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Extractivism and community development in Ghana: Local actors' perspectives from gold mining in Tarkwa and Obuasi

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Abstract

This study employed a subjective evaluation method, using interviews, focus group discussions and observation to analyse the impact of gold mining on the development of Tarkwa and Obuasi in Ghana. Whilst the mining of gold was expected to translate into social and transformation of these communities, the results revealed that it has rather worsened living conditions, especially for indigenous people who are not employed by the sector. The instant livelihood outcomes arising from the deprivation of the use of land and pollution of the environment make the situation in Tarkwa and Obuasi seemingly comparable to the resource curse phenomenon. Averting the phenomenon in these communities needs an all-encompassing approach including effective implantation of the principles of corporate social responsibility and alternative livelihood programmes, especially in agriculture production.

Keywords: Deprivation; Livelihoods; Mineral Extraction; Resource-Curse; Socio-Economic Development

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1. Introduction

Mining positively and negatively impact the social and economic development. According to Buxton (2012), mineral development can create new communities and bring wealth to that already in existence, but it can also cause considerable disruption. New projects can bring jobs, business activities, roads, schools, and health clinics to remote and previously impoverished areas, but the benefits may be unevenly shared, and for some they may be poor compensation for the loss of existing livelihoods and the damage to their environment and culture (International Institute for Environment and Development [IIED], 2002; Hilson, 2004). If communities feel they are being unfairly treated or inadequately compensated, mining can lead to social tension and sometimes to violent conflict (see Scott, 1976; Hilson and Yakovelva, 2007; Teschner, 2013; Okoh, 2014).

Gold mining is Ghana's main source of revenue and foreign exchange from minerals production constituting more than 90% of the total value of the country's minerals output (Asad, 2003). National gold production reached a record high in 1995 and has since gone up by a further 45% as most mining companies in Ghana are into gold production (Tschakert, 2016). Under a World Bank-IMF Structural Adjustment Program (SAP) beginning in 1986, there has been massive privatization of the mining sector accompanied by generous incentives for companies which include the repatriation of up to 95% of their profits into foreign accounts and the ending of income tax and duties (Hilson, 2004). Environmental regulation has also been minimized (Acquah, 1994). Such a favourable investment climate has attracted multinational corporations and boosted production. Close to 85% of the large-scale companies in the country's gold mining sector were foreign owned at the end of 2016 (Ghana Chamber of Mines, 2017) as compared to the government of Ghana (GoG) owning 55% of all mining companies before 1986 (Owusu-Koranteng, 2008).

Ayeelazuno (2011) describes mining in Ghana as a continuous primitive accumulation process as part of global capitalist development dating back to the pre-colonial era through free trade; during colonialism in the gold rush season and now through modern global capitalist trading systems. In the 1980s, instituting the Structural Adjustment Programmes (SAPs) to liberalise the Ghanaian economy led to a stupendous increase in Foreign Direct Investment (FDI) in the mining sector (Aryeetey and Tarp, 2000; Hilson 2004) with most foreign companies practicing surface mining, rather than underground mining (Owusu-Koranteng, 2008). At the same time (in the 1980s), mining in Ghana had adopted the mixed approach: modern capital intensive method and traditional '*galamsey*' mining. Aryeetey and Tarp (2000) reports that FDI flows to the mining sector were more than any other sector: it attracted US\$2 billion dollars between 1995 and 2000 whereas the non-mining sector attracted US\$1.6 million dollars. Also, according to (Hilson, 2004), productivity and exports of minerals increased remarkably, with the total export earnings of the four major minerals (gold, diamond, manganese and bauxite) increasing from US\$108 million dollars in 1985 to US\$756 million dollars in the year 2000, representing an average annual growth of 40 percent. Ayeelazuno (2011) adds that the share of mineral exports as a percentage of total merchandise rose from under 20% in the mid-1980s through 35% in 1991 to 45% in 2008, with an average of 59% of mineral export revenues repatriated to Ghana between 2005 and 2009 and the creation of 24,000 jobs in large-scale mining and an estimated more than 500,000 jobs in small-scale mining between 2000 and 2008. The spectacular renewal of the sector contributed significantly to the

improvement of the broader Ghanaian economy and was expected to translate into general living conditions, especially in communities hosting mining activities.

