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Narrative accounting for mining in Ghana: An old defence against a new threat?

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ABSTRACT

This article is concerned with aspects of how accounting and accountants figure in economics and policy issues related to mineral and fossil fuel extraction, production and use. Starting by appraising whether narrative accounting by a transnational mining corporation is attuned to the people working or living in an area affected by the mining operations, it goes on to considering how data, calculations and communications pertaining to sustainability are applied. This includes what connections the people involved perceive between accounting and sustainability. Data were obtained through qualitative fieldwork in and around the Damang Mine in Ghana, comprising interviews with employees and in the community, and analysis of documents. Corporation executives use narrative accounting to back claims that they invest hugely in sustainability, so having, in their words, a *social licence to operate* from *host community stakeholders*. This reflects accounting figuring in resource allocation choices, including in terms of how shareholder capital is managed to generate greater societal value and to operate sustainably. However, although many local people see themselves as deriving some benefit from the socio-economic activities of the mining corporation, they see accounting as not their business, being more economic than environmental or social. The inference is that accounting continues to serve purposes of management control of production, distributing value-added in favour of capital providers and managing image reflected in the notion of having a social licence to operate. Despite their belief that accounting and accountants having roles to play in sustainability, they generally cannot identify these roles. These findings imply that, if account providers are serious about being corporately responsible towards affected people, they must do more to ensure that environmental and social aspects receive enough attention to convince those people that they are truly being engaged with on equal terms, in addition to convincing a wider audience that the reports they produce are reliable and relevant to sustainability in practice.

1. Introduction

The Environmental Protection Agency Ghana has been very strict on [mining companies] lately. Many of these mining companies have been shut down for non-compliance. So, I perceive that societal pressure and law enforcement are key to good environmental practices from the mining industry. (Quotation from a participant in this study).

Corporations in the mining and other extractive industries are under threat from ever closer scrutiny reflecting pressures from several societal forces intensifying over things environmental, social and cultural (e.g., compare Hilson and Murck, 2000; Parsons et al., 2014; Schepis, 2020). Their executives have responded through actions and behaviours largely aimed at improving the environmental and social performance, and the accountability of individual corporations and entire industries (Prno and Slocombe, 2012), and which have made for something of an *age of sustainability* (Caradonna, 2014). These include activities which supposedly mitigate the usual undesirable environmental consequences of mining (e.g. land degradation, pollution) and their social consequences (displacement, loss of natural resources, adverse health effects, industrial accidents) (ERMITE-Consortium et al., 2004; Kumah, 2006; Rodrigues and Mendes, 2018), alongside activities to improve relations with local communities and develop them, socially and economically (O'Faircheallaigh, 2015).

Corporations often publicise these activities on websites and in

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mainly narrative, descriptive reports with photographs, charts and diagrams. These may refer to and are often included in the same documents as quantitative financial statements. Such reports have the backing of industry bodies, such as the International Council on Mining and Metals (ICMM) (Fonseca, 2010; Fonseca et al., 2014; Schepis, 2020). These narrative reports may be called sustainability accounting and reporting (Burritt and Schaltegger, 2010), or social and environmental accounting (Schaltegger et al., 2017). They have steadily increased in scope and frequency, arguably reflecting a broadening of roles which accounting potentially plays in relations between corporations and various elements of civil societies, economies and markets (e.g., investors, suppliers, workers, consumers, customers, governments, citizens, the public and even competitors) (cf. Accounting Standards Steering Committee, 1975), who now, in some jurisdictions at least, regularly share sustainability duties with the State (Jenkins and Yakovleva, 2006). These sustainability accounts, being largely at the discretion of the corporations' executives, may be seen as a quest for legitimacy, whether legally, commercially or morally; as an accountability to shareholders and other stakeholders; as a defence of corporation activities; to lift the corporate image; as a condition of a social licence to operate (SLO); or even as contributing to social decision-making (Buhr et al., 2014; Cairns, 2006; Gray et al., 2009; Maltby and Tsamenyi, 2020; Perkiss et al., 2020).

This article aims to make a significant addition to the critical literature on resources policy. It appraises whether sustainability accounting by a transnational mining corporation is attuned to the voices of people working or otherwise living in an area affected by the mining operations, particularly the less powerful and more vulnerable of these people (cf. Belal et al., 2015; Hossain and Alam, 2016; Mercer-Mapstone et al., 2019); and whether those people perceive connections between accounting and sustainability. These questions are relevant because these less powerful people need to take up the opportunities for increased agency which sustainability accounting offers.

Examining these questions is consistent with longstanding calls for a greater integration of views about accounting and sustainability (O'Dwyer et al., 2005; Solomon and Solomon, 2006); for example, as they relate to stakeholders (Berthelot et al., 2012; Diouf and Boiral, 2017). Answers to the questions have implications for corporate executives and their subordinates working in the mining, extractive and other environmentally sensitive industries who are shouldering responsibility for social and environmental matters (hereafter referred to as corporate social responsibility, CSR); and for policy makers at national and supranational levels, the latter being particularly significant to territories where local and national institutions are weak and the people they are supposed to serve vulnerable.

With mineral deposits near at hand to mining corporations' home territories seemingly becoming exhausted, or too costly or socially or politically sensitive to mine, these corporations have gone elsewhere in search of deposits. This article follows them, and so contributes to literature in the types of economies and political jurisdictions which many describe as developing countries with emerging economies. These are where the majority of the world's population lives (United Nations, 2012), which is one reason various authors consider additions to knowledge there as important (e.g., Kumah, 2006; Momin, 2013; Tilt, 2016).

This article presents data from Ghana, which has endured a long history of extractive activities, particularly mining for gold, which dates from at least the 8th century; hence its name when part of the British Empire: the Gold Coast Colony (Hilson, 2002; McLaughlin and Owusu-Ansah, 1995). Indeed, Botchway (1995) describes several gold rushes in the territory, during which huge amounts of gold were mined and taken elsewhere. However, despite previous mining, Ghana is still the 7th ranked producer-country in the world and first in Africa (CEIC Data, 2019; United States Geological Survey, 2019). Its mining sector is the single largest industry in terms of proportions of gross domestic product (10%), tax revenues (14%), exports (49%) and direct and indirect employment (Arthur et al., 2017; Baah-Boateng, 2018; Chuhan-Pole et al., 2015; Ghana Chamber of Mines, 2019). In 2017, gold generated $8.35bn in foreign currency, compared to $2.97bn from oil and $2.31bn from cocoa (Observatory of Economic Complexity, 2019).

Ghana has previously been the subject of critical studies, including around the notion of mining corporations presuming to have an SLO (Ofori and Ofori, 2014, 2019), and especially considering vulnerable people (Ros–Tonen et al., 2021; cf. Belal et al., 2015; Hossain and Alam, 2016). This article complements that work, focusing on mining associated with Gold Fields Limited (Goldfields), which has for many years expressed concerns about having and needing an SLO as part of relations with host communities and its stakeholders more generally (e.g., see Goldfields, 2021). Previous studies of people from developing economies have tended to draw their interpretations from informants who might be described as knowledgeable, policy conscious and informed about the social, environmental and sustainability space (e.g., see Momin, 2013; Belal and Roberts, 2010; Elijido-Ten et al., 2010). In contrast, many of the people spoken with in this study are vulnerable people in mining-affected communities who may not be seen as stakeholders, either by themselves or by anyone else. We pay special attention to their perceptions of connections between accounting and sustainability.

Other critical work concerning Ghana examines the use of narrative accounting for gold mining during British colonial times. Maltby and Tsamenyi (2010) recount that between 1900 and 1950 managers of mining corporations capitalised in London but operating in the Colony spoke and wrote about particular events and circumstances in ways in keeping with broader ideas about the main function of accounting being to serve the interests of those conducting the accounting (cf. Dixon and Gaffikin, 2014; Mellemvik et al., 1988), that is, expatriate managers based in Ghana and Britain vis-à-vis capital providers and the colonial administration. Public pronouncements and disclosures were made to counter suspicions of deceitful behaviour by companies and perceptions of high risks in the first quarter of the century; the intention was to not impede the inflow of capital needed to cover costs, which were expected to be recovered in the supposedly brighter future. The managers used narrative accounting to stress their own good character and to portray their companies as financially sound, well-placed to undertake further development and capable of addressing local difficulties of land and labour. The narrative accounting in the second quarter of the century was to counter concerns about discontented employees and any need for the unionisation which had become the policy of the colonial authorities. Managers used the narrative reports to portray their corporations as good, paternalistic employers, with loyal employees, black as well as white, who were being afforded their just rights and rewards, without unionisation. Maltby and Tsamenyi (2010) associate the earlier uses with financial engineering vis-à-vis their capital providers, and the later ones with securing a SLO from colonial authorities concerned with human welfare. Both are consistent with narrative accounting being well-established as a form of defence of practices, decisions and interests, and against criticisms, and as a source of organisational legitimacy.

Maltby and Tsamenyi (2010) provide critical insights into these previous narrative accountings, which are incorporated in the present article to inspiring our interpretation of what is occurring. In doing so, we redress the sparseness of recent studies of narrative accounting in Ghana which are limited to analysis of the information which corporations publish on websites and in statutory reports, and to interviews with corporation officials (e.g., see Amoako et al., 2017; Arthur et al., 2017; Tackie, 2019). In the period since the narrative accounting occurred which Maltby and Tsamenyi analysed, Ghana became politically independent of Britain and its official republic form of government has oscillated between autocracy and democracy (McLaughlin and Owusu-Ansah, 1995). Furthermore, the corporations which featured in their study were separated from their present-day successors by 25 years (1960–1985) during which mining was predominantly nationalised and somewhat stagnant (Garvin et al., 2009). The present-day corporations are largely foreign-owned and entered the country following intervention by World Bank/International Monetary Fund officials as a condition of financial aid to Ghana since the 1980s. They are usually referred to as large in scale, to distinguish them from small-scale operators, often referred to as artisans and in some cases branded as illegal (Ofori and Ofori, 2018).[1] The executive managers of these corporations share with their predecessors issues and threats to their legitimacy to operate, but the pressures and scrutiny are over environmental and social issues (Chuhan-Pole et al., 2015).

