM in the African periphery.

### 1.3 Recentring the periphery

In establishing the Consensus position around the model of mining (re)industrialization that ought to be pursued in Africa, proponents have tended to misrepresent or disregard some of the classic critiques mounted by a group of pioneering early development economists. These critiques focused on the specific challenges and constraints faced by income-poor peripheral countries seeking development through deeper integration with the global capitalist economy. Returning to these earlier critiques provides helpful lenses with which to explore, with some adaptation, several axes of tension within the ongoing process of TNC-led mining (re)industrialization in African LICs that are overlooked by the absent or simplistic representation of these critiques by Consensus proponents.

The first tension derives from the Consensus's abandonment of the concept of peripherality itself, originally developed by a group of structuralist economists in the 1940s and 1950s, most notably by Raul Prebisch (1950) and his colleagues at the UN Economic Commission for Latin America (CEPAL). The centre–periphery framework arising out of Prebisch's seminal formulation—a framing which had been prefigured by the work of earlier scholars in the Black Radical Tradition, such as Du Bois (Edwards 2020)—drew attention to the structural constraints faced by countries in the periphery that were distinct from but linked to those faced in the industrialized centre and that risked undermining peripheral development.

By abandoning this framework, Consensus proponents cleared the way to point to historical instances of resource-based industrialization and structural transformation during the early stages of capitalist development in today's industrialized countries as refuting the basis of early structuralist insights. The cases of Australia, Belgium, Britain, Canada, Finland, France, Germany, Norway, Spain, Sweden, and the United States are commonly

cited by scholars and development agencies alike as evidence that—contra the critiques of Prebisch and other development economists of his time—commodity production has driven transformative and sustained economic development, including higher wages, through the stimulation of domestic manufacturing and industry (Blomstrom and Kokko 2007; Wright and Czelusta 2007; Domenech 2008; AU 2009; Kaplinsky et al. 2011; UNECA 2011; Morris et al. 2012; Calvo et al. 2019).

Citing historical examples of resource-driven economic development in today's industrialized countries as evidence to invalidate early structuralist thought and dismiss the relevance of peripherality misses the key insight of this lineage. Neither Prebisch nor his CEPAL colleagues denied that resource exploitation might have been a contributing factor to the industrialization and economic transformation of Northern economies. This was neither the focus nor interest of their critique but rather their starting point. Precisely because of the successful industrialization of these economies, CEPAL structuralists were concerned with the specificity of twentieth-century resource exploitation in non-industrialized Latin America, which, Prebisch and his contemporaries contended, led to a polarizing spread of productivity in these countries, in contrast to the growth experience of the industrial centres, where productivity had spread more evenly and widely throughout domestic economies.

According to Prebisch (1950), this disparity was because of the enclaved nature of peripheral resource extraction, dependent upon capital and technology emanating from, and developed in, the centre, which, once received by the periphery, created externally oriented production structures disarticulated from domestic economies, unlike the more strongly articulated economies of early industrializing countries. Here, articulation implies embeddedness with, and connection to, the surrounding local or national economy, while disarticulation implies dis-embeddedness and disconnection. As a result, peripheral capitalist economies were prone to experiencing declining terms of trade, macroeconomic instability, and the marginalization of local populations (Fischer 2015: 705).

The work begun by the early CEPAL structuralists was continued and expanded by a new generation of Latin American economists and political economists, or dependency theorists, who developed a line of critique centred around the idea that the outcomes of peripheral development were dependent upon (but not determined by) development in the industrialized centre (Cardoso 1977; Cardoso and Faletto 1979; Furtado 1983). Working within this tradition, the pioneering work of the Chilean Osvaldo Sunkel and Constantine Vaitsos (Greek by origin, Colombian by adoption)

leads us to a second axis of tension within the process of TNC-led mining (re)industrialization in African LICs.

Sunkel (1972, 1973) and Vaitsos (1973) were among the first to highlight the contradictions of a model of Latin American development delivering high growth rates but predicated on the dominance of foreign direct investment (FDI) in key industries. Their critique centred on the effects of TNC structures of ownership and control, which entailed a massive penetration of foreign subsidiaries into Latin American economies. This allowed TNCs to exert control over value flows and induced dramatic socio-political consequences—including (à la Prebisch) widening inequality—by instigating fundamental changes in the ownership patterns, social structures, and political systems associated with production (Sunkel 1972). In these ways, the heavy presence of FDI in key sectors of the economy might represent a deepening of, rather than a departure from, the condition of dependency. In the section of the economy might represent a deepening of, rather than a departure from, the condition of dependency.

