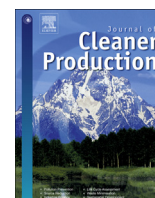


Contents lists available at ScienceDirect

Journal of Cleaner Production

journal homepage: www.elsevier.com/locate/jclepro

Review

Mining-induced displacement and resettlement: a critical appraisal

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ARTICLE INFO

Article history:

Received 1 August 2014

Received in revised form

28 September 2014

Accepted 29 September 2014

Available online 13 October 2014

Keywords:

Resettlement

Risk

Displacement

Mining

Relocation

Social safeguards

Social impact

ABSTRACT

Physical displacement, relocation and resettlement are widely acknowledged as posing enormous social risk. For over four decades, scholars, campaigners and project-affected people have sought to highlight the effects of development-induced displacement and resettlement (DIDR). Increasingly, the generic set of international standards that are used to manage cases of DIDR are being tested by the unique challenges posed by mining-induced displacement and resettlement (MIDR). In this article the authors provide a critical appraisal of current thinking and practice relating to MIDR. Findings indicate that MIDR is largely characterised by factors that occur in 'brownfield' project scenarios; even when the initial displacement commences in otherwise 'new' mining developments. The article identifies five critical and distinguishing factors associated with MIDR. These factors are explored in light of contemporary policy debates surrounding the mining industry, including 'consent', 'negotiated agreements' and overall effectiveness of existing social safeguards in regulating industry practice.

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1. Introduction

Physical displacement, relocation and resettlement are widely acknowledged as posing enormous risks to project-affected people. For over four decades, scholars, campaigners and project-affected people have sought to highlight the effects of development-induced displacement and resettlement (DIDR).^{1,2} During this time, there has been a proliferation of case studies, research and academic literature showcasing the different dimensions of this highly problematic and contested practice. Advancements in defining minimum standards for developers around consultation, planning, compensation, grievance handling and livelihood restoration have since occurred, spearheaded by The

World Bank Group's social safeguards for involuntary resettlement.³ Many international finance institutions (IFIs) and other organisations have aligned with these standards, which are now the global reference point for DIDR.⁴

In this article we do not present a review of the DIDR literature. This is a well-established area of inquiry. We acknowledge the contribution of DIDR scholarship, in particular the work of Thayer Scudder (2005, 2000; 1993), Michael Cernea (2000, 1999; 1997; 1995), Hari Mohan Mathur (2013, 2008; 1998) and Theodore Downing (2009; 2002a) as providing foundations for the continued evolution and refinement of international standards and safeguards. Our focus is mining-induced displacement and resettlement (MIDR). We argue that the dominance of DIDR as a singular

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E-mail addresses: j.owen@uq.edu.au (J.R. Owen), d.kemp@smi.uq.edu.au (D. Kemp).¹ This work has focussed primarily on dams and hydro-power projects, agribusiness, forestry, extractive projects and other major infrastructure.² The term 'development-forced displacement and resettlement' (DFDR) is increasingly used in development studies and social science literature. We recognise the shifts taking place in contemporary discourse, but use the more established terminology here. While DFDR emphasizes the influence or presence of voluntarism in displacement events, both terms are ostensibly concerned with the social and economic processes associated with the dispossession, physical relocation, and resettlement of people by development projects.³ This evolution in global standards includes: World Bank Safeguard Policy 4.12 on Involuntary Resettlement (2001), African Development Bank Safeguard Policy on Involuntary Resettlement (2003), International Finance Corporation Performance Standard 5 on Land Acquisition and Involuntary Resettlement (2006), Inter-American Development Bank Environment and Social Standards Involuntary Resettlement Policy (2006), European Bank for Reconstruction and Development Policy and Performance Requirements on Land Acquisition, Involuntary Resettlement and Economic Displacement (2008), Asian Development Bank Safeguard Policy Statement on Involuntary Resettlement (2009). For a succinct description of the evolution and emergence of these standards, see Price (2009).⁴ Equator Principle banks, for example, use the IFC Performance Standards as their reference point on resettlement and other issues of social and project risk.

frame of reference limits the extent to which the particularities of MIDR can be understood and accounted for. This limitation has pronounced and detrimental effects on contemporary resettlement practice in the global mining industry. Unless an industry-specific debate emerges, knowledge building on MIDR will remain generalised, diluted and unfocused.⁵

The current deficit in MIDR knowledge is two-fold. The first issue stems from what can be characterised as a 'disconnection' between DIDR literature and MIDR practice. DIDR scholars have undoubtedly proven displacement to be one of the most disruptive and perplexing of development dilemmas. Theodore Downing was the first to observe that the "rich vein of knowledge" from this established literature has barely been tapped by the mining industry. In his now decade old report *Avoiding New Poverty: Mining Induced Displacement and Resettlement*, Downing (2002b, p.6) aptly characterises drivers for the increased significance of MIDR – rich mineral deposits being found in areas with relatively low land acquisition costs in areas of high population with poor definitions of land tenure and politically weak and powerless populations. According to Downing (2002b, p.8), "no global survey has assessed the scale of MIDR" despite evidence suggesting significant numbers of mine displaced persons globally. The persistence of these knowledge gaps is a major barrier to improvements in MIDR policy and practice.

The second issue relates to the absence of dedicated mining scholarship within the DIDR literature. Downing's observation about the lack of industry-wide data on the scale and impact of MIDR is an ongoing barrier for the sector. Within the DIDR literature, many of the unique features of MIDR remain unexamined. The most prominent is the effect of project lifecycles on the planning and implementation of MIDR events. Mining projects are designed to move through a project cycle: from exploration, project design and planning and construction, to operations and closure. Each phase of development and the transition between them, introduces a range of separate challenges for land use and resettlement planning (Sonter et al., 2014a). Furthermore, unlike other sectors, MIDR can occur at any stage within this lifecycle. In addition to lifecycle aspects, mining projects are directly tied to international commodity markets. The volatility of the market has an immediate effect on how companies plan (or fail to plan) their MIDR activities. Against ongoing debates about the social dimensions of mining and the prevalence of MIDR globally there is an urgent need to better understand the effects of MIDR and the specific risks it poses to affected persons, governments, project developers, shareholders and lenders.

In this article our objective is to demonstrate the unique factors associated with MIDR. We argue that because of these factors, greater attention ought to be paid to MIDR as a distinct albeit related area of DIDR research and practice. The article is presented in six sections. Section one explains the data sources and methodology. Section two locates MIDR within contemporary debates about mining and social responsibility. Section three provides a summary account of the current state of knowledge relating to MIDR. In section four we define five characteristic features that are unique to MIDR. Before concluding, section five provides a critical discussion with implications for researchers, industry practitioners and policy makers.

