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The private sector in climate governance: Opportunities for climate compatible development through multilevel industry-government engagement.

Julia Leventon^{1,2*}, Jen C. Dyer¹, James Van Alstine¹

1. Sustainability Research Institute, School of Earth and Environment, University of Leeds, Woodhouse Lane, Leeds, LS2 9JT, UK. j.leventon@leeds.ac.uk; j.dyer@leeds.ac.uk, j.vanalstine@leeds.ac.uk.

2. Permanent address: Faculty of Sustainability, Leuphana University, Scharnhorstrasse 1, 21335 Lüneburg, Germany. Leventon@leuphana.de. +49 (0)4131 6772199.

*Corresponding author.

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Abstract

Globally, the sustainable development agenda is undergoing a process of climatisation. This means that climate change mitigation and adaptation are influencing the design and delivery of development initiatives. This paper explores the extent to which climate governance influences the role and practice of corporate social responsibility (CSR) in development. We draw on case study evidence from copper mining concessions in Northwestern Zambia in order to examine how CSR activities are adopting norms of climatised development. Our results show that the extractive industries are increasingly initiating CSR activities to align with local livelihoods, and therefore play a key role in climate compatible development (CCD). In addition, they act as context changers through for example, in-migration, which increases pressure on local forest resources. However, these roles go unacknowledged by both industry and government as CSR activities are disconnected from broader CCD priorities. We discuss the positive and negative implications of drawing the extractive industries into the CCD arena. We link to critiques of politicized CSR and consider practical implications, both for the sector and the achievement of climate development goals. We conclude that CSR activities should be seen as a local manifestation of multilevel engagement between the extractive industries and broader development sectors.

Keywords: Zambia, extractive industry, forestry, community engagement, adaptation, mitigation

1 Introduction

In the global South, multinational companies (MNCs) are increasingly exploring options to contribute to development through their corporate social responsibility (CSR) activities (Fox 2004, Barkemeyer 2009). However, the CSR activities of the extractive industries in the global South face criticism for undermining national and local development agendas. While CSR can be defined in a number of ways, it largely refers to the voluntary activities undertaken by a company in order to ensure social and environmental impacts are considered alongside economic growth (see Dahlsrud 2008). Such activities may relate to the internal process of a business (e.g. locally sourcing resources and manpower), or outwardly oriented, for example partnership projects, which provide infrastructure or livelihood diversification with communities impacted by a company's activities (UN Global Compact 2013). Externally-oriented CSR has evolved as an international norm where it is thought that through CSR activities extractive firms can provide local socio-economic development where the government is unable or unwilling to do so, and thus may help mitigate against the potentially harmful impacts of resource-led growth (Campbell 2012). However, without government guidance, there is a danger that CSR becomes

politicized, positioning MNCs as political players who shape development agendas, in order to fill a governance gap (Scherer and Palazzo 2011).

The aim of this paper is to evaluate the role of the extractive industries in the global South in shaping the emerging norms of climate compatible development (CCD). CCD is defined as strategies and activities that target mitigation, adaptation and development to achieve pro-poor low emissions and climate resilient futures (see e.g. Mitchell and Maxwell 2010). Climate change is being mainstreamed through the current development agenda, such that CCD is becoming a norm or accepted practice. The IPCC Working Group II's contribution to the Fifth Assessment Report reflects a growing consensus that low carbon, pro-poor, climate resilient development must go beyond incremental adjustments (IPCC 2014). Much attention is paid to the role of forests in CCD scenarios and initiatives, including the United Nations Framework Convention on Climate Change (UNFCCC) Reducing Emissions from Deforestation and Degradation (REDD and REDD+). Forests are framed as a carbon sink, a livelihood input, and as a potential source of financial benefits under payment for carbon schemes (Chhatre and Agrawal 2009, Phelps, Webb et al. 2011, Mustalahti, Bolin et al. 2012). The CCD narrative therefore creates a mandate for protecting forest resources. Where such forest resources coincide with mineral resources, such as in Northwestern Zambia, the extractive industries become key players in CCD through their status as land holders, their demand for timber and manpower (Hirons 2013) and through their community development CSR initiatives (Dyer, Leventon et al. 2013). There is potential therefore for the outward-oriented CSR activities of the extractive industries to interact with the CCD agenda (MacLennan 2012).

In order to meet the aim, this paper focuses on Northwestern Province Zambia, as a hotspot case of CCD priorities intersecting with extractive industry activity in the context of weak governance. The Northwestern Province in Zambia is characterized by low levels of infrastructure and economic development, and by its extensive miombo forest cover. The province is currently undergoing a mining boom linked to high global copper prices and the government's liberalised mining policies. As a result, there are a number of new operations alongside expansion of existing mines. Such 'resource frontiers' or greenfield site developments are characterised by the state's incapacity to provide infrastructure and basic social services (Van Alstine and Afionis 2013). This governance gap creates conditions that lead to politicized CSR, whereby CSR activities undermine or co-opt the CCD agenda.