Mining has undesirable environmental and social consequences manifested in land deforestation, denudation and degradation; noise, water and air pollution; land grabbing and forced re-settlement; human rights breaches and abuses, including exploitation of adult and child labour, and gender discrimination; inequitable distribution of benefits and costs; poor health and other undesirable social outcomes; unemployment and underutilisation of local factors of production; and limited development of local skills (e.g., see Amponsah-Tawiah and Dartey-Baah, 2016; Boamah, 2014; Chuhan-Pole et al., 2015; Garvin et al., 2009; Kumah, 2006). Also, mining is seen as providing far less economic benefit locally than it should, as manifested in inadequate economic development and insufficient public revenue, with political parallels of institutional incapacity and corruption, political instability, and conflict between local and foreign mining companies (e.g., see Adonteng-Kissi and Adonteng-Kissi, 2018; Essah and Andrews, 2016; Teschner, 2013).

A further important difference for today's executive managers compared with their predecessors is that there is more call for accountability to local people, whereas under British colonial rule their predecessors could afford not to give an account to colonial subjects (Dixon and Gaffikin, 2014). Also now narrative accounting is much more communicable via the Internet (Unerman and Bennett, 2004), and so much more publicly accessible. Even so, consistent with what Maltby and Tsamenyi (2010) find about their predecessors, Amoako et al. (2017) and Arthur et al. (2017) portray present-day executive managers as using narrative accounting as a way to play down negativities, particularly undesirable environmental consequences. Hence, the findings of this research, based on field data collected on the ground from Ghanaians caught up in and affected by mining, is a significant addition to the critical literature on resources policy.

The remainder of the article is organised as follows. Section 2 reviews recent literature associated with sustainability accounting and reporting. Section 3 elaborates the approach used in this study and how qualitative data were collected and analysed. Section 4 conveys the main findings of the study, arranging them under a series of themes reflecting opinions, elaborating each one, and tying them back to extant literature. Section 5 concludes the article by synthesising the findings and their implications, and relating avenues for future research.

2. Literature review

This review explains the basis for believing that there are not only connections between accounting and sustainability but also that narrative accounting by transnational mining corporations supposedly about sustainability should be attuned to voices of people working or otherwise living in areas affected by mining operations. The review covers accounting, sustainability, stakeholders and SLOs in turn, bringing out ideas of accounting being effective in securing an operating licence from sustainably-minded community stakeholders. While the review brings out that these ideas developed in places where many of the mining corporations operating in Ghana originate, including the Anglosphere, and were then imported to Ghana cumulatively, some space is given to literature about Ghana. However, even that literature may be interpreted as showing that this importing occurred alongside a desire on the part of the principals of the corporations to mine in order to make profits, presumably for the economic benefit primarily of their offshore executives, shareholders, etc. Thus, it cannot be presumed that Ghanaians have assimilated all these ideas with the same meanings as they have in the places where they originate, let alone understood them and their implications.

2.1. *Accounting*

The meaning of accounting, or "what counts as accounting" (Miller and Napier, 1993, p. 631), is associated with the time and space in which it is used (Gray, 2010). Accounting is sometimes called "the language of business", suggesting that it is the way people in business, especially managers, directors, owners and other shareholders, other investors, creditors, tax authorities, and regulators communicate not only financial and economic measures but broader measures, facts, narratives, etc. about doing business and the business they do (Lavoie, 1987). This notion of accounting being a social narrative, "not just numbers" (Hopper et al., 2012, p. 2), is reflected in what (Zakaria, 2011, p. 29) describes about accounting having a discursive nature or role which is

> equally important in improving the visibility of organisational practices; significantly, it also uncovers certain dimensions of everyday practices that are essential for the achievement of organisational strategy but not directly translated into financial performance.

Recently, a significant, critical minority see accounting as a form of social technology (Brown, 2009; Gårseth-Nesbakk and Timoshenko, 2014). Its calculative practices play out transitionally and ideologically for various human purposes (e.g., to profit, control, empower) and with human and broader consequences (Dixon and Gaffikin, 2014; Neu, 2000) for an extensive group of people. However, those who have access to the contents of the accounts are a restricted group, notwithstanding the formal expansion in recent decades of disclosures to "stakeholders" (Gray, 2010; Mzembe and Meaton, 2014) in line with the Accounting Standards Steering Committee (1975) and the availability of Internet sources.

Although Mellemvik et al. (1988) identified various functions which accounting serves, they found two which stand out from the rest and are mutually exclusive. In cases where the organisation is strong enough to exercise power over its social environment, then accounting functions as a means to consolidate the environment's dependence on the organisation. Conversely, where the social environment comprises numerous significant interdependent players, the organisation uses accounting to legitimise its existence and offset its weaknesses. That is to say, in competitive or other contentious environments in which power is fairly widely distributed, the people running an organisation use accounting to justify their behaviour. This may be particularly so when others in the social environment challenge them in any way (e.g., in relation to economic performance, or social or ecological issues), as "the use of accounts is a method of avoiding the stigma of an accusation of deviance" (Abercrombie et al., 1984, p. 13).

Gårseth-Nesbakk and Timoshenko (2014) revisited Mellemvik et al.

[1] The artisanal and small-scale mining (including "galamsey") sector is usually thought of as an informal, outside the law, poverty-driven activity involving rudimentary mineral extraction techniques, hazardous working conditions, low capital investment, and extensive manual labour (Garvin et al., 2009; Hilson, 2002; Teschner, 2012). It is estimated that about 30 million people in more than 70 countries worldwide are directly engaged in the artisanal mining sector, which is as significant in Ghana as elsewhere in Africa and Latin America (Dery Tuokuu et al., 2020; Owusu et al., 2019). How participants in this sector conflict or otherwise intertwine with large-scale companies like Goldfields in all these places, not least at Damang Mine, is well-documented (e.g., see Adonteng-Kissi and Adonteng-Kissi, 2018; Hilson et al., 2017; Mensah and Okyere, 2014; Teschner, 2013).

(1988), showing that although the form of accounting changed over the intervening 25 years, the substance did not. This parallels what Maltby and Tsamenyi (2010) report about mining corporations operating in the Gold Coast Colony. Although the two issues with which they were concerned (i.e., the threats of capital withdrawal and of unionisation) were separated by 25 years, and the narrative accountings the managers used varied in form according to the two issues and what was required to ward them off, the substance of these accountings again did not. Now, several decades on, it is easy to find documents from which to make a prima facie case of present-day executives, faced with a new and still developing threat, again using narrative accounting as a form of defence, and to upkeep an image, maintain legitimacy and meet conditions of an SLO. For example:

> Our host communities are one of Gold Fields' most important stakeholder groups - their support underpins our social licence to operate which, in turn, impacts our ability to generate and distribute enduring value. At Gold Fields, a strong social licence to operate is embedded in our Group Societal Acceptance Charter. It is also a prerequisite for generating enduring value for stakeholders. This approach is underpinned by building strong relationships and trust, creating and sharing value, measuring our actions and input, and delivering against our commitments (Goldfields, 2021, para. 1 and 3).

The threat is tied up with newish ideas of sustainability and comes seemingly from a range of different groups of stakeholders (Milne et al., 2009). One group of stakeholders identified in Ghana (Ofori and Ofori, 2014, 2019) and elsewhere (Mercer-Mapstone et al., 2019; Moffat and Zhang, 2014) comes in the form of a local community. Of interest, and underexplored, are the questions of how strong this prima facie case is and how those designated as community stakeholders see things.

2.2. Sustainability

We referred in Section 1 to the world having attained an age of sustainability, a ubiquitous, arguably over-used, term which has to do with conserving, recycling, renewing and much more, while keeping the economy, businesses, public services, employment, and personal and national incomes and wealth growing (Caradonna, 2014). As the balance among the social, environmental and economic dimensions of doing business has swung one way then another, sustainability has come to embrace three things. The first is environmental issues, encompassing ecosystem wellbeing and climate effects. The second comprises economic sustainability, including distributions of value-added to shareholders, workers and communities. Accounting and reporting systems play a part by replacing shareholder accounting with stakeholder accounting (Mitchell et al., 2015; Hall et al., 2015). The third is social and cultural sustainability, which arguably is recognised in CSR reports (Hilson and Murck, 2000; Pérez and del Bosque, 2014; Rodrigues and Mendes, 2018; Strand et al., 2015).

Increasing attention and concern has been given to sustainable development and sustainability being important to all corporations, not just those involved in mining and extraction. Sustainability refers to the way organisations integrate social, environmental and economic concerns into their values, culture, decision making, strategy and operations (Kuhlman and Farrington, 2010; Cairns, 2006; Fonseca, 2010; Rezaee, 2016). Corporate sustainability is dominated by "business case" perspectives and generally "doing good" (Kuhlman and Farrington, 2010; Schaltegger and Wagner, 2017), leaning mostly towards doing business as usual while growing markets, and so revenue (Brueckner et al., 2013; Gray, 2010). Antithetically, various types of accounting, both internal measures of the full cost of business operations and external reporting, have been advocated for stimulating organisational change to improve environmental performance (Adams and Frost, 2008). This is consistent with the proposition of managers of organisations shouldering responsibility for environmental and social consequences of the activities of their organisations, to ensure the circumstances of human and other life are on the whole maintained, if not bettered, as well as for corporate financial performance, profits and creating wealth for owners.