2. Data and methods

The data for this article is drawn from a combination of primary and secondary data. Primary data was collected by the authors

between 2007 and 2014 during resettlement-related fieldwork assignments undertaken across nine mine sites. Our engagement for these assignments is best described as professional research consultancies. Assignments ranged from short one-off studies with limited post-field work engagement, to repeated site-based engagement over several years. Three sites involved one field visit with less than twelve months of engagement. For the remaining six sites, two or more field visits were undertaken. For two of these sites the engagement has extended over seven years with greater than ten field visits between the two authors. With the exception of one assignment (Kemp et al., 2013), data collection and reporting on resettlement was undertaken on a confidential basis. For this reason, data are aggregated and some cases referred to anonymously.

Secondary data was obtained from a selection of publically available sources including RAPs, company sustainability reports, websites and annual plans. Newspaper articles were also used. A small number of confidential RAPs were also reviewed. In total 17 RAPs were examined, 13 of which are available in the public domain, 4 are internal company documents. The sample is biased towards larger projects which are either required to disclose planning documentation or which have attracted enough consistent external attention to allow the authors to develop a brief profile of the resettlement event. Many of these projects are operated by mid-tier companies. In terms of coverage, the sample does not include resettlement events involving smaller-scale projects and operators. Table 1 summarises the data sources and methods used for this article.

The final sample includes 41 resettlement events at 33 sites.⁶ In terms of categorization, we separated mining 'projects' where resettlements occurred from the resettlement 'events' that took place in these locations. For example, at Newmont's Ahafo project in the Brong Ahafo Region of Ghana, multiple resettlement action plans (RAPs) have been developed and implemented to accommodate the progressive expansion of the mine. In this case we have recorded Ahafo as the 'site' and the resettlements for Amoma (in February 2009), Subika (in October 2009) and Ahafo South (in August 2005) as separate 'events'. Representing these resettlement cases as a single site-based event would fail to identify the effects of project lifecycle, ownership, legacy, or in fact any other significant historical data on each of the individual resettlement phenomenon. The prevalence of multiple and 'brownfield' resettlement events in MIDR introduces a unique and dynamic condition that is not adequately represented in the DIDR literature.⁷

Of the available public sources of information on MIDR events, RAPs are generally the most comprehensive. When prepared by specialists to align with international standards, RAPs contain summary details of the project history, socio-economic conditions, expected scope and severity of impact, along with proposed measures and resources to mitigate the effects of displacement. The document should reflect company efforts to accurately characterise the social impacts associated with the development, together with an articulation of how the project will respond to these impacts. Given its

⁶ Secondary data are drawn from 58 resettlement 'events'. From this initial list of events 17 events were excluded due to basic information being incomplete, unclear or unavailable.

⁷ Mining projects are commonly referred to as 'greenfields' or 'brownfields' to describe the extent to which exploration or industrial activities have previously been conducted in the project area. Metaphorically, greenfields suggests untouched grass and brownfields land that has been trampled and converted to industrial use. The industry itself is inconsistent in its application of these terms. We refer to brownfields events within this article to emphasise the point that resettlement is often undertaken (i) during the operational phase and/or (ii) at sites characterised by the industry as 'greenfields', but where a mining legacy already exists.

⁵ This also includes maintaining a distinction within the extractive industries. We concur with Terminski (2013) on the need to distinguish displacement in mining from displacement in the oil and gas sectors.

Table 1
Summary of data sources and methods.

| Data type | Source | Methods |
|-----------|---|--|
| Primary | Nine (9) physical sites with resettlement communities across Ghana, Lao PDR, Papua New Guinea (PNG), Solomon Islands, Mongolia and Peru | In-depth interviews and focus groups with company, government and community stakeholders |
| Secondary | 4 Privately available RAPs 13 Publically available RAPs Company and site sustainability reports Company websites Sector-specific annual reports | Participant observation Desktop review Document analysis |

Total sample size: 33 sites, 41 resettlement events.

focus on the management and mitigation of resettlement risks, RAPs provide important information on individual resettlement events.

A major limitation of using RAPs as historical records, however, is that RAPs are a declaration of future intent. The documents do not record how many people were displaced, or how, nor do they record the final quantum of monies spent in effecting the resettlement. RAPs do not capture the reactions of stakeholders, including company personnel, to the mine's efforts and intentions. Moreover, few resettlement projects release studies either as background to the RAP or as evidence of exercising due diligence. Overall the practice of making RAPs publically available is rare, and where RAPs are released for public consumption, it is often to satisfy lender requirements, rather than to build or support knowledge in this area.⁸ Similarly, external assessments of MIDR are difficult to obtain, even when projects are undertaken according to international standards.

The difficulty in securing consistent sources of complete information necessarily curbs the ability of the sector to generate a global picture of MIDR and its effects. Using the sources of data available, we developed an MIDR database to enable comparisons of resettlement events based on location, corporate ownership, commodity, type of displacement, lifecycle phase, number of households affected, cost, application of standards, and level of disclosure.⁹ Tables 2 and 3 below provide an overview of the study sample by region, lifecycle and commodity.

3. Global debates in mining and relevance to MIDR

In the past two decades, the mining industry has become deeply engaged in a number of complex and contentious social policy debates, including 'business and human rights', 'free prior and informed consent' (FPIC), 'revenue transparency', 'conflict minerals', 'equitable distribution of development', and 'negotiated agreements'. The industry's peak bodies have developed collective policy positions and guidance materials that clarify the relevance of these debates to the industry context.¹⁰ For resettlement, the

⁸ In terms of assurance, RAPs are one document in a continuum of risk-mitigation mechanisms. According to international standards of practice, one would expect to find internal and external monitoring and evaluation reports undertaken at regular intervals. External audits ought to provide status reports on how the project has actually performed against the plan outlined in the RAP.

⁹ Here, the 'lifecycle phase' refers to the period that the resettlement was scheduled to commence. A complicating factor, as we discuss elsewhere, is that the implementation of resettlement events can straddle multiple stages within the overall project lifecycle.

¹⁰ In support of its Sustainable Development Framework, the International Council on Mining and Metals (ICMM) has developed position papers on: Partnerships for Development; Transparency of Mineral Revenues; and Indigenous Peoples. Guidance tools provide coverage across: community development; human rights; community health and artisanal mining. Information on these and other topics are available at: <http://www.icmm.com/>.

