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Abstract

This critical review argues that the experiences and perspectives of women in relation to the extractive industries have often been absent from analysis of the impacts of mining in the global South. This paper therefore explores the ways in which women in developing countries are affected by the expansion of extractive industries, bringing together a dispersed literature, scattered across disciplines and relating to geographically diverse locations, in order to provide a comprehensive overview of key debates in relation to women and mining, and generate momentum for a new research agenda in this area. The review concentrates on four key intersecting areas – women as mineworkers; the gendered impacts of mining, and specifically the disproportionately negative impacts on women; women's changing roles and identities in communities affected by mining; and finally gendered inequalities in relation to the benefits of mining.

Keywords: women, mining, gendered inequalities, mining impacts, development

Introduction

Natural resource extraction of all kinds plays an increasingly prominent role in the economic development strategies of many countries across the global south. In relation to mining, this involves the extraction of a wide range of resources, from gold and silver to clay and salt. A diverse and extensive body of literature addresses the myriad issues and debates arising from these socially and environmentally destructive processes of extraction. Such issues include analysis of processes of negotiating resource governance and territorial rights (Bebbington et al. 2008; Hilson and Maconachie 2008; Bebbington 2012; Haalboom 2012); understanding the nature and extent of mining conflicts in diverse contexts (Haarstad and Fløysand 2007; Kuecker 2007; Gordon and Webber 2008; Arellano-Yanguas 2012); understanding and uncovering the complex social, environmental and economic impacts of mining on local communities (Bech et al. 1997; Earthworks and Oxfam America 2004; Kitula 2006; ActionAid 2008; Bebbington and Williams 2008; Carrington et al. 2010; Earthworks and Mining Watch Canada 2012); and interrogating processes of environmental impact assessments, free and informed prior consent, and community consultations (Whiteman and Mamen 2002; Whitmore 2006; Macintyre 2007; Li 2009a), to name but a few areas of recent scholarly interest. However, it is notable that women and their experiences and perspectives tend to

be absent from these accounts. Where women *are* mentioned, it is often a brief comment in relation to other substantive topics, with relatively little research specifically focusing on the impacts of mining on women, and their experiences in relation to mining and the mining industry. This critical review therefore aims to draw together a dispersed literature, scattered across disciplines and relating to geographically diverse locations, in order to provide a comprehensive overview of key debates in relation to women and mining. Given the vast range of topics and contexts that this encompasses, this paper aims for breadth rather than in-depth analysis, in order to signpost key areas for further research, and generate momentum for a new research agenda in this area.

I argue that the situation of women in relation to mining activities is currently under-recognised and under-theorised but is a key issue in terms of thinking through and critiquing the role of the mining sector in relation to development and to poor communities in the global South. In this paper, I therefore emphasise that women should be recognised as important actors in communities affected by mining, and examine this in relation to four key, intersecting areas – women as mineworkers (both in relation to artisanal and small scale mining (ASM) and larger scale industrial mining); the gendered impacts of mining, and specifically the disproportionately negative impacts on women; women's changing roles and identities in communities affected by mining; and finally gendered inequalities in relation to the benefits of mining. The paper is underpinned by a feminist approach to making visible, understanding and addressing the issues and inequalities faced by women, particularly poor women, across the global South. Due to the already substantial scope of this topic, I have restricted the focus of this paper to the global South. However, I recognise that many of the issues covered are by no means experienced only in the global South but resonate across the extractives sector, including in contexts across the global North. I therefore make links to literature relating to the global North where appropriate. Throughout the paper, I draw on academic literature from across the social sciences and beyond, bringing this into dialogue with practitioner/policy-based literature, which has arguably been particularly important in recognising women's positioning in relation to mining activities.

The paper draws out the gendered dynamics of a range of contexts across the ASM and large scale mining sectors, whilst recognising that there are great variations both within and between these sectors. Similarly, the category 'women' is very diverse, and women in different social and economic positions will experience and engage with the mining sector in different ways. It is beyond the scope

of this paper to address these differences in detail but I do recognise that the impacts of mining on women are mediated by class, ethnicity, age, disability, and levels of literacy (amongst other factors), and are differently experienced by rural and urban women. I aim to draw out some of these differences where possible throughout the paper.

Women as Mineworkers

Of the four areas covered by this review, this is the area where there is greatest recognition of women as important actors, though this nevertheless remains rather patchy. Although both historically and more recently, mining and miners have been associated with strongly male traits and identities (Lahiri-Dutt and Macintyre 2006b; Lahiri-Dutt 2010), the reality of the situation is in fact a lot more complex, with women participating in a wide range of mining and mining-related activities across the global North and South (Lahiri-Dutt and Macintyre 2006b). However, traditional gender stereotypes mean that women's contribution to this sector has been largely invisible – “women's work in the mines has remained obscure and hidden, forgotten and devalued” (Lahiri-Dutt and Macintyre 2006a: 3), and women have faced a range of challenges and discrimination in relation to their involvement in this sector.

When examining women's direct involvement in mining, it is important to distinguish between artisanal and small-scale mining (ASM), and the larger scale, industrialised mining industry.¹ It is in relation to ASM that most literature exists about women mineworkers, and thus it is to this aspect that we turn first. ASM refers to the “low-tech, labour intensive mineral extraction and processing found across the developing world” (Hilson and McQuilken in press), encompassing varying degrees of formality and legality, characterised by “low levels of environmental, health and safety awareness” (Hilson 2002: 4), and usually located in remote rural areas (Hilson 2002). The precise nature and extent of ASM varies across the global South but conservative estimates are that it involves at least 25 million people across 70 countries of the global South (Hruschka and Echavarría 2011). Although accurate figures are difficult to ascertain, Hilson (2002) suggests that women could represent approximately one third of the ASM sector, and notes that in several countries, women's involvement is as great or even greater than men's – for example, in Guinea where women make up 75% of workers involved in small-scale mining, and in countries such as Mali and Zimbabwe where

¹ We should also recognise, as Roger Moody (2007) highlights, that these two sectors do not exist in isolation from each other, and there are often connections and overlaps between the two (Hentschel et al. 2002; Chaloping-March 2006; Moody 2007).

women's participation is around 50% (Hilson 2002). However, despite the significant numbers of women involved across the global South, many authors highlight the historical and ongoing invisibility of women in ASM (Hinton et al. 2003; Lahiri-Dutt 2008; Dhaatri Resource Centre for Women and Children and Samata 2010; Orozco Zevallos 2013).