This article is concerned in the first instance with the external reporting application of accounting. Burritt and Schaltegger (2010) have argued that this external application is a fad, because of over-optimistic expectations of how involved external people supposedly are in the ways, means, and results associated with external reporting processes (e.g., being able and willing to use reports to call corporate executives to account). The (Global Reporting Initiative (GRI) 2018, p. 1) describes a product of such reporting innocuously as "a report published by a company or organisation about the social, environmental and economic impacts caused by its everyday activities". Such reports are portrayed as a means of informing stakeholders about what corporations are doing and fostering good community relations—for an example from Ghana, see Amoako et al. (2017). The reporting is described variously as sustainability reporting, CSR reporting, triple-bottom-line reporting and integrated reporting. It has emerged in response to recognition of the increasing importance of social and environmental issues and the range of different stakeholders, each with specific needs (Glennie and Lodhia, 2013; Gunawan, 2015; Rinaldi et al., 2014; Schepis, 2020; Milne et al., 2009).

Aside from the need for organisations to engage in accounting practices to minimise the negative social and environmental repercussions of their operations on various stakeholders (O'Dwyer et al., 2005; Mitchell et al., 2015; Thomson and Bebbington, 2005), extant research also identifies that there are diverse agendas of various stakeholders, which in turn influence organisations in different ways based on which stakeholders' attention they prioritise (Amoako et al., 2017; Ditlev-Simonsen and Wenstøp, 2013). As well as giving corporate assurance to various internal and external parties, this accounting is also used to gain legitimacy (Ayling, 2017), in order to ward off scrutiny and other pressures coming from several societal forces. This has led to the reporters (i.e., corporate executives, etc.) being widely criticised regarding their motives and the quality and consequences of reports they choose to issue (Bebbington and Larrinaga, 2014; Jenkins and Yakovleva, 2006; Murguía and Böhling, 2013; Yusoff et al., 2006). This parallels a similar instrumental–critical dichotomy over social and environmental accounting more generally (Schaltegger et al., 2017), in which the main critical focuses are on concerns about corporate opacity (e.g., see Ejiogu et al., 2019; Haufler, 2010), lack of corporate contributions to sustainable development (e.g., see Mensah and Okyere, 2014), corporate environmental and social misconduct (Belal et al., 2015), and sustainable development being addressed too slowly (Bebbington and Larrinaga, 2014). For vulnerable stakeholders, these may be more salient issues than those raised in criticising sustainability accounting and reporting. Thus, we inquired about how these stakeholders perceive the role of accounting in sustainability, comparing their perspectives to more powerful ones, particularly those inside the corporate financial circle and the managers entrusted with their capital.

Apart from Amoako et al. (2017), several studies examine sustainability reporting in Ghana. Although these mostly focus on industries less environmentally sensitive than mining, they are still critical of corporation executives for indulging in mere impression management and stakeholder manipulation (Boateng and Abdul-Hamid, 2017). The few that do focus on mining (e.g., Garvin et al., 2009; Puplampu and Dashwood, 2011) are equally critical, but are more concerned with the effects of mining corporation activities, including CSR, than specifics of environmental, social or sustainability accounting and reporting in relations between communities and corporations. Thus our study adds a further dimension to the limited extant literature by studying accounting and its relationship to sustainability in Ghana's mining industry.

The extant studies elaborate about communities being displaced and otherwise affected by the incursion of mining. After initially tolerating this, because of high expectations of the economic, social and environmental development mining would bring about, communities became mostly disappointed and dissatisfied with what transpired. This was despite recognising that mining corporations provided electricity, roads, more rewarding agricultural pursuits and employment, but with complaints that some roads were not sealed, outsiders were given preferential treatment in job recruitment, rehabilitation of damaged land was insufficient and various other failings occurred. Further criticisms in these studies centred on early attempts of corporations to provide development for communities being more in the nature of handouts than projects which produced sustained results, especially projects which relied on particular corporations continuing to support and maintain them, and so would be discontinued once the mining corporation left an area. Communities also criticised corporations for causing conflict within and between communities by not consulting widely enough about what they wanted and by being partial in choosing which particular neighbouring communities to interact with or otherwise.

Notwithstanding our primary concern being with the external reporting application of accounting, our findings did reveal things about internal applications within corporations which have implications for all stakeholders. Similar experiences are reported in the studies summarised above, which indicate managers struggling with community development budgets being too small compared with demands made by communities, as well as various other logistical and practical problems and shortcomings. The studies also report managers deflecting blame for these onto the communities or larger national and international influences, including non-governmental organisations (NGOs). The latter for their part were apt to raise problems about the long-term nature of realising benefits from projects, the need for monetary support for small businesses, and the need to empower women (cf. Ofori and Ofori, 2019).

The wider literature from beyond Ghana on these matters of internal practice is ambivalent. While some see accounting as playing a critical role in sustainability (e.g., Rikhardsson et al., 2005), others view accountants as playing only an incidental role in how sustainability is practiced across an organisation (Mistry et al., 2014). Moreover, even the few accountants who do get involved with sustainability are more interested in its economic, rather than social or environmental, dimension, their participation is for traditional accounting reasons, such as internal control purposes, or over issues which affect the organisation's financial performance (Schaltegger and Burritt, 2010). This is notwithstanding other evidence of accounting playing an important coordinating role (Albelda, 2011).

While Maltby and Tsamenyi (2010) did not examine this internal use of accounting explicitly, they discuss managers withholding operational information from outsiders, while also circulating misinformation as part of wider stratagems of deceit back home. Maltby and Tsamenyi's whole premise of managers using accounting in response to threats exemplifies some of the discussion of (Burritt and Schaltegger, 2010, pp. 832, 841–842) about accounting being a technology managers can use variously, including in being proactive or coping with "competitive market forces, [in accordance with] the wish to implement associated corporate strategies successfully". In the 50 years in Ghana with which Maltby and Tsamenyi were concerned, it seems doubtful that managers would have used accounting to deal with social and environmental matters, although no doubt things were done, and costs were incurred, to prevent nuisance of an environmental nature (cf. Botchway, 1995).

2.3. Stakeholders elaborated

In mentioning stakeholders many times already, we allude to social as well as economic relations between stakeholders and managers, to stakeholders having voices, and to stakeholders varying in their vulnerability and power. In particular, the question arises of whether vulnerable persons in vulnerable, mining-affected communities are even seen as stakeholders, either by themselves or by anyone else, including whether as such they are afforded any accountability. The concept of stakeholders, now used quite widely to refer to people and other organisations who have interests in or are otherwise affected by an organisation, its activities and their consequences, has been developing for several decades (Strand et al., 2015). But, as with accounting and sustainability, this literature has developed in societies in which managers are similar economically, educationally, socially, politically, culturally and racially.

The question of whether or not someone is a stakeholder of an organisation runs in parallel with classifying stakeholder groups as either primary, because of some formal connection (e.g., share certificates, loan contracts, government warrants of authority, statutory or common law protections and remedies for groups of shareholders, employees, suppliers and customers), or secondary, with only a moral connection (e.g., civil society organisations, the local community) (Parmar et al., 2010). Another classification is as internal (e.g., employees, shareholders) or external (e.g., suppliers, customers, governments, competitors, civil society organisations, and the local community) (Jurgens et al., 2016; Mzembe and Meaton, 2014; Rezaee, 2016). Thus, some potential stakeholders are excluded if a narrow view is taken, such as defining stakeholders as "those groups without whose support the organisation would cease to exist" (Freeman and Reed, 1983, p. 89 [emphasis added]). Such narrow views perhaps reflect stakeholders being a play on the word shareholder or stockholder, and an extension of the idea of people having ownership-like interests in an organisation, with the implication of "profit" being good for a wider group than only owners (Clayton, 2014). But there also seems scope for incorporating economic, political, social and cultural prejudices against certain groups in choosing to exclude groups who may otherwise qualify, particularly if managers can exploit unfavourable power asymmetries affecting potential stakeholders (Mercer-Mapstone et al., 2019).

In contrast, broader views derive from normative stances on who constitute stakeholders of an organisation. Normatively, "managers are not responsible only for maximizing shareholder value … but also for taking into account the wellbeing of other parties affected by corporate decisions" (Cragg and Greenbaum, 2002, p. 319). Stakeholders have a reciprocal relationship with a corporation in the sense that they contribute to the corporation's value creation, while the corporation's performance affects their well-being; corporations create externalities which affect a broad range of stakeholders, which in gold mining in Ghana extend to the environmental, social, economic and political negativities faced by resident communities and workers (Ofori and Ofori, 2014). Persons who might be harmed by the organisation or those who are critical and hostile towards the organisation because of what it stands for and what it is doing, including societally and environmentally, and possibly in industrial relations terms clearly have a stake in what the corporation does, and does not do. Similarly, economic or business competitors are others probably interested in the organisation underperforming in some ways which favour them (Markman et al., 2016). Such a broader view is taken in recent accounting studies (e.g., Belal et al., 2015; Hossain and Alam, 2016; O'Dwyer et al., 2005; Thomson and Bebbington, 2005; Unerman and Bennett, 2004), and if applied to the domain of this study would recognise modern-day Ghanaians as being civic stakeholders of foreign mining corporations, and entitled to recognition as such by the mining corporation officials. This contrasts with the managers in the period Maltby and Tsamenyi (2010) examined seeming only to recognise foreign investors and the colonial authorities in Accra and London as bona fide stakeholders.

In addition to stakeholder thinking having the normative dimension just alluded to, Donaldson and Preston (1995) advance instrumentality as another dimension. Instrumentally, managers manage stakeholder groups in furtherance of corporate goals, particularly survival and cost containment, as illustrated by Maltby and Tsamenyi (2010), or, more generally, profitability, efficiency and even integrity (Elijido-Ten et al., 2010). Moreover, whereas the normative approach examines the function of the corporation and identifies the moral or philosophical guidelines for how managers should treat not just their selected shareholders but all stakeholders (Ofori and Ofori, 2014), the instrumental approach presents stakeholder management as a means to an end (Jawahar and McLaughlin, 2001).