This paper is pertinent to both CSR and climate-development audiences. By studying the role of the extractive industries in shaping CCD we contribute to debates on the extent to which CSR can and should be seen as a vehicle for delivering development outcomes. We therefore contribute to understanding how to achieve pro-poor development goals in resource-led development contexts (Blowfield and Frynas 2005, Prieto-Carron, Lund-Thomsen et al. 2006). Often, politicised CSR in the global South is considered inadequate, poorly targeted, and in some situations as exacerbating development issues for local communities (Hilson 2012). Indeed, CSR activities may become part of local

socio-political dynamics, causing divisions, conflict and dependency (Gilberthorpe and Banks 2012). Bypassing the state through industry-led CSR activities has been criticized as eroding the developmental functions of the state and created dependency on mining companies (Campbell 2012). Instead, best practice CSR activities should reinforce state-led development policy in low income host countries (Newell and Frynas 2007), though this remains poorly implemented (Pegg 2006, Buxton 2012). In response CSR activities are becoming more formalised and industry-regulated in order to promote accountability and effectiveness. For example the Extractive Industries Transparency Initiative (EITI) should make the extractive industries work for development (Van Alstine 2014, Van Alstine, Manyindo et al. 2014). Here, we demonstrate how the CCD and CSR agendas interact, and consider the implications for both CCD and CSR. We therefore provide practical guidance to both CSR practitioners and the broader development governance community for harnessing and steering industry interactions with the emerging CCD norm.

We examine three case study mines from the Northwestern Province and their CSR activities. Two research objectives enable us to assess the role of CSR activities in shaping CCD norms:

- To characterise identified CSR projects according to their adaptation, mitigation and economic development goals (i.e. their fit to CCD);
- To examine how CSR activities fit into broader CCD priorities surrounding their implementing environment.

In order to meet the research objectives, we initially unpack the emerging CCD norm by exploring in more detail: what CCD could look like in Zambia's Northwestern province; and which broader CCD priorities exist for CCD in the area that CSR activities should engage with. We then used these understandings as an analytical framework for meeting our research objectives, as described in our methodology. The methodology also provides further detail on these case study activities. Following presentation of the results, we continue by discussing the implications for delivering CCD on a wider scale (country and broader), and consider opportunities for mitigating the tensions of politicized CSR. Our conclusions outline our policy recommendations for public and private sectors for approaches to CCD-CSR governance.

2 The emerging CCD norm in Zambia

2.1 What would CCD look like in Northwestern Province?

Mitigation of carbon emissions is a key element of CCD, and in Zambia largely calls for a focus on reducing the drivers of deforestation and forest degradation (see Table 1, row A). Deforestation accounts for 6-17% of global anthropogenic carbon emissions annually (van der Werf, Morton et al. 2009), and Zambia has a deforestation rate of approximately 1- 1.5% per year (Henry, Maniatis et al. 2011, Mwitwa, Vinya et al. 2012). While the amount of carbon stored in miombo forests (and therefore released through deforestation) is lower than in tropical wet forests, it remains a significant carbon store (Glenday 2008, Shirima,

Munishi et al. 2011). Uncontrolled charcoal and fuel wood extraction is a major primary driver of deforestation in Zambia, alongside agricultural expansion (Ham and Chirwa 2012). The secondary or underlying drivers of deforestation include population increases and shifting urban/rural populations associated with economic migration (Ciais, Bombelli et al. 2011, Ham and Chirwa 2012). Mitigation therefore requires a focus on projects that intensify agricultural production or diversify livelihood away from agriculture, and provide alternative fuel sources, including agroforestry and conservation agriculture projects (Ciais, Bombelli et al. 2011). Through improved soil management practices and increased forest cover, these activities can further mitigate climate change in the form of increased carbon sequestration (Vågen, Lal et al. 2005). Other projects have focused on Joint Forest Management (JFM) as an attempt to provide income from non-destructive forest uses (Leventon, Kalaba et al. 2014).

Adaptation to climate change can be achieved through projects similar to those for mitigation (see Table 1, row B). In the region, local communities rely largely on rain-fed agriculture for food production. Under climate change scenarios, rainfall variability will lead to higher vulnerability in such production systems (Chikozho 2010). Adaptation may include diversification of livelihoods, intensification of agriculture, improved techniques (such as conservation agriculture) and water harvesting (Barbier, Yacouba et al. 2009). It also calls for improved agricultural practices that remove the need to encroach upon the forest. In addition, forests can provide a safety net or livelihood diversification in the form of non-timber forest products such as mushrooms, caterpillars and roots (Shackleton and Shackleton 2004). Furthermore, agroforestry schemes could include fruit tree planting to provide a further livelihood component (Kalaba, Chirwa et al. 2010).