Literature on women workers in the ASM sector responds to this perceived invisibility and tends to take the form of a number of stand-alone case study examples of women's unrecognised involvement in mining in particular country contexts, with discussion of the different roles undertaken by women and the challenges they face. The collection by Lahiri-Dutt and Macintyre (2006b) and Lahiri-Dutt (2011a) and the chapter by Hinton et al. (2003) are the most comprehensive collections of evidence in this regard, with examples from other sources being rather scattered across the academic and policy literature. Overall, it is notable that most literature focuses on Asia and the Pacific Rim, and Africa, with relatively little examining the Latin American context.

Although it is important not to overgeneralise across the varied regions of the global South, it is evident that across the developing world women are involved in almost every stage of mineral transportation and processing, but generally participate very little in underground mining, particularly as in many countries women have been considered to bring bad luck if they enter the mine (Van Hoecke 2006; Hargreaves undated-b).² Women's work in ASM is overwhelmingly concentrated in the processing of minerals – carrying out arduous and often hazardous manual tasks such as crushing, milling, grinding and sorting rock, and subsequently concentrating gold, a process which uses extremely toxic materials, predominantly mercury (Hinton et al. 2003; Lahiri-Dutt and Macintyre 2006b).³ In Burkina Faso and Mali, for example, 90% of these processing activities are undertaken by women (Hinton et al. 2006). These tasks tend to be those with the lowest economic returns and that require high levels of manual labour. In particular, women miners are found in high numbers in the most precarious and marginal tasks such as extracting mineral remnants by hand,

² There are, however, a few contemporary accounts that include examples of women working underground, including in small numbers in China (Yao 2006), Bolivia (Chaparro Ávila 2005; Van Hoecke 2006) and in parts of the Philippines (Chaloping-March 2006), as well as in larger scale mining in South Africa (Benya 2010). Historically, however, women's participation in underground mining was much more widespread (Mercier and Gier 2009; Dhaatri Resource Centre for Women and Children and Samata 2010; Lahiri-Dutt 2010; Hargreaves undated-d), prior to the introduction of the International Labour Organization's 1935 legislation making it illegal for women to work underground.

³ See Veiga and Hinton (2002), Hinton et al. (2003) and Hrushka and Echavarría (2011) for detailed accounts of this process and of the hazards involved.

including from tailings and processed materials, and in washing or panning mud and sand for small particles of gold (Van Hoecke 2006; Orozco Zevallos 2013). It is recognised that women do undertake a range of other roles within the ASM sector, including owning mines and mining equipment, and acting as mineral dealers but overall such roles appear to be much less common (Heemskerk 2003; Hinton et al. 2003; Caballero 2006; Van Hoecke 2006; Werthmann 2009), though Maconachie & Hilson (2011) outline the noteworthy exception of gold panners in Sierra Leone, 90% of whom they suggest are female, with women also heading many of the camps.

In many cases, women's involvement in ASM stems from the sector's status as an informal family endeavour (see, for example, Chaloping-March 2006; ILO 2007; Hruschka and Echavarría 2011; Hilson 2012). Several authors note that due to the informal nature of women's labour in ASM, their status as mineworkers is often not recorded or recognised (Lahiri-Dutt 2008). They may even not receive an independent wage but instead be counted as part of their husband's wage, or their husbands may retain control of monies earned (Hentschel et al. 2002; Hinton et al. 2003; Tallichet et al. 2003; Van Hoecke 2006; Hargreaves undated-d). The nature of ASM as a family undertaking also brings the associated issue of the involvement of children, whom women may bring with them to work, having no one with whom to leave them. It is common for women to work with babies tied to their backs and toddlers alongside them (Hinton et al. 2003; Lahiri-Dutt 2008; Hruschka and Echavarría 2011). It is therefore unsurprising that children become directly involved in mining from a young age (Hruschka and Echavarría 2011; Perks 2011; Hargreaves undated-d), and Lahiri-Dutt (2008) notes that "For children to naturally join in mining activities to support the family at times of ill-health of the elders is neither uncommon nor infrequent" (Lahiri-Dutt 2008: 224).⁴ Indeed, the presence of children in the mining sector may actually serve to increase the invisibility of women, as statistics have often tended to group together women and children, with the added effect of infantilising women and negating their status as workers (Lahiri-Dutt 2008).

What is notable about these accounts of women as miners in diverse ASM contexts, is that most sources provide rather factual accounts of women's involvement but few develop strong critiques of the gendered dynamics and power relations at work. In particular, relatively little attention is given to making connections between these contexts and the ways in which the various examples relate to

⁴ The issue of child labour (of both boys and girls) in ASM is important to address but beyond the scope of this paper (though see Hinton et al. (2003), ILO (2007) and Eftimie et al. (2009) for discussion of some of the key issues).

debates around sustainable livelihoods and implications for development more broadly. For example, we need to situate women's participation in ASM in relation to their other productive activities and it is also important to understand how this relationship changes over time: women may cut-back on agricultural production to take part in mining activities leading to decreased levels of food security (Hinton et al. 2006), or alternatively, women may be driven to participate in mining activities through drought or other natural disasters, or through loss of, or displacement from, agricultural land (Hinton et al. 2003; Lahiri-Dutt 2008). Chaparro Ávila (2005) also recognises that a large proportion of women working in the ASM sector are women heads of household, for whom mining may be the only possible economic activity available. In other contexts, women may participate in ASM on a seasonal basis or at times of particular economic difficulty (Lahiri-Dutt 2008), or may take on multiple productive roles simultaneously, leading to women being over-worked and over-burdened (see, for example, Macintyre 2006, for the case of women in Lihir, Papua New Guinea). Given the lack of research in this area, Hinton et al. (2003) note, perhaps unsurprisingly, that development initiatives aimed at improving conditions in the ASM sector have themselves tended to give very little attention to women. However, women's involvement is beginning to come under the spotlight a little more as Fairtrade gold initiatives develop, with their attendant emphasis on appropriate working conditions and social development (Fairtrade Foundation and Alliance for Responsible Mining 2011). Additionally, where Fairtrade certification is in place, child labour is banned, and women are not able to bring their children with them when they work in the mines (Fairtrade Foundation and Alliance for Responsible Mining 2011).⁵

Overall, the roles of women within the ASM sector have not usually been analysed in relation to broader well-established debates, particularly within feminism, around women and work, and there is scope for much greater development of critiques of the gendered power relations that structure women's involvement in ASM. For example, in several contexts, processing tasks assigned to women are framed in relation to their supposed dexterity (Caballero 2006; Chaloping-March 2006; Hinton et al. 2006; Van Hoecke 2006) but only Lahiri-Dutt (2008) reflects critically on this situation, noting the clear resonances with Elson and Pearson's (1981) classic 'nimble fingers' critique. Several authors do suggest scope for more in-depth critique and analysis of gendered power relations, such as Hinton et al.'s (2006) discussion of the ways in which women in Africa tend to have greater direct involvement when the commodity being mined is a low value commodity such as salt or clay:

⁵ Though it should be recognised that unless appropriate childcare is available, these regulations may act to further disadvantage women and restrict their participation in the workforce.