Both D.F. Ofori and A.T. Ofori (2014) and J.J.Y. Ofori and D.R. Ofori (2019) use stakeholders as informants for their study of social responsibility of mining corporation executives and their subordinates. Unlike other studies (Choi and Shepherd, 2005; Frooman, 1999), they did not rely only on the perceptions of resource acquirers (entrepreneurs and managers), or of stakeholder surrogates (e.g., regulators with a public mission, NGO officials), but went to actual, perhaps vulnerable stakeholders. Their findings indicate mining-affected communities in Ghana are quite capable of expressing constructive opinions about activities conducted by corporations under the CSR banner. Thus our study expects these stakeholders also to be able to express their opinions about narrative accounting and its use by corporate executives in relations they have with these communities.

Extant accounting studies have established the importance of taking stakeholders' expectations into consideration in sustainability accounting (Diouf and Boiral, 2017; Rinaldi et al., 2014). Studies such as de Villiers and van Staden (2012) and O'Dwyer et al. (2005) indicate that shareholders and other stakeholders perceive reported sustainability information positively as assuring them that corporations are engaging with stakeholders and being accountable for their environmental impacts. Ramus and Vaccaro (2017) find that social accounting can help rebalance wealth generation and social value creation, but only if combined with significant engagement of external stakeholders.

However, most accounting studies (e.g., Cho et al., 2012; Diouf and Boiral, 2017; Schreck and Raithel, 2018) have focussed on the content analysis of sustainability or annual reports. How stakeholders perceive the role of accounting in sustainability and similar questions are under-explored, not to mention difficult to explore particularly in relation to vulnerable stakeholders (Belal et al., 2015; Tilt, 2007).

It is possible implicit claims about accounting's usefulness may not hold for all stakeholders (Berthelot et al., 2012; Diouf and Boiral, 2017). Some may lack knowledge and experience of the rights, privileges, expectations, etc. which go with being a stakeholder. They may have been systematically denied any such rights, for example, when they were colonial nonentities, such as happened in Ghana. To be effective, accounting and reporting systems essential to communicating to and engaging effectively with the broader audience need to be developed, so they incorporate the voices of these stakeholders, rather than only the stakeholders which managers select or find easier to identify, and share significant cross-over interests with (Hall et al., 2015; Schepis, 2020).

The under-exploration of the views of vulnerable stakeholders is even more acute when considering Ghana and similar countries where mining is occurring but whose economies, political institutions, etc. are relatively weak and subject to much foreign influence, including foreign mining corporations and the World Bank/International Monetary Fund and other aid organisations. Most studies there about accounting and stakeholders examine published documents to measure the volume and quality of information they disclose (Amoako et al., 2017; Imam, 2000). The few studies of people as stakeholders were referred to earlier for having drawn their interpretations from knowledgeable, policy conscious and informed interviewees. Belal and Roberts (2010) and Momin (2013) in Bangladesh, and Elijido-Ten et al. (2010) in Malaysia, all find much reporting to be cosmetic, public relations exercises. Elijido-Ten et al. added that their informants would prefer it if corporations disclosed negative environmental events and explained why they happened or what they have done to mitigate the effects and prevent future similar events.

This under-exploration of vulnerable stakeholders' perceptions of the role of accounting in sustainability is the rationale for our study. As signalled in Section 1, relations between those having a stake in a corporation and the consequences of its actions, and those managing the corporation are an amalgam of various things. With mining, sustainability has become prominent in these things, including where it figures in accounting and in the narrative accounting disclosures through which these managers assure the stakeholders that they are doing the right thing. Just because some people are less powerful does not mean they can be overlooked. This is especially so when those people, because of their close proximity to where mining is occurring, are most vulnerable to the adverse effects of mining operations: their vulnerability leaves them most open to economic (e.g., being chased off their productive land), social (e.g., suffering illnesses and injuries), political (e.g., losing authority over their geographical environment) and similar exploitation. However, given the idea from an instrumental viewpoint that the more salient a stakeholder group is to an organisation, the more effort corporate executives will exert in their dealings with them (Mitchell et al., 1997), the corollary is that dealings with less salient stakeholder groups are accorded a lower priority. A contrary view is that gaining the perspectives of both the most and the least powerful stakeholders reveals their diverse experiences and opinions (Belal et al., 2015; Hossain and Alam, 2016). Moreover, incorporating this diversity is essential for ensuring the successful formulation and implementation of any policy (Costa and Menichini, 2013; Dwivedi et al., 2015), as found in previous studies on sustainability and accounting in emerging economies (e.g., Mascarenhas et al., 2014; Momin, 2013).

Another way in which corporate executives may use accounting information in relations with stakeholders is for legitimacy. That is, the information may be used to educate and inform stakeholders about actual improvements in matters which they had concerns about, or to alter perceptions of these matters, so that they are seen less negatively, or to manipulate stakeholder perceptions by deflecting attention away from the matters onto other, less problematic matters, or to change stakeholder expectations of performance in line with what is possible or achievable (Gray et al., 2009). When it comes to persons, and potential stakeholders, who are critical and hostile towards the organisation because of what it stands for and what it is doing, the information can be used to defend against the criticism, including by relaying the "facts" or by supplying only partial information, misinformation or even lies (Gray, 2010; Owen et al., 2001).

2.4. *The social licence to operate*

An SLO is informal, intangible, unwritten, implicit and vague as to parties, terms and consideration (Owen and Kemp, 2013). This contrasts to conventional uses of the word licence referring to something formal, usually written, signifying that a relevant authority has granted the permission (Bice et al., 2017). In relation to mining, an SLO requires the mining corporation to engage with affected, and often aggrieved, communities about the establishment and advancement of a mining corporation's activities (Brueckner and Eabrasu, 2018; Harvey, 2014; Jartti et al., 2020; Moffat and Zhang, 2014; Prno and Slocombe, 2012; Vanclay and Hanna, 2019). This applies even if those communities are perceived to be politically weak, economically poor and bound by tradition and superstition. SLOs reflect the importance of corporations earning, or otherwise acquiring, and maintaining legitimacy not only with communities but also with other, more powerful stakeholders who take an interest in community protection and well-being, such as oversight bodies of governments of countries both where mining is occurring or where corporations are headquartered, and of the global mining industry (e.g., ICMM)) (Parsons et al., 2014).

The broader societal influence of SLOs in resources policy is frequently explored in regard to CSR, which seeks to describe corporations' roles in society, including their commitment to broader matters than dividends and shareholder wealth, such as environmental and societal interests, human rights and sustainability (e.g., see Bice et al., 2017; Owen and Kemp, 2013; Santiago et al., 2021). Thus mining corporations present themselves as being sufficiently socially responsible to qualify for an SLO, while still fulfilling economic obligations to shareholders, customers and suppliers (Brueckner et al., 2013; Hilson, 2012). Moreover, CSR reporting and corporate patronage may be used to maintain an SLO and continue the impression of acceptance of their growth by community stakeholders.

Cheshire (2010) analysed the form this corporate patronage has taken in remote mining areas in Australia as being essentially to finance and organise welfare, health and infrastructure projects under community development agreements, so filling gaps in this developed-country's public services. Such arrangements are not uncommon elsewhere either, including in so called developing countries (see O'Faircheallaigh, 2015). There, such activities are more typical of aid donors and non-governmental organisations (NGOs), but as mining often occurs in rural places, remote from the urban centres where most formal aid to these countries tends to be focused (e.g., see Dixon and Gaffikin, 2014), the mining corporations often need to provide infrastructure for their operations and employees, which extend to extant local communities. Examples of these provisions are roads, water supply, security and law and order, food supply, housing, transport, medical facilities, schools, recreation, community liaison and environmental protection, with community development agreements under which they are performed (e.g., Gold Fields Ghana Foundation – see Goldfields, 2019a; Yankson, 2010). Moreover, projects labelled sustainability have increased of late to mitigate the environmental and social damage mining causes, although the effect of these projects is unclear, let alone where ideas such as stakeholders and sustainability reporting and accounting fit (e.g., re Ghana, see Arthur et al., 2017; Essah and Andrews, 2016).

However, these development projects may only have a limited effect for obtaining and maintaining an SLO, especially if a corporation's track record is poor, it neglects considerations of compensation and fails to involve a people in their social development processes (e.g., re Ghana, see Hilson, 2007; Ofori and Ofori, 2019). Moreover, as Cheshire (2010) points out in using the word *patronage*, rather than *partnership*, the extent to which community perspectives are taken into consideration are often inadequate (Boiral et al., 2019).

Possible links between SLOs and narrative accounting designed to give assurances about the welfare of vulnerable workers are raised by Maltby and Tsamenyi (2010). Although the term SLO was unheard of at the time Maltby and Tsamenyi (2010) were writing about (1900–1950), and was still relatively novel even at the turn of the millennium (Hilson and Murck, 2000), since then the term has been theorised and gained considerable traction (Bice et al., 2017; Hall and Power, 2016; Moffat et al., 2016; Santiago et al., 2021), both in relation to forestry and in mining and other extraction industries. Research has shown associations between SLOs and extraction industries being socially accountable (Monciardini et al., 2020), or SLOs being part of defensive measures to manage social risks and minimise resource project disruptions and associated costs, as well as to ensure that mining projects remain viable (Davis and Franks, 2014; Hanna et al., 2016; Michell and McManus, 2013; Owen, 2016; Owen and Kemp, 2013; Prno, 2013). The potential of the SLO idea has attracted professional accountants (e.g., see BDO Global, 2020) in Ghana, elsewhere in Africa and further afield (e.g., see Egbon et al., 2018; Perkiss et al., 2020). However, accounting research has made only perfunctory use of the SLO concept.

3. Study domain, approach and method

The study domain comprises the Damang Mine, and rural and urban communities adjacent to it (pop. 40,000), in the Prestea-Huni Valley District (pop. 160,000) of the Western Region of the Republic of Ghana.[2] Mining is performed under the auspices of Abosso Goldfields Limited (Abosso), a subsidiary of a subsidiary of Goldfields.[3] The mining operations extend over 25,000 ha. Mining is conducted using a conventional open pit method for two pits. A carbon in leach processing plant with a current capacity of 4.5 million tonnes a year is used to extract the mineral from the ore through cyanidation. Contractors carry out production drilling, blast hole charging, stockpile re-handling and grade control drilling, while Abosso employees carry out load and haul, blasting, construction and dewatering activities. Although an Abosso Mine existed in the 1880s, the present operations commenced in 1997 and it is estimated that the current mineral reserve will last well into the 2020s (Goldfields, 2012, 2020b; Mining Technology, 2019).

