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# The End of the African Mining Enclave? Domestic Marginalization and Labour Fragmentation in the Democratic Republic of Congo

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## ABSTRACT

Africa-focused global value chain (GVC) scholars argue that the new mining industry practice of corporate outsourcing invalidates the traditional enclave thesis by providing new opportunities to support domestic firms and stimulate industrialization. However, this literature has clustered around Africa's middle- and high-income countries and its analytical approach abandons the centre-periphery framework within which its earlier antecedents were grounded, while overlooking labour dynamics. Correcting for these limitations, this article explores the GVC literature's claims through a single case study of a gold mine in the Democratic Republic of Congo, representative of a process of foreign-controlled gold sector (re)industrialization underway across a group of 20 low-income African countries. The findings confirm rather than invalidate the original enclave thesis, observing that corporate outsourcing has done little to stimulate broader industrialization while facilitating the arrival and expansion of foreign firm subsidiaries. Meanwhile, the new industry practice has also facilitated the adverse incorporation and fragmentation of Congolese labour, thus weakening the collective strength of workers. The findings demonstrate the value of expanding the conventional GVC framework to incorporate a consideration of peripherality and the capitalist labour process, and demonstrate the need for state intervention via pro-labour and industrial policy.

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## INTRODUCTION

Over the last several years, an emergent body of global value chain (GVC) scholars, taking 'as their point of departure the flaws of the literature on the

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enclave nature of extractive industries in Africa' (Ayelazuno, 2014: 294), have been questioning the relevance of the enclave thesis to the African mining industry today. The enclave thesis was initially established by Prebisch (1950) and Singer (1950), who used a centre–periphery framework to argue that capital-intensive resource extraction in the global periphery has little articulation with local and national economies, and that the benefits accrue largely to the foreign countries and transnational corporations providing the industrial technology and capital. More recently, modern-day African incarnations of the enclave thesis have been developed, most notably by the anthropologist Ferguson (2005) and the political economist Bond (2007).

The origins of the GVC literature that is increasingly challenging the foundations of this thesis can be traced to the emergence of global commodity chain (GCC) analysis in the latter part of the 1980s, pioneered by the early work of Hopkins and Wallerstein (1986). Influenced by dependency theory and world systems analysis, they defined commodity chains as 'a network of labour and production processes whose end result is a finished commodity' (*ibid.*: 159). Hopkins and Wallerstein (1994a, 1994b) used this framework to analyse the evolution of commodities, such as ships and grain flour, over long-wave historical cycles (similar in length to Braudel's 'long 16th century' or Arrighi's 'long 20th century') and within an understanding of the contradictory and dynamic nature of the centre–periphery structure.

In the 2000s, GCC analysis was superseded by GVC analysis, promoted most prominently by the 'Manchester School' (see, e.g., Gereffi et al., 2005; Humphrey and Schmitz, 2000; Kaplinsky and Morris, 2002; Kaplinsky and Readman, 2001). The new body of GVC work focused on the institutional and regulatory contexts in which domestic firms in the global South can 'upgrade' within GVCs to higher value-added activities. From this starting point, GVC studies produced schematic maps to identify the key actors and institutions within a given chain, using the conceptual tools of 'boxes' or 'nodes' drawn from the earlier GCC literature.

Applying this analytical framework to African commodities, Kaplinsky et al. (2011: 15) observe that global mining corporations today have restructured away from vertical integration towards outsourcing the provision of equipment, goods and services to independent firms. The authors identify four factors that influence the degree to which African economies can benefit from this change: time, the scale of the sector, the sector's technological complexity, and the capacity of domestic firms and suppliers (*ibid.*).<sup>1</sup> Based on this industry restructuring, the authors conclude 'that the enclave mentality to diversification in low-income [African] economies is an anachronism' (*ibid.*: 29). Similarly, looking at the gold sector in Ghana, Bloch and Owusu (2012: 435) argue that 'the restructuring of the industry in the era of

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1. In fact, five factors are mentioned, but the factor concerning the requirements of lead firms broadly correlates to the factor on the capacity of domestic actors (to respond to these requirements), so these two have been merged in the above summary.

economic liberalization and particularly developments over the last decade now invalidate the enclave position. Gold mining is no longer an enclave activity'. For Morris et al. (2012: 414), 'if these strategic opportunities are grasped, the potential then arises for linkages from the commodities sector to provide a considerable impetus to industrialization'.

Yet the African commodity GVC literature supporting these conclusions has three weaknesses. First, and as observed in the GVC literature more generally (see, e.g., Neilson et al., 2014; Werner et al., 2014), it has made a conceptual shift away from its historical roots in critical analyses of global capitalism, abandoning the centre–periphery framework that was so central to the insights generated by these critiques. Both Kaplinsky et al. (2011) and Morris et al. (2012), for example, cite historical examples of supposed resource-driven economic development in Australia, Canada, Norway, Sweden and the US as evidence to invalidate the earlier structuralist enclave thinking of Prebisch and Singer. Yet this was neither the focus nor interest of the enclave critique; it was rather its point of departure. Precisely because of the successful industrialization of these economies, centre–periphery scholars were concerned with the specificity of 20th century resource exploitation in non-industrialized nations, which Prebisch and his contemporaries contended led to a polarizing spread of productivity in these countries. This is in contrast to the comparatively homogenized growth experience of the industrial centres, where productivity spread more evenly and widely throughout domestic economies.

Second, a consideration of the effects of corporate outsourcing on labour is entirely absent. This leaves the literature on African commodity GVCs unable to speak to concerns raised by non-commodity GVC studies, such as in the apparel and digital industries, which have drawn attention to the 'adverse incorporation' of workers at the bottom of GVCs in the global South, including expanded labour informality and low wages (Meagher, 2016; Newsome et al., 2015). Third, the literature is clustered among high- and middle-income countries such as South Africa (Walker and Jourdan, 2003), Nigeria (Oyejide and Adewuyi, 2011), Sudan (Suliman and Badawi, 2010), Zambia (Fessehaie, 2011) and Ghana (Bloch and Owusu, 2012). Similar research in low-income African countries, which comprise more than half of the national economies on the continent, is notably rare.

By redressing each of these shortcomings, this article aims to make an original conceptual and empirical contribution to the growing literature on African commodity GVCs. Using a case study of the Twangiza gold mine in South Kivu Province of the Democratic Republic of Congo (DRC), owned by the Canadian transnational corporation (TNC) Banro, the article explores how the new mining industry practice of corporate outsourcing has affected the position of domestic firms, suppliers and labour within Banro's value chain, and to what extent the practice has provided an impetus to industrial processes that extend outside of the mining sector. The main

argument advanced by the article is that far from supporting domestic firms and suppliers and providing a stimulus to industrialization, corporate outsourcing at Twangiza has marginalized the Congolese private sector in favour of foreign (and predominantly Northern) firms and manufacturers, and the mine's industrial structure is almost wholly dependent upon externally (and again, predominantly Northern) manufactured goods, equipment and inputs. Meanwhile, labour itself has been outsourced, facilitating the adverse incorporation of many Congolese workers while weakening their collective strength through organizational fragmentation. Thus, not only do these findings appear to confirm rather than invalidate the original enclave thesis, the new industry practice of corporate outsourcing has negatively affected the position of labour in the chain.