Differences in participation in high versus low value commodities can be viewed either as a startling indicator of gender inequity in ASM as women are proffered the control of land of lesser value or a reflection of women's entrepreneurial capacity. Nevertheless, these minerals represent an important source of livelihood for women particularly in the context of their lack of ownership rights over land. (Hinton et al. 2006: 212-213)

And similarly, in relation to ASM in Kenya, Amutabi and Lutta-Mukhebi (2001, cited in Lahiri-Dutt 2008: 227) observe that:

women have only access to but do not control land. This does not make it possible for women to have full control over the mining activities effectively. The traditional social system deprives women control of mining pits and only allows them access through men. Thus, their overall status in the production process is low. (Amutabi and Lutta-Mukhebi in Lahiri-Dutt 2008: 227)

We also see repeated mentions throughout the literature of women being given the lowest status and most hazardous jobs (Jena 1998 in Bose 2004; Van Hoecke 2006; Lahiri-Dutt 2008; Dhaatri Resource Centre for Women and Children and Samata 2010; Hargreaves undated-d), and the observation that although many processing tasks are now mechanised, they are more likely to still be carried out manually when women do them (Hinton et al. 2006).⁶ Hinton et al. (2003) also suggest that where "men are somewhat aware of the dangers associated with mercury use, [they] consign women to undertake processing activities" (Hinton et al. 2003: 176). And finally, Lahiri-Dutt (2011b) argues that laws supposedly designed to protect women workers (for example, the ILO laws on underground working) actually act to disadvantage women further, by pushing them into the least regulated and most hazardous parts of the informal/illegal sector.⁷ Elsewhere, she also highlights the contradiction that whilst underground mining is perceived to be too dangerous for women, head loading of 20 to 30 kilos to transport minerals (in this case, mica in East India) is apparently unproblematic (Lahiri-Dutt 2008).

⁶ Lahiri Dutt (2010) also observes that technology has often acted to excluded women from mining as women's roles are displaced by technological improvements.

⁷ A similar argument could be made in relation to the Fairtrade legislation banning women from bringing children to work, mentioned above.

Overall then, we see a picture emerging of women miners' vulnerable and disempowered status in relation to many aspects of ASM. In particular, the informal nature of the sector leaves women workers carrying out hard manual labour in often hazardous and unregulated conditions, with few rights, and sometimes in conditions of bonded labour (Lahiri-Dutt 2008; Bhanumathi 2009). However, it is also important not to cast all women ASM workers as victims, and to recognise women's continued resilience, entrepreneurship and tenacity in relation to their involvement in mining (see, for example, Werthmann 2009). Whilst this should not be over-romanticised, given the harsh conditions that they face, this does suggest a need for more comprehensive engagement with, and support for, these workers, in order to make visible and tackle the challenges they face, and to place women at the centre of analysis of the ASM sector, rather than situating them as marginal actors, involved only indirectly (Hinton et al. 2006). As Lahiri-Dutt observes "For women to benefit from ASM, it is first of all imperative to make their productive work more visible, and to make their voices heard" (Lahiri-Dutt 2008: 235).

Whilst the above observation from Lahiri-Dutt is made in the context of ASM, it is equally relevant to considering women workers within large scale, industrialised mining processes. In the case of large scale, commercialised mining, women's direct involvement as mineworkers remains relatively limited. A World Bank report notes that across the world women's employment in extractive industry companies is low, and very rarely exceeds 10% of the workforce (Eftimie et al. 2009). However, countries such as South Africa, have recently begun trying to increase women's involvement in the extractives sector (Eftimie et al. 2009; Benya 2010). Despite this, stereotypical ideas about mining as 'men's work' continue to dominate in most contexts, making women's contribution to the sector largely invisible, and creating barriers to their full participation. As Lahiri-Dutt observes, "Even where women have entered in small numbers to take advantage of the better pays that are offered by many large mining projects, they tend to remain at the bottom of the company hierarchy" (Lahiri-Dutt 2010: 332). A World Bank report in relation to the extractive industry in Peru also notes that women in poor, rural communities tend to be ill-equipped to apply for jobs with mining companies, as they generally have low levels of education and few qualifications (Ward and Strongman 2011). Such issues are by no means limited to the global South, and in the developed North the extractives sector also continues to suffer from gender biases in relation to its workforce.

In the global South, where women *are* employed by mining companies, this tends to be largely either in ancillary and administrative positions (Chaloping-March 2006; Lahiri-Dutt 2006b), as well as within Corporate Social Responsibility and public relations departments where they are involved in community liaison. Women do sometimes take on management and leadership roles, as discussed by Macintyre (2006) in relation to a case study of a Canadian mining company in Papua New Guinea, and by Chaloping-March (2006) in relation to the Philippines. Here, both authors emphasise the potential for increased income generation for women through employment opportunities offered by the mine. In many cases, working for large mining companies may require women to migrate in order to gain employment, with women either bringing their children with them to mining areas and then having no one to look after them, or leaving their children behind to be cared for by extended family networks (Heemskerk 2003; Macintyre 2006). Additionally, in some locations, mining companies operate Fly-in Fly-out (FIFO) practices, where workers are expected to undertake concentrated periods of work in isolated locations far from home (Macdonald 2006; Macintyre 2006), again not ideally suited to women with caring responsibilities. However, Macintyre (2006) notes that for women in Papua New Guinea who leave their children to travel for FIFO contracts, their main motivation is to pay for their children's schooling, underlining a tension experienced by women migrant workers in many different occupations who are forced to migrate in the hope of providing better opportunities for their children, whom they leave at home.