Ghana was chosen because of the lead researcher, the first-named author's interests in and experience of Ghana as a Ghanaian, the published research in mining and related industries there and elsewhere about accounting, management and policy, and publicly available information from mining corporations, mining industry and government sources. Abosso agreed to participate, so giving access to the Damang mine and facilities to interview staff, who also furnished documents over and above the public information available about the mine and the corporation. Goldfields has a good reputation for "sustainability", Greyling (2014) putting it in the top 5% of natural resource extractor companies globally for its sustainability practices. It has also been ranked the top South African mining corporation on the prestigious Dow Jones Sustainability Index (Reuters, 2018). To achieve these accolades, it reports on sustainability in accordance with several voluntary initiatives, including the Carbon Disclosure Project, the United Nations Global Compact and the GRI (see Goldfields, 2019d). There were also local people willing to participate who appeared to have economic, social, political and other stakes in the mining, hence stakeholders in the broad, normative sense discussed in Section 2.3.

The approach used takes into account the following protagonists: organisations, particularly those extracting minerals outside their country of origin or capitalisation; managers running each organisation; and other people and other organisations with interests in or affected by an organisation, its activities and their consequences. Our interest was in whether the quality of accounting and reporting carried out within organisations, about organisations and for organisations matters to managers and stakeholders; how managers of organisations perform their CSR; and, how the more vulnerable stakeholders perceive the relationship between accounting and sustainability.

The approach is predicated on the notion that accounting and reporting is part of relations between corporations and various elements in civil societies, economies and markets, for example between corporate executives and stakeholders of the corporation (Yusoff et al., 2006). Thus, the quality of accounting and reporting could be improved by there being a better understanding among all concerned of how people perceive the role of accounting in the natural and social space widely referred to as "sustainability". We particularly compare and contrast the perspectives of vulnerable and powerful stakeholders (cf. Boamah, 2014). Improvements in accounting and reporting could lead to improved sustainability for the mutual benefit of all, including people who are sometimes in conflict because the stakes they have in organisations and their activities vary (Costa and Menichini, 2013; Dwivedi et al., 2015). In the case of weaker, more vulnerable people, they need to be perceived as having a stake, rather than just being affected, as in the sense of collateral damage.

[2] Of nearly 70,000 people employed in the district, only around 12,000 are employed in mining, and only a minority in the Damang mine, there being other mines in the vicinity, large-scale foreign and artisanal (Bush, 2009; Hilson and Yakovleva, 2007; ICMM, 2015; Teschner, 2013). Crop farming and chicken and other livestock rearing is how over 35,000 people earn a living (Ghana Statistical Service, 2014; Goldfields, 2018a). That is, the population of the district are there for a wide variety of reasons.

[3] Abosso is registered in Ghana. Following various share acquisitions since 2001, except for a statutory stake of 10% vested in the Government of Ghana, all Abosso's shares are now held by Gold Fields Ghana Holdings Limited, which also has stakes in two other mines in Ghana. In turn, Gold Fields Ghana Holdings Limited is a wholly-owned subsidiary of the Johannesburg-based Gold Fields Ltd, a publicly-listed multinational corporation (Goldfields, 2012, 2020b, 2020b).

We wanted to examine the theoretical and practical implications of stakeholders' perceptions of how accounting and sustainability are connected, rather than to explore any specific accounting technique. Exploratory work indicated prima facie evidence of people outside the mining corporation but associated with the Damang Mine taking an interest in sustainability and connecting sustainability with accounting, and the mining corporation responding in ways associated with sustainability accounting and reporting (see Goldfields, 2018b, 2019c, 2019d, 2019e; Hilson et al., 2014). Indeed, these people are spread far and wide because the Damang Mine is one of nine significant mines operating under the Goldfields banner across three continents: Australia, Africa (Ghana and South Africa), and South America (Peru). These mines have an estimated annual gold production of 2.0 million ounces (Goldfields, 2019d). Shares in Goldfields are listed on the Johannesburg and New York stock exchanges.

The data were derived from primary and secondary sources. Fieldwork and a qualitative case study were used to acquire primary data (Creswell, 2014). A qualitative method was seen as "the only way to understand accounting practice" as it provides "an understanding of the organisational reality which is the context of accounting, and which is the reality that the accounting systems are designed to account for" (Roberts and Scapens, 1985, p. 444). Also the practice of accounting is not independent of wider social discourses (Miller and Napier, 1993). Being Ghanaian, the lead researcher could conduct fieldwork, including gaining access and gathering data, in culturally-sensitive ways. He undertook this work in two phases: January–February and July–August 2016.

The lead researcher conducted interviews with 26 participants, as detailed in Table 1. The types and affiliations of participants reflect what is related in Section 2 about stakeholders in the mining sector comprising people working for mining corporations; community leaders, residents and local businesses; government bodies; and education and training organisations. Note that although some participants interviewed in the first phase were re-interviewed in the second, particularly on matters needing clarification, most interviews in the second phase were new participants and drawn particularly from outside the corporation. All participants were Ghanaians and 11 were women.

Access to the mine and corporation officials was used to begin the interviewing process, Abosso-affiliated staff making up the entire first phase. These staff had worked for Abosso/Goldfields for between 3 and 30 years. Subsequent participants were initially identified with the help of these staff and thence using a snowball approach to identify likely sources of relevant information and opinion (Teng and Faff, 2017), starting in the community and then working outwards. Conversations allowed participants to articulate their varying interests and opinions, providing the primary data. Participants representative of more powerful stakeholders from outside the community were also interviewed to allow for the possibility of some of these lending a voice to vulnerable stakeholders' interests. Mining officials were given the chance to respond to community stakeholders. The researcher made direct observations of the downstream effects of the mine on people living in nearby villages and towns, taking photographs and conversing with those people informally.

Interviews were conducted face-to-face after gaining informed consent and assuring participants of confidentiality and anonymity. Interviews with corporation managers, employees, and regulators were held at their workplaces. Interviews with residents were held at different places, including homes, on the street and in restaurants, depending on convenience. A semi-structured interview guide was used, with conversational questions to establish a rapport between the lead researcher and the informant. From there, each participant was allowed and encouraged to provide facts and opinions about how and why things were occurring and meanings of things. Thus, the participants provided insights into understandings of sustainability, what it means for a mining corporation to perform sustainably and what they look for from a mining corporation when it comes to knowing about sustainability. Also, they provided opinions about accounting having things to offer in the social, environmental and sustainability space. The interviews with managerial and non-managerial employees, the academic and Environmental Protection Agency (EPA) officials were in English. The interviews with community members and police officers were in a local dialect (Twi). Interviews were audio-recorded with permission.

The researcher used the experience of each interview to process and interpret the verbal and non-verbal data arising to address the study questions (Creswell, 2014). The number of participants interviewed, including in each class and overall, reflects points of data saturation which is the point when the ability to obtain additional new information has been reached and when additional coding is no longer realistic (Fusch and Ness, 2015).

Each interview was transcribed by the lead researcher. All interview transcripts were coded and a database was created using thematic analysis; open coding allowed overall features of the phenomenon under study to be identified and categorised, followed by establishing relationships between these categories (Creswell, 2014; Fusch and Ness, 2015). In the first phase, transcripts were read multiple times, together with observational notes and memos written during the fieldwork. Any necessary clarification or follow-up was made with participants employing telephone, e-mail, WhatsApp and Facebook Messenger.

The fieldwork data were subsequently added to using literature on the matters arising while analysing the fieldwork, including findings by other researchers studying similar topics related to communities with stakes in mining in Ghana and similar places or circumstances, as reviewed in Section 2.

Table 1
Study participants interviewed.

Affiliation of participant	Participant roles	Number of participants		Interview durations
		Phase 1	Phase 2	
Abosso Goldfields Limited	Middle Managers	2	3	30–80 min
Abosso Goldfields Limited	Lower Managers	2	2	45–85 min
Abosso Goldfields Limited	Non-managerial employees	2	3	30–45 min
Damang community	Community leaders	0	1	60 min
Damang community	Community residents	1	4	30–60 min
Environmental Protection Agency of Government of Ghana	Regulators	0	3	35–85 min
Damang-based Ghana Police Service	Police officers	0	2	25–35 min
Academic from University of Energy and Mines, Tarkwa	Environmentalist academic	0	1	40 min

4. Findings

In this section, we first consider who comprise stakeholders of the Damang mine. Then we relate the sustainability perceptions of external and internal stakeholders, including the connections they perceive between accounting and sustainability. Finally, we consider stakeholders' perceptions about the involvement of accountants in sustainability and other facets of the mining sector.

4.1. Questions of stakeholders

During the first phase of data collection, mining corporation staff were asked for their views on who are stakeholders of the mine. The researcher also enquired about this with non-corporation participants.

From these, Fig. 1 was compiled as a *rough guide* to the various stakeholders. It shows that stakeholders are not restricted to a few individuals or groups of people; therefore, we categorised stakeholders into two types, namely internal and external (Jurgens et al., 2016), internal comprising managers, non-managerial employees and contractors, external comprising shareholders and investors, suppliers, customers, creditors, the Ghanaian government, the media, industry associations, pressure groups, Ghanaian citizens, and international and local regulatory bodies. We sensed a separation and quasi-autonomy between the Damang Mine and its legal-entity owners, and considered the regional and parent corporations were internal to Goldfields but external to the Damang Mine. We also distinguished between stakeholders resident in Ghana and otherwise.

We found evidence of individuals being part of both internal and external stakeholder groups (Öberseder et al., 2013). For example, many employees of Abosso/Goldfields are residents and indigenes of communities near the mine. This could mean that in situations of stakeholder conflicts, some stakeholders who belong to both sides (internal and external), or to multiple groups therein, may have to choose which side to defend (Meyer et al., 2018). They might also mediate in resolving conflicts.