Low rate of development in mining areas in Ghana has been a source of concern. Cracks in buildings, pollution, community disorder and human rights abuses are common features in gold mining communities in Ghana (Akabzaa, 2000; Okoh, 2014; Barclay and Salam, 2015). This raises questions about the impact and contributions of the sector to community development. Some studies (e.g. Amponsah-Tawiah and Dartey-Baah, 2011; Tschakert, 2016) have blamed multi-national mining firms for failing to give the required attention to address the developmental issues of their host communities. Others (e.g. Coakley, 1999; Akabzaa and Darimani, 2001; Coakley, 2013) have observed that Metropolitan, Municipal and District Assemblies have failed in their core mandate of ensure that royalties and the Mineral Development Fund (MDF) paid by mining firms are used to develop mining communities. It is believed that the social, economic and environmental challenges faced by mining communities have outweigh their '*shadow effects*' assumed to be a blessing like economic expansion through revenue generation, employment generation and community development projects including road construction, and provision of health and school infrastructure. A comparison of the bright and dark sides of gold mining in host communities in Ghana suggests that these communities are usually losing out of the assumed positive development outcomes of mining. It is again believed that the violent continuous primitive accumulation by capitalist global actors, in Ghana's mining (Hislon, 2002; Ayeelazuno, 2011; Tschakert, 2016), backed with neo-liberal democratisation, largely accounts for the seemingly resource curse syndrome (Auty, 1993) leaving host communities as the major losers in this whole economic arrangement.

The contrast between observable socio-economic developments in mining communities achieved mostly through mining companies and perceived and real stories about the ills that mining inflict on its host communities calls for critical circumspection. This paper provides an analysis of the impact of gold mining on the development of local communities using perspectives from Obuasi and Tarkwa. The paper is sectioned into six. Following this introduction is an analysis of supporting theories and empirical works upon which this study is conducted. The third section outlines the methodology employed in the research, the fourth section focuses on key findings and discussion, whilst the fifth section captures the conclusion of the research and its recommendations.

2. Theoretical and empirical background

The resource curse thesis was fused by Auty (1993) to describe how most well-endowed countries in natural resources struggle to transfer wealth from extraction into development as compared to development in less resourced endowed countries. According to this theory, most developing countries with abundant natural resources exhibit signs of worse development in spite of the high income generated from natural resource extraction. Reasons such as decline in productivity recorded by other sectors of the economy as well as repatriation of mining earnings by mining companies, volatility of natural resources revenue due to exposure

to global commodity swings and government mismanagement of mineral revenue and/or corruption are cited as being responsible for this (Schüler et al., 2016).

It is usually economic and political explanations that are gathered to show how and why some mining countries in the world may be resource cursed or not. From an economic perspective, the linkage approach, neoclassical growth theory, export instability approaches and booming sector or Dutch Disease approach and are deemed as established theoretical underpinnings of resource curse thesis. The idea of linkage approach (Hirschman, 1958) is tied to the lack of backward and forward linkages between mining sector and the rest of the economy. The neoclassical growth theory (Solow, 1956) provides an explanation in terms of the failure of capital accumulation, labour or population growth, and increases in productivity to produce long-run economic growth. Export instability approaches (Wilson, 1983; Mullor-Sebastian, 1988) highlight the continuous dialogue between developed and developing countries over internationally coordinated policies to stabilize mineral prices. Much of the debate has emphasised questions about distribution of income, the validity (as well as efficacy) of dirigisme in commodity markets and the consequences of fluctuating mineral exports.

The term Dutch Disease (Corden and Neary, 1983) explains the adverse effects on an economy of natural resource discoveries. When a country experiences a natural resource boom, it undergoes a real appreciation of its exchange rate and, as a consequence of rising wages, a relocation of a large proportion of the labour force to the natural resource sector. A real appreciation reduces the international competitiveness of other tradable sectors because natural resource-based exports crowd out commodity exports produced by those sectors (Krugman, 1987). The genealogy of this phenomenon is traced to discoveries of massive gas fields in the Netherland in 1950s which eventually harmed the country's manufacturing sector. Thereafter, the Dutch Disease has been applied to explain economic performance of countries facing similar conditions, especially in Latin America (Prebisch, 1963) and sub-Sahara Africa (Gelb, 1981; Wheeler, 1984). Resource curse in resource endowed countries can also be caused by some cognitive, societal and state level induced factors such as rent-seeking behaviour, political instability, corruption, power-enhancing patronage and personal prestige (Wheeler, 1984; Owusu-Koranteng, 2008; Amponsah-Tawiah and Dartey-Baah, 2011). The decoding of resource curse thesis here helps to understand how different actors and/or activities constrain mining-induced development.