The article is structured in six sections. The first section develops the analytical framework, introduces and situates the Banro case study in its broader regional context and discusses methodology. The second section looks at the history of formal gold mining in South Kivu, the province in which the Banro Corporation is now mining. By mapping the firms and suppliers providing equipment, goods and inputs to Banro's Twangiza gold mine, the third section highlights the marginalized position of domestic actors within the chain, and the fourth section considers the primary obstacles and challenges to their inclusion. The fifth section considers the labour process, drawing attention to the harmful effects of corporate outsourcing on labour organization and workers at the bottom of Banro's chain. The concluding section summarizes the findings and discusses the theoretical and policy implications for the broader country group to which the study relates.

## FRAMEWORK AND CONTEXT

The framework adopted by this study is grounded in a central approach of GVC analysis, which is to conceptualize TNCs as 'lead firms [with the ability] to coordinate the value-added activities of a multitude of economic actors' (Neilson et al., 2014: 1), and schematically map the distribution of value throughout the chain to these various actors. Yet the article also develops and expands this framework by addressing the two conceptual shortcomings identified in the previous section. First, it returns to the literature's more critical origins, and readopts the concept of peripherality that was so central to these earlier lineages. As Fischer (2015: 704) argues, it is 'still useful to frame the contemporary challenges of development in terms of peripherality'. Despite shifts in the global order, the concept still speaks to common structural features and constraints related to technological, industrial and financial dissemination, which generally emanate from centres of the global economy and are received by the peripheries. Second, and following Selwyn (2016: 1772), it incorporates a focus on the capitalist labour

process, in particular how work is organized in production and the shifting balance of power between workers and managers.

Empirically, by offering a detailed case study of gold mining in the low-income DRC, the article also corrects for the literature's current clustering around high- and middle-income African countries. The Twangiza case relates to a broader process of foreign-controlled gold sector (re)industrialization underway across a group of gold-endowed, African low-income countries (GALICs). A qualitative reading of US Geological Survey (USGS) country reports indicates the presence of gold in 20 of Africa's 27 low-income countries.<sup>2</sup> Since 1980, the World Bank has loaned more than US\$ 500 million to 16 GALIC governments for mining sector projects in which legal and regulatory reform was a key component.<sup>3</sup> Ideologically driven by a belief that government corruption and state inefficiencies are prime causal explanations for the failure of the national developmentalist agenda pursued in the 1960s and 1970s, the African experience since the 1980s 'has been a cumulative process of reform leading to several generations of increasingly liberalized mining regimes' (Campbell, 2008: 369). The end result has been a privatized and deregulated sector in which the role of the state has been restricted to securing foreign direct investment (FDI) and upholding the sanctity of private property (Bush, 2010: 256).

The paradigm shift from an era of developmental to neoliberal extractivism converged with the most recent commodity super-cycle during which, from 2000 to 2012, the gold price increased by a factor of six.<sup>4</sup> Facilitated by sectoral liberalization and motivated by rising prices, 'total FDI inflows into African LDCs rose fourfold from an annual average of US\$ 1.7 billion in the 1990s to US\$ 6.8 billion in 2000–2005 ... the bulk of which was directed to mineral extractive industries' (UNCTAD, 2007: 35). Most of the mineral-seeking FDI was focused on the gold sector; between 1995 and 2004, gold exploration represented around two-thirds of all African mineral exploration activity.<sup>5</sup> Today, official annual gold production is at historically unprecedented levels in many GALICs, most notably Burkina Faso, the DRC, Ethiopia, Guinea, Mali, Senegal, Tanzania and Togo.

A process of foreign-controlled GALIC gold sector (re)industrialization is, then, well underway, and merits the attention of African commodity industry GVC analysis, particularly in light of the relative dearth of low-income country studies to date. The Twangiza mine provides an ideal case

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2. These countries are: Burkina Faso, Central African Republic, Chad, DRC, Eritrea, Ethiopia, Guinea, Liberia, Madagascar, Mali, Malawi, Mozambique, Niger, Senegal, Sierra Leone, South Sudan, Tanzania, Togo, Uganda and Zimbabwe.
  3. World Bank Project Database, [www.worldbank.org/projects](http://www.worldbank.org/projects) (accessed 3 January 2018). This figure does not include loans provided for energy and infrastructure projects, which are often directly related to mineral sector development.
  4. World Gold Council, [www.gold.org/research/download-the-gold-price-since-1978](http://www.gold.org/research/download-the-gold-price-since-1978) (accessed 24 November 2017).
  5. USGS Data Series 139, <https://pubs.usgs.gov/ds/2005/139/> (accessed 18 December 2017).

to explore this process, as it is located in a peripheral region of the sixth most income-poor country in the world.<sup>6</sup> The case is also typical of the privatized and deregulated sector established across the continent by the 2000s following World Bank-led reform, as described above. Banro owns 100 per cent of its assets in the DRC, and the corporation's mining convention with the Congolese government offered a generously liberal fiscal regime, including a 10-year tax moratorium and the elimination of import duties.

Fieldwork for the study was undertaken in the DRC between May 2016 and July 2017, consisting mainly of site visits to the Twangiza mine and extended stays in Luhwindja (the area in which the mine is located). Time was also spent in the provincial and national capital cities of Bukavu and Kinshasa respectively. Data were collected from direct observation, company archives and documentation, a worker survey, a subcontractor survey,<sup>7</sup> conversations, informal and semi-structured interviews and life histories. A combination of convenience and snowball sampling was used to identify survey respondents and interviewees. Surveys were conducted with a total of 126 workers (around 10 per cent of all workers at the mine) and 14 subcontractor managers. Conversations or interviews were held with at least 117 workers and managers at the mine, in addition to local, provincial and national state authorities.<sup>8</sup>

#### **A BRIEF HISTORY OF FORMAL GOLD MINING IN SOUTH KIVU<sup>9</sup>**

Banro's Twangiza mine is located in the government collectivity-chiefdom (hereafter, collectivity) of Luhwindja, in the eastern province of South Kivu (which borders neighbouring Burundi and Rwanda).<sup>10</sup> The mine is about a four-hour drive from the nearby provincial capital of Bukavu. While gold