These mitigation and adaptation activities need to be combined with broader economic development in order to be effective (see Table 1, row C). In particular, there is a concern that without financial gain through adaptation or mitigation activities, local communities will rely on extending agriculture and exploiting high-value forest products such as charcoal and timber in times of need (Shackleton and Shackleton 2004, Kalaba, Quinn et al. 2013). Thus adaptation is an additional layer to development, which must address the underlying causes of vulnerability (Ayers and Huq 2009). Mitigation activities have the potential to deliver such baseline development. For example, non-timber forest products can be sustainably exploited by local communities and sold to improve livelihoods (Ros-Tonen and Wiersum 2005), as can fruit from agroforestry fruit trees (Kalaba, Chirwa et al. 2010). In addition, tourism or payment for ecosystem services (such as carbon) can yield financial rewards for forest conservation or agroforestry (Jindal, Swallow et al. 2008, Chidumayo and Gumbo 2010). However, such rewards can be minimal, particularly in the context of a volatile carbon market (Mustalahti, Bolin et al. 2012). The greatest economic benefits are delivered when carbon payment schemes include homestead planting, agroforestry and agriculture (Palmer and Silber 2012). Thus in the context of Northwestern Zambia, adaptation, mitigation and development cannot be separated in delivering CCD.

Table 1: Identified Strategies of CCD in Zambia's Northwestern Province

Component of CCD	Strategies	Example activity types
A. Mitigation	Reducing drivers of deforestation <ul style="list-style-type: none"> • Charcoal burning • Agricultural encroachment • Population shifts Diversify livelihoods Improved agricultural practices	Joint Forest Management Conservation agriculture Agroforestry Commercialisation of non-destructive forest products
B. Adaptation	Diversity livelihoods Intensify improved agricultural practices	Conservation agriculture Agroforestry Commercialisation of non-destructive forest products
C. Development	Diversify livelihoods Realise financial benefits from agricultural and forestry practices	Conservation agriculture Agroforestry Commercialisation of non-destructive forest products

2.2 What broader priorities for CCD should CSR engage with?

Zambia has a number of policy initiatives for securing CCD that CSR activities should complement. Under the UNFCCC, Zambia has a National Adaptation Programme of Action (NAPA) and is developing a strategy of Nationally Appropriate Mitigation Actions (NAMA). It is also developing a REDD+ strategy that outlines how Zambia will reduce deforestation and forest degradation. The implementation of the UNFCCC's REDD+ initiative is likely to see an increasing number of avoided deforestation projects that seek to exploit the carbon market (Skutsch and McCall 2010). The private sector plays an important role in developing and implementing such strategies. For example reclaimed mining land could be managed by communities in order to generate carbon credits (van Rooyen, van Rooyen et al. 2012); MNCs could facilitate access to land, information and credit, which are barriers to adopting adaptation strategies (Bryan, Deressa et al. 2009); and/or finance the costs of setting up carbon projects as these cannot easily be recouped by communities (Aune, Alemu et al. 2004). However, there is a danger of undermining the government approach to REDD by acting too soon and forcing policy decisions. This has the added disadvantage that projects are unlikely to have government commitment, potentially limiting the project to the life-time of the mining activities and the support of the MNC.

Concurrently with matching CCD priorities that are formally enshrined within policy, CSR activities should engage with local, community-level priorities. Activities need to be considered within the context of the broader impacts of the mining activities. These can be primary, including forest clearance, enforcement of exclusions zones, relocation of communities (including houses, farms and infrastructure), an influx of economic migrants, and a resultant social disintegration and conflict between community and company (see e.g. Filer 1990). Such impacts can increase drivers of deforestation and hinder development. They can also increase conflicts between the mine and the local people, creating barriers to implement CSR activities such as managing

reclaimed land (Hirons, Hilson et al. 2014). In order to be adopted by target communities, companies need to work with the communities to ensure needs are addressed and community structures are understood (Jenkins 2004, Hilson and Banchirigah 2009, Dyer, Leventon et al. 2013). For example, CSR engagement that takes place only through village chiefs reinforces elite capture, and therefore undermines the development aims of the project (Marfo, Acheampong et al. 2012). Therefore, fitting to CCD priorities necessitates a high degree of community engagement.