The political economy of Ghana in respect of mining has been described as new imperialism or neo-colonialism characterised by continuous primitive accumulation of capital through exploitation of the country by the global capitalist forces (Aryee, 2001). Exploitation of Ghana's natural resources started with the 'free' trade in gold between the 14th and 15th centuries, when Portuguese, Dutch, and later, English merchants bought gold cheaply from local miners in the Akan areas of the Gold Coast, from the gold rush and colonialism in the late 18th century (Dumett, 1998; Hilson, 2002). Not much has changed with Ghana's mining and mineral export except for the trade routes.

According to Owusu-Koranteng (2008), the country's growing foreign direct investment and production in the mining sector has destroyed the national economy, the environment, community livelihood and human rights. The Commission on Human Rights and Administrative Justice's (CHRAJ's) state of human rights in

mining communities in Ghana report (Segbor, 2014) confirms volumes of human rights abuses in mining communities perpetrated by mining companies. The report indicates that there is evidence of widespread violations of human rights of individual members of communities and communities' collective rights in some mining areas in the country. The report provides sufficient evidence to conclude that there has been widespread pollution of communities' water sources, deprivation and loss of livelihoods and several excesses by state security agencies and private security contractors of the mining companies. Some abuses by mining companies on communities are burning or demolishing of villages, forceful evictions, unlawful arrest and detention, rape, intimidation, dog attacks, and violations of the right to access food and inadequate compensation. For instance, in Tarkwa, mining displaced 30,000 people during 1990-98, contaminated rivers spread malaria, tuberculosis, silicosis, acute conjunctivitis and skin diseases and destruction of farm and forest lands. Two-thirds of the land in Tarkwa has been sold off to multinationals with minimal compensation to local owners. Such dislocations significantly affect every aspect of the social fabric and have led to high levels of prostitution, a rise in the incidence of AIDS, family disorganization and unemployment as people lose their farms (Akabzaa, 2000; Akabzaa et al., 2007).

Gold mining in Ghana has been bedevilled with conflicts and violence in mining communities at different stages of extraction. Several of these cases have been in Tarkwa and Obuasi (Amponsah-Tawiah and Dartey-Baah, 2011; Teschner, 2013; Okoh, 2014). These conflicts and violence have been linked to compensation, employment, environmental degradation and culture deterioration purportedly caused by transnational mining corporations (TNNCs). There is an inherent contradiction between the livelihood activities of peasants and artisanal and small-scale miners and large-scale mining companies. Peasants live off the land by farming and artisanal and small-scale miners engage in traditional mineral extraction and processing, a time-honoured occupation in many areas of Ghana (Dumett, 1998; Hilson, 2002). Yet, TNNCs undertake surface mining which, by its nature, involves the use of large tracts of land, and which inexorably leads to the dispossession of peasants and artisanal and small-scale miners who are entitled to reproduce themselves socially and economically from the environment they were born into (Schueler et al., 2011). Yet, in its ambition to promote extractivism, the state takes action, formulates certain policies and laws which are extremely unjust to peasants and artisanal and small-scale miners (Ayeelazuno, 2011).

Realizing the brunt of problems caused by mining in local communities, the World Bank which pushed Ghana to hand over its mining sector to foreign corporations and to increase extraction and exports as part of their economic recovery/structural adjustment programmes, admitted the failure of their strategy. A study by the Operation Evaluation Department (OED) of the bank reviewed its policy towards six countries, including Ghana from 1993 to 2002 (Liebenthal et al., 2005). The study indicated that the risks and costs of developing the mining sector outweighed potential benefits. It pointed out the risks to include long term environmental damage with accompanying health consequences, the destruction of the traditional (and more sustainable) economic foundations of local communities, forced resettlement and increased corruption. The study concluded that because minerals like gold are limited and non-renewable, their exploitation cannot be a long-term base for developing the economy (Liebenthal et al., 2005). In spite of this admission by the World Bank, the situation seems unchanged.