6. Responding to the widely held view in the natural and social sciences that it is not possible to generalize from a single case, Flyvbjerg (2006: 228) has argued that 'one can often generalize on the basis of a single case, and the case study may be central to scientific development .... But formal generalization is overvalued as a source of scientific development, whereas "the force of example" is underestimated'. Gerring (2007: 178–79) also contends that single case studies can be generalizable to a broader set of cases.
7. The subcontractor survey was implemented in collaboration with Dr Sara Geenen's current FWO-funded research project 'Towards a New Theoretical Framework for Linkages from Large-scale Mining: Bringing in Power and the Production of Access and Exclusion' in Ghana and the DRC. For more information, see: <https://researchportal.be/en/project/towards-new-theoretical-framework-linkages-large-scale-mining-bringing-power-and-production>
8. Survey data were collated and interpreted using the software Microsoft Excel and Qualtrics, and interview data were collated, coded and interpreted with the assistance of ATLAS.ti, a computer programme used for qualitative data analysis.
9. Informal artisanal gold mining employs tens of thousands of people across South Kivu today and its history is almost as long as that of formal gold mining. This history is not considered here, however, given the article's focus on corporate outsourcing in the formal gold sector.
10. For a detailed history of gold mining in Luhwindja, see Geenen (2015: Ch. 6).

mining has a long history in other parts of Africa, there is no evidence of pre-colonial mineral exploitation in South Kivu. Foreign mining capital first entered the province in 1902, when the Belgian Baron Empain invested 25 million gold francs to construct a railway connecting the eastern parts of the Congo Free State.<sup>11</sup> In return, the Empain Group was given 4 million hectares of land and mineral rights, stretching from the Congo River eastward to Lake Kivu. In 1923, the Empain Group created the subsidiary Société Minière des Grands Lacs (MGL) — Great Lakes Mining Company — responsible for all mineral exploration and exploitation in the region. By the end of the 1930s, MGL had 573 mining concessions covering 49,440 km<sup>2</sup>, employed 15,905 African workers and 149 Europeans, and had exported a total of 21,444 kg of gold to Belgium (alongside tin and, in smaller quantities, wolframite and monazite).<sup>12</sup>

While MGL began to mechanize gold production in some areas from the 1940s onwards, many areas continued to use predominantly artisanal extraction methods up until the end of the 20th century, including Luhwindja.<sup>13</sup> In 1976, MGL, Cobelmin and Symetain (along with six associated subsidiaries) merged into the Société Minière et Industrielle du Kivu (SOMINKI) — Kivu Mining and Industrial Company — in which the state negotiated a 28 per cent stake.<sup>14</sup> The remaining 72 per cent was held by a Belgium-based subsidiary of the Empain Group. In late 1985, the international tin price more than halved, and the onset of the First Congo War in 1996 triggered SOMINKI's final collapse. It went into liquidation in March 1997, ending nearly 100 years of Belgian-controlled mineral exploration and exploitation in the province.<sup>15</sup>

Throughout the 20th century, neither MGL nor SOMINKI practised subcontracting to domestic firms, and procurement was managed internally and channelled almost exclusively through overseas suppliers.<sup>16</sup> During a period of high shareholder investment from 1980 to 1984, SOMINKI spent a total of 1 billion Belgian francs on procurement, of which more than two-thirds accrued to Belgian, German and South African firms, and almost none to the Zairian economy.<sup>17</sup> The only exception was the procurement of food for the workforce, much of which was produced and sourced locally. Even food came to be increasingly procured overseas by the late 1980s, with the neglect and decline of agriculture rendering basic foodstuffs such as rice cheaper to

11. Group Empain Archives Summary, Tervuren Museum, [www.africamuseum.be/museum/research/human-sciences/histpol/doc/presentationEMPAINBCK](http://www.africamuseum.be/museum/research/human-sciences/histpol/doc/presentationEMPAINBCK) (accessed 28 January 2018).

12. MGL General Assembly Meeting Notes, 6 October 1937; MGL Annual Report, 1937.

13. Letter from Marrio Fiocchi, SOMINKI director, to the Zairian Government, 13 January 1989.

14. Ministry of Mines SOMINKI Meeting Minutes, Kinshasa, 1991.

15. 51st Board of Directors Meeting Notes, Kinshasa, 29 March 1997.

16. Interview with former SOMINKI director, Brussels, 10 August 2016.

17. SOMINKI Annual Reports, 1980 to 1984.

import from Thailand than to source locally.<sup>18</sup> Thus, from the perspective of corporate outsourcing, MGL and SOMINKI broadly conformed to the enclave thesis. They were vertically integrated foreign mining corporations, disarticulated from the local and national Congolese economy and dependent upon the foreign supply of goods, capital equipment and inputs.

Yet while the Congo Wars triggered the complete collapse of official gold production in South Kivu, they also contained the seeds of its eventual return. SOMINKI's liquidation in 1997 was part of negotiations begun in 1995 between a group of British–Canadian investors and the Zairian state to acquire control of SOMINKI's assets. The wars ended in 2002 with Banro having secured full ownership of SOMINKI's major gold deposits under a 30-year mining convention that included a 10-year tax moratorium and the elimination of import duties. Between 2002 and 2012, annual FDI inflows to the DRC increased by a factor of 17, from US\$ 188 million to US\$ 3.3 billion,<sup>19</sup> and were almost exclusively focused on the mining sector (Englebert, 2014: 6). In 2012, Banro began commercial production at its Twangiza mine through its subsidiary Twangiza Mining, which in 2019 remained the only industrial mine at the production phase in South Kivu.<sup>20</sup>

## NORTHERN DISSEMINATION, FOREIGN FIRM EXPANSION

As demonstrated in the GVC literature reviewed in the introduction, and confirmed through a mapping of Twangiza's value chain, the global mining industry has recently restructured away from the vertical integration practised by corporations such as MGL and SOMINKI, and towards the outsourcing of a range of activities and services to independent firms. To return to the first part of the question at hand, how this new industry practice has affected the position of domestic firms and suppliers within Banro's value chain, corporate outsourcing can increase a mine's articulation with the domestic economy in two ways: first, by the procurement of goods, capital equipment and inputs through independent domestic suppliers; and second, by subcontracting the provision of productive activities and services to domestic firms. These two processes can, in turn, provide impetus to broader processes of industrialization and economic diversification by stimulating secondary domestic sectors. Considering these processes, the current section details how Congolese firms and suppliers occupy a marginal position within

18. Interview with former SOMINKI director, Brussels, 10 August 2016.

19. Congolese Central Bank data series on inward FDI flows, 1995 to 2016 (provided by a bank official).

20. Since 2012, Banro's Namoya project in Maniema Province and the Kibali project in Haut-Uélé Province, a joint venture led by the Canadian corporation Randgold Resources in partnership with the South African corporation AngloGold Ashanti, have also entered the production phase.

Banro's chain, and shows that the Twangiza mine's industrial structure is almost fully dependent upon externally manufactured capital goods, equipment and inputs. Banro internally manages the procurement of its high-value and technologically advanced supplies — which herald almost entirely from the Triad states (the EU, USA and Japan), as well as South Africa and Australia — and subcontracts mostly to foreign firm subsidiaries.