We use the term "rough guide" to describe Fig. 1 because the question of who the mining corporation's stakeholders are, let alone how someone becomes a stakeholder, was not one to which study participants outside the corporation had given specific thought, although they knew the sorts of people interested in the mine, affected by mining operations or connected to these because of community development activities. In contrast, functional, middle-level managers in the corporation had grappled with these questions for some time, as part of understanding and applying the stakeholder concept in their work, primarily in an instrumental way:

> Identifying our stakeholders has always been quite tricky, because any individual or group could be known as stakeholders, once they show concerns about our activities. … I can mention some obvious ones like employees, communities close to the mining corporation, shareholders, the Government of Ghana, and even our corporate office in South Africa. (Middle Manager 3)

> We have different stakeholders ranging from professional associations like the Ghana Chamber of Mines, international bodies like the ISO [International Organization for Standardization], the GRI and the ICMM. Besides these stakeholder[s], I can also think of the 10 communities in our catchment areas, investors, and government institutions like the Forestry Commission, Minerals Commission and the Environmental Protection Agency. (Middle Manager 1)

These data suggest that some may not see themselves as stakeholders because the very idea may be foreign to them, even abhorrent perhaps. Thus they will not appreciate the entailed rights or responsibilities of being a stakeholder. At the same time, stakeholders may be a status applied for the corporation's convenience, and therefore the corporation may ignore some potentially critical and hostile stakeholders (Hall et al., 2015; Mitchell et al., 2015). Abosso/Goldfields staff seemed not to consider competitors when defining stakeholders and, while they referred to parties to whom they felt responsible or whose expectations they were constrained by, they did not mention or use the term stakeholders to refer to any hostile parties falling beyond the narrow definition related in Section 2.3. For example, noteworthy was an absence of reference to the abundance of artisanal and small-scale mining operators in the vicinity[1], let alone any consideration of these as stakeholders.

However, actions of people can oblige the corporation to recognise

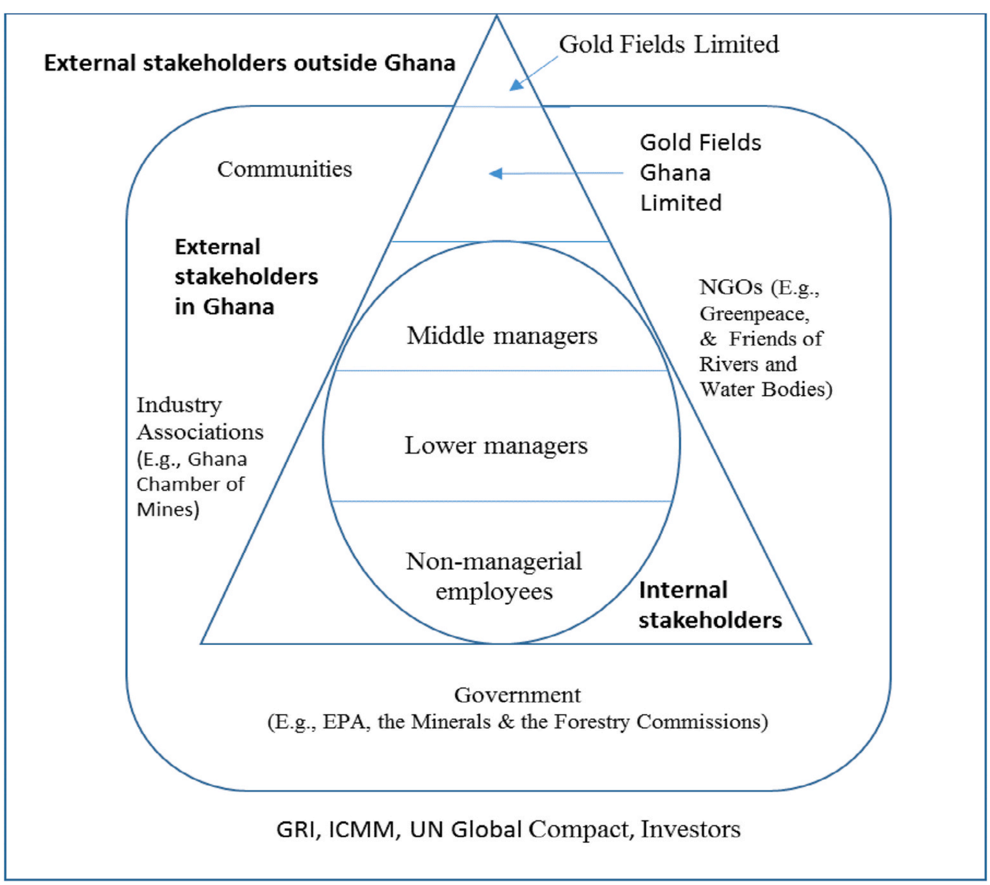

Fig. 1. Stakeholders of gold fields damang mine. (For interpretation of the references to colour in this figure legend, the reader is referred to the Web version of this article.)

them as having a stake and the list of stakeholders and their pecking order changes, as related here:

> The issue of stakeholder is broader than one can think of … Do you know that even NGOs in Ghana have a Coalition of Non-Governmental Organisations against Mining? … People thought that mining in the Atiwa Forest Reserve by the Chinese was detrimental to the environment, even though the Government had agreed on a $15 million contract. This Coalition of Non-Governmental Organisations against Mining [CNGOAM] decided to petition the International Union for Conservation of Nature. This portrays the unpredictable nature of who a stakeholder could be. (Middle Manager 4)

This episode reflects ideas in stakeholder thinking about the salience of power, urgency and legitimacy (Mitchell et al., 1997). That is, some stakeholders or individuals, recognising themselves as weak and lacking influence, have combined to bring about a more powerful, seemingly better-resourced stakeholder, namely CNGOAM. Such a combination resembles the threat of unionisation raised by Maltby and Tsamenyi (2010), which managers were obliged to act against, including with narrative accounting. The episode also illustrates how dynamic relations between corporations and stakeholders are, no doubt fuelled by conflicting interests among stakeholders and attempts to reconcile them (Freeman and Reed, 1983).

Who is a stakeholder varies according to the person one speaks to, what the speakers do, who are affected by what they do, and whether the speaker is bothered, sees something to their advantage, or is threatened. This resonates with claims by Mitchell et al. (1997) that the definition of a stakeholder must be based on the understandings of the persons asking this question of themselves, and, for managers of an organisation, is a function of innumerable day to day managerial activities, and who and what they affect (Cragg and Greenbaum, 2002).

In the period covered by Maltby and Tsamenyi (2010) the mining authorities did not seem to consider any Ghanaian stakeholders in a manager-stakeholder relations sense, whereas that is largely no longer true, at least from the corporation's perspective, which also include those experiencing the environmental and social impacts of mining operations, those associated with the Ghanaian authorities and those who comprise Ghana's market economy. Stakeholder awareness appears to be facilitated by the mining corporation relaying information, which is now not limited to narrative accounts, hardcopy documents and speeches by officials, but is as accessible to the Ghanaian public as it is to anyone else through corporation web pages (e.g., Goldfields, 2019b, 2019e) and on social media (e.g., Ghana gold mines, n.d.; Gold Fields Damang Gold Mine, n.d.). Although these new outlets are likely to reflect interests and biases of their various authors, they increase the awareness of an audience to whom mining would otherwise be remote. However, even if these external stakeholders are aware, they may not care much (Meyer et al., 2018), although corporation managers cannot count on that and try to show they are doing the right thing regardless.

4.2. Stakeholders' perceptions of accountants and accounting vis-à-vis sustainability

Although much has been written about sustainability accounting and reporting (Burritt and Schaltegger, 2010) and social and environmental accounting (Schaltegger et al., 2017), stakeholders' perceptions of accounting's role in sustainability is under-explored in developing countries and other jurisdictions away from where the ideas reviewed in Section 2 originate. Our findings both add to what little literature there is and challenge some of it. Our first finding is that perceptions of internal and external stakeholders contrast; hence we present their perceptions successively, starting with internal stakeholders.

4.3. Internal stakeholders' perceptions

Inside the corporation at the mine site, the internal stakeholders, including managers, are generally convinced that accounting and accountants can play positive roles in sustainability. The GRI (2018, p. 1) claims that

> Sustainability reporting can help organisations to measure, understand and communicate their economic, environmental, social and governance performance, and then set goals, and manage change more effectively.