Table 2
Resettlement projects by lifecycle and region.

| Lifecycle | Africa | Asia Pacific | Central Asia | Latin America | % Total |
|--------------|--------|--------------|--------------|---------------|---------|
| Study phase | — | 0 | — | 2 | 5% |
| Construction | 5 | 11 | 1 | 4 | 51% |
| Operation | 7 | 8 | — | 3 | 44% |
| Total | 12 | 19 | 1 | 9 | 100% |

Table 3
Resettlement by commodity and region.

| Commodity | Africa | Asia Pacific | Central Asia | Latin America | Total |
|---------------|--------|--------------|--------------|---------------|-------|
| Coal | 1 | 2 | — | 2 | 5 |
| Copper | — | 1 | 1 | 5 | 7 |
| Copper/gold | — | 3 | — | — | 3 |
| Gold | 8 | 10 | — | 2 | 20 |
| Iron Ore | 2 | 1 | — | — | 3 |
| Mineral sands | 1 | — | — | — | 1 |
| Platinum | 1 | — | — | — | 1 |
| Polymetallic | — | 1 | — | — | 1 |
| Total | 14 | 19 | 1 | 10 | 41 |

industry has yet to develop a position representing its approach.¹¹ Instead, the pattern appears to involve industry endorsement of internationally-agreed DIDR standards and individual companies engaging in private debate with consultants, lenders and regulators about planning, implementation and compliance issues on a case-by-case basis.¹²

Resettlement also appears isolated from emerging topics and policy debates that have captured the industry's attention. This is best observed in relation to the topic of agreement-making. The industry increasingly positions negotiated agreements as a framework for recognising rights, building mutual understanding, entering into good faith negotiation, and building relationships (Brereton et al., 2011). In contrast, RAPs are positioned as a planning device, and apply a generic framework rather than one that is tailored to a specific context or set of relationships. RAPs do contain negotiated elements, such as agreed amounts for land or crop compensation, housing standards and infrastructure upgrades, but RAPs are not regarded as a 'negotiated agreement'. Contemporary international standards and safeguards essentially encourage developers to formulate a management plan, rather than an agreement with impacted stakeholders. In the scholarly literature, resettlements are conceived of as either 'forced' or 'managed', rather than 'negotiated' or 'agreed'.¹³ Agreements have been used in select circumstances to define elements of resettlement programs and can influence how issues are represented in the RAP (Bainton, 2010). However, the extent to which different stakeholders recognise the resettlement or program elements as either 'forced' or 'voluntary' is not disclosed as part of the RAP documentation.

In terms of the literature, MIDR can be categorised into three basic types: academic, publically available sponsored studies, and privately commissioned and held reports. The vast majority of

¹¹ The explanatory points under the ICMM's Sustainable Development Principle 3 state that member companies must "minimise involuntary resettlement and compensate fairly for adverse effects on the community where they cannot be avoided". The Principle does not address livelihood restoration, benefit sharing or development.

¹² In mining, endorsement of international standards and safeguards is largely via the IFC's (2012) Environmental and Social Performance Standard 5 on Land Acquisition and Involuntary Resettlement.

¹³ An exception is PNG, where there is no constitutional basis for compulsory land acquisition, and conversion of use is determined by a negotiating process (Filer, 2000).

MIDR literature is located within this third category. This literature is occasionally peer reviewed, but because it is mostly commercial-in-confidence, it is difficult to determine how effective or influential this material is in shaping planning processes and practice outcomes. Based on our engagement with the sector, almost every major company has commissioned recognised expert consultants to assist in the formulation of corporate strategies, standards, and project-specific MIDR work. The results of this work are not always shared internally. The structural, cultural and communicative patterns that exist between corporate offices and remote operations habitually exclude these studies from the institutional memory bank.

The majority of academic case studies on MIDR are located within the DIDR literature. This ensures that scholars reach a broader audience of development practitioners, but runs the risk of generalising resettlement dynamics in mining contexts. [Terminski \(2013\)](#), for example, positions MIDR as a distinct sub-category of DIDR by cataloguing the most “spectacular or social inflammatory” cases from the sector. [Bennett and MacDowell \(2012\)](#) present oral testimonies about cumulative economic and physical displacement from coal mining in India. Their account documents profound impacts on culture, land and livelihoods among mine-affected communities, but unfortunately, the study is buried in an edited volume on DIDR. Elsewhere, [Madebwe et al. \(2011\)](#) highlight the plight of mine-affected people in Zimbabwe, with a similar case study undertaken by [Buzoianu and Toc \(2013\)](#) in Romania.¹⁴ Consistent with the generalist DIDR literature, both studies describe a causal relationship between poor resettlement planning and the legacy of impoverishment. MIDR cases also appear within social impact-orientated mining literature where reference to DIDR literature is scant. It is not clear whether the DIDR literature is considered irrelevant by authors or has been inadvertently overlooked. The specialist mining literature mirrors the pattern observed in the policy domain whereby MIDR is positioned as an ‘issue example’ not the main concern. For instance, resettlement is presented as a complicating factor in artisanal mining ([Hilson et al., 2007](#)), human rights ([Farrell et al., 2012](#)), psycho-social impacts ([Goessling, 2010](#)), land use contestations ([Delang et al., 2012](#)) and approaches to crop compensation ([Abuya, 2013](#)).

A small number of authors bridge the specialist mining and DIDR literature. In these works, MIDR is also used as an illustrative mechanism for reflecting on other sets of development dilemmas. [Fernandes \(2007\)](#) presents the results of a country-wide study in India and socio-economic impacts of MIDR.¹⁵ He focuses on the perspectives of minority and marginalised groups rather than characterising MIDR as a distinct phenomenon within this context. [Lahiri-Dutt's research \(2014; Ahmad and Lahiri-dutt, 2006; Herbert and Lahiri-dutt, 2004\)](#) focuses on MIDR in small and large-scale mining across Asia and the Pacific region. Across this body of work, her primary concern is the gendered nature of mining. She argues that gender-blind policy privileges the interests of powerful men to the detriment of diverse types of women, their families, and mine-affected communities. Likewise, [Szablowski's research \(2002\)](#) focused on the effects of policy on mining and displacement. Using the Antamina copper mine in the Peruvian Andes as a case study, he offers a critical examination of the World Bank's Involuntary Resettlement Policy. The study provides a valuable historical account of the legitimizing processes of global policy and the shaping of corporate conduct.

While all of these studies are in their own right valuable to the debate on MIDR, more work is required to define the field of inquiry and to understand those elements that differentiate MIDR from other types of DIDR.