3 Materials and Methods

We studied three case study mining sites in Zambia’s Northwestern Province: Kalumbila, Kansanshi and Lumwana, and examined their core, active CSR projects in operation (see Table 2). All three sites are primarily copper-mining operations. The Kalumbila site is located 140km from Solwezi, off the Solwezi-Mwunilunga road in the North West Province of Zambia. First Quantum Minerals (FQM) have surface rights to a 7022ha concession where three pits are planned: Sentinel (copper), Enterprise (nickel) and Intrepid (copper). Kalumbila is a greenfield site, which at the time of research (July, 2012) was at an exploration and infrastructure-construction phase. Kansanshi Mine is located 10 km north of Solwezi in the North West Province of Zambia. The mine is jointly owned: 80 % by Kansanshi Mining Plc, a subsidiary of FQM, and 20 % by ZCCM, formerly Zambia Consolidated Copper Mines Ltd. The Lumwana Mining Company (LMC) is located 100 km from Solwezi in the North West Province, Zambia. The copper mine was purchased by Barrick Gold Corporation from Equinox Minerals in 2012 and comprises two pits.

Table 2 - Case study mining sites summarising phase of development, site details and key CSR activities (as of July 2012)

Operation and phase of development	Mining company	Site details	Key CSR activities
Kalumbila Exploration and infrastructure phase	FQM	Greenfield site 7022 ha concession with 3 pits planned Sentinel (copper), Enterprise (nickel) and Intrepid (copper). 140km from Solwezi, off the Solwezi-Mwunilunga road, North West Province	Joint Forest Management Conservation farming
Kansanshi Production phase	Jointly owned: 80 % by Kansanshi Mining Plc, a subsidiary of FQM, and 20 % by ZCCM (formerly Zambia Consolidated Copper Mines Ltd.)	Largest copper mine in Africa; two open pits 10 km north of Solwezi, North West Province	Conservation farming

Lumwana Production phase	Barrick	Purchased by Barrick Gold Corporation from Equinox Minerals in 2012; comprises two pits. 100 km from Solwezi, North West Province	Microfinance Training in agricultural production Research into high value crops Banana production Dairy farming for women
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The three mining sites have a focus on CSR activities that support local livelihoods through natural resource management (see Table 2). The Kansanshi site is focused on a conservation farming initiative (CFI) which was established in 2010. Through this initiative, farmers are trained in conservation farming techniques and provided with fertilizer and maize seed loans. The Kalumbila site is also implementing a CFI, which will engage resettled farmers and help them to diversify and improve yields; and a joint forest management project, which will bring the communities together with the government forest department to manage and conserve the nearby Bushingwe and Lualaba forest reserves. The conservation agriculture activities have the potential to support the JFM by improving agricultural practices and yields. This should remove the need to encroach upon the forest area. The Lumwana site has undertaken a variety of social investment projects and programmes in Solwezi and the rural communities in the Lumwana area. These include training in agricultural production, a microfinance scheme, research into high value crops at a government-owned research station, the promotion of dairy farming for young women, and banana production.

Through key informant interviews and site visits, we examined the extent to which projects aimed at delivering adaptation, mitigation and economic development (objective 1). Throughout 2012 and 2013, we approached the mining operations. We met initially with the personnel in charge of CSR activities associated with the mine site. This was used as an opportunity to identify the key activities to be examined in greater detail. We then extended the interview to discuss the extent to which the CSR manager considered the activities to reflect adaptation, mitigation and economic development. Documents and relevant company policies, such as the Environmental Policy, were collected when possible. Other key actors (for example consultants, project managers, etc.) were also identified with the assistance of the CSR manager. These actors were then contacted for interview, in order to discuss the aims of the projects, and the extent to which adaptation, mitigation and economic development were considered and/or delivered in the project. Wherever possible, we visited the project sites and interviewed participants in order to gain a better understanding of the activity. As a research team, we then discussed the ways in which each activity reflects adaptation, mitigation and development as defined and exemplified in section 2.1 (Table 1), and we discussed this with respondents in follow-up communications (meetings and email correspondence).

To analyse the extent to which activities tied into broader strategies and to which they engage with affected communities (objective 2), the process of activity design and implementation was studied using community interviews and key informant interviews. We used the interviews with personnel to discuss how the activities were planned and executed. These interviews were transcribed in full and analysed for content. Specifically we sought for instances where the respondent referred to the policies, strategies and actors outlined in section 2.2. This content was triangulated with information taken from documents also collected during interviews or on the internet. We also spoke with communities that were affected by the activity. We held village meetings in a range of affected communities in order to elicit views on how the activity was planned, and their thoughts and feelings on the project. Notes were taken throughout these meetings, though full recording and transcription was not possible. These notes were analysed for content in with particular focus on the processes of engagement and the acceptance or adoption of the activity.