The work of the Egyptian Marxian economist Samir Amin further develops this issue around the potentially deleterious effects of FDI dominance in key industries and leads us to a third axis of tension for investigation. Having developed a similar line of dependency thought to his Latin American contemporaries of the 1970s, Amin (1990) proposed 'delinking' as a strategic model to promote autonomous development in the periphery. The strategy centred around breaking from the demands imposed by the external global economy and reorienting strategy and policy towards serving domestic demand and promoting popular development (grounded in an understanding of the needs and interests of workers and peasants) (Kvangraven et al. 2021). A core pillar of the model was the capacity for the 'technological absorption and ingenuity' required to drive transformative and sustained processes of auto-centred development (Amin 1990: 60).

Picking up on Amin's work, and writing in the late 1970s and 1980s, Egyptian economists Fawzy Mansour and Mohamed Dowidar, and the Tunisian agronomist and dependency theorist Slaheddine el-Amami, raised the importance of grounding the technological component of Amin's 'delinking' project in the selection of 'appropriate technology' (Ajl 2021). Central to this was the pursuit of a combination of technological transfer and local innovation rather than a fixation of the former at the expense of the latter

<sup>&</sup>lt;sup>15</sup> This Latin American scholarship quickly travelled to Africa, where, in the DRC, for example, French translations of the work of Prebisch, Sunkel, Furtado, Cardoso, and others were circulated, debated, and adapted by a group of Congolese academics from the mid-1970s onwards (Tshibambe 2018).

<sup>&</sup>lt;sup>16</sup> Working in the tradition of Caribbean dependency thought, Jamaican Norman Girvan (1970) similarly found the penetration of vertically integrated foreign firm subsidiaries in 1960s mineral-exporting economies to significantly undermine the creation of linkages, the dissemination of technology, and the domestic reinvestment of profits in other industries.

(Ajl 2021: 90). Transfer without innovation, it was held, would inevitably lead to technological dependence, deepening rather than overcoming the constraints of peripheral development. Local control over technological choices, they argued, was a prerequisite for internally articulated development. If pursued along these lines, Amami contended, technology and knowledge systems within a given industry provided the bases for 'accumulation from below, a widened internal market, [and] staunching the bleeding-out of value' (Ajl 2021: 93).

Here, we are brought full circle back to the 1960s and 1970s Latin American (and Indian) debates around 'choice of technique' (Boianovsky 2013) and 'tecnologia social' (Pozzebon and Fontenell 2018). Within these debates, in a similar vein to the African literature on 'appropriate technology', were those—including CEPAL members—who contended that high capital intensity in labour-abundant peripheries was undesirable at the early stages of industrialization and that low capital intensity should form a guiding principle to development planning in this context. Such a position stands at odds with Consensus prescriptions, which give short shrift to the notion and potential value of low capital-intensity production, preferring instead rapid advancement to the technological frontier through capital-intensive FOM.

Working at the same time as Prebisch and his CEPAL contemporaries, albeit outside of these structuralist and dependency lineages, the Saint Lucian classical economist Arthur Lewis (1954) was also engaged with thinking through the specific challenges and constraints related to the condition of peripheral development. Here, his open economy model of economic growth with unlimited supplies of labour provides a fourth and final axis of tension for investigation. In the model, and in a similar vein to Prebisch, Lewis theorizes the relationship between productivity and wages in the global periphery, as distinct from its historical evolution in the industrialized centres. Pursuing the question of why Caribbean commercial crops were so cheap, despite their high productivity, Lewis argued that wages in this industry are set according to the productivity of what he called 'subsistence sectors' rather than in capitalist export sectors. As a result, he contended, the benefits of increasing productivity in capitalist export sectors accrue to Northern importers, via lower prices, and not to the workers.