Middle Manager 1 mentioned that weekly and monthly reports of costs, including about health and safety and "all-in" sustainability costs, are sent to all department heads and some are posted on the notice boards for employees. An accountant confirmed this:

> We have daily and weekly cost summary sheets that we send to all sections of the organisation in creating awareness on cost incurred so far compared to their budget (Non-managerial employee 2)

However, these stakeholders vary in their perceptions of the composition, extent and potential of these roles. The accountants interviewed and conversed with less formally perceive their involvement in sustainability to be high, not just technically but also philosophically: they also see it as extending beyond mining activities to community development activities, motivated by social sustainability, called the Sustainable Community Empowerment and Economic Development Program:

> When we talk of sustainability, we are actually looking at our future generations as we explore our natural resources. At Goldfields, we make sure that we rehabilitate our mining areas and perform other social activities. We have scholarship schemes and other community development projects in place for the communities in our mining areas. (Non-managerial employee 2)

However, higher priority is given to economic sustainability, keeping the mine going as a commercially viable operation, compared with environmental and social sustainability:

> Well, everything boils down to money irrespective of how fancy the idea of sustainability looks like. So what I keep asking is, could there be an alternative for achieving the same thing? Otherwise, if you look at the environment and the community guys, they will think this is the only approach but when it comes to the finance we do cost-benefit analysis of other alternatives to achieve the same purpose. (Middle Manager 2 [Finance])

In contrast, while many non-accountants among the managers and employees see accounting playing a role in decisions on resource allocation for sustainability activities, they mostly associate accountants with information to inform critical business questions relating to investment of funds entrusted by high-ranking managers to those with responsibilities below them in the corporation structure and ultimately by shareholders to these high-ranking managers. In particular, managers and employees from non-mining related departments perceive the work of the accountants as focussed on costs and similar, rather than on particular functions and their contribution to mining continuing. For example:

> The finance office most often prioritises mining and processing-oriented issues. Meanwhile sometimes the mining crew will be in the pit and will be attacked by encroachers. When that occurs, we, the security team, are those who go to the rescue of the miners. It will be impossible for mining activities to go on successfully without the presence of security. (Middle Manager 3)

Thus, although these managers and other employees alluded to accounting in terms of generating societal value and meeting corporation targeted returns, resulting in a broader SLO, for them accounting seems more about economic considerations, rather than sustainability in a broad sense (Buhr et al., 2014), and to comprise distributional management control functions, including looking after money. Using a recent incident on-site, a lower level manager explained:

> We need money for everything: from paying the contractors to the day-to-day activities of the company. For instance, last month we sent all our contractors rehabilitating our disturbed lands home because the finance office advised that there was no money according to our budgets. (Lower Manager 2)

> However, in their opinion:

> The accountant needs to understand how the environmental cost is generated; that is, the equipment rates, how we come by the rates and the work done to generate the cost. This could be done by visiting the areas we're working to find out themselves, instead of just saying that some costs are huge. They need to understand the cost and not just be sitting down and be recording these costs as and when they come. (Middle Manager 4)

4.4. External stakeholders' perceptions

The participants voicing external stakeholder views, namely community members, regulators and the academic, varied in their belief about whether accounting has roles to play in sustainability. Interesting firstly is that community residents were quick to link sustainability, or their interests in it, with community development activities (see Section 2.4) and thence they associate accounting with looking after money:

> The Community Affairs has an accountant who is in charge of all money matters. By that I mean he takes care of the money of the Gold Fields Foundation. (Community 2)

> My brother, when it comes to community development, I'm not sure of what accountants do. … Maybe they pay the contractors who put up the schools and hospitals? (Community 3)

> The company spends a lot of money on environmental activities and on building community centres, schools, scholarships and other things for communities. (Non-managerial employee 2)

An added dimension to these perceptions about accounting is their perception of what the mining corporation is achieving, along with concerns about its social behaviour:

> They are making millions of dollars from the mining and looking at even the salaries of workers, I think they can do more than what they are doing for the communities (Community 3).

Furthermore, even among those prepared to believe accounting has a role, some seemed not to have considered the question before and could not specify what it was, at best speculating on possibilities. Others saw a role materialising in the future. The academic and a senior member of the EPA surmised that accountants can influence sustainability policies and practices:

> Accountants could help protect the environment through company policies by encouraging funds to be put into sustainability to avoid a situation where many sites are considered dead at the closure of a mine. (Academic)

> Accountants in mining companies have key roles to play towards sustainability. They could control the release of funds for activities that could result in externalities, by just confirming environmental permits have been obtained before funds are released. Because when funds are released for illegal activities, the company may spend more money to remedy the situation if apprehended by law enforcement agencies. (Regulator 1)

Such responses suggest that so far any roles accounting has are invisible and that what is being done in the name of sustainability accounting and reporting is not associated in these Ghana-based external stakeholders' minds with what they understand accounting to be. However, one official of the EPA was more forthcoming, although again his response was speculative:

> I know that accounting helps in measuring performance because you can't measure performance without accounting for it. However, I have not much idea as to how exactly accounting can help in sustainability. (Regulator 2)

So, regulators may have an inkling of the sustainability potential of accounting, but otherwise, the perceptions of these stakeholders about the work of accountants and accounting are quite narrow and functional (e.g., as processes and information geared to business practice) and not as a source of information disclosed to them or which they can use to exercise criticism and rights to accountability, especially not about sustainability issues.

As to regulators' perception of what Abosso/Goldfields is achieving, this accorded with that of community members:

> I think the mining firm is spending relatively little, as compared to their earnings, in rehabilitating the place and other sustainable development agendas. (Regulator 1)

The thing which most concerned Ghana-based external stakeholders was unfairness in the distribution of mining's benefits, and related economic and social grievances (e.g., about outsiders being employed ahead of locals and community development projects being short-lived). Furthermore, changes so far to remedy these concerns were not because of accounting-based arguments but through direct action in the form of protest, agitation, operational disruption and organised pressure groups:

> From my experience in this neighbourhood, my brother, if the communities have not been violent on the mining company, I don't think they will do that much for us. (Community Resident 5)

> It is mandatory for them to operate sustainably. That is why this office was opened on the demand of the chiefs of nearby communities' members who demonstrated against the mining firm some years back. Our proximity alone to them serves as a deterrent. (Regulator 1)

> We have formed a Resettlement Negotiation Committee [to consider what people] think will go well with them in terms of their new settlements. We also want to see how they address community concerns because definitely you cannot meet all the needs of the people; you cannot relocate all their farms [or] their house structures; certain farms you have to compensate, others you may not compensate. (Regulator 2)

Thus, while reports and web pages fitting GRI's definition of sustainability reports are published with Goldfields' name on them, we found virtually nothing to suggest that they are "the key platform for communicating sustainability performance and impacts" (2018, p. 1) to external stakeholders in Ghana (cf. Fonseca, 2010, 2014). Even regulators were mostly concerned about receiving information on compliance with legal and regulatory requirements, rather than the other contents of sustainability reports. In the case of the accountant who had worked for the EPA for four years, the reports were the closest he ever got to the mine:

> I wish I was able to go with [the other regulators I work with] at least once to see what they do and it is something I personally feel guilty of. In fact, they keep saying that I don't understand their work; that's

why I keep complaining about their expenditure and I feel that is because I have no practical idea of what they do. (Regulator 3)

The inference is that the main reason for Abosso/Goldfields managers presenting their narrative accounting reports and web pages is to satisfy external stakeholders outside Ghana, who look for compliance with standards such as those of the GRI and ICMM. Thus, several decades on, we see a continuation of Maltby and Tsamenyi (2010) findings about managers using accounting disclosures to respond to threats, but in this case to the threat of first-world societal scrutiny and censure over sustainability.

There are situations where accountants participate in sustainability discussions publicly, but in these they come across to external stakeholders as being in charge of the economic aspects, rather than the environmental and social:

> I know the finance manager of Gold Fields's Damang Mines and in most cases when the mining firm organises stakeholder meetings and programmes, I see him around. He is also part of the … quarterly stakeholder meetings where he presents the financial performance of the mining company. (Community leader)

A further intriguing point is that in our interviews and informal discussions with community stakeholders, no-one mentioned an SLO, notwithstanding quite a bit of discussion about community development activities with which SLOs are often most closely linked. The mentions of social permits and SLOs came not from community members but from company officials, which is consistent with Ofori and Ofori's (2019) findings and their conclusions that SLOs are complex matters of tangibles (e.g., projects and employment) and intangibles (e.g., legitimacy, trust and credibility).

4.4.1. Common stakeholder perceptions

Both internal and external stakeholders perceive that sustainability activities and operating activities are separate and particular. This perception is carried through in how Goldfields reports publicly: its financial, mainly economic reports (e.g., Goldfields, 2020a) are conventional in comprising financial statements and management's discussion and analysis, whereas its social (or human rights and GRI) reports (see Goldfields, 2018b, 2019c) deal with the impact of the corporation and its activities on employees and wider community stakeholder groups (cf. Perrini and Tencati, 2006). However, while predictably the financial report seems largely geared in content and language to investors and creditors, who are mostly outside Ghana, contrary to what might be expected, the social reports, while about mining, community development activities and the people they affect, seem not to be addressed to these people, but again to foreign interests (cf. Dixon and Gaffikin, 2014; Nyamori, 2009).

A further separation in reporting is that sustainability activities associated with mining operations are distinguished from those to do with community development, the latter mostly financed through the Gold Fields Ghana Foundation. Participants often called the former *environmental*, referring to the mess, etc. caused by operations, and mostly classified them as operational costs. They called the latter *social*, notwithstanding that although it covers provision of community centres, churches, schools, health clinics, water and sewerage, it stretches to things necessary to operations, including socio-economic infrastructure (e.g., transport, alternative livelihood), compensation for land and financing of resettlement.

4.5. Accounting, operations and sustainability

The next set of findings are mostly about internal applications of accounting, as briefly reviewed in Section 2.2. They respond to Burritt and Schaltegger's (2010) call for development of sustainability accounting and reporting being orientated more towards improving how corporations address activities. We present these findings in a way reflecting the division between environmental matters consequent upon mining operations and social matters associated with community development activities related above. Thus, the organisation structure at the mine includes an Environmental Unit and a Work Health and Safety Unit (Goldfields, 2018b, 2019c, 2019c). In contrast to Middle Manager 2 [Finance]'s claim that "everything boils down to money", a manager in the Environmental Unit told us:

> In sustainability principles, the cost involved is important all right, but sustainable development is not solely about the money. If I reduce my quantity [i.e., reduce consumption of an input], the cost will go down, so that's the whole idea … if in capturing data for GRI, I don't capture the usage, that's the cost without the quantity, the data is incomplete. (Lower Manager 2)

While this may seem to be a contradiction between accountants and non-accountants, more likely it reflects a broader pattern of individuals focusing on their areas of responsibility at the expense of integration. Another member of the Environmental Unit indicated that the issue of members of departments generally not partaking in environmental initiatives seems too widespread:

> People do not appreciate environmental issues and that has to do with training and top management commitment to environmental management. This is because, if a manager is not too committed to environmental issues, it trickles down to the lower level and employees' attitude to sustainability. (Lower Manager 3)

How accounting contributes to the way the Environmental and Work Health and Safety Units manage environmental and work-safe activities is indicated in the following:

> Accounting helps in environmental management because if monies are not well budgeted for, the whole year's budget can be used in just three months. In that case, the department will be without money for the remaining nine months. I therefore think that it helps with environmental management because you can stay focussed on the things to do, the timing for the projects, and it helps you to stay within budgets for various projects. (Lower Manager 1)

> Accountants help in tracking our cost and organising ourselves better. They help us to put the money where it is supposed to go. Otherwise we may be spending the money anyhow. (Middle Manager 4)

From these responses, it can be inferred that accountants at the mine are seen by those with explicit responsibility for environmental sustainability as being involved, but in economic ways to do with allocating and controlling scarce resources, rather than adding to the environmental dimension as such. Consistent with Schaltegger and Burritt (2010), they participate for traditional accounting reasons, such as internal control purposes, or over issues which affect the organisation's financial performance. However, digging deeper revealed that accounting is also playing the coordinating role mentioned in Section 2.2, by facilitating discussion of environmental matters alongside operational discussions, made possible through the periodic reports containing health and safety and "all-in" sustainability costs.