4. Differentiating MIDR

One factor differentiating MIDR from other forms of DIDR is that resettlement can occur in any stage of the project cycle. In mining, project planning and investment decisions are governed by external factors, such as commodity prices, shareholder expectations, project financing requirements, in addition to legislative requirements and regulatory standards at different project phases ([Van Zyl, 2005](#)). While regulators may influence the social safeguards that a developer will adhere to, the volatility in commodity markets can lead to rapid changes to a project's mine development plan. This, in turn, can result in an unexpected demand for land by the project with pressure on all parties to manage acquisition and displacement. Depending on when the demand for land emerges, displacement can occur during exploration, project design and planning, construction, or operations, the latter of which occurs through incremental project expansion. In addition to the effects of market volatility, we observe that single displacement events can straddle different phases of a project's development. For instance, a resettlement may be planned during feasibility and physical relocation may be undertaken at construction, with livelihood programming the responsibility of operations. In practical terms, this means that different teams with different knowledge, skill sets and engagement with the project become involved in the management of a single resettlement event. Where MIDR events span multiple project phases, research suggests heightened levels of social and enterprise risk around local economic dependency ([Filer, 2000](#)), human rights impact ([Terminski, 2012; Farrell et al., 2012](#)) and community conflict ([Franks et al., 2014](#)).

Furthermore, projects that are being described by industry as ‘greenfield’ from a project perspective could be understood as having brownfield characteristics when viewed from a resettlement perspective. The La Granja project in Peru, for example, was first privatised in 1994 when Cambior, a Canadian company, acquired the property for detailed exploration. The company prepared a feasibility study and an environmental impact assessment, followed by a program of land acquisition and physical relocation. In 2000 Cambior sold its exploration rights to South African Billiton Base metals, which later merged with Australian multinational, BHP. After determining that the project was unviable, BHP Billiton returned the property to the Peruvian government in 2002. As part of its closure program, the company instituted a land buy-back scheme to former landowners. In 2005, Rio Tinto won a bid issued by the Peruvian Government to continue the exploration and development of the concession. From the outset, the company decided to lease rather than to acquire land for exploration. As activities proceeded, the construction of minor infrastructure impacted the primary homes of 21 families. The impact mitigation for these families is what Rio Tinto refers to as a ‘partial’ resettlement. The arrangement involves families receiving lease payments, assistance to re-build dwellings in another location, and compensation for the cost of relocation. This represents a third mining-induced relocation for some families.¹⁶ For a developer looking to take La Granja into production, the permanent resettlement of these and other families would be required. In the paragraphs that

¹⁴ See also [Alexandrescu' \(2011\)](#) study on family-level impacts at the proposed Rosa Montana mine in Romania.

¹⁵ For additional sources on coal mining in India see [Padel and Das \(2007\)](#) and [Mathur \(2008\)](#).

¹⁶ That is, families initially displaced by Cambior, who then returned to the project site after purchasing their land back from BHP Billiton, and who were subsequently resettled ‘partially’ by Rio Tinto.

follow, we expand on these lifecycle dynamics and their effect on MIDR.

4.1. Incremental expansion and uncertainty

Unlike other industries, mining companies face high levels of uncertainty around their land requirements. Banks (2013) suggests that this is a response to improved geological knowledge as operations proceed, fluctuations in commodity prices, and the availability of new technologies. Imprecise prediction of land requirements also appears as a function of cost deferral within the mine lifecycle. Several interviewees indicated that cost deferral was exacerbated during the tenure of particular mine managers incentivised to limit capital cost and operating expenditure. Under brownfield scenarios, land is secured on an ‘as needed’ basis rather than as a ‘front end’ activity. According to Downing (2014, p.8) there is a unique tendency in mining to move human settlements on a piecemeal basis, a strategy he refers to as “stepwise mining expansion and land take”.¹⁷ In mining, this renders displacement a distinctly incremental phenomenon. Almost half (44 per cent) of the operations listed in Table 2 resettled communities during the operational phase. This does not account for resettlements that were planned during feasibility, commenced during construction phase and were then serviced or completed during operations.

Under our definition, the ‘brownfield effect’ can also occur when the spectre of resettlement hangs over a community while a project is put on hold. Newmont’s Akyem mine in the Birim North District of the Eastern Region of Ghana was suspended several times over a period of seven years before receiving Board approval in 2011. During this time, Newmont maintained a strong project presence, undertaking consultation and engagement about the status of the project, even when its future was unclear. While information was readily provided, this does not diminish the fact that certain households were earmarked for resettlement, only for the project to stall. From a community perspective, the process of resettlement had commenced. A similar dynamic can occur while ownership of a project is in transition. In 2011, global mining giant Rio Tinto acquired Australian company Riversdale and its Benga coal mine in the Tete province of Mozambique during a partially complete relocation process. Rio Tinto revised the resettlement process after acquisition in order to address shortcomings in livelihood restoration of already relocated households. The relocation of a remaining group was delayed while other issues were addressed, creating uncertainty and tension between relocated and remaining families, and the company (HRW, 2013). The project has since been acquired by Indian joint venture company International Coal Ventures Private Limited (ICVL).¹⁸ Likewise, resettlement of near mine communities at the Las Bambas Copper Project in the Apurimac region of southern Peru has also experienced delays, in part due to changes in corporate ownership from Swiss mining conglomerate Glencore-Xstrata to Chinese-owned MMG across 2013 and 2014. A ‘relocation agreement’ negotiated with the Fuerabamba community in 2010 by the previous owners is now contested. Following numerous protests, the community has refused to move to the town of Nueva Ciudad De Fuerabamba, citing water contamination

as primary concerns. It is the volatility of the mining sector, and the frequency at which projects are suspended, acquired or abandoned and the effects on resettlement that we highlight here.

The brownfield effect can exacerbate conflict and create a hotbed of opposition, not only between company and community, but also within communities who were resettled. Communities resettled a few years apart, for example, may have sold land for very different prices; the first when the community did not have a sense of land values relative to industrial scale mining, and the second with the benefit of hindsight informed by a strong sense of impacts. Dams, construction project agri-business, forestry and even oil and gas can more readily plan resettlement as a front-end activity. These industries work within a development envelope where the geographic impact can be more clearly defined. In these industries, there is no project ‘tail’ that is dependent on future discoveries, volatile commodity prices and a complex set of interactions and dependencies.