Care was taken to triangulate between a broad range of stakeholder groups, respondents and data sources in order to manage the influence of the mine on people's responses. We were careful to hold meetings with communities independently of any mine company involvement. It should be noted however, that this was not always feasible as practical assistance was needed to get to remote locations. In addition, even where the meeting was organized entirely independently, the presence of any outsider in some areas was deemed to be a visit from 'the mine'. Every meeting began with an explanation of the research and the separation from the mining company, but it is likely that some responses were influenced by a perception that we represented the company. In some cases, the researchers felt that responses were more likely to be complaints or requests for resources. In other cases, it was felt that respondents were less likely to be negative in case it upset powerful people. By triangulating between a range of responses we were able to identify and consider conflicts in our analysis.

4 Results

4.1 Objective 1: Characteristics of adaptation, mitigation and development

The CFI activities at Kansanshi and Kalumbila have the potential to deliver adaptation, development and mitigation outcomes, though such potential is not always being realised. Representatives from the Kansanshi foundation explained that the initiative should help to increase yields of a broader range of produce while decreasing costs for fertilisers and pesticide inputs. It should therefore deliver diversified livelihoods and support some income generation, thus delivering adaptation and development. Furthermore, the increased yields and long-term sustainability of the approach should remove some of the need to encroach upon forests to increase agricultural land cover, and the low tillage approach should reduce carbon soil loss thereby contributing to mitigation. However, there have been difficulties realizing these benefits. The foundation has relied on methods and expertise imported from Zimbabwe, and these have

proved to not be locally relevant, leading to reduced yields in maize and bean crops and problems for farmers in paying back loans in the first season; some respondents reported that repayments were demanded whether or not they had worked hard on the scheme; thus it has worked against development. In particular, the amount of rainfall received in the area was underestimated and crops became waterlogged. Representatives from the Ministry of Agriculture and Livestock (MAL), as well as scheme participants, expressed regret that Foundation representatives had not engaged them earlier in the process and therefore gained from their knowledge of the local environmental context. Foundation representatives acknowledge they 'learned the hard way' that Zimbabwean principles are not always applicable to other contexts.

The JFM project at Kalumbila has the potential to contribute primarily to mitigation through its focus on preventing deforestation. There are two forest reserves (Bushingwe and Lualaba) within close proximity to the mine concession. According to the designation notices, both forests have been given protection because of their importance to preserving the headlands of the Kafue river. Under the JFM project, Ecolivelihoods aims to have the reserves degazetted and established as joint management between the government forestry department and the local communities. The communities report that they use the forest on the concession for foraging activities (firewood, mushrooms, chicanda), hunting (duika, bush rats), bee-keeping, and as a source of agricultural land. As the mine is developed, access to the concession is being prevented. The aim of the JFM project is to prevent the more destructive forest activities (firewood, agricultural expansion) being moved into the forest reserves and leading to deforestation of these protected areas. In particular, when discussing the project the majority of village meeting attendees report that they consider the proposed JFM area to be a source of further agricultural land. This view was explained in terms of traditional land allocation practices, whereby the chief allocates land for agriculture to match demand. In order to prevent such deforestation, the JFM project aims to deliver economic development opportunities that provide incentives to preserve the forest, primarily through allowing communities to benefit from the commercialization of non-timber forest products (mushrooms, honey, etc.). However, it should be noted that previous JFM initiatives in Zambia have been limited in their ability to prevent deforestation due to problems with establishing a benefit sharing mechanism (see e.g. Leventon et al., 2014).

The Lumwana projects' potential are more focused on development through training in agricultural production and provision of microfinance. In addition, the promotion of dairy farming for young women, and banana production also enable the diversification of livelihoods, contributing to adaptation. The banana cultivation project could be considered as CCD with the additional mitigation component of increased carbon sequestration in the agroforestry system used.

Despite the CCD characteristics of each of the projects, none are explicitly labeled as CCD by any of the respondents, suggesting that it is not a guiding concept in CSR activities. For the CFI projects, Kansanshi Foundation representatives explained the 5 core elements of the scheme as: 1) providing an alternative

income stream to reduce dependence on the mine for employment; 2) increasing both domestic and regional food security; 3) empowering farmers to move beyond subsistence farming to business farming; 4) conserving soil by reducing slash and burn agriculture practices and; 5) reducing deforestation by providing alternative incomes to charcoal production. Thus CFI was not being explicitly branded as climate-relevant. Similarly, the JFM project was not devised with climate change objectives in mind. The CSR personnel at the mine report that the project should protect the natural habitat, partly for the inherent value of nature conservation, but also for future recreational potential for mine employees and their families. In this way, the project fits with the mine's broader philosophy of creating a place where employees will want to settle, such that they invest in the long-term sustainability of the area. Climate change has featured in some discussions around JFM as Ecolivelihoods originally suggested establishing the area for carbon trading. They say that carbon trading might be a good way to provide a steady income to the communities. However, the mine reports being currently wary of the carbon market. Thus they have recognised the potential for trading in the future and have performed a full carbon inventory, but have no current plans for trading. Lumwana report their priorities for CSR as being 'to mitigate the potentially adverse social and environmental impacts of the mine' and are therefore also not guided by climate change discourse.