Interviews with former and current procurement managers at Twangiza Mining reported that the subsidiary made almost exclusive use of overseas manufacturers and suppliers.<sup>21</sup> Corporate documentation supports these impressions and provides insight into the depth of the mine's technological integration with predominantly Northern industrial centres. From a total of 37 manufacturers listed in Twangiza Mining's 2011 asset inventory, 25 (or two-thirds) are American, British or Japanese corporations. Of the remaining 12, eight are from Europe, with one firm from each of Australia, China, India and South Africa. Similarly, a depreciation schedule from the end of 2012 lists all the fixed assets held by Twangiza Mining, including the manufacturer and original value. Of the US\$ 51.8 million in fixed assets, only US\$ 1.6 million (or 3 per cent of the total value) was manufactured outside of the Triad states and Australia, in the same countries that featured in the 2011 inventory (China, India and South Africa). The gold processing plant itself — comprising a crushing plant, two ball mills, a chemical treatment facility, a gold storage room and a smelting laboratory<sup>22</sup> — was purchased by Banro second-hand from Australian mining corporation Tamaya Resources, transported by sea and delivered by road for reassembly by engineers on site.<sup>23</sup> Notably, with the exception of South Africa, no Congolese or any other African firms appear in either of the lists.

It is only towards the lower-value, light industrial end of inputs that domestic and regional firms begin to appear, yet even here only marginally so. Twangiza Mining procurement invoices from 2010 to 2013, a period that spans the construction phase of the mine through to commercial production in 2012, indicate that the subsidiary procured inputs from 86 suppliers and manufacturers.<sup>24</sup> Of these 86 firms, 72 were non-African (excluding South Africa). From the remaining 14, three were Congolese, four Kenyan, two Mauritian, two Tanzanian, two Ugandan and one Rwandan. The three Congolese firms were only ephemerally involved, one making a one-off supply of IT equipment in 2011, one providing customs support for several months in 2012, and one providing a one-off lease of unspecified mining equipment in 2013. Of the 11 other African firms, only four provided inputs seemingly

21. Interviews with former and current Twangiza Mining procurement managers and workers, Twangiza, Bukavu and Kinshasa, January to June 2017.

22. See: [www.mining.com/banro-acquires-refurbished-process-plant-to-fast-track-gold-production-at-its-twangiza-project/](http://www.mining.com/banro-acquires-refurbished-process-plant-to-fast-track-gold-production-at-its-twangiza-project/)

23. See: [www.mining.com/banro-ships-gold-plant-from-australia-and-signs-milestone-agreements-with-luhwindja-community-and-the-artisanal-miners-at-twangiza/](http://www.mining.com/banro-ships-gold-plant-from-australia-and-signs-milestone-agreements-with-luhwindja-community-and-the-artisanal-miners-at-twangiza/)

24. Twangiza Mining company documentation, 2009–2013.

manufactured or extracted in their registered country of origin (quicklime and light industrial goods, composed mostly of piping and fencing).

Similarly, Banro has only outsourced procurement to Congolese suppliers at the lowest-value end of the chain, mostly for office equipment and stationery, worker safety equipment (such as boots, jackets and protective clothing) and basic construction materials (such as steel bars and concrete). As elsewhere in the procurement chain, none of these goods are manufactured or procured domestically. Rather, Congolese suppliers procure predominantly Asian-manufactured goods almost exclusively through Dubai, with the exception of basic construction materials manufactured in neighbouring Uganda (steel bars) and Rwanda (concrete).<sup>25</sup> In 2016, these Congolese traders supplied an estimated US\$ 1.5 million of goods and equipment to the mine,<sup>26</sup> while Twangiza Mining itself imported around US\$ 41 million of supplies and inputs.<sup>27</sup> Thus, none of Twangiza Mining's procurement makes use of domestically manufactured inputs, and only a small percentage of the total value is outsourced to domestic suppliers.

In the realm of subcontracting, in 2017 Twangiza Mining subcontracted 15 firms to provide 13 different activities and services to the mine. Of the 15 firms, outside of the provision of labour — considered more fully in the fifth section of this article — only two were Congolese, one subcontracted to provide sand and the other drilling. The remaining services and activities — customs, power, security, road maintenance, fuel, smelting, aviation, catering, gold certification and transportation — were provided by foreign firm subsidiaries. In South Kivu alone, putting aside the Congolese private sector in the more established mining industry in the Katanga region of the country, domestic firms were operating in at least five of these areas (security, catering, road maintenance, fuel and transportation); some of the obstacles to their inclusion are considered in the next section.<sup>28</sup> Taken collectively, and drawing on Twangiza Mining's financial accounts, foreign subcontractors captured an estimated 87 per cent of all value accruing to subcontractors in 2013, or 75 per cent if fuel is excluded (see Table 1).

While foreign firm subsidiaries capture most of the subcontracting value, some have also expanded their presence in the DRC since their arrival through Banro. Tsebo Outsourcing Group's first contract in the DRC was with Banro, yet they have recently secured several new contracts in the country, including with mining TNCs Glencore in Lualaba Province and Randgold Resources in Haut-Uélé Province.<sup>29</sup> Similarly, the Tanzanian firm Simba Logistics and the Swiss TNC Société Générale de Surveillance (SGS)

25. Interviews with multiple domestic suppliers, Bukavu, January to April 2017.

26. Domestic supplier invoices, 2016.

27. South Kivu list of declared imports, 1 January 2016 to 31 December 2016, Congolese Central Bank.

28. Fédération des Entreprises du Congo — Congo Business Federation — South Kivu membership list, 6 January 2017.

29. Interview with Tsebo Outsourcing Group administrator, Bukavu, 6 December 2016.

*Table 1. Twangiza Mining Subcontractor Value Capture, 2013 (in millions of US\$)*

Nationality	Firm(s)	Service	Value	
			\$	%
Congolese	Premium	Sand	3.3	7.2
Congolese	Cinamula, Diphil, Zuki	Labour	2.6	5.6
Congolese	Groupe Rubuye	Drilling	0.2	0.4
<b>SUBTOTAL DOMESTIC</b>			<b>6.1</b>	<b>13.2</b>
Malaysian	Engen	Fuel	21.6	46.9
Kenyan	Civicon	Road Maintenance	8.4	18.2
South African	Tsebo Outsourcing Group	Catering	3.3	7.2
British	Aggreko	Power	2.5	5.4
British	G4S	Security	1.5	3.3
Swiss	Société Générale de Surveillance	Gold Certification	1.3	2.8
South African	Savannah	Aviation (Helicopters)	0.8	1.7
South African	Rand Refinery	Smelting	0.5	1.1
Tanzanian	Simba Logistics	Transportation	0.1	0.2
Belgian	COMEXAS Group	Customs		Unknown
<b>SUBTOTAL FOREIGN</b>			<b>40.0</b>	<b>86.8</b>
<b>TOTAL</b>			<b>46.1</b>	<b>100.0</b>

Source: Twangiza Mining 2013 financial accounts.

arrived through Banro and have recently secured new DRC contracts in the mining region of Katanga and with Randgold Resources in Haut-Uélé.<sup>30</sup>

In terms of the value accruing to subcontractors, only two firms had significant domestic procurement expenditure. The first was Congolese firm Premium, which procured around 200 m<sup>3</sup> of sand per day from the island of Idjwi on Lake Kivu, which Twangiza Mining used for the mine's ever-expanding waste storage facility.<sup>31</sup> The second was Allterrain Services, a subsidiary of the South African catering TNC Tsebo Outsourcing Group. According to firm data, from January to May 2017, US\$ 287,101 was spent procuring food locally from six suppliers in Luhwindja, primarily meat and vegetables. A further US\$ 418,161 was spent on a combination of domestic and imported produce, from fish and meat to coffee, sugar and rice, procured from Bukavu.<sup>32</sup> From this, it can be extrapolated that around US\$ 700,000 was invested in local agricultural procurement in 2017, and US\$ 1 million was outsourced through domestic suppliers in Bukavu, including some Congolese produce.