4.2. Cohabitation and proximity to production

With MIDR, it is the pattern of cohabitation arrangements between mines and resettled communities that have become a defining feature. Communities will often reside in close proximity to production, where land acquired by the project remains visible to relocated households. Some communities will bear witness to dramatic landscape change from within the mining lease itself. Shared occupancy of mine lease areas adds further complexity to mine-community relations, a complexity that is intensified when communities are relocated within the mining lease.

Other projects relocate communities to areas adjacent to the mine. One example is the Lihir mine in the New Ireland Province of Papua New Guinea (PNG). In 1995, the company formally negotiated development agreements with landowner residents; including two sub-agreements for the relocation of Put Put/Ladolam and Kapit villagers who were residing on the mining lease area (Filer, 2000). One village community, Putput, was relocated off the mining lease to nearby customary land where residents had clan affiliations in the hope that they could “retain a semblance of village unity” (Bainton, 2010, p. 32). Since 1995 the plant site has expanded within the lease area and the buffer zone within the lease has been utilised for infrastructure. At the same time, the community has moved closer to the mine perimeter due to land pressures and population increases. Today, the distance between the project and the community has narrowed to a fence line (Fig. 1).

A number of factors drive co-habitation. Firstly, identifying and acquiring land that is suitable for resettling people is difficult. For a multitude of reasons, communities in nearby areas may not be in a position or necessarily want to make land available for a resettlement. Moreover, governments may not approve of the settlement, and lands may be insufficient to support both the residential and livelihood needs of settlers. Secondly, maintaining close proximity to the mining operation can have perceived advantages for some families and individuals in terms of recruitment, services and business opportunities. While communities living close to the mine may be more exposed to social and environmental impacts, they may be unwilling to move away if doing so reduces their access to project benefits (Bainton and Mcintyre, 2013).

This ‘proximity to production’ differentiates mining from other sectors, such as in the case of dams, where the original site is submerged – covered in a relatively unproductive and benign state. Where resettled communities are proximate to lands that are potentially productive, but have been quarantined for use by the mine, the potential for conflict increases. The cohabitation at the Prestea gold mine in Western Ghana provides a helpful example.

¹⁷ Downing argues that this strategy “favours the Company’s interest, spreads the investment costs for land acquisition throughout the lifespan of the mine, and allows the company to justify a forced displacement in the interest of public safety and health, a resolution to a problem that the mine created in the first place” (p.9). As of 2014, La Granja’s proposed development pathway was gradual, commencing with a smaller ‘starter mine’, with expansions phased over an estimated 30 years.

¹⁸ ICVL is a joint venture company incorporated in India and set up by the mandate of the Government of India exclusively for the purpose of the acquisition of coal mines and coal assets in overseas territories.

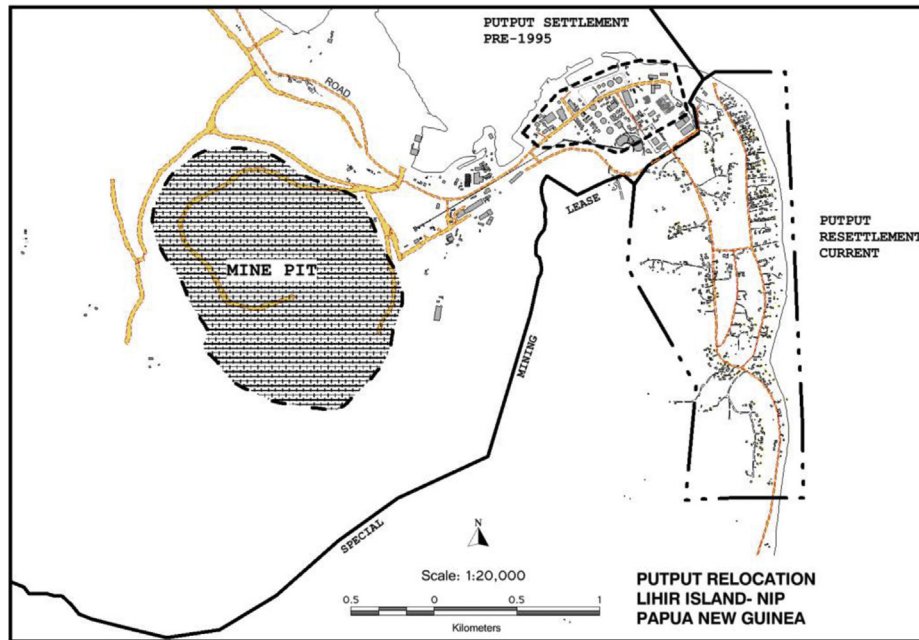


Fig. 1. Putput relocation, Lihir Island, New Ireland Province, PNG.

According to Hilson and Yakovleva (2007), the source of the company-community conflict is based on land that the company has not put to productive use (and would not relinquish) but which is of value to local small scale miners (*galamsey*).¹⁹ A failed resettlement and compensation agreement between the company and locals exacerbated tensions (ibid).²⁰ Likewise, the combination of small scale or informal mining and resettlement in proximate communities has generated exceptionally difficult circumstances at sites such as the Porgera mine in the Enga Province of PNG and Gold Ridge on Guadalcanal in the Solomon Islands; circumstances that have resulted in the steady erosion of law and order, human rights investigations, work stoppages and multiple fatalities (Gilberthorpe and Banks, 2012).²¹

Aside from mining, there are few large-scale industries that are capable of simultaneously creating the basis for displacement and the grounds for resettlement avoidance. Current international standards emphasise the need to 'avoid' resettlement. For this reason, the emphasis on avoidance rather than minimising the impact of resettlement becomes highly problematic in the context of mining. Simply because most resettlements turn out poorly does not mean that avoidance should be taken as a default position. Companies that have avoided resettlement due to compliance and cost concerns have in some instances created environments whereby the project and the community are sharing core infrastructure (such as haul roads), and where the outright reluctance to

physically relocate people has resulted in communities incorporating unacceptable safety and health risks into daily life, even in circumstances where communities explicitly request to be moved.

Without strict governance measures in place, mining projects have the potential to encroach upon the life, land and livelihood of host communities. Recent studies undertaken of the giant Minera Yanacocha complex in northern Peru, for example, highlight issues of encroachment by the mine and their cumulative effects on everyday life. Company-commissioned studies have documented distinct patterns of protest stemming from MIDR and the progressive encroachment of the project into near mine communities (Kemp et al., 2013; Elizalde, 2009). Any avoidance decision must be set against the net impacts that a community will experience if resettlement is not at least offered on the basis of future mine-community cohabitation scenarios. The challenge here is that some companies claiming compliance with international standards by virtue of having 'avoided' resettlement in the design phase may also be avoiding the cost of land acquisition, resettlement and impact mitigation efforts. In these circumstances, the cumulative impact of avoidance may not, in fact, provide any safeguards for local communities in the context of mining.