Can Ghana's gold mining experience fit in the resource cursed model or the country is on the verge of being cursed, considering the detrimental impacts of mining on the environment and livelihood activities? A look at the Botswana economy, in relation to how natural resources have been managed to ensure that the agriculture sector produce positive benefits, could help address this. As one of Africa's most robust economies, Botswana has been able to manage its natural resource wealth by not just allocating over 10% of the revenue into agricultural investments, it has also been able to ensure that strict laws and policies guide agricultural production in the country (World Bank, 2015).

3. Methodology

This study is based on a literature review and primary data collected from Obuasi and Tarkwa for in-depth understanding of the communities' perspectives on mining and development. Tarkwa, the district capital of the Tarkwa-Nsuaem Municipality is located in the south-western part of Ghana covering a total land area of 2,354 km², which is 3.8% of the entire Western Region. Tarkwa's population stood at 90,477 in 2010, with a female representation of 48.4% and a male representation 51.6% (Ghana Statistical Service [GSS], 2012). Noted as the centre of gold and manganese mining, Tarkwa has two major mining companies, with the Tarkwa Mine of Goldfields Ghana Ltd. being distinctively one of the largest gold mines in Ghana. The Iduaprem Mine of AngloGold Asante is the second gold mining company in Tarkwa. Obuasi, located in south-central Ghana (almost 60 km south of Kumasi, Ghana's second largest city), is the capital of the Obuasi Municipality. According to Ghana's 2010 Population and Housing Census, Obuasi's population was 168,641, representing 48.2% males and 51.8% females (GSS, 2012). Obuasi is a well-known town in Ghana with a long history of gold mining by Ashanti Goldfields Company (AGC), established in London in 1897. AngloGold Ashanti, the largest gold mining company in Ghana, has been in operation in Obuasi since 2004. Tarkwa and Obuasi and their environs also serve as home for small, artisanal and illegal miners.

The study was designed in line with the advocacy/participatory and the pragmatic worldviews to research (Cherryholmes, 1992). Pragmatism as a worldview arises out of actions, situations and consequences rather than antecedent conditions. These worldviews focus on the needs of marginalized groups and individuals in society. Therefore, practical solutions are proposed after research to solving social problems. The main strategy of inquiry was qualitative where the life worlds of people affected by mining were assessed using phenomenology (Husserl, 1970). The research sites, Tarkwa and Obuasi, were purposely selected (Patton, 1990) to represent the case of mining communities in Ghana. These two sites have long history of mining and community agitation and expectations.

Key informant interviews were conducted with community leaders, stakeholder groups and individuals to elicit information on their experiences of mining and development of their communities using interview guides. Interviews were also conducted with heads of relevant governmental and non-governmental organisations in the two communities. Amongst them were the Environmental Protection Agency (EPA), Ghana Police Service (GPS), Department of Social Development (DSD), the Wassa Association of Communities affected by Mining (WACAM). In addition, Four focus group discussions (FGDs) were organised in the two research

communities with attendance of at least 10 participants in each. The discussion processes were guided by open ended questions. The FGDs were conducted with members of each identified actor group to elicit information on their interests and concerns on mining in their communities. Using the thematic analysis approach (Braun and Clarke, 2006), major themes were developed from the data obtained by sorting according to various categories and codes. Several analytical memos were developed to define the meaning of some of statements and concepts coming out of the interviews and discussions. The activities outlined in each of the categories were then presented thematically according to the objective of the study.

4. Results and discussion

4.1. Mining and agriculture

Results of the study indicate an inverse relationship between mining and agriculture production. Respondents revealed that mining (legal, small-scale and illegal) have not really been agriculture-friendly to the Tarkwa and the Obuasi areas. The biggest lost to agriculture is farmlands. The magnitude of the land problem was brought to bear in an interview with an officer of EPA the whole Tarkwa Township is part of the concession of the AngloGold Tarkwa Mine. All lands, including those which serve as sources of livelihoods for people are indirectly owned by the company meaning people who are farming on any land could be asked to leave at any point in time. According to an illegal miner in Tarkwa:

"I have personally engaged in agriculture before. The main reason why I stopped farming was because our family lands are now used by the company for mining and I have nowhere to farm. Even if I did, I don't think I would go back to farming because, trust me, I am making more than I used to".