It remains relatively uncommon for women to be directly engaged in extractive processes in industrialised mining activities, though we do see examples of this highlighted by Lahiri-Dutt (2008, 2012), Chaparro Ávila (2005) and Benya (2010). There are also examples of women mineworkers which demonstrate an interesting extension of the 'nimble fingers' rhetoric, with women apparently chosen to operate large machinery because they are perceived to be more careful (Lahiri-Dutt 2006a; Eftimie et al. 2009; Lahiri-Dutt 2011b). Macintyre (2006) contests the widespread exclusion of women from the large scale mining sector, arguing that greater inclusion of women as workers would facilitate greater access to the potential benefits of mining, a point I will return to briefly in the final section of this review. However, Eftimie et al. (2009) remind us that it is not enough for the extractives sector to simply employ greater numbers of women, there are more structural issues that need to be addressed throughout the industry in terms of gender equality, particularly in relation to equal pay, appropriate safety equipment, maternity leave provision, and appropriate (and separate) washing and toilet facilities, as well as challenging stereotypical ideas about mining as 'men's work' (Lahiri-Dutt 2006b; Eftimie et al. 2009) and cultural beliefs around women (particularly menstruating women) bringing bad luck to mines (Tallichet et al. 2003; Van Hoecke 2006; Lahiri-Dutt

2011a). There are also serious issues across the sector in relation to entrenched macho cultures, with examples of widespread sexual harassment of women workers, as well as of women living in mining communities (Hinton et al. 2003; Eftimie et al. 2009; Dhaatri Resource Centre for Women and Children and Samata 2010; MiningWatch Canada 2013), as is discussed below in more detail.

In the context of both ASM and large scale mining, we should recognise women as key economic actors, not only as mineworkers, but also in the wider economies that emerge in communities where mining takes place, in particular in relation to the provision of food, drink and accommodation (Hinton et al. 2003; Eftimie et al. 2009; Werthmann 2009; Perks 2011). In this regard, Esteves (2011) explores the ways in which mining companies can build women's entrepreneurial capacity through integrating women-owned SMEs into their supply chains (see also Eftimie et al. 2009 on the impact of the multiplier effect on women's businesses). Additionally, women in mining camps and communities where mining takes place may become involved in selling sex, as will be discussed later in the paper.

The Gendered Impacts of Mining

Both ASM and large scale mining are widely recognised to have myriad negative impacts on local communities.⁸ This section of the review therefore moves on to consider some of these impacts, focusing on the way that such impacts are gendered, that is, the way they differentially impact men and women as a result of the different social roles attributed to each. Whilst remaining cognisant of Lahiri-Dutt's (2012) caution against the simplistic framing of women as 'victims' of mining (see also Mahy 2011), I argue that women are disproportionately affected by many of the negative impacts of mining, and that this is in many cases not well recognised or understood.

There is a vast literature dealing with the negative impacts of the mining industry on communities, on the environment, and in relation to the abuse of human rights, from both an academic and a practitioner perspective. Here, I aim to signpost some of the key issues in relation to women, as part of the paper's broader argument for making women more visible in relation to extractive industries. I therefore focus on impacts in four key areas – water and the environment; health; community displacement and violence against women.

⁸ Whilst there are obviously differences in the consequences of ASM and large scale mining, for the purposes of brevity, and to avoid repetition, I have treated them together here.

Environmental degradation is the most obvious negative consequence of mining activity - both ASM and large scale - in terms of the pollution of water, air and land, as well as in relation to the use of land and water resources previously dedicated to agriculture. Whilst extraction processes vary greatly depending on the method adopted, as well as the type of resource and the scale of extraction (ASM v large scale), in general extraction is very environmentally destructive. There are numerous examples of the negative impact of mining on the environment: water sources are polluted with heavy metals released in the extraction process, and with toxic substances such as arsenic, cyanide and mercury used for extraction; land becomes unable to be cultivated as mining waste and tailings pollute it; and toxic dust generated through mining fills the air (Bech et al. 1997; Earthworks and Oxfam America 2004; Kitula 2006; Van Hoecke 2006; Eftimie et al. 2009; Dhaatri Resource Centre for Women and Children and Samata 2010; Earthworks and Mining Watch Canada 2012). As Hargreaves (undated-b) observes, citing Ochieng et al. (2010):

Open-pit mining is particularly harmful as it generates enormous quantities of waste. These wastes contain toxic elements and minerals, which may interact with water to generate contaminated fluids that can pollute soils. Cyanide and mercury leakage or spillage, and improper disposal of mine wastes, can be deadly to humans and can poison farming lands. (Hargreaves undated-b: 13)

Such negative consequences often create an enduring legacy of environmental destruction, affecting communities for many decades after mining activities have ceased (Veiga and Hinton 2002; Dhaatri Resource Centre for Women and Children and Samata 2010; Hargreaves undated-b), particularly when mining companies abandon sites without undertaking adequate rehabilitation measures or artisanal miners re-open abandoned sites or re-process tailings (Veiga and Hinton 2002; Earthworks and Oxfam America 2004).

Whilst this environmental degradation clearly impacts on men, women and children living in communities where mining takes place, women's traditional roles tend to place them as primarily responsible for collecting water and preparing food for the family, as well as in many cases making

up the majority of small-scale farmers, and often being responsible for subsistence agriculture and raising livestock.⁹ Bhanumathi (2009) outlines this impact on women in the context of Orissa, India:

Mining has resulted in the total destruction of traditional forms of livelihood and of women's roles within subsistence communities. Women displaced by mining lose the right to cultivate traditional crops and due to forest destruction, are unable to collect forest produce for sale or consumption. As a result they are forced into menial and marginalised forms of labour as maids, servants, construction labourers or prostitutes – positions that are highly unorganised and socially humiliating. (Bhanumathi 2009: 21)

Similarly, in the context of India, "women's role has shifted from that of cultivators to landless, migrant and casual labour" as women and their communities are displaced by mining activities (Dhaatri Resource Centre for Women and Children and Samata 2010: 58). Overall, it is evident that this environmental degradation is therefore felt most keenly by women, who experience additional pressures and time burden as food security decreases, sources of unpolluted water dwindle, fish stocks decline in polluted rivers and lakes, and more time is needed to collect water and firewood from further afield (Isla 2002; Bose 2004; Eftimie et al. 2009; Hargreaves undated-b).¹⁰ Despite these examples, detailed analyses of the highly gendered nature of such impacts remain relatively under-developed, and further empirical evidence is needed to put these issues firmly on the international agenda.

These impacts are important in terms of the health consequences of environmental pollution, particularly in relation to the presence of heavy metals and toxic substances in land, air and water. Water polluted through acid mine drainage has been shown to lead to increased rates of some types of cancer and other health problems such as skin lesions (Hargreaves undated-b). Additionally, polluted water impacts far beyond the area being mined, as whole river systems are affected (Earthworks and Mining Watch Canada 2012). It is argued that health impacts are felt disproportionately by women as they tend to be primarily responsible for caring for the health of family members. Case studies in the collection by Macdonald and Rowland (2002) and in the Dhaatri Resource Centre for Women and Girls report (2010) particularly foreground the diverse health

⁹ As well as instances where women have traditionally be responsible for these tasks, women may also acquire additional farming responsibilities when men have been forced to migrate to find work, or have taken up opportunities for paid labour in the mining sector (Hargreaves undated-b).