4.3. Inter-dependency

As stated above, relocatees' lives can become entangled with the mine and its activities. Reflecting the cohabitation/proximity model, one set of entanglements relates to the dynamic interaction between impact patterns, mitigation measures and the flow and distribution of local-level benefits. The delicate balance struck between interventions designed to soften the impact of resettlement and the residual effects experienced by resettled communities, forms the basis of this entanglement. At Yanacocha the residual effects of displacement continue to drive company-community conflict. Bebbington et al. (2008, p. 2895) maintain that the mine's early land acquisition program "triggered the first rumblings of discontent with the mine". They link drivers of discontent to conditions under which land was acquired, with accusations of forced sales and inflationary pressures in the local land market.

¹⁹ Debate over competing land use between mining and agriculture is widespread. For example see Mkuzi et al. (2013); Schueler et al. (2011); Mishra and Pujari (2008) and Oliver-Smith (2011).

²⁰ It is worth noting that in the Prestea case, Golden Star Resources has not resettled the people of Prestea, or part thereof.

²¹ According to Gilthorpe and Banks (2012, pg192), the level of social complexity at Porgera was "simply too much to be contained within the financial and logistical bounds of such a rational planning exercise". They add that "The complexity and evolution of the local community, in other words, was more than a match for the World Bank's best planning frameworks". For an ethnographic history of the Yakabari Waste Dump resettlement event at Porgera, see Golub's *Leviathans at the Gold Mine: Creating Indigenous and Corporate Actors in Papua New Guinea* (2014, p. 24–73).

Although Yanacochoa's approach to land acquisition changed over time, including the establishment of a Former Landowners Program, new issues emerged as the mine continued its program of incremental expansion (Whellams, 2007).

Economic entanglement between mines and communities is a well-documented phenomenon (Ballard and Banks, 2003). Household level dependency obviously grows when people are displaced. Dependency can also manifest at a community or sub-national level where there is a lack of economic diversity, capacity or investment in sustainable livelihoods. Entanglement also occurs where expectations for social development prompt companies to mediate state–community relationships. Companies act as a proxy for the state by providing services and infrastructure for resettled or receiving communities where governments either cannot or will not deliver. These contributions can diffuse tension and ensure access to land for mining activities in the short term, at the same time planting the seeds of future conflict when companies wind back their assistance, or fail to meet expectations. While the state can lean on companies to deliver essential services, so too can companies lean on the authority of the state to expedite negotiations over land access, or manage law and order or local conflict in a contentious resettlement scenario.

Whether resettled communities 'accept' an entanglement arrangement is often determined by whether their expectations are being met. Communities are dependent on companies upholding their part of the resettlement 'bargain'. What often transpires, however, is that companies commit to more than they are willing, or able, to service in the long term – not necessarily because they do not have the resources, but because priorities and personnel change over time. Staff who hold an understanding of the resettlement process are not always present in the latter stages of mine life to confirm or validate the nature of original commitments. A cycle of (re)negotiation can escalate into tension, disruption, or violent protest. Companies routinely develop relationship 'binds' with resettled communities where production is contingent on approval from the resettlement community. These inter-dependent relationships tend not to happen with other infrastructure-related developments, such as dam or road construction projects, as they are more one-off resettlements where the negotiation cycle occurs only once.

Finally, resettled communities are often beholden to the financial success (or otherwise) of a mining operation, and in some cases the parent company. Allocations for community investment, livelihood programs and even community engagement programs are fundamentally budget dependent. Operating budgets are typically determined annually, underpinned by the commodity cycle, rather than local-level vulnerabilities. Neither are budgets always determined by the profitability of a single mine. Profitable mines with resettlement obligations in large companies can have their profits re-directed to support other projects within a corporate portfolio, such as those under development, or in debt. Expansions, acquisitions, closures and divestments can also affect the availability of revenue and resources to support resettlement and livelihood programs. In the absence of resources, competition between individuals, households, families and communities – including between relocatees and receiving or neighbouring communities – can place people at further risk of disruption and dislocation.

4.4. Leveraging and cost increase

Capital outlay for most planned resettlements includes studies and surveys, engagement and consultation, specialist consultancies and services, permitting and legal fees, site preparation, housing and public amenity, road, water and electricity, and social and community development, together with compensation for

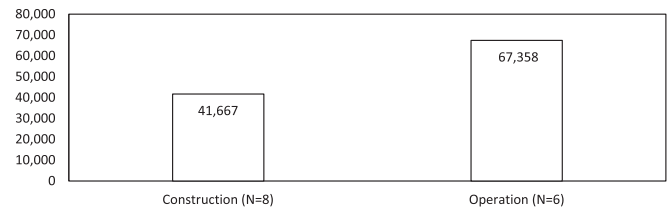


Fig. 2. Cost comparison of MIDR by project stage based on USD per household.

loss of land, assets and opportunities. Our data suggests a general pattern whereby total cost of planned resettlement tends to increase as mines move through the project lifecycle. A review of the 14 publically and privately held RAPs from the MIDR database indicates that planned resettlement costs in the operation phase are significantly higher than those incurred at construction.²² To establish a basis for comparison, the total disclosed budget was divided by the total number of displaced households so as to arrive at a 'per household' cost for each project.²³ A median cost was calculated for resettlements undertaken at construction ($N = 8$) and at operation ($N = 6$). The results suggest that if compared on a per household basis, resettlements staged at the operational cycle of a project can be two-thirds higher than those at earlier phases (see Fig. 2).

There are explanations for this pattern. First, during early phases, companies purchase land at a time where there is a generally lower level of competition for land. As the company acquires land in the area, the market for land becomes more competitive, driving up land prices (Sonter et al., 2014b, p.70).²⁴ Second, land prices in the early period of construction do not reflect industrial rates for land. In later phases, relocatees are more aware of the value of land when converted to industrial use and the cash value of re-entering the market as buyers under these new circumstances. Third, relocatees at the operational phase have greater exposure to market processes than their peers had at construction, including corporate purchasing power, negotiating tactics and operational vulnerabilities. This can put them in a stronger bargaining position. Finally, in the early phases, there are fewer legacy or compensation precedents for parties to lean on in negotiations. These factors, coupled with the general inflationary effect associated with the mine's presence, including for housing, consumables and utilities, are likely to push the cost of a relocation program upwards.