Indeed, our participants were in general agreement that accounting coordinates all the units at Abosso/Goldfields towards its sustainability goals through communications and their consequences:

> We pull all the reports from the departments together and validate by signing them. I'm personally not comfortable signing documents when I'm not sure of the contents. I therefore on certain occasions go down to see certain things for myself, especially when the numbers look odd. There have been a few occasions that people have been made to change a few things based on my personal verifications. (Middle Manager 2 [Finance])

> Towards the all-in sustainability cost, we have several meetings where everybody needs to justify to me why their cost such as labour should be what it is. (Middle Manager 3)

Moreover, lower and middle managers indicated that not only is accounting pertinent to sustainability practices, it is essential to implementing sustainability. They saw sustainability beginning with funds allocation: "Without accounting, we can't even start any sustainability activity" (Middle Manager 5).

This allocation of resources follows dynamic environmental and sustainability processes, the outcomes of the allocations then being measured, measurement being seen as a core function of accounting. Managers claim to be measuring the value-added and value-created, as distributed to the different stakeholder groups (employees, financial institutions, country, community, and shareholders), through bringing long-term social benefits to these groups, not always in financial forms. More generally, accounting facilitates monitoring of sustainability performance, particularly in the identification of costs and possible cost savings, including those mirrored by reduced non-renewable resource consumption and avoiding sanctions which might halt production activities.

> Accounting helps us to know where we are over-spending, which makes us determine how to reduce our costs. For example, if you're burning more fuel, you can ask yourself questions like: What kind of fuel are you using? Is your equipment up to date? How is your maintenance culture? Are you mining deeper than you have to travel? (Middle Manager 2 [Finance])

These assertions were corroborated during an interview with Middle Manager 2 [Finance]. The lead researcher was present when two managers came into his office about an operational disagreement the two were having over deploying contractors to mine an area which the one perceived as more productive than where they were currently mining. During the argument, the Middle Manager 2 [Finance] contributed to the discussion significantly, including agreeing to visit the site in question the following day with the two other managers.

Consistent with previous studies (e.g., Rikhardsson et al., 2005; Schaltegger et al., 2012), sharing responsibilities for environmental sustainability practices at Abosso/Goldfields facilitates better cross-functional coordination, improved environmental management control, a decrease of environmental costs, and more visibility and transparency of environmental activities carried out. Reporting on sustainability goals and ways to achieve them gradually involves staff in sustainability management and the possibility of enhancing employees' sustainability awareness. It helps avoid sanctions and interventions which might halt production activities.

These findings about accounting's more general uses concerning environmental matters are also mirrored in Goldfields' community development programmes, associated in many minds with social sustainability (see Section 4.2.1). These are carried out under the Gold Fields Ghana Foundation, funded by the mining corporation appropriating profits based on a formula of one dollar for each ounce of gold mined plus one percent of the pre-tax profits of the mine. Accounting is involved in calculating these appropriations and allocating the resulting funds.

> Funds for community development are strictly based on a formula. Accounting helps to calculate how much will come into the Foundation and this also will determine how many projects can be done. (Middle Manager 5)

> The company has invested $5.31 million in projects in the community [between 2002 and 2015]: 43% of it is under education, 9% is under health, 22% water and sanitation, 10% agriculture, and the other 16% on infrastructure such as roads, community centres, etc. (Middle Manager 5)

These proportions were shown to the lead researcher on a pie chart on a computer screen with the explanation:

> So now when I present this to the trustees and this year's requests are being made for more health projects, it will be known that we only spent 9% of our resources on health, so it helps in decision making and the allocation of resources. (Middle Manager 5)

Accountants also facilitate cost-benefit analyses of projects and their implementation, and sustainability considerations are incorporated in these.

> Accounting helps in making an analysis of whether we are getting returns from our community investment. The returns are not just financial but if we invest a million dollars into scholarships and we can't find any of our beneficiaries working anywhere in Ghana but they are unemployed, then it's not worth it. (Middle Manager 5)

The cost-benefit analyses involve comparing total costs of projects with physical output, using both monetary and non-monetary indicators, as found useful to sustainability measurement and management elsewhere (see Bell and Morse, 2008; Kuhlman and Farrington, 2010). They comprise an aspect of social accounting (Cairns, 2006), potentially for the managers and others to understand the results of community development initiatives from a community's perspective, as well as internally, and the analyses recognise future generations' rights (Perrini and Tencati, 2006).

We ended Section 4.2.2 claiming Goldfields' extensive narrative accounting (e.g., Goldfields, 2020a, 2021) is, at best, a means of satisfying external stakeholders outside Ghana. This finding was based on our appraisal of whether this accounting is attuned to the people working or living in the host community around Damang. Now, having gone on to consider how data, calculations and communications pertaining to sustainability are applied and what connections the people involved perceive between accounting and sustainability, we can reiterate that, despite notable differences between the present-day accounting in the post-colonial setting and the industry and territory in "colonial" times examined by Maltby and Tsamenyi (2010), the similarities are consistent with accounting still serving to defend corporation activities against whatever threats arise from the ever closer environmental, social, cultural and economic scrutiny during this age of sustainability.

5. Conclusion

We aimed to contribute to the critical literature on resources policy. As Goldfields is not alone in Ghana or in having operations in many other countries which are under threat from sustainability thinking, the opinion that accounting is used to defend corporation activities has wider ramifications than just in relation to Goldfields at Damang. This new threat has been growing since before the turn of the millennium, during which time mining corporations, spurred on by supranational industry bodies, have increased their use of narrative accounting and other communications, alongside more tangible social and environmental actions, accounts of which feature in those communications. However, the narrative accounting which transnational mining corporations use in tandem with their sustainability activities is not attuned to views of people working in mining or living in host communities. The corporations need to review why they are providing these accounting reports and for whose benefit. Of course, it could be for outside, distant consumption, perhaps for defensive purposes, to provide an image of CSR, to maintain legitimacy and to give the impression to distant external stakeholders of having an SLO from host community stakeholders. Whether it is succeeding also needs further investigation, including within corporations. External Ghanaian stakeholders outside the host community are vague about how accounting and sustainability are connected, let alone about the relevance and other qualities of the accounts, reports and related communications now quite readily available to anyone on the World Wide Web. These circumstances may be detracting from the intangible requirements of host communities "issuing" SLOs to mining corporations.

On the other hand, there is evidence of the accounting data processing, calculative practices, and interactive controls which the accounting enables being of significance to sustainability practices within corporations, albeit incidentally to the mining operations and what they are costing, which are seen as core and so attract most local efforts. Although they may not know it, the Ghanaian stakeholders outside the mining corporation benefit from this accounting, as do those within, because it means that social and environmental factors are being given some importance in addition to economic factors, such as decisions and actions involving resource allocations around investments in new developments and spending on continuing operations through which value is created and distributed. External stakeholders also receive benefits from the socio-economic activities associated with the community development and related programmes financed through mining corporation revenues diverted to the Gold Fields Ghana Foundation.

Our findings from the stakeholder-based perspective complement the responsibility-based view of accounting. They capture how various advocate groups, never mind the vulnerable people for whom they are advocating, fail to perceive connections between accounting and sustainability (O'Dwyer et al., 2005). It should also be appreciated that stakeholders are a social construction which mining corporations apply in instrumental ways. Except for some regulators, the people in Ghana designated as stakeholders, either by corporation managers or by applying stakeholder thinking to the domain, do not use the term to describe either themselves or other groups. These perception gaps in social and environmental matters may in part be the fault of corporate executives' focus on economic sustainability and using accounting accordingly. Thus, although changes in organisational routines and responsibilities are evident, as well as changes in the use of accounting systems (Bebbington et al., 2007), the implementation of some mechanisms of accounting for and reporting on sustainability practices might only be an attempt to negotiate and control the environmental agenda, rather than mean any change in managerial attitudes and priorities (Owen, 2008).

Much could be achieved if accounting practitioners in corporate and regulatory organisations were to structure accounting functions to reflect engagement with stakeholders to ensure that environmental and social aspects receive enough attention. Again, much effort is needed by accountants and accounting professional bodies to convince outsiders that the reports accounting professionals produce are of relevance to outsiders, both generally and in regards to sustainability, even if those outsiders are apathetic towards corporation finances or believe economic interests clash with their outsider interests and the reports are primarily a way for corporations to promote their own interests and exercise power over outside interests. Ultimately, this will improve the effectiveness of sustainability practices and the quality of managerial practices. More research is appropriate into Ghanaian civic and social institutions and the ability of officials to use accounting; similarly for transnational institutions and pressure groups with social and environmental purposes. On another tack, mining is not the only industry in Ghana to be environmentally and socially sensitive, and so the research net could be widened there, and also to other developing countries in which foreign corporations are actively procuring commodities for the world markets they supply and profit from.

CRediT authorship contribution statement

Kwame Oduro Amoako: Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources, Software, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing. **Beverley R. Lord:** Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources, Software, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing. **Keith Dixon:** Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources, Software, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing.

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