¹⁰ See Hargreaves (undated-b) for a detailed discussion of issues of women and food sovereignty in relation to mining in Africa.

impacts felt by women in mining communities. As Hargreaves (undated-b) notes, “Women’s exposure to contaminated lands and waters is more frequent and intensive because of their primary role as agriculturalists, and their responsibilities for the day-to-day reproduction of households and communities” (Hargreaves undated-b: 14), leaving them more vulnerable to the effects of polluted water (see also Van Hoecke 2006; Simatauw 2009). Hargreaves (undated-c) also particularly highlights that women are in effect subsidising the mining industry through their unpaid care work, in reproducing and feeding the family, as well as dealing with the health consequences resulting from mining, in a context of inadequate healthcare provision. Women’s reproductive role also means they are more vulnerable when mercury and other heavy metals enter the food chain through polluted water, as methylmercury is known to cross the placenta and can severely affect the development of the foetus (Hinton et al. 2003). Additionally, whilst there is relatively little empirical evidence, there is a clear suggestion that mental health issues are an important consequence for women of the arrival of large scale mining in rural global South communities (Macdonald and Rowland 2002; Hinton et al. 2003; Macdonald 2006; Dhaatri Resource Centre for Women and Children and Samata 2010; Rowe and Wong 2014), an area in need of further research and attention by policymakers and practitioners.

As well as the health impacts of the consequences of mining activities on communities near mining sites, women’s involvement as mineworkers (and the particular manual labour tasks that they do), discussed above, also carries serious health consequences, exacerbated by women’s overall invisibility and lack of power within the sector. There is not the scope to cover these in great detail here, but such health consequences stem from the hazardous working conditions experienced by women mineworkers, the inadequate attention given to health and safety, and the highly physically demanding nature of the types of tasks that women commonly undertake in relation to mining (see, for example, Lahiri-Dutt 2008). Given that most women mineworkers are within the ASM sector, these issues are particularly pertinent given the lack of regulation of the sector as a whole. The literature highlights a vast range of health problems in relation to ASM, including chronic injuries; fatigue; silicosis from inhalation of silica dust created during rock crushing (typically undertaken by women); exposure to mercury during the process of gold amalgamation, (which is often done by women, at kitchen stoves or in small sheds near the mines, with no protection from mercury fumes); and similarly, exposure to toxic substances including cyanide, lead and mercury, when women are involved in re-working tailings (Hinton et al. 2003; Van Hoecke 2006). Women miners of child-bearing age are also particularly vulnerable to the effects of methylmercury exposure, as discussed above (Hinton et al. 2003), and Perks (2011) highlights high levels of stillbirths, deformities and

miscarriages amongst women miners exposed to highly radioactive substances over prolonged periods. In India, case studies also document high levels of miscarriage among women mineworkers (Dhaatri Resource Centre for Women and Children and Samata 2010). Finally, several authors highlight the poor living conditions faced by women miners as creating an additional health risk, with women living in very basic, unsanitary conditions with few facilities for washing, food preparation, and little in the way of healthcare provision (Hinton et al. 2006; Van Hoecke 2006; Dhaatri Resource Centre for Women and Children and Samata 2010). Veiga (1997) cited in Hinton et al (2003) claims that women and girls living in artisanal mining communities in Latin America live “on the boundary between poverty and misery”, and Hinton et al. (2003) go on to argue that such living conditions are compounded by violence and debt bondage faced by many women, often driving them to sex work.

This brings us to a third important area of gendered impact demanding much greater attention, increased violence against women. Increased violence against women, including sexual violence, is recognised to have accompanied the arrival of large scale mining activities in communities across the developing world, as a cash-economy takes hold in communities that have previously been predominantly based on subsistence agriculture. As (predominantly) men in the community have access to greater amounts of cash through working for mining companies, as well as in relation to compensation received for loss of land (Simatauw 2009), there is a tendency for this to translate into higher levels of alcohol consumption and subsequently higher levels of domestic violence (see, for example, Scheyvens and Lagisa 1998; Byford 2002; Hinton et al. 2006; Perks 2011). This situation is exacerbated by an influx of predominantly male, transient, migrant workers, who do not bring their families with them, often fuelling increased prostitution and leading to high levels of social conflict and upheaval in often traditional rural communities (Perks 2011). Hruschka and Echavarría (2011) note that conflict and violence is particularly likely in a ‘rush-type’ scenario, where miners flood an area to exploit newly discovered reserves. Writers including Hinton et al (2006), Eftimie et al (2009) and Hargreaves (undated-a) particularly situate this rise in levels of violence and sexual violence in relation to the macho and inherently violent culture of the mining sector and, along with others, highlight the prevalence of very high levels of HIV/AIDS in many mining communities across the global South (Hinton et al. 2006; Eftimie et al. 2009; Silitonga et al. 2009; Perks 2011; Hargreaves undated-a).

Whilst the limited literature in this area focuses on male mineworkers committing individual acts of violence, it is also important to highlight the broader context of conflict in relation to mining developments, and the role of international mining companies, states, and in some cases also paramilitaries or security forces, in participating in or fuelling violent confrontations, perpetuating a culture of violence and intimidation, or turning a blind eye to human rights abuses (Earthworks and Oxfam America 2004; ActionAid 2008; Dhaatri Resource Centre for Women and Children and Samata 2010; Perks 2011). Examples include the well-documented case of the rape of local women by security guards from Barrick Gold's Porgera Mine in Papua New Guinea (Human Rights Watch 2011; MiningWatch Canada 2013), and the guerrilla attacks by New People's Army on two mining camps in Mindanao, in the Philippines (Jacinto 2014), as well as the case of 28 activists in Peru who were held hostage by police in relation their anti-mining activism against Monterrico Metals in 2005 (Peru Support Group 2009; State Crime Testimony Project undated). Although women and men are both affected here, women are often particularly vulnerable, including to sexual violence and harassment, especially when they are perceived to be transgressing traditional gendered norms. Such issues around violence are also particularly pertinent when we recognise that much mining activity in the global South takes place in post-conflict contexts or countries with ongoing conflicts (Maconachie and Hilson 2011; Perks 2011), where violence, including violence against women, is normalised (Hargreaves undated-a), and women's positions may be particularly precarious:

The vulnerability of women [in post-conflict DRC] thus remains extremely high. In effect, women artisanal miners can be categorised as doubly 'at risk: they are rural women emerging from a war context and are additionally illegal workers living in precarious social, economic and environmental conditions. (Perks 2011: 182)

The final way in which mining impacts are gendered is in relation to community displacement and the loss of land that is commonly associated with the arrival of large scale mining. As land is sold off to, or occupied by, mining companies, rural communities lose access to communal and common land previously used for activities such as hunting, subsistence agriculture, harvesting of natural resources, and cash cropping (Scheyvens and Lagisa 1998; Bose 2004; Hargreaves undated-b), activities in which women are often frequent participants. This loss of access for livelihood activities also impacts heavily on women in terms of coping with decreasing food security. In some contexts, entire communities may be displaced or forcibly moved to make way for the mine, or may be forced

to migrate as their land becomes polluted and uninhabitable (Isla 2002; ActionAid 2008; Dhaatri Resource Centre for Women and Children and Samata 2010). Where alternative land is provided, this is often less fertile or less well suited to agriculture (ActionAid 2008; Hargreaves undated-b). Additionally, evidence from Africa and India suggests that communities seldom receive compensation for communally owned land, in which women tend to be heavily invested (Dhaatri Resource Centre for Women and Children and Samata 2010; Hargreaves undated-b). These experiences of displacement also place additional burdens on women in relation to their roles in building and maintaining communities, as communities become sites of conflict with splits emerging within communities and even families, over the presence of mining in the local area (Scheyvens and Lagisa 1998; Dhaatri Resource Centre for Women and Children and Samata 2010; author 2014). Finally, loss of land also equates to loss of cultural heritage for many indigenous and rural populations, as land is imbued with particular significance and cultural meaning and, although an idea that is much contested in the literature (Leach 2007), women in rural communities may also situate themselves and their identities as particularly tied to the land (Kopusar 2002; author 2014).

Throughout the literature, it is clear that whilst these negative impacts of mining affect women disproportionately to men, some women are also more affected through their social positions of multiple disadvantage. These women include indigenous women, tribal or adivasi women, and dalit women, as well as women from other minority groups (Lahiri-Dutt 2008; Dhaatri Resource Centre for Women and Children and Samata 2010; Lahiri-Dutt 2010; AIPP Foundation 2013). Thus it is important to be alert to the need to disaggregate 'women' where possible, in order to understand and make visible the experiences of different groups of women in different contexts (Lahiri-Dutt 2010; Mahy 2011). Eftimie et al. (2009) also observe that recognising differences *between* women is particularly important in relation to effective community consultation, in terms of ensuring that it is not only elite women's voices that are heard.

Changing Gender Relations and Identities in Mining Communities

Mining tends to take place in isolated rural areas, and is recognised to bring with it widespread social change, whether that is in the establishing of new communities as mineworkers migrate to work in the mine, or the changing dynamics of existing rural communities who are faced with the arrival of mining (both large scale and ASM). In this section, I aim to explore some of these changing dynamics specifically in relation to changing gender roles and identities, and the tensions and challenges this

creates for women. I highlight four key areas where further detailed empirical work is needed – women as sex workers; women’s changing social and economic status; women’s organisations; and women’s activism against extractive activities.

Although Werthmann (2009) emphasises that mining communities are not necessarily precarious, socially disorganised, ‘wild west’ societies, where money, alcohol and sex flow freely, it is evident that in many contexts the arrival of mining and cash economies into previously largely subsistence farming contexts does significantly change community dynamics, including fuelling the opening of bars, nightclubs and brothels to satisfy the demands of a largely single and male workforce, often comprising mainly migrant workers. Historically, Laite (2009) notes that the connections between prostitution and mining were “as complex as [they were] pervasive and enduring” (Laite 2009: 742), and reflects on prostitution as a reaction to women’s exclusion from the “licit profits of the mining enterprise” (Laite 2009: 744). In the contemporary context, this link between mining and prostitution remains, and it is evident that mining camps and compounds, and communities near mining projects, provide an opportunity for some women to sell sexual services, as well as attracting women who migrate from other areas in order to find work as sex workers (Werthmann 2009; Mahy 2011).

It is important to distinguish between contexts where sex work may be relatively freely chosen (albeit in a context of widespread poverty and few other economic opportunities) (Mahy 2011), versus situations of sexual exploitation and bonded labour (ILO 2007; Dhaatri Resource Centre for Women and Children and Samata 2010; Perks 2011; Campbell 2000 in Hargreaves undated-a), although in both situations such work tends to be unregulated, dangerous and precarious. Both scenarios, and multiple variations on the spectrum between them, emerge in relation to women living and working in mining communities (Lahiri-Dutt 2010; Mahy 2011; Hargreaves undated-a). Mahy (2011), in particular, provides a detailed and nuanced discussion of sex workers in the context of mining communities in Indonesia, emphasising women’s agency in this context. However, further detailed examples are rather sparse, beyond passing mentions in various other contexts: in Bolivia, Van Hoeke (2006) notes the existence of prostitution in the context of ASM, where she says that women are paid in gold for their sexual services, and we see variations on this in other contexts such as Benya’s (2010) observation that women working underground in South Africa provide sexual services to men in return for their assistance underground (Benya 2010), and in Guinea where

Hinton et al. (2006) note that women are paid four times less than men for their gold, and “often undertake a ‘troc’, or trade of sex for additional money or gold” (Hinton et al. 2006: 218). Such examples clearly link back to broader concerns around sexual violence, exploitation and harassment, as well as to the spread of HIV/AIDs, as discussed above. Thus, the increasing presence, and visibility, of sex work is another aspect of the impacts on communities, and in particular changing gendered community dynamics, as well as acceptable norms around sexual behaviour, as mining activities expand into new geographical areas. However, Mahy (2011) observes that the literature often presents “an overly simplistic picture of mining community women’s actual diverse relationships to the sex industry, whether as sex workers, miners’ wives or as women otherwise living in a mining community” (Mahy 2011: 50), suggesting that this is an area demanding a more nuanced analysis from scholars and practitioners alike, particular from a perspective that prioritises the voices and experiences of women sex workers.