A key determinant that is often overlooked in resettlement planning is the influence of 'leveraging'. Leveraging is another major driver of planned and unplanned costs and takes place both inside and outside the organisation. Companies are most familiar

²² These costs reflect both what is 'planned' at the time the RAP is finalized and what the company is prepared to disclose to either direct stakeholders or the wider public. Actual costs tend to far exceed planned spend.

²³ The data presented in this article should be read as providing an indication of trends across the sector. For the reasons stated above, the data gleaned from RAPs should be treated as aspirational. The authors have also collected data on demographics and project costs from newspaper articles and public reports; which are themselves based on a combination of data sources of varying reliability. Moreover, reporting on the number of persons displaced by projects varies considerably; in some instances data refers to individuals, in others households are used. For our purposes we have used 'households' as the basis of analysis, given that in most cases it is the household that forms the basic 'compensable unit'. To arrive at a household figure, the authors have assumed the average household size for the affected area in question. The lack of accurate and comparable data are further cause for improved data collection and research in this area. Comparisons based on cost per hectare of land yield similar results.

²⁴ In jurisdictions where land cannot be owned, sold or purchased outright, this dynamic may not affect land prices.

with the effects of external leveraging, where relocatees position themselves to negotiate higher rates of compensation for land and assets in exchange for operational access. Leveraging occurs for a range of reasons. Some forms of leveraging can be interpreted as purely opportunistic, where relocatees demand exorbitant prices in the hope that the company simply pays out. In instances when inflated payments are agreed to by the company for the purposes of securing land access, a precedent is set for future negotiations. Other times leveraging can be read as a proxy for deep-seated grievance, which in some cases can have its origins elsewhere. Project planning and internal leveraging; that is, between organisational units, is less well documented.

During the planning phase, developers have an opportunity to define cost elements of a resettlement project to ensure implementation is fully resourced. In order to accurately define capital expenditure, social specialists need to actively participate in planning and forecasting processes, characterising potential issues and pressures on the project. Our direct engagement with the nine field sites suggests that social functions are not generally well integrated into strategic forward planning for new projects, expansions or major capital works. The under-budgeting for MIDR that occurs in the planning phase in part reflects the exclusion of social specialists. During fieldwork, several project managers explained that social specialists do not always apply tools and formulas that enable accurate cost modelling. These deficiencies exacerbate the industry's tendency to routinely under-estimate budgets for MIDR. This tendency, combined with the sparse body of knowledge on MIDR to inform modelling and forecasting, readily leads to cost blow-outs, under performance and exacerbation of conflict. Neglecting community concerns creates financial risks that can far outweigh costs.²⁵

The most effective lever for social specialists to secure human and financial resources for resettlement implementation is external pressure. Crisis scenarios, particularly those that put production at risk, remain the most effective internal lever (Kemp and Owen, 2013). Our fieldwork confirms the relationship between poor project planning and the ad-hoc practices of managing social and project risk in resettlement. In each of the nine field sites, inaccurate forecasts and inadequate capital allocation at the project planning stage, combined with poor responsiveness to ad-hoc issues, resulted in companies servicing resettlement challenges on short cycle budgets, typically using operational expenditure (OPEX) or corporate contingency budgets, rather than incorporating costs into capital expenditure (CAPEX). When companies fall into this pattern, the case for resourcing depends on communities escalating concerns through conflict or by compromising company access to land.

4.5. Governance by default

Governance arrangements for MIDR differ from other sectors. The range of actors is similar: developers, governments and their respective agents; affected and resettlement communities and their representatives; non-government organisations and other civil society groups. The main point of departure from arrangements in other sectors lies in the complexity of factors as outlined above, where the boundaries of responsibility between these parties and the allocation of resources is more fluid and opaque. In

frontier mining locations, the resources available to global companies typically outstrip those available to the state and other actors. Resourcing can therefore quickly default to the company, and along with it, responsibility for planning and implementation.²⁶

Most jurisdictions involve governments delegating responsibility for managing resettlement to mining companies as a permitting condition. For other large-scale development projects such as dams and major infrastructure, the state either leads the resettlement process, or takes a prominent role in public consultations. In mining, it is often the company that inherits exclusive responsibility for RAP formulation and implementation, with governments requiring companies to serve as their proxy in the delivery of sub-elements of a RAP. These elements can include provision for specific infrastructure, services, welfare support or other 'packages' for eligible households such as agricultural extension programs and local economic development. Interviews undertaken with management personnel suggest that companies are reluctant to substitute for governments in this way.

There exist a small number of countries where MIDR is government managed. This does not automatically translate into host governments accepting full responsibility for the planning, relocation, or livelihood restoration and improvement for MIDR events in their jurisdiction. Specific sub-tasks may rest with the state but remain project financed. In other cases, MIDR will be government managed, but strategically positioned outside of the project development envelope. For example, at LXML's Sepon mine of the Savanakheth Province in Lao PDR, the district government has undertaken several 'village consolidation' activities throughout the life of mine, moving villages away from high impact areas and co-locating them with pre-existing villages outside of the known impact area. This process is represented as an effort by the district level government to improve administration by concentrating the population closer to service and infrastructure hubs. By depopulating land that is of interest to the mine, the government assisted the company in avoiding responsibility for MIDR. Similar efforts to 'consolidate' villages have occurred at the Thach Khe Iron Ore Mine in the Ha Tinh Province of Vietnam (Vo, 2014). In these and other cases, companies are left to manage resettlement legacies, often with minimal input from the state. Subsequent village consolidations occasioned during project expansions become highly problematic once the underlying purpose becomes clear to the affected population.

Project-led resettlements, or the agreed or inherited elements that are led by projects, are usually co-ordinated by the community relations function at the operational level. As noted elsewhere, this function is routinely peripheral to 'core' mining decisions (Kemp and Owen, 2013). This internal allocation of responsibilities creates a situation where those company agents who are closest to the needs, aspirations and concerns of resettlement communities are not always included in major planning decisions. Some companies are working to address this issue, such as Anglo American's corporate-level Resettlement Committee, which has internal authority to oversee major resettlements. Whether these pattern-breaking initiatives are being replicated elsewhere in the industry, and whether their form, function and position within the organisation is proving influential from a governance perspective is not yet known.

While developers and governments have direct responsibility for implementation of MIDR, these events can attract other important stakeholders with specific interest and influence over governance aspects. Lenders and insurers who subscribe to

²⁵ The meeting summary from a Chatham House forum on community relations in extractive industries, quotes one speaker as stating that "cost ratios on the old adage 'prevention is better than cure' can sometimes be as high as ten to one". Others agreed and noted that the cost ratio may be even higher (Chatham House, 2013 p 4).