Other respondents mentioned that although they would want to go back into agriculture, there are no readily available lands for them to farm on. In addition to physical take of lands, loss of land productivity is common in both communities. Surface mining has affected the entire land surface and vegetation cover of both areas. A female farmer in Obuasi revealed that:

"My grandparents used to farm groundnuts on a piece of land until they died and it was taken over by AngloGold Ashanti for mining. They later left the land and my mother also farmed on to take care of us until she passed on nine years ago. Right now, the land is almost useless. Our orange plantations have all been cut down. Not even cassava thrives here when we plant them. The land is virtually useless".

Kitula (2006) and Hilson and Garforth (2012) have reported similar findings in Ghana and elsewhere in Africa. Mining in these communities was safe until the introduction of surface or open cast mining in the 1980s by PNDC Law 153. Large scale mining has been very instrumental in the clearing of the entire vegetation and

land surface. Unfortunately, attention has been shifted from the contribution of large-scale mining to smaller mining operations mainly 'galamsey' activities'. There is enough evidence in both communities to suggest that 'galamsey's' contribution to land nutrient loss is not as destructive as that of large-scale mining. The Dokyiwa Forest near Obuasi is one clear example of how large-scale miners have cleared vast land surface and vegetation cover for dumping of mining waste (see Akabzaa et al., 2007). However, the (EPA) officer in Tarkwa explained that large scale miners used to cause a lot of harm in the past but the situation has changed. According to him, large mining companies are now made to pay a security bond whenever they engage in any activity that involves the use of land. They also have rehabilitation systems in place in areas they are working which ensures that they replant and replace soil and vegetation cover in order not to cause harm to lands. They are regulated by the bond they pay and because they do not want to lose their money, considering the amount of money they invest as security, they do not destroy lands.

Whilst these findings may be seemingly contradicting, it is important that the harm caused by both 'galamsey' and large-scale mining be analysed. Mining in general, as a livelihood activity requires that a large area of land be used, especially for surface mining (Obiri et al., 2016). In addition to the removal of rock and soil (and at times, the overburden material above the mineral seam) and the extraction of the exposed material, the method involves hauling and stripping, with the use of very heaving earth moving machines. This process in general has a very high possibility of resulting in the destruction of forest and vegetation cover, can cause huge loss to plant nutrients and pose huge risk to human life and land-based livelihoods (Nellemann et al., 2016) through destruction of soil nutrients and erosion. There are startling physical evidences in both communities that prove the destructive effects of mining, evident in erosion. What is equally important to consider is whether the land is really able to recover lost nutrients that could have supported plant growth in its natural state. The devastating impact of surface mining on soil formation and lands that support agriculture production are thus enormous.

Taking of land for mining and subsequent destruction of soil fertility both translates into low agriculture production and lack of access to food crops like water-yam which used to be a staple for the people of Tarkwa years ago. The cassava produced in Tarkwa nowadays is purported to be different from what it used to be in the past in terms of taste. Similar observations were made by respondents in Obuasi specifically tailored towards the gradual diminishing of oranges in the as a result of surface mining. A respondent commented that:

"This town was noted for the orange plantations it used to have. These are all no more. I would only say this gradual diminishing of orange trees in Obuasi and its environs could be attributed to agricultural lands being converted to mining sites".

A critical observation of the mining and agricultural sectors in Tarkwa and Obuasi would seem to suggest that agriculture is more beneficial to local residents than mining since close to 60% of the population in both communities still rely on agriculture as their main source of livelihood (GSS, 2012). This means for these communities to have a very balanced economy, particular emphasis should be placed on the agricultural sector.

4.2. Payment of compensations

Compensations paid to land owners and/or farmers whose lands are taken by mining companies are seen to be inadequate. The study found out that mining companies pay compensations without disregard to the Minerals and Mining (Amendment) Act 900 of 2015 (Republic of Ghana, 2015), Sections 72, 73 and 74 which deal with how compensations are supposed to be paid. Responses derived from interviewees in relation to compensations showed that people whose lands/farms are taken for mining are paid on unsatisfactory terms. A respondent in Obuasi sarcastically put this as:

"I remember AngloGold Ashanti used to exchange five acres of land for either an empty barrel or a crate of eggs".