Considered together, there is little evidence from the data to suggest that corporate outsourcing has been meaningfully articulated with the Congolese economy through domestic firms and suppliers or by stimulating broader

30. Interviews with Simba Logistics DRC director, Bukavu, 22 February 2017 and SGS manager, Twangiza, 6 June 2017.

31. Conversation with Twangiza Mining Tailings Management Facility manager, Twangiza, 9 June 2017.

32. Interview with Allterrain Services manager, Bukavu, 17 June 2017.

industrialization. The Twangiza mine is highly dependent upon predominantly Northern manufactured technological inputs and Banro continues to manage the majority of its procurement internally, outsourcing only the low-value end of its procurement chain to a small group of Congolese traders. Meanwhile, subcontracting has provided few opportunities for domestic firms or additional domestic procurement, while facilitating the entry and expansion of foreign firm subsidiaries into the Congolese economy.

## **OBSTACLES TO DOMESTIC FIRM INCLUSION**

Finding themselves marginalized within Banro's production network, Congolese firms and suppliers face four obstacles to value chain inclusion, which overlap with two of the four factors identified by Kaplinsky et al. (2011: 25) and noted in the introduction. The first of these is structural, and relates to the obstacle of technological complexity. As observed in the previous section, the industrial structure of the Twangiza mine is relatively thin, and the bulk of the technology it uses is highly specialized and its development monopolized by the Triad states, Australia and South Africa. This limits the possible role for domestic actors in the chain, as well as the sector's potential to stimulate broader processes of industrialization and economic diversification.

The second obstacle echoes the findings of Hanlin and Hanlin (2012: 472) on industrial gold mining in East Africa that 'expatriate procurement officers tended to avoid engaging in local markets, reverting to markets they understood'. For procurement purchases of more than US\$ 5,000, Twangiza Mining's procurement officers presented quotes from three suppliers to the procurement managers, who made a final decision as to which supplier was chosen. The decision was then authorized by the relevant department manager, finance manager and the general director of the mine. Reflecting on this process, a former Twangiza Mining auditor and a former Twangiza Mining procurement officer independently observed a preference among Ghanaian and South African procurement managers to use foreign (and often home country) suppliers for goods, such as worker clothing and IT equipment, when presented with domestic suppliers who could procure the same goods at a lower cost.<sup>33</sup> A former Twangiza Mining procurement manager confirmed this tendency to disregard cost efficiency, noting that when he arrived at the mine exclusive suppliers were as much as 150 per cent more expensive than alternative options.<sup>34</sup>

33. Interviews with former Twangiza Mining auditor, Bukavu, 15 December 2016 and former Twangiza Mining procurement officer, Kinshasa, 13 January 2017.

34. Interview with former Twangiza Mining procurement manager, Skype call, 23 January 2017.

The third obstacle is Banro's requirement that subcontracted firms cover their own costs for the first 60 or 90 days of the contract before they are reimbursed. According to a manager of the subcontracted Kenyan firm Civicon, this is standard industry practice.<sup>35</sup> The practice has, however, excluded domestic firms from Banro's gold value chain due to insufficient financial capital. In 2015, Twangiza Mining began contacting domestic suppliers to Allterrain Services with a view to having one of them replace the foreign firm subsidiary as the main catering subcontractor. None of the domestic suppliers, however, had the financial capital to front the required 90 days of costs, and so were unable to take the opportunity to economically 'upgrade' within the value chain.<sup>36</sup> Similarly, a domestic fuel supplier approached by Twangiza Mining soon after Banro's arrival in the DRC was unable to finance the costs of the contract and had to forego the opportunity.<sup>37</sup>

The fourth and final obstacle has been the lack of state policy to support and develop domestic capacity, itself a by-product of the earlier neoliberal mining sector reform led by the World Bank which wrote out state interventionist measures, prioritizing instead privatization, liberalization and deregulation. For the first decade after the 2002 Congolese Mining Code was introduced, the DRC had no local content or subcontracting legislation. While this has recently changed, the new legislative measures effectively allow mining TNCs to continue to procure overseas and subcontract foreign firms as they see fit, despite opening with rhetoric about prioritizing the promotion of domestic firms and entrepreneurs. The 2014 inter-ministerial local content decree, for example, states that mining companies registered in the DRC must procure from domestic suppliers but that imports are permissible 'if the needs expressed by mining companies surpass the capacity of Congolese industries and small and medium enterprises'.<sup>38</sup> In 2017, a subcontracting law was passed which — while partially addressing the issue of pre-financing by requiring the transfer of at least 30 per cent of the contract before the start of the work — allows for the continued subcontracting of foreign firms if the required expertise is 'unavailable or inaccessible' domestically.<sup>39</sup> The new Congolese mining code, passed in March 2018, is governed by this law.<sup>40</sup> Compounding these legislative loopholes, there is no broader industrial policy to increase the 'capacity', 'availability' or 'accessibility'

35. Interview with Civicon manager, Luhwindja, 29 November 2016.

36. Interviews and conversations with Tsebo Outsourcing Group managers and suppliers, December 2016 to April 2017.

37. Interview with domestic fuel supplier managers, Bukavu, 31 January 2017.

38. Inter-ministerial decrees 0027/CAB.MIN/MINES/01/2014 and 043/CAB.MIN/IPME/2014 of 11 Feb 2014 (author's translation). See: [www.mines-rdc.cd/fr/wp-content/uploads/documents/Arretes/2014/AI0027\\_2014.pdf?x57237](http://www.mines-rdc.cd/fr/wp-content/uploads/documents/Arretes/2014/AI0027_2014.pdf?x57237) (accessed 30 March 2019).

39. Law 17/001 of 8 February 2017 (author's translation). See: [www.leganet.cd/Legislation/Droit%20civil/Dobligations/Loi.17.001.08.02.2017.html](http://www.leganet.cd/Legislation/Droit%20civil/Dobligations/Loi.17.001.08.02.2017.html) (accessed 30 March 2019).