²⁶ This shifting of responsibility often takes place in the absence of a clear legal framework for MIDR with adequate safeguards for project-affected people.

international safeguards through the Equator Principles (2013) are often influential in the context of the lender-client relationship. Lenders rely on routine monitoring and auditing to achieve assurance that their investments are not subject to unacceptable risk, including reputational and social risks associated with poor resettlement practice. Audit methodologies do, however, have significant limitations in terms of driving social performance improvement (Kemp et al., 2012). In new mining frontiers where oversight of MIDR also rests with the state, gaps in capacity, resources and knowledge of MIDR weaken governance arrangements. Under these circumstances, civil society actors have readily emerged. When the state fails to provide a strong regulatory framework and adequate oversight, these types of agencies are quick to identify governance gaps. Likewise, when the state is present but fails to exhibit independence, non-government organisations can step in to fill what they see as an accountability vacuum. This action is often misunderstood by mining companies and states as being anti-mining, but this is not always the case.

5. Implications for policy and practice

Our aim in this article has been to highlight the particular dimensions of mining that affect resettlement. Despite the general lack of literature that addresses certain aspects of MIDR, we maintain that there are distinct features that warrant dedicated attention and research. The primary source of distinction is both the existence and high proportion of brownfield resettlement events. When considering the high incidence of brownfield resettlements alongside the industry's aspirations for improved social performance, the significance of developing an improved understanding of MIDR moves clearly into frame. In this section we discuss three pertinent issues: stakeholder approval, transparency and knowledge building, and the positioning of MIDR within contemporary policy debates.

5.1. Permitting and stakeholder approval

Uncertainty is a central feature of brownfield MIDR events. This can be demonstrated using the contemporary FPIC debate and the question of 'consent' (Owen and Kemp, 2014). It is widely presumed that community consent can only be achieved under circumstances of *full disclosure* and protection of the 'right to know'. Providing information to communities that may not have experienced mining or any major development for that matter, poses a significant challenge. Levels of uncertainty intensify where developers are not in a position to disclose impacts because they are not yet known or have not been modelled. If a developer was to disclose its full range of expansion options and associated resettlement scenarios from the concept or pre-feasibility phase, the burden of uncertainty would shift from company to community. International safeguards encourage disclosure, but do not provide guidance on how to manage the uncertainty caused by full disclosure.

The level of disclosure provided at permitting has serious implications for both the regulator and for stakeholders who have signalled support for the project. Brownfields resettlements can take place several years after a project has received its initial permits. For governments, the implication is that projects are approved without a comprehensive understanding of the full extent of social impacts or a plan for how those impacts will be managed or mitigated by the proponent. For communities, MIDR is a major source of disruption and impact; it is therefore difficult to understand how consent could ever be regarded as 'informed' when significant impacts that will invariably change the shape and function of community life were not clear at project start-up. Ensuring adequate levels of disclosure without shifting the

burden of uncertainty to the community to manage alone requires careful exploration of different mine plan scenarios during initial approval so that communities can evaluate the risks of proceeding.

5.2. Transparency and knowledge building

As an arena characterised by social risk, conflict and innumerable practice challenges, it is indefensible that MIDR has been overlooked as an industry agenda. MIDR is not merely lacking in terms of its prominence in industry thinking and policy; individual companies lack the internal capacity to properly service the different dimensions of a resettlement. This internal capacity gap grows when complex issues relating to legacy, traditional forms of land ownership, multiple resettlements, and changed ownership are part of the equation.

To improve understanding in this domain of practice, access to the company sphere is critical. Without access to decision makers, decision making and planning processes, historical records and live events, researchers, educators and practitioners will be unable to generate the type of knowledge resources required to support professional improvements. At this point in time, access to reliable and comparable sets of data is a major barrier to the development of such resources and opportunities. The reluctance to share data on MIDR case studies can be so strong that company personnel often do not share information within their own organisations. The foundations for sector-wide knowledge building and guidance need serious attention if there is to be any measureable change in performance.

5.3. Connecting to contemporary debates

We have drawn attention to a disconnect between MIDR and contemporary debates within industry. In social policy terms, this means that advances in key domains of practice are not driving improvements in the industry's approach to MIDR. A reciprocal effect is that major practice dilemmas like MIDR do not inform or test the building of policy positions in related areas. We have used 'FPIC' and 'agreements' to illustrate the point; yet the same issue could be raised in relation to 'development contribution', 'economic empowerment', 'grievance mechanisms' or universal 'human rights'.

These disconnects are manifold. The most obvious and most concerning is the level of priority given to MIDR in contemporary policy debates. There is also a lack of connection between industry practice and learnings from DIDR. While we have insisted on the importance of creating distinctions between MIDR and DIDR, core terminology and concepts relating to 'dispossession', 'eligibility', 'disarticulation', 'entitlement' and 'reconstruction' (Cernea, 1997, 2000; Oliver-Smith, 2009) are fundamental, but do not feature in industry MIDR vernacular. Non-engagement in related and alternative discourse will maintain the industry's insular perspective on this topic, and promulgate the privatisation of MIDR knowledge.

6. Conclusion

This article highlights key aspects of the status and workings of MIDR as a global practice. We have drawn attention to MIDR as a distinctly brownfield phenomenon, due in large part to the high proportion of resettlement events that occur during the operational phase of the mine lifecycle. There are a number of factors that characterise what we call the 'brownfield effect'. These include incremental expansion and cost deferral, cohabitation, interdependency and leveraging. Our data suggests a clear pattern of exponential cost increase for MIDR on a per household basis from construction to operations.

We also highlight the potential risks associated with project developers and governments shifting the burden of uncertainty to communities in jurisdictions with weak regulatory frameworks. Additionally, and in a perverse application of the safeguard standards, some mining companies will claim to be in compliance with safeguard standards and contain costs by ‘avoiding’ resettlement. This result can be achieved for companies by proceeding with an expansion strategy that relies on external drivers to trigger or ‘force’ resettlement. The brownfield reading of incremental land take in mining prompts a distinctly different interpretation to the application of ‘force’ in resettlement events. There is an urgent need to understand those drivers that compel mining companies to design projects for minimal impact, address the long-term and cumulative impacts of displacement on affected peoples and to give practical effect to ‘resettlement with development’ by linking MIDR with other emerging domains of industry policy and practice.

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