4.2 Objective 2: Fit to Broader CCD priorities

The mining companies and the communities display conflicting aims and expectations that threaten the success of the activities studied. For example, LMC reported that government and community expectations were so high that they felt they would always fall short, thereby creating negative feelings amongst other stakeholders. Kansanshi representatives stated that government extension officers had requested motorbikes to access more farmers. However, Kansanshi feel the officers should be based in the rural areas to 'set a good example' for the farmers, many of whom have migrated to town, and therefore do not need motorbikes. Furthermore, at Kalumbila, community respondents, particularly the younger respondents, report that they see charcoal production as an economic opportunity in the future as more people move to the area. However, both the mine and Ecolivelihoods are anti-charcoal and are not engaging with such ideas. By not engaging with the wishes of the communities, there are missed opportunities for managing activities such as charcoal burning. Where there is a market opportunity for charcoal, it will be burned, and by not managing it within the JFM, CFI or broader CSR initiatives, it will undermine forest management practices.

Such a difference of expectations extends towards the overall role of the mining companies' CSR practices in the area. LMC suggest that communities are unaware that they should be lobbying government, first and foremost, on issues such as infrastructure improvements. Kalumbila echo this concern, and worry that the communities see them as a pseudo government; they would like to avoid this. The mines stress that the companies should not be required to be a proxy government, partly because they already pay a large amount of tax, and partly

because there would be a high potential for services to collapse in the post-closure phase. Instead, they should focus on their core activity of mining, and CSR should, by nature, be over and above what they should be doing. However, they also note that local people do not see the tax they pay to the government, and they would therefore welcome some form of platform to provide transparency and to link their CSR activities to the core services that the government should be providing.

A key barrier to engaging with communities and securing their support is the changing nature of the communities in the case study sites, and the changing context of development. At Kalumbila the CFI initiative focuses on resettled communities, and the JFM initiative focuses on pre-existing communities. However, the agricultural threat to the forest will also come from increasing land pressure associated with in-migration. Such migrants will also increase the market for destructive forest products such as timber and charcoal, thus further increasing the drivers of deforestation and threatening the mitigation and development potentials of the projects. LMC reported that the dynamics of in-migration proved challenging in engaging communities in CSR activities. In particular, they described the community of Manyama, where in-migration is highest, as 'fluid' and therefore difficult to establish an understanding with about CSR activities. It does not however have any strategies for dealing with in-migration to those communities. Both initiatives are therefore working as though in a static environment, despite its changing nature.

Beyond the community level, the activities studied seem to form a piecemeal approach to delivering CSR rather than forming part of any broader overall strategies developed by the mining companies. All three mine sites do have a range of objectives that they state their CSR activities should fulfill (previously discussed). Lumwana's activities are coordinated in-house by the mine's Sustainability Department. Following an ESIA in 2005, key areas of intervention were identified as: employment and business development, capacity building and skills training, infrastructure development and employee and community health. In contrast, the Kansanshi site does not have an overall strategy or objectives. They established a Foundation in 2006 for social investment projects and programmes in Solwezi and the rural communities adjacent to the mine. The Kansanshi Foundation representative explained that the CFI at Kansanshi was actually an attempt to overcome the foundation's 'dubious' reputation for fragmented development interventions, whereby clinics and schools were built upon request by local elites such as Chiefs wishing to gain political clout. The CFI is therefore established as a central, focal CSR initiative. This foundation also implements the CFI at Kalumbila. However, the JFM at Kalumbila is being managed and delivered by Ecolivelihoods, an independent consultancy hired by the mine. There is little in the way of formal collaboration between the two bodies, meaning that they are framed as being separate initiatives, despite their potential synergies. For example, the CFI could help to manage the agricultural driver of deforestation, thereby aligning with the goals of the JFM. However, not all JFM communities are engaged in the CFI as the CFI engages only with those that are being resettled off the mining site, whereas the JFM engages all those in the vicinity as well. Furthermore, the two initiatives are being presented to the

communities separately, and there is no collaboration between the Foundation and Ecolivelihoods. Additionally, the JFM project has little tie in to supplementary on-site activities run by the mine (such as provision of wood-stoves).