Women as sex workers is one element of a broader set of issues around women’s changing social and economic status in communities affected by mining. In the course of this paper, I have highlighted examples where women have benefitted economically from mining – as entrepreneurs selling goods and services, as mineworkers (and less often as mine owners), and as sex workers. However, across the literature, we see discussion of the myriad ways that women’s social and economic status and roles are negatively impacted by mining activity. Whilst these are dynamic and context dependent scenarios, overall the literature suggests a *loss* of status for women and the entrenchment of male privilege, as women’s traditional roles as subsistence and small scale farmers are lost or devalued, sources of harvestable food are destroyed or become inaccessible, their workloads increase, and women are excluded from community decision-making processes and lose control of household finances, overall becoming more economically dependent upon men (Scheyvens and Lagisa 1998; Byford 2002; Carino 2002; Macdonald 2002; Robinson 1988 in Lahiri-Dutt 2006a). As Byford outlines in relation to Papua New Guinea:

Prior to mining, women held a relatively high status in Misiman communities due to their central role in food production (...) The introduction of gold mining by Misima Mining Limited (operated by Placer Dome) in 1989 fundamentally altered women’s relationship with the land, undermining their status, independence and role within the community. In addition, social values have rapidly changed since 1989, facilitating the breakdown of traditional social structures and the growth of a

prominent generation gap, both of which negatively impact on women. (Byford 2002: 30)

Similarly, it is widely noted that where there is a rapid shift from subsistence to cash economies, this can lead to tensions within families around how, and by whom, money is managed and spent, sometimes leading to increased domestic violence, particularly where this is accompanied by increased use and availability of alcohol (Scheyvens and Lagisa 1998; Macdonald 2002; Eftimie et al. 2009). This situation is highlighted in relation to mining communities in Papua New Guinea, where both Macintyre (2006) and Byford (2002) emphasise men's excessive alcohol consumption and associated problems of violence: "Although most men give small amounts of money to women for food purchases, the majority of men's wages is spent on beer" (Macintyre 2006: 28). Researchers also note that where men are the ones who receive compensation/royalty payments, these payments are less likely to benefit women and children (Scheyvens and Lagisa 1998; Byford 2002; Macintyre 2006; Eftimie et al. 2009; Simatauw 2009). In this regard, Macintyre highlights issues around changing social stratification and disparities in wealth within mining communities (Macintyre 2006), particularly where some members of the community receive royalty payments and compensation from the mining company whilst others do not, fuelling social divisions within communities. Similarly, Scheyvens and Lagisa (1998) analyse changing power dynamics in communities, with the arrival of cash economies, with men overwhelmingly taking control of cash assets, as well as being registered as owners of family land, despite land traditionally being inherited through the female line:

Men, in both logging and mining areas, are better placed to enhance their social position through the new employment and business opportunities which they have access to, and through royalty payments they receive. Women's bargaining power, meanwhile, is impeded as their work in subsistence production is not as highly regarded as cash comes to assume greater importance in society. (Scheyvens and Lagisa 1998: 61)

Additionally, women are often recognised to be "the linchpins of their communities" (Eftimie et al. 2009: 5) and therefore, in such contexts where communities are displaced, fractured or experiencing

conflict, women face particular pressure as they tend to be the ones who assume much of the responsibility for building and maintaining community cohesion:

...within the community, women are of fundamental importance in terms of food security, are critical to community stability, cohesiveness and morale, and act as primary agents in facilitating change. (Hinton et al. 2003: 184)

This also ties in to broader debates around the role of women in creating and maintaining social capital in low income communities (Mayer and Rankin 2002; Molyneux 2002), as well as the pivotal role women's organisations have played in sustaining communities across the global South.

In this regard, Lahiri-Dutt (2010) notes that women miners have often been excluded from trade unions, and women's concerns have been seen by trade unions as irrelevant, and in this context we see the emergence of a range of women's organisations in mining communities across the global South, in response to the challenges women face in mining contexts. Again, these have not be very visible, and may only be mentioned in passing in the literature, but are crucial for policymakers and mining companies alike to recognise, seek out and support, in order to better understand and tackle the gendered context and impacts of mining activities. Examples include the wives of miners in Bolivia, who have a long history of organising both to campaign for better working conditions for their husbands as well as more recently campaigning in respect of their own employment conditions (Van Hoecke 2006); the Tanzanian Women Miners Association (TAWOMA), representing approximately 26% of Tanzanian small scale women miners, which undertakes support, training, advocacy and lobbying work on their behalf (Hentschel et al. 2002; Eftimie et al. 2009); and the Porgera Women's Association in Papua New Guinea, organising microfinance, literacy and livelihoods projects in mining communities in Papua New Guinea (Eftimie et al. 2009). In Burkina Faso, Werthmann (2009) notes that women in mining camps support each other through forming collective associations to help with savings, provide support in times of crisis or when women experience violence, and organise festivals. Women's mining associations have also been bolstered by the development of Fairtrade and Fairmined gold, for example in the case of the Women Miners' Association Nueva Esperanza, in Peru, where women have organised to work collectively around their childcare needs, with the provision of a nursery and of safety equipment for the women, supported by the Fairtrade premium they receive (Fairtrade Foundation and Alliance for Responsible Mining 2011).

Women's collective organising is also evident in the form of organised resistance to mining by groups of women, as women recognise their particular gendered experiences and position in relation to the mining sector, including an awareness of the range of impacts discussed above. Such networks and organisations have been particularly visible in Latin America and include, amongst others, the *Red Latinoamericano de Mujeres Defensoras de Derechos Sociales and Ambientales; Genero y Minería*, and the *Unión Latinoamericana de Mujeres*. These organisations give important opportunities for in-depth critical analysis of the intersections between women and mining, and for facilitating ongoing collaboration between academics, practitioners and activists. Academic research is only recently emerging in this area, and my own recent work (Author 2014), aims to understand and make visible this anti-mining activism by women in the context of the Andes, foregrounding women's own voices and experiences and highlighting the importance of narratives around cultural heritage, connections to the land, and environmental impacts as being crucial drivers in women's long term resistance to the arrival of large scale mining in their communities. This work highlights the challenges and dangers that women face as isolated activists in communities divided by long running conflicts in relation to extractive industries (Author 2012, 2014). Other work by Rondón (2009), Grieco (2014), and Seedhouse (2011), also highlights the often precarious situation of women activists in the Latin American context, while Hargreaves (undated-b) discusses several examples from across Africa of the ways in which women are organising collectively to demand compensation from mining companies and hold them to account for their actions. Similarly, we find passing references to women's resistance to mining in The Philippines (Carino 2002) and India (Dhaatri Resource Centre for Women and Children and Samata 2010). It is also apparent that this anti-mining activism may sometimes act as a catalyst for rural women's empowerment (Seedhouse 2011; Author 2012).