40. Article 108, DRC Mining Code 2018. See: [www.congomines.org/reports/1501-code-minier-rdc-2018](http://www.congomines.org/reports/1501-code-minier-rdc-2018) (accessed 30 March 2019).

of Congolese actors and facilitate their inclusion and advancement in global mining value chains.

Taken together, these four obstacles have restricted the presence of domestic firms and entrepreneurs in Banro's chain. Moreover, where domestic inclusion has taken place, it has in many cases negatively affected the strength and viability of local enterprise. Since around 2013, Banro has had severe short-term liquidity issues due to a combination of audit-documented mismanagement, dramatic overspend on site construction at its second Namoya mine in Maniema Province,<sup>41</sup> and a falling gold price since 2012. This led, in January 2018, to a period of creditor protection followed by a recapitalization process from which Banro has only recently emerged.<sup>42</sup> One of the strategies adopted by Banro to avoid going into creditor protection at an earlier date was to postpone Twangiza Mining subcontractor and supplier repayments. In June 2017, Twangiza Mining's finance manager reported that the subsidiary had around US\$ 18 million of unpaid debts to subcontractors and suppliers. He added that domestic firms and entrepreneurs had been disproportionately negatively affected, as unlike their foreign counterparts they do not have the personal connections to be on the phone daily to Banro's CEO, board members or senior management, demanding payment.<sup>43</sup> A former Twangiza Mining procurement officer expressed the same sentiment.<sup>44</sup>

All four major domestic suppliers reported unpaid debts owed by Twangiza Mining of US\$ 2,000, US\$ 15,000, US\$ 110,000 and around US\$ 500,000 respectively.<sup>45</sup> Domestic subcontractors reported the same problem, which in one instance forced the withdrawal of the Congolese firm GINKI Petroleum International (hereafter, GINKI) from the value chain. Initially, GINKI was subcontracted as Twangiza's main fuel supplier. By 2014, Banro owed GINKI US\$ 2.4 million in unpaid fuel invoices, at which point GINKI withdrew from the contract to avoid accumulating further debt. In 2017, Banro still owed GINKI around US\$ 670,000, while the Malaysian TNC Engen — with far greater liquidity to absorb such debts — had won the subcontract.<sup>46</sup> In 2018, GINKI was continuing to negotiate full repayment. Foreign firms were also affected, with Allterrain Services reporting it was owed three to four months of costs amounting to around US\$ 1 million.<sup>47</sup> To manage the risk of these debts the catering subsidiary had in turn postponed

41. Interviews with multiple former and current Banro and Twangiza Mining managers, Bukavu and Kinshasa, January to June 2017.

42. 'Banro Announces Effectiveness of its Recapitalization Plan', Banro press release, 3 May 2018: [www.newswire.ca/news-releases/banro-announces-effectiveness-of-its-recapitalization-plan-and-intent-to-terminate-registration-under-securities-exchange-act-of-1934-with-the-us-securities-and-exchange-commission-681676581.html](http://www.newswire.ca/news-releases/banro-announces-effectiveness-of-its-recapitalization-plan-and-intent-to-terminate-registration-under-securities-exchange-act-of-1934-with-the-us-securities-and-exchange-commission-681676581.html) (accessed 30 March 2019).

43. Interview with Twangiza Mining finance manager, Twangiza, 8 June 2017.

44. Interview with former Twangiza Mining procurement officer, Kinshasa, 13 January 2017.

45. Interviews with multiple domestic suppliers, Bukavu, January to April 2017.

46. GINKI financial archives; interviews with GINKI director, Bukavu, April and May 2017.

47. Survey interview with Allterrain Services manager, Bukavu, 17 June 2017.

payments to its local suppliers at Luhwindja, where one farmers' cooperative reported it was owed US\$ 54,000 in unpaid meat deliveries.<sup>48</sup>

Unhindered by state intervention, Banro's corporate outsourcing has not only provided limited opportunities for domestic firms and suppliers, but the few it has provided have led to the accumulation of domestic firm and supplier debts to ease Banro's liquidity constraints, many of which remained outstanding in 2018. While a more interventionist state could go some way to addressing the obstacles of procurement manager home country preference and subcontractor prepayment requirements, as noted above, the narrow, highly specialized and technologically complex industrial composition of the Twangiza mine functions as a structural constraint on the possible role for domestic firms and suppliers in Banro's chain.

## LABOUR INFORMALITY AND SPATIAL SEPARATION

This section addresses the second part of the question at hand: how corporate outsourcing has affected the position of domestic labour within Banro's value chain. Turning to a consideration of the capitalist labour process, it is argued that by altering the nature of the relationship between workers and managers, as well as between different groups of workers themselves, corporate outsourcing has weakened the position and collective power of workers vis-à-vis their managers, contributing to the sustained adverse incorporation of those labouring at the bottom of the chain. Subcontracting at Twangiza has led to the mine's workforce encompassing 15 different organizations: 13 firms and two non-governmental organizations (NGOs), Assodec and Utralu.<sup>49</sup> Of these organizations, five provide labour to the mine (Assodec, Cinamula, Diphil, Utralu and Zuki) and the remaining 10 provide the range of activities and services listed in Table 1. As found for industrial mining labour in South Africa (Bezuidenhout and Buhlungu, 2011; Bolt and Rajak, 2016) and Peru (Manki, 2018: 123), this high level of organizational fragmentation has weakened the position of Congolese workers and erected new barriers to labour organization and collective action.

First, corporate outsourcing has weakened the position and strength of labour by expanding worker informality, as labour itself has been outsourced. Of Twangiza's 1,149 workers, 323 (or 28 per cent) work across the five labour organizations. During the mine construction phase around 2010, this number was much higher. While Assodec and Utralu had not been founded at this point, Cinamula, Diphil and Zuki management reported having around 800, 700 and 600 workers respectively; around 1,800 more than were working for labour hire organizations in 2017. In 2017, the remaining workers

48. Interview with local farmers' cooperative president, Luhwindja, 7 February 2017.

49. Excluding the three firms that were not directly involved in productive activities at the mine (COMEXAS, Engen and Rand Refinery).

at these firms were still engaged as informal day labourers, with no form of contract, no paid holiday and limited medical insurance. This is despite the fact that many had spent several years working for the same subcontractor or for several different subcontractors and were legally entitled to a contract according to Congolese labour law,<sup>50</sup> having repeatedly worked more than 22 days over a two-month period (Mushagalusa, 2018). The situation was the same for an additional 127 workers at the non-labour hire subcontractors Groupe Rubuye, Premium, Simba Logistics and Tsebo Outsourcing Group. As is common among informal artisanal mine workers across Africa, this leaves 39 per cent of the mine's workforce 'bereft of formal legal recognition and vulnerable to exploitation' (Verbrugge, 2015: 1042).