The studied sites also lack engagement with local actors, such as civil society, NGOs or local government representatives. This was partly due to the absence of such groups, and partly due to reluctance on both sides to engage in collaboration. All the sites state that they see the benefits of working with local partners and organisations. However, LMC and the local community representatives identified the lack of NGO presence in the area as a considerable challenge for ensuring beneficial CSR initiatives (see also Van Alstine and Afionis, 2013). At Kalumbila, the local government extension workers report that they have not been included in the CFI. However, Ecolivelihoods reported surprise that there were extension workers to engage with and had not made a particular effort to collaborate for the JFM, believing that they were not present. Where organisations are present, Kalumbila report that most NGOs and church groups tend to approach the mine in the spirit of conflict rather than collaboration and LMC expressed frustration at being seen as a 'money pit' rather than a collaborator. Lumwana state that they try to link with the appropriate government authorities and are working closely with MAL on their agricultural initiatives and Kalumbila and Kansanshi report links to government offices at a national and provincial level. However, such links are purely voluntary, and the same government offices report that they are often on the mine's terms. For example, representatives from MAL reported that Kansanshi had set the agenda for the CFI and, as previously stated, were reluctant to utilize MAL's expertise. In addition, local government representatives around Lumwana felt it was the responsibility of central government to take the lead on developing the appropriate policies, though this may reduce local applicability.

There is also a lack of engagement with national policies and decision making, again partly due to a lack of policies, and partly due to a structural barrier to participation. There is a suggestion that some CSR activities are 'outside' of official policies. For example, government representatives asserted that LMC CSR policies did not align to the provincial development plan, though LMC respondents highlighted that their activities were in line with regional and national development policies. Additionally, the Kalumbila JFM project is aligned to a previous JFM pilot scheme that had implemented JFM projects in a number of locations throughout Zambia. The scheme was discontinued and has never been supported by broader forest law. Such situations are argued to be the result of a lack of guidance from the government. Stakeholder groups at Lumwana reported that a lack of policy guiding mining companies' CSR activities represented a significant challenge as there was no consistency and structure to CSR across different companies. Similarly, actors at Kalumbila say that the government is neither proactive nor strategic, so it is difficult to frame CSR activities within any particular trajectory or link to specific development aims. However, there is no structure to engage the mining sector in broader development aims at the policy-making level. The Ministry of Mines licenses mine sites and promotes mining, but has no remit over CSR activities. Zambia's

Environmental Management Agency (ZEMA) are responsible for evaluating the Environmental Impact Assessment processes of the mines, but state that they have no remit in social or environmental impacts beyond the EIA, and no way of working with the companies. Such a lack of formal responsibility for engagement between sectors also means that the mining sector is not engaged in discussions or decision making around any of the CCD related policies, such as the REDD+ national strategy, the NAPA, or the development plans. Given that the mines are changing the implementing context of such plans, through the nature of the communities and the drivers of deforestation, this lack of engagement is concerning.

5 Discussion

Our results show that the CSR activities of the extractive industry are playing a significant, though unintentional, role in shaping the CCD norm by implementing projects and by changing the development context. The extractive industries are not intentionally engaging with the climatisation of development; rather they are implementing projects that they feel are appropriate in the context of the natural resource based livelihoods of affected communities. That these activities are arguably climate compatible perhaps suggests that CCD is not distinguishable from good development practice. Rather, the norm is emerging as a way to add urgency or highlight the need to deliver such good development. However, the extractive industries are shaping the CCD norm in two ways. Firstly, they are implementing projects that could be labeled as CCD. Their experiences from implementation can be valuable in scaling up CCD, and they are development partners with available funds for CCD activities. In addition, they are shaping CCD through their impact to the context, location and environments in which CCD should take place. By shaping the size and demographics of communities and through their impact to the availability of and demand for natural resources in an area, the extractive industries impact upon the kinds of activities that would provide meaningful CCD. Thus, while the industry is not making an intentional contribution to the definition of CCD, it is contributing to the co-production of this norm.

This role of the companies in shaping the CCD norm initially reinforces the framing of politicized CSR, whereby activities themselves push governance agendas to the detriment of long-term development outcomes. In the cases studied, the implemented projects do display signs of politicized CSR. There is a lack of engagement between the CSR activities and existing plans and programmes, and with government and community actors. This appears attributable (at least in part) to a lack of willing actors to engage with, and a lack of available guidance on the role that the mining sector should be playing in fulfilling plans and programmes. However, the instigators of CSR projects need to be aware of existing legal frameworks and precedents for the activities that they wish to carry out. Failing to acknowledge local level contexts runs the risk that activities will not be accepted or will not be suitable, as was shown in the case of the Kansanshi CFI. Failing to engage with the policy framework for activities means that the project runs the risk of forcing or undermining a policy

agenda, as is shown in the case of the Kalumbila Joint Forest Management. Such findings are in accordance with existing framings of politicized CSR that highlight that CSR bypasses state policy and exacerbates development problems for communities (Campbell 2012, Hilson 2012). The practical implications are that engagement between the mine, the communities and government actors should be improved from early in the project planning cycle (Luning 2012), and that the companies should improve long-term, coordinated and facilitative approaches to their CSR planning (Muthuri 2008).