Whilst the above statement may seem sarcastic, it confirms that people whose lands/farms are taken over by mining companies are not paid the right compensations due them. This result is consistent with Amponsah-Tawiah and Dartey-Baah (2011). Respondents also raised concerns about the process of compensation negotiations, particularly the parties involved in the process. Land owners/farmers claimed they are not made aware of what is contained in the Minerals and Mining Act and how much they are supposed to be paid, considering the quantum of properties involved. A Chief in Tarkwa indicated that he has witnessed a number of cases that community members have complained about how much they have been paid in relation to compensations. He emphasized that:

"..... they only fall on a committee, which most times has no farmers on to do the negotiations. Well, I have no idea how the Minerals and Mining Act works so I think we should be educated in the procedures and how much one gets as a result of losing properties through mining".

WACAM (2006), in a similar study, found compensations paid by mining companies to cocoa farmers in 1997 was GHS 0.90 per a matured cocoa tree, a value which was nowhere close to the real market value. That study indicated that the affected farmers, on several occasions, agitated that the compensations paid them by the mining companies were ridiculous, in that it was not enough to ensure reinvestment in any sector. According to Blake and Kasanga (1997), cocoa is as important as gold and could last between 40 and 50 years. He adds that, a critical analysis of cocoa indicates that a cocoa tree is capable of yielding half a bag of cocoa beans per annum. In 1997, farmers were paid GHS 11.25 per bag (62.5 kg). Those farmers who were compensated GHS 0.90 for a cocoa tree, could get GHS 5.25 per tree for that year. From this, it could be deduced that farmers would be able to recover what they have lost if they are rightly compensated. Clearly, the paltry amount of money paid as compensation for enclosure in Ghana affirms the ruthlessness of capitalism in its quest for profits. In any case, even if the compensations were adequate, they can never be adequate enough to mitigate the harm that these enclosures have caused to the peasants. The horrendous environmental degradation to biodiversity caused by surface mining and the health risk posed to human life from hazards environmental pollution are almost irreversible.

Compensations paid to people whose livelihood assets were affected are in monetary terms. However, in situations where mining activities affect public assets, like water sources, compensations are given in kind.

Regarding the replacement of water, for instance, responses gathered indicate that although the distance traveled to access water may reduce in most cases, the quality and quantity are often negatively affected.

Undoubtedly, gaining the legal license to operate is a very necessary condition to start operations, but a company's ability to gain the social license to mine is equally paramount. Inability or refusal to pay right compensations, as contained in the law, simply leaves its sustainability uncertain as communities may agitate. Similarly, having the legal license to operate is not the only requirement to make a company function. All other laws, codes, ethics and policies regarding its operations have to be adhered to. Clearly, companies that do not adhere to such principles regarding their operations could be classified as operating illegally (politically or socially). A critical observation of these unfortunate developments may be partly blamed on the processes of granting mining concessions. Mining concessions are given to TMNCs in Accra by the government, through the Ghana Minerals Commission, which gives the companies maps showing them locations to areas of mineral concessions, regardless of whether the land earmarked for mining contains farms, hamlets or villages. The point at which host communities get involved in the process of land acquisition is paradoxically the point of their dispossession and exactly the point at which their involvement is made useless. That is when they have to battle for compensations with the mining companies, who would have acquired the concession from the state already.

4.3. Insecurity and tension

The presence of mining in the Tarkwa and Obuase Municipalities has created countless number of tensions, some of which arose from both large and small mining corporations. Records at the Tarkwa Municipal Office of GPS shows that mining related cases account 30% of the entire cases they received, representing is a little over 200 cases a year. The study results show diverse causes of tension and conflicts including community members whose lands have been taken over by mining companies '*fighting*' for their rights, misunderstanding between large scale mining companies and small scale/'*galamsey*' groups, and competition among '*galamsey*' operators in relation to who owes what and who mines where. The Tarkwa Municipal Commander of GPS, however, attributed the cause of tension and conflicts in the Municipality to unemployment. He indicated that:

"Most of the people involved in 'galamsey' are uneducated so they don't get jobs in the big mining companies, like Goldfields and AngloGold. They do 'galamsey' because it is a job where people get money instantly after finishing work on the site and this attract a lot of unemployed people, especially the youth. This then results in competition, as to who will get much gold, resulting in behaviours such as stealing and making people lead undirected lives. These people later become real burglars and armed robbers'.

A chief in Obuasi also blamed the frequent clashes within the Municipality on payment of compensations saying:

"I remember some community members in this town were arranged before the high court here in Obuase because they had protested against AngloGold for not paying them all their monies".