Gendered Inequalities and Access to the Benefits of Mining

Whilst overall this paper emphasises the far-reaching negative impacts of mining on women across the global South, this final section aims to consider some of the potential benefits of mining, underlining the extent to which these benefits are also unequally distributed with regards to gender. As Eftimie et al. (2009) note, "evidence increasingly demonstrates that in general women are more vulnerable to the risks [of extractive industries], with little access to the benefits" (Eftimie et al. 2009: 3).

It is clear that although women are significantly involved in working in the mining sector (particularly ASM), they generally receive less income for their labour, thus benefiting less than men from the direct economic benefits associated with mining. However, beyond this direct financial remuneration, there are a number of other aspects to consider. In particular, research in many different contexts highlights that women tend to be much less involved in community consultations and decision-making, both in relation to negotiating the arrival of mining companies, but also in decisions about how compensation monies should be spent, as mining companies (wrongly) assume that men speak on behalf of the entire community (Scheyvens and Lagisa 1998; Byford 2002; Lahiri-Dutt 2010), and men themselves in the affected communities may also act to exclude women from participating if they perceive such involvement as a threat to their own interests. Similarly, the report by Dhaatri Resource Centre for Women and Children (2010) particularly emphasises that adivasi and other marginalised women are not included in consultation processes, though O’Faircheallaigh (2012) argues (albeit in the context of Canada and Australia) that in the case of indigenous communities, women’s participation in negotiations with mining companies has been more extensive than is generally recognised in the literature and, whilst recognising the importance of women’s inclusion, he cautions against making homogenising claims of indigenous women’s exclusion from negotiations. However, even when women are able to participate in these settings, they may still be disadvantaged due to lack of literacy skills or traditional cultural norms regarding appropriate behaviour for women, and may feel unable to speak in meetings (Byford 2002; Macintyre 2006; Bhanumathi 2009), although in this regard O’Faircheallaigh (2012) emphasises the importance of recognising informal settings in which company-community negotiations also take place, and women’s roles in these spheres.

Where women are not included in community negotiations, agreements with communities are more likely to be overturned as they cannot rely on women’s buy-in (Eftimie et al. 2009). Similarly, in terms of the benefits that accrue to women, and to communities, Lahiri Dutt (2011a) notes in relation to Indonesia that “more money remained within the family and was spent on the creation of assets when women were part of consultations involving compensation for land” (Lahiri-Dutt 2011a: 14), and this is echoed by others including Scheyvens and Lagisa (1998) and Lahiri-Dutt and Mahy (undated). Byford (2002) also provides an example from Papua New Guinea where resettlement negotiations only engaged men, and compensation for land was paid directly to men by the mining company, despite women traditionally being the landowners in Misima society, leading to a situation whereby “Misiman women have found their traditional power base supplanted by the power of

cash, which can be acquired and disposed of without their involvement” (Byford 2002: 31). In this regard it is interesting to note that in some parts of Latin America, wives have asked mining companies to give men’s payslips directly to them, and that some companies have “partially agreed to this request, and hand over a percentage of the money to the employees’ wives” (Ward and Strongman 2011: 27).

Several authors emphasise the importance of women’s greater inclusion as workers in the large scale mining sector, in order that they may gain access to a greater share of the economic benefits of mining. But, as recognised earlier in the paper, women’s employment remains limited. Where women *are* on the radar of large mining companies, is in terms of their position as ‘beneficiaries’ in relation to corporate social responsibility activities rather than as a potential workforce, or as stakeholders to be actively consulted (Lahiri-Dutt 2011b). Grieco (2014) provides an interesting gendered analysis of such CSR activities in the context of Peru, emphasising the extent to which these are often ill conceived or destined to failure from the outset, taking little account of women’s multiple productive and reproductive roles within the family and community. Nevertheless, there are examples of situations where women do draw some benefits from the arrival of extractive activities in their communities. In this regard, I have already noted the potential for women’s entrepreneurial activities to flourish in this context, and this is emphasised by Maconachie and Hilson (2011) in relation to Sierra Leone, who note the different ways in which women have used their financial gains from involvement in ASM, including to establish small businesses and to re-build farming cooperatives. Similarly, in Tanzania, Fisher observes that “Not all women are poor, by any means: some have become wealthy from backing mining operations or running bars, hotels and shops.” (Fisher 2007: 751). However, as noted above in relation to the negative impacts of mining, access to any benefits that extractive industries may bring will also be mediated by women’s social identities – not all women will be in a position to benefit from, for example, opportunities for entrepreneurship or empowerment, and those who are most marginalised (e.g. due to disability, old age or ethnic identity) may well remain so (Lahiri-Dutt and Mahy undated). This underlines the importance of making women visible and better understanding some of the barriers that the most marginalised women face in participating in the mining sector, in relation to broader poverty alleviation strategies, particularly in post-conflict contexts.

Concluding Comments

This paper provides a comprehensive critique of the very diverse ways in which women are affected by mining activities across the global South, focusing on the key areas of women as mineworkers, the gendered impacts of mining, changing gender dynamics in mining communities, and gendered inequalities in relation to the benefits of mining. The review particularly foregrounds a lack of in-depth analysis of women's diverse experiences and positions in relation to these aspects of the mining sector and emphasises the importance of asking "what mining actually means to [women in] poorer communities" (Lahiri-Dutt 2012: 203). Similarly, Li (2009b) recognises that women's responses to mining are "marked by ambivalence and contradiction" (Li 2009b: 98), and in this regard I argue that it is important to take a nuanced approach to theorising women's perspectives and involvement in more detail, recognising the diversity of women's situations and experiences across the global South, particularly in relation to ethnicity, class, age and urban/rural location. It is evident that much more empirical research is needed in order to better understand the multiplicity of ways in which different women experience and negotiate the mining industry and its impacts, in relation to their own distinct geographies and changing positionalities.

However, by highlighting key challenges in women's experiences of both ASM and large scale mining across the global South, it is hoped that this paper will encourage scholars, activists and practitioners to come together to tackle the significant issues evident here, and to forge a progressive and participatory research agenda. Inevitably a paper of this type can provide only a starting point, and cannot fully capture the multiplicity of ways in which gender intersects with the mining sector. However, by bringing together the diverse and currently rather scattered work on gender and mining in relation to development in the global South, this paper lays the foundations for a significant new research agenda that aims to place women at the centre of analyses of the extractive industries, whether as workers, wives and mothers, activists, or all of these, as a crucial element of engaging with broader debates around the extractivist model of development.

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