However, such steering of CSR activities on the ground is constrained by the broader policy and development context, and therefore cannot be considered in isolation. The role that the extractive industries play in shaping the context for CCD means that the mining sector should be considered, and potentially harnessed, at the policy-making level. In our cases, the current lack of meaningful collaboration between the mining sector and those policy actors actively engaged in CCD mean that the extractives are an informal actor whose actions cannot be steered or harnessed. By not having an explicit mandate beyond the technical control of direct mining activities, the Ministry of Mines has no incentive to engage in broader policy discussions. They are not recognized as an actor in the forestry, agriculture or development sectors. By not engaging the mining sector, their activities (mining and CSR) and impacts are not accounted for in the plans of such other sectors. In this way, removing the politicized element of CSR activities through better engagement is limited because the political agenda has already been undermined by the mining sector at the level of policy making. Thus, when thinking about politicized CSR, we cannot consider only the CSR practices, we need to look at the wider context for engaging with the mining sector at all levels of broader governance systems. CSR should be considered as a multi-level process within multi-level governance (see also Scherer and Palazzo 2011, Prno and Scott Slocombe 2012).

We therefore suggest that the appropriate response to politicized CSR activities should be greater policy engagement from the mining sector at multiple appropriate scales and levels throughout the development planning process. Where the sector has been excluded or framed with hostility at a policy-setting level, good community engagement will not significantly alter the impact of the sector on development policy. CSR practices should therefore be considered as only one part in a broader development governance system; and such a system has to engage with the mining sector on a number of levels. This is not to suggest that the extractive industries should be leading CCD decision making, but that the role should be recognized and harnessed. This should be led by the country of Zambia through the production of clear guidance on what CCD is and what role should be played by whom at what level of governance. On the national level, such guidance should create a role for communication and interplay between the strategies of the mining sector and those sectors (agriculture, forestry, development) that have their contexts changed by mining operations. Such collaboration would then frame local level guidance and operations, such as that from the EITI in order provide a safe forum for constructive dialogue between the CSR departments and local actors, to structure discussions and highlight reasonable areas of collaboration. Reframing

the role of the mining companies at higher levels of governance, could change the perceived legitimacy of the mining sector as a development actor making it easier for community-level partnerships to evolve. Such guidance would also provide a degree of transparency to both the mine and the communities, and could therefore improve acceptability of CSR activities (Wilson and Van Alstine 2014).

Such multilevel industry and development or government actor interaction should be pursued beyond just our case study context of Northwestern Zambia. The specific impact of the mining industry and CSR activities on CCD is undeniably shaped by the social-ecological systems of the area. The forest cover, subsistence economies of communities, and the dynamics of economic migration create a particular hotspot of interactions between the extractive industry and the CCD agenda. These interactions will vary with location, and are unlikely to be identical even in another area of Zambia. Firstly, the physical characteristics of what constitutes CCD will vary, particularly if forest cover and livelihoods are different. Secondly, the policies, strategies and actors to engage with will change, particularly between countries. However, it is this variation that reinforces our calls for multilevel engagement in all locations. It is not possible to predict for every location and situation what the impact of the mine on broader development strategies will be, and what policies it interacts with. Multilevel engagement would provide opportunities to acknowledge specific interactions, and steer CSR. Engagement at the national level should seek to recognize interplay between the mining industry and broader environmental and social development goals. Such recognition should then shape and harness activities towards the local, project level.

6 Conclusions

We studied the CSR activities of three mine sites in Zambia's Northwestern province in order to examine the role they play in the emerging norm of climate compatible development. The results have shown that the mines are contributing to CCD directly through their CSR projects, but also because the mining operations alter the context within which such development should occur. We demonstrate that both contributions are arguably politicized CSR, in that the mining company undermines broader development planning and community level priorities. We have therefore shown that avoiding politicized CSR requires engagement between the mining sector and broader development governance at a range of scales and levels. However, traditional arguments for harnessing CSR and preventing activities that are harmful to local development tend to focus on good practice guidelines at the mine site, promoting engagement between the mine, the community, and locally available actors. We argue that because of the role of mines in shaping the development context, such engagement must also occur at the policy-setting level. CSR activities should therefore be seen as a local manifestation of a multi-level communication between the extractive industries and broader development sectors.

Multi-level communication between extractive industries and broader development sectors has implications for the mining sector, development sector,

and private and government actors therein. We recommend that government leads the production of CCD guidance to define desirable outcomes. Such guidance should serve to highlight interactions between sectors, and guide interactions. The mining sector would then benefit from increased transparency and legitimacy in its CSR activities on the ground. The development sector would benefit by harnessing the impact of the mining sector.

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