By rendering the workers more easily disposable, their informal status discourages collective action. Most of the approximately 2,100 hired workers involved in mine construction were simply made redundant overnight once construction was complete and the mine moved to production (Geenen and Radley, 2014: 62). Similarly, during the course of the fieldwork dozens of day labourers were let go due to the seasonal nature of their labour, or simply because it was no longer required. Day labourers are, unsurprisingly, fully cognisant of their precarity: 'When you work for several years without having a contract, it worries you. Everyone wants to have a work contract but unfortunately, it's not the case for all of us. We pray to God though that perhaps one day we will also have a contract'.<sup>51</sup> Many informal day labourers bemoaned their conditions but were fearful of engaging in any form of labour militancy or negotiation given their informal status. According to the president of the trade union confederation in Bukavu, informal day labourers at Twangiza Mining who had attempted to claim their contractual rights had simply been let go (Mushagalusa, 2018).

Labour informality has in turn helped to facilitate low wages, with the average net monthly incomes of subcontractor workers significantly below the equivalent average of unskilled workers contracted directly to Twangiza Mining (see Table 2). The lowest income of US\$ 110 per month, earned by workers at Assodec and Utralu, are subsistence-level wages. As one Utralu worker recalled:

I earned something [when cultivating my land] and was able to make some small savings, as I didn't need to buy many things, such as manioc flour, sweet potatoes and so on. Today, I have to buy all that because I no longer have time to farm. The money I earn allows me just to survive. When I get paid, it goes straight to clearing debts accumulated to buy flour and other things.<sup>52</sup>

Other subcontractor and unskilled Twangiza Mining workers fare little better, with most reporting using their wages on rent, food, school fees and

50. Article 40, DRC Labour Code: [www.droitcongolais.info/files/2.54.09.-Loi-du-16-octobre-2002\\_-Code-du-travail.pdf](http://www.droitcongolais.info/files/2.54.09.-Loi-du-16-octobre-2002_-Code-du-travail.pdf) (accessed 30 March 2019).

51. Life history with Zuki worker, Luhwindja, 12 April 2017.

52. Life history with Utralu worker, Luhwindja, 12 April 2017.

Table 2. Twangiza Worker Income Distribution, 2017

Group		Number of Workers	Average Net Monthly Wage (US\$)
Labour Hire Subcontractors		323	154
Non-labour Hire Subcontractors		285	226
Twangiza Mining:			
Unskilled	I	214	270
	II	24	360
Semi-skilled	III	128	511
Skilled	IV	42	614
	V	133	930

*Notes:* Wage data include allowances. On top of their base wage, workers at Twangiza Mining receive lodging, transport, child and spouse allowances.

*Source:* Subcontractor survey; subcontractor manager and director interviews; Twangiza Mining 2013 financial accounts; worker survey; worker interviews and conversations; Twangiza Mining wage classification documentation.

medical expenses, with little left over to save or invest. Meanwhile, a foreign managerial class earns wages between 30 and 130 times greater than subcontractor workers, and captures 34 per cent of the total wages accruing to workers and managers at Twangiza, despite representing just 5 per cent of labour at the mine (Radley, forthcoming). Similar to the oil enclaves of Equatorial Guinea described by Appel (2012), Twangiza's workers find themselves outside of the financial benefits that accrue disproportionately to a narrow and foreign managerial class.

In addition, worker wages have been stagnant. Comparing Twangiza Mining worker payroll data and worker payslips from 2012 with the subsidiary's 2016 wage classification indicates that wage levels have remained unchanged over this five-year period across all groups of labour, from unskilled workers to managers. Further, in 2010 the subsidiary cancelled a 3 per cent annual wage increase, and in 2018 this had yet to be reinstated.<sup>53</sup> In addition, the annual inflation rate from 2010 to 2017 in the DRC was 7.5 per cent,<sup>54</sup> leading to an overall decline in the real wages of Twangiza Mining workers (and managers) across this period. In 2017, the Congolese state intervened to address the twin issues of labour informality and low worker wages by passing a law forbidding subcontractors from engaging in 'the illegal lending of labour . . . : a fraudulent operation that removes the status of the employee . . . in order to profit from the price that should have been paid for the same work'.<sup>55</sup> Yet by late 2018, this had yet to take effect at Twangiza.

The second negative effect of organizational fragmentation and corporate outsourcing is to further weaken the collective power of labour by

53. Conversations with Twangiza Mining union delegates, June and July 2017.

54. Congolese Central Bank, Inflation Dataset, 1991–2017: <https://data.worldbank.org/indicator/FP.CPI.TOTL.ZG?locations=CD>

55. Law 17/001 of 8 February 2017 (author's translation). See: [www.leganet.cd/Legislation/Droit%20civil/Dobligations/Loi.17.001.08.02.2017.html](http://www.leganet.cd/Legislation/Droit%20civil/Dobligations/Loi.17.001.08.02.2017.html) (accessed 30 March 2019).

heightening the spatial separation between workers. Most subcontractor workers herald from rural herder/farmer families locally, and their subsistence wages maintain them in this social position. By contrast, semi-skilled and skilled Twangiza Mining workers mostly herald from families belonging to the petty or national bourgeoisie (such as politicians, bureaucrats, traders, teachers and soldiers) and their higher wages allow them and their families to live a commensurate urban lifestyle in the nearby city of Bukavu. While rural-based subcontractor workers live locally in areas around the mine, urban-based semi-skilled and skilled Twangiza Mining workers lodge on site during their shifts and return to Bukavu afterwards. Critically, the Twangiza Mining workers' union — established following a 2013 decree from the Congolese Labour Minister requiring all companies to hold union elections<sup>56</sup> — is led by a group of 18 semi-skilled and skilled worker delegates. Up to 2017, these urban-based union delegates had shown no signs of engagement with or interest in the experiences and struggles of the predominantly rural-based subcontractor workers. When asked about the issues of low wages and informality confronting subcontractor workers, the Vice-President of the Twangiza Mining union simply replied, 'they don't concern us'.<sup>57</sup>

At the local level, corporate outsourcing has also fostered further spatial separation and division among different groups of rural workers. As the manager of a labour subcontractor explained, when Twangiza Mining mobilizes informal day labourers across the five different organizations, 'all the local collectivities send [candidate] lists, and Banro's human resources department selects from these lists according to their needs . . . afterwards, they send us the names of those retained'.<sup>58</sup> To be included on a list, labourers must generally come from the corresponding government collectivity, with each collectivity representing historically distinct Bushi kingdoms (of the Bashi people).<sup>59</sup> Assodec and Utralu mobilize labour exclusively from Luhwindja, while Zuki mobilizes labour exclusively from the neighbouring collectivity of Burinhyi.<sup>60</sup> Cinamula mobilizes most of its labour from Luhwindja, with some workers originating from neighbouring collectivities. All workers at Diphil are from Luhwindja or the neighbouring Bashi collectivities of Burinhyi and Kaziba.<sup>61</sup>

An anecdote told by a senior human resources manager at Twangiza reveals the effect of these spatial labour mobilization logics on worker

56. Circulated note No. 39/CAB/MIN/ETPS/MBL/NMC/pkg/2013 of 24 July 2013.

57. Interview with Twangiza Mining Union Vice-President, Twangiza, 7 June 2017.

58. Survey interview with Diphil manager, Luhwindja, 23 March 2017 (author's translation).

59. Although some migrants have negotiated their inclusion as local workers, often through payment to local political elites submitting the lists, despite not being from the area.