Transposed to African LICs today, Lewis's model suggests that industrial miner wages will be set in the 'subsistence sectors' of the surrounding informal economy, not according to the productivity of the formal export sector. Under these conditions, unless the productivity of subsistence producers or the overall availability of employment are simultaneously increased, wages and general living standards will not improve. Lewis's theorization questions

if and how the value created by productivity is captured in peripheral settings and to what extent workers in the periphery benefit from productivity gains via increased wages. By so doing, Lewis leads us to a fourth axis of tension for further investigation by complicating the Consensus assumption that capital-intensive FOM can drive broader processes of consumption-led economic growth and structural change by raising wages among the local population.

More recent changes in the global economy indicate that the analytical frameworks advanced by these pioneering groups of Latin American and African economists and dependency theorists retain their relevance at the onset of the 2020s. The productivity gap between OECD countries and LICs in 2010 was more than five times greater than the gap in the nineteenth century between the Netherlands and the United Kingdom and the first round of late industrializers, such as Finland and Japan (UNCTAD 2010). Further, the recent growth of East Asian economies has shrunk the industrialization space for African LICs, while more liberal trade rules and deregulated capital markets have limited the room for industrial and trade policies (Storm 2015).

The era of structural adjustment and globalization of the 1980s and 1990s, conjoined with the generalized abandonment of projects of national development that so heavily populated the immediate post-colonial era of the 1960s and 1970s, have made the actual dependence of Southern—and especially (but not just) African—economies more acute than previously (Girvan 2006). Foreign direct investment and TNC activity has expanded to levels far beyond those of the 1970s. Through this expansion, TNCs have gained considerable power in relation to the state. The now commonplace use by corporations of investor–state dispute settlements to sue governments for taking actions that threaten their profits provides a case in point. Highlighting the challenge of overcoming modern peripherality, only three of the original thirty-six least-developed countries (LDCs) in Africa have graduated from their status since the list's inception in 1971: Botswana (in 1994), Cape Verde (in 2007), and Equatorial Guinea (in 2017).

To render an analysis of peripheral development fit for the contemporary context, however, the growth of financialization must be incorporated into the framework. Financialization refers to the increasing dominance, since around the 1970s, of the sphere of circulation over the sphere of production, creating new processes of surplus extraction from the periphery to the capitalist financial centres (Newman 2012). Financialization tends to reduce

<sup>&</sup>lt;sup>17</sup> The value of global FDI stock has risen from 7.8 per cent of global gross domestic product in 1967 to 67.2 per cent in 2014 (Dunning and Lundan 2008; UNCTAD 2015). The number of TNCs globally rose from around 7,000 in 1969 to more than 100,000 in 2012 (Jetto-Gillies 2013).

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overall levels of accumulation of real capital and to prioritize shareholder value over other values (Fine 2008).

In the context of the growing financialization of commodity markets, metals and minerals 'have become attractive for portfolio diversification and hedging' (Sensoy et al. 2015: 159). By contributing to the further redirecting of monetary value from productive centres in the periphery to predominantly Northern centres of non-productive financial capital, financialization might exert downward pressure on TNC profits, alleviated in turn by squeezing the value accruing to domestic governments, firms, and labour further down the chain. This fifth and final axis of tension is the corollary of the global mining industry restructuring away from vertical integration observed by scholars of African commodity GVCs but absent in their analyses. While potentially providing opportunities for productive and service sectors in the periphery at the lower levels of the chain, it might also direct value at the upper levels into non-productive, financial activities located primarily in financial capitalist centres.

At their core, the critiques of peripheral development reviewed here are preoccupied with four central issues: how and by whom productivity is created in the periphery; how the resultant value generated is distributed between and within different groups; what use these different groups make of the value accruing to them; and the resultant effects of these processes on social relations and structural transformation in the periphery, with a particular focus on TNC strategies of ownership and control. The major lines of argument put forward in this book are based on an analysis of these four issues in relation to mining-led development in South Kivu province of the eastern DRC.

The remainder of this book pursues these lines of investigation in the context of mining reindustrialization in South Kivu province of the eastern DRC, beginning by locating this case within its historical, national, and regional context.

## 1.4 The argument

Through a detailed case study of mining reindustrialization in South Kivu, the book offers an extended investigation into the solidity of the theoretical foundations underlying the African Mining Consensus by asking how Banro's entry into South Kivu's mining economy has influenced processes of economic development and conflict trajectories in the province. Pursuing this line of enquiry, the main empirical argument advanced by the book is

that mining reindustrialization was, in fact, already underway in South Kivu, independent of TNC tutelage. A locally led process of mining mechanization was contributing to several of the outcomes theorized by Consensus proponents of capital-intensive FOM, including increased productivity via capital formation and raised local wages. Furthermore, a high proportion of the end value of labour-intensive DOM was being retained and distributed domestically, overseen by an emerging capitalist class investing in productive accumulation, including in non-mining sectors. TNC entry into South Kivu has disrupted this process, replacing it with a foreign-managed, externally oriented, and enclaved mining economy that has reproduced (and, in some cases, accentuated) historically rooted forms of peripheral marginalization, polarization, and conflict.

Drawing from the empirical evidence presented, the central assumption underlying the Consensus that modern corporations will be more efficient and effective at leading structurally transformative processes of mining-based development than the SOEs that preceded them, or existing local alternatives, is challenged. Foreign corporations in South Kivu have been prone to mismanagement, inefficiencies, and rent-seeking and implicated in fuelling conflict and violence. In addition, structural impediments to the transformative effects of mining industrialization in the form of price volatility, enclavity, and low labour absorption occur irrespective of ownership and management structures.

Within the confines of these constraints, and in light of the levels of overseas surplus extraction and domestic marginalization associated with capital-intensive FOM, a shift to domestic-owned forms of mining-based development—and, in particular but not just, efforts to mechanize labour-intensive forms of local mining—would better meet the needs of African LIC economies for rising productivity, labour absorption, and the domestic retention of the value generated by productive activity than the currently dominant but disconnected and disruptive TNC-led industrial model.

More broadly, based on the evidence presented, the wisdom of the continued deference shown to FDI as the driver par excellence of development in African LIC settings is questioned. Such deference overlooks two key tendencies of TNCs operating in peripheral economies, as seen through the case of South Kivu: first, the tendency to marginalize domestic firms and emergent capitalist classes, groups observed historically as central to the process of late industrialization and structural transformation (Evans 1995; Singh and Ovadia 2018); second, the tendency to retain strict control over value flows, the value of most of which is redirected to overseas shareholders, senior company directors, and firms at the expense of the domestic

reinvestment required to productively absorb rapidly growing labour forces. Considering these observed tendencies, TNC dominance in key industries might be less a means to overcome African peripherality than an explanatory cause. This has state business and industrial policy implications for the pursuit of economic development in the global periphery at a time of increasing TNC expansion and infiltration into societies and economies across the continent.

### 1.5 Outline of the book and methods

Following this introductory chapter, Chapter 2 charts the return and spread of the transnational mining corporation across a wider group of African LICs than was the case during the colonial period. It is organized in three sections, each corresponding to a separate stage of the process that facilitated this trend. The first stage involved a diagnosis of the economic challenges faced by African economies in the late 1970s as due to misguided state intervention and government corruption. During the second stage, the International Monetary Fund (IMF) and the World Bank advocated for, financed, and, in many instances, directly oversaw the liberalization, privatization, and deregulation of African LIC mining sectors. The third stage required criminalizing African miners engaged in labour-intensive production and, if required, forcibly displacing them to make way for the construction of capital-intensive, foreign-owned mines.

In Chapters 3–5, the book turns its attention to an in-depth investigation of foreign-owned mining in South Kivu, both historically across the twentieth century and more recently in the 2010s. Each of the three chapters gravitates around a separate structural constraint to mining-based development in an African LIC setting: price volatility (Chapter 3), enclavity (Chapter 4), and low labour absorption (Chapter 5). Chapter 3 analyses how the supposed superiority of capital-intensive FOM has unravelled in South Kivu not once but twice, the first time during the latter half of the twentieth century and, more recently, under Banro in the 2010s. The evidence presented suggests that foreign-owned mining corporations are no less vulnerable to mismanagement, firm inefficiencies, and volatile prices than their state-owned counterparts. In the case of capital-intensive FOM, the developmental impact of this vulnerability has been exacerbated through a high degree of overseas surplus extraction, the costs of which, in the case of Banro, have been borne domestically by the Congolese state and Congolese firms and labour.

Chapter 4 investigates the degree of articulation between the Congolese economy and the manufacture and provision of goods, equipment, and capital infrastructure to FOM in South Kivu during the twentieth century and how the turn to corporate outsourcing since the 2000s has affected this articulation. Based on the findings presented, it is argued that the greatly advanced technological frontier of mining in the twenty-first century has led to a heightened level of disarticulation and alienation between Banro's Twangiza mine and the surrounding Congolese economy compared to earlier eras of FOM in South Kivu.

In Chapter 5, it is shown how FOM in South Kivu has demonstrated a historical tendency to deliver low and stagnant wages to most workers while delivering high wages to a narrow managerial group. Meanwhile, the industry turn to outsourcing has—by expanding labour informality and entrenching spatial separation between workers—weakened the collective strength of workers at Twangiza to resist and transform their conditions. Together with a low level of labour absorption and the external orientation of most of the managerial stratum, who consume and invest their wages outside of the DRC, the ability of wages derived from capital-intensive FOM to stimulate economic development in South Kivu has been limited. Taking the evidence presented across Chapters 3–5 together bears out many of the concerns raised by the critiques of peripheral development reviewed in section 1.3.

Chapters 6 and 7 explore the developmental potential of a locally led alternative to the foreign-owned model in the form of labour-intensive DOM, alongside a consideration of how Banro's entry into South Kivu has interacted with and influenced this pre-existing mining economy. Chapter 6 demonstrates how labour-intensive DOM in South Kivu has been a site of dynamic domestic accumulation through technological assimilation and innovation, capital formation, and productive investments outside of mining. Moreover, the capital–labour social relation underpinning labour-intensive DOM in South Kivu has delivered higher wages to workers than those available in the surrounding economy, while facilitating the emergence of a capitalist class of dynamic and prosperous rural Congolese.

Chapter 7 reveals how labour-intensive DOM has been subjected to processes of displacement, subversion, and suppression following Banro's arrival. This, in turn, has given rise to new forms of protest, violence, and killings as different groups of local actors have sought to resist their newfound marginality. Chapter 8 concludes by reflecting on the implications of the findings, including what scope there might be for the social forces driving labour-intensive DOM to emerge as a viable alternative to capital-intensive FOM in the coming years and decades, both in and beyond South Kivu.

### 24 Disrupted Development in the Congo

Most of the data collection was undertaken between May 2016 and August 2017, at which point I was living in the capital city of Kinshasa and travelling regularly to South Kivu. This was informed more generally by my work and research on the DRC's mining sector since 2011, when I first moved to the country (based initially in Bukavu, South Kivu), some of which is drawn on directly in the book. The research was further aided by continuing to reside in the country until early 2019. This allowed me to follow up on certain strands and missing pieces of data, as well as sharing and discussing my findings with academic and local communities in South Kivu and Kinshasa.

Data was mostly collected across four main sites: Luhwindja (home to Banro's Twangiza mine and the adjacent labour-intensive Kadumwa mine), Kamituga (home to one of Banro's major concessions and a historically important mining town in the region), South Kivu's provincial capital city of Bukavu (where Banro had a regional office and Congolese gold traders operate and export their merchandise), and Kinshasa (mostly for archival research). Much of my time, around six months, was spent in Luhwindja with my research assistant Elie Lunanga. This included a two-week stay inside the compound of the Twangiza mine itself towards the end of the research. The approach in Luhwindja was predominantly ethnographic, involving a combination of direct and participant observation, conversations, and informal interviews. French fluency and conversant Swahili allowed me to hold most of these exchanges directly. When the Swahili eluded my grasp or the local language of Shi was preferred by participants, Elie provided invaluable support with translation.

While it was difficult to keep track of every interaction, insights to the research problem were generated by speaking with or interviewing at least 408 people across these different sites, predominantly those in mining (both past and present) but also farmers, herders, teachers, hospital workers, priests, police, military, civil servants, and government authorities. A range of other methodologies were employed, including archival research, the collection of corporate documentation, labour and subcontractor surveys, and the creation of financial and production logbooks with local miners and gold traders.

<sup>&</sup>lt;sup>18</sup> To counter the widely held belief locally that I worked for Banro, I made every effort to distance myself from, and maintain my neutrality with, the corporation. This included, for example, declining Banro's offer to drive us to and from Luhwindja (from Bukavu) and to lodge and transport us around while there. Instead, we travelled on local buses, lodged at the local Franciscan parish, and got around by foot or taxi motorbikes. As my on-site presence at Twangiza would no doubt have aroused further suspicion, I delayed this visit until the end of the fieldwork period.