Terms and conditions for the granting of mining concessions are usually not revealed to communities and this creates tensions when mining companies demand that people should vacate their lands to make way for mining. There have been situations when military men are brought in by government agencies or mining companies to forcefully evict occupiers of lands that have been acquired as mining concessions. Mining attracts a large number of people from other parts of Ghana and nearby countries because of perceived employment opportunities. Such people often end up in the 'galamsey' sector if they are unable to get work in any of the mining companies. Insecurity and tension in Tarkwa and Obuasi heightens whenever state security forces are used to drive such people away from 'galamsey' sites. Notable amongst such tensions is the rise in armed robbery. According to a chief in Obuasi:

"When soldiers are sent to push foreigners away from mining sites, there is an increase in armed robbery in Obuasi. You can ask anyone you know. Anytime, these people are chased out of 'galamsey', armed robbery goes up.....because, I mean, these are people who have their entire life and those of their families depending on galamsey for survival".

In August 2015 alone, the Tarkwa area recorded a spate of fatal and successive armed robbery attacks on the Asankragwa-Enchi, Asankragwa-Bawdie and Asankragwa-Sompre-Bekwai roads which link areas where intense small-scale mining has been going on for over two years. The robbers, in all of these attacks, were said to have targeted miners and mining vehicles plying the roads in such areas which were traditionally said to have been subjected to very low crime.

Constant tensions between mining companies and host communities again raise questions about the sustainability of mining. Perhaps, deliberate efforts to protect community members, especially farmers, would have somehow reversed the situation. Unfortunately, the state, which is expected to protect peasants, is complicit in the violence of primitive accumulation.

4.4. Provision of infrastructure and amenities

Infrastructure and social amenities in Tarkwa and Obuasi can be described as abysmal. Despite housing a chunk of the nation's gold wealth, Tarkwa and Obuasi are as backward in terms of infrastructure and amenities as most deplorable places in the country. Although some respondents mentioned that mining companies are not doing anything to alleviate the deplorable states of social amenities in the communities, others were of the view that the provision of these services should be the responsibility of the government. A first time entry into Tarkwa and Obuasi only depicts deprivation and underdevelopment. The Tarkwa-Bogoso road is the main route for the transportation of almost all minerals and natural resources in Ghana's Western Region (gold, bauxite, manganese, timber, cocoa, oil palm etc.), yet, one of the most deplorable in the country. Another neglected social infrastructure in Tarkwa is its rail systems, which used to be the means of transport of minerals like bauxite. Today, Tarkwa's Rail Station, a place which was not just a home for rail passengers, but also a business hub, is now home of prostitutes, drug dealers, and thieves. The situation is not different from observations made on the town roads in the study communities. A chief in Tarkwa lamented over this:

“We live in Tarkwa as though it is not part of Ghana. Just look at Accra which has no mineral and compare it to Tarkwa. you will realise that there is a vast difference. We know Accra is the capital, yes, but everything should not be centred there because Ghana is not just centred on Accra. It is very painful and this is how we have lived over the years”.

Similarly, a respondent in Obuasi explain the situation there:

“..... we have a section of the town where rich people who are miners live and a section where ordinary people live. The section of the miners has good roads, constant electricity and water supply whilst the others are suffering”.

The study also showed that the quality of drinking water in both communities has deteriorated over the years as a result of mining. The water supply situation gets worse in the dry season when all rivers dry up. Fishing, which also used to be a source of livelihood, is no longer possible in Tarkwa and Obuasi because of river pollution by gold mining. There were several complaints from respondents, indicating the extent to which they have been unhappy with the situation. For example, a respondent in Obuasi said:

“..... right now, I see no difference between the water we drink and the content in a cup of hot chocolate. It is almost the same”.

In 2007, 99 water bodies around Tarkwa and Obuasi were polluted as a result of the operations of AngloGold Ashanti. People died as a result of drinking the polluted water. Fishes died too. The San, Nyame and Gyimi rivers are the main water bodies in the Obuasi area and also serve as the main source of drinking water, yet they have all been polluted with chemicals as a result of mining and its operations. The study also found that the Bonsa River, which serves as the main source of water supply to the entire Tarkwa-Nsuaem Municipality and as source of livelihood to over ten communities, has almost been entirely destroyed by mining activities. This has usually resulted in frequent water shortage in the area, costing the Ghana Water