60. Letter from Employment Subcommittee Moderator to CODELU President, 25 February 2016; interview with Assodec director, Cinjira, 10 October 2016; interview with Zuki site manager, Burinhyi, 12 October 2016.

61. Interview with Diphil head of personnel, Bukavu, 3 October 2016.

organization. In 2016, he noted the imbalance in the number of workers being hired from three labour subcontractors, Cinamula, Diphil and Zuki. He decided to impose an approximately equal number of workers across the three companies, requesting that a number of Cinamula workers (mostly from Luhwindja) be transferred to Zuki (exclusively from Burinhyi). When he spoke to the Cinamula director to request this change, he was told (paraphrasing the director's response) 'my people will never cross that river [from Luhwindja into Burinhyi] to collect their money'. It was with much difficulty, he recalled, that the adjustments were made.<sup>62</sup>

Pre-existing social divisions are, then, reproduced and further entrenched by the spatial separation resulting from corporate outsourcing, hindering worker organization and unity. By facilitating worker informality, low wages and spatial separation, the organizational fragmentation of labour induced by corporate outsourcing has led to the adverse incorporation of many of the mine's workers and undermined their collective strength to counteract their marginality. This helps explain the near total absence of labour militancy at the mine, despite the fact that a large segment of the mine's workers experience subsistence-level and declining wages and poor access to benefits. Only two strikes have occurred at Twangiza since mine construction began in 2010. The first was a sit-in staged by security workers in 2011 during the visit of Banro's board of directors from Canada, resulting in a small wage increase.<sup>63</sup> The second was an impromptu six-hour strike in 2014 of around two dozen machine operators in the mining department over proposed changes to overtime remuneration.<sup>64</sup> The general acquiescence of labour at Twangiza contrasts strongly with the labour militancy of MGL and SOMINKI workers, particularly in the 1980s and early 1990s (Athanase, 2013: 15–17).<sup>65</sup> Unlike Twangiza workers, workers at SOMINKI were contracted directly by the Belgian subsidiary and often lived together with their families in mining towns.

## CONCLUSION

While the case of Banro's Twangiza mine in South Kivu reflects global mining industry restructuring away from vertical integration (practised during the time of MGL and SOMINKI) and towards corporate outsourcing (practised by Banro today), as foregrounded in the GVC literature, there is little evidence to suggest this restructuring has invalidated the foundations of

62. Conversation with Banro Congo senior human resources officer, Bukavu, 22 February 2017.

63. Conversation with Twangiza Mining senior human resources officer, Twangiza, 6 June 2017.

64. Conversation with Twangiza Mining union president, Twangiza, 10 June 2017.

65. Interviews with former SOMINKI workers and union leaders, Kamituga, 22 April 2017; SOMINKI correspondence to Ministry of Labour, 30 October 1992; SOMINKI Annual Report, 1979.

the original enclave thesis. As was the case historically, all procured goods, capital equipment and inputs are manufactured overseas and nearly all are sourced internally by Banro's subsidiary through predominantly Northern suppliers, with only low-value and light industrial supplies outsourced to a small group of Congolese traders. The procurement of domestically sourced goods is limited to sand and agricultural produce. In 2013, the most recent year for which data were available, Congolese firms only captured an estimated 13 per cent of the total value accruing to subcontractors, nearly half of which was for the supply of cheap labour, and the remainder of which was clustered in low value-added activities. The remaining subcontracting value was captured by foreign firms, who through their entry and expansion in the Congolese economy are acquiring an increasingly dominant position among medium and large firms in the Congolese private sector. The few domestic firms and entrepreneurs incorporated into Banro's value chain have faced obstacles to inclusion and economic 'upgrading', and been encumbered with debts.

In this sense, Ferguson (2005: 379) appears closer to the mark than GVC enthusiasts in his assessment that 'enclaves of mineral-extractive investment on the [African] continent are normally tightly integrated with the head offices of multinational corporations and metropolitan centres, but sharply walled off from their own national societies'. Indeed, the general picture seems to confirm rather than invalidate Prebisch and Singer's original enclave thesis, whereby resource extraction in the periphery has few domestic linkages and is generally disarticulated from local and national economies due to the periphery's dependence upon external technology and industrial capabilities in the centre. Indeed, this dependence is accentuated today as the technological frontier of gold mining lies ever further away from peripheral, low-income countries like the DRC.

Meanwhile, the organizational fragmentation resulting from corporate outsourcing has weakened the position and collective strength of labour, reflected in an acquiescent workforce despite the subsistence-level and declining wages, and poor access to benefits experienced by many of the mine's workers. Corporate outsourcing can thus be added to the four corporate practices identified by Geenen and Verweijen (2017: 763) as interacting with existing conditions to 'undermine the coherence and sustainability of social mobilization' against Banro in the region.<sup>66</sup> More generally, this reflects the findings in Newsome et al. (2015) and Meagher (2016) of the adverse incorporation of labour in other GVC industries located in the global South, noted earlier in this article.

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66. These four practices are: 'The co-optation of local leaders and dissenters; acquiescence of favouritism related to access to benefits; fostering a climate of repression; and rhetorical rather than real commitment towards community participation' (Geenen and Verweijen, 2017: 763).

Theoretically, these observations demonstrate the value of expanding the GVC framework by (re)incorporating the concept of peripherality, along with a focus on the capitalist labour process. In the former instance, use of this concept lays bare the heavy dependence of peripheral resource extraction on technological and industrial dissemination from centres of the global economy, and the continued disarticulation between peripheral resource extraction and the domestic economies in which they take place. In the latter, considering how work is organized and the shifting balance of power between workers and managers provides an important potential counterpoint to any progress that might be observed at the firm level. The findings also hold policy implications for the broader GALIC group, in particular those countries nearer the beginning of their gold (re)industrialization journeys. By foregrounding the durability of the enclaved and externally dependent nature of gold mining in South Kivu over the course of nearly a century, as well as the narrow, specialized and technologically complex industrial requirements of gold mining today, they highlight the structurally limited nature of the domestic opportunities that can be created by gold sector corporate outsourcing in peripheral countries, both for domestic actors and for stimulating broader-based industrialization. Nevertheless, the findings also suggest the folly of earlier neoliberal reform, and the importance for the GALIC group of adopting state interventionist measures via pro-labour and industrial policy to better harness the opportunities provided by gold sector corporate outsourcing (however limited) and to counter its observed twin tendencies towards domestic firm marginalization and the weakening of the position and collective strength of workers through the organizational fragmentation of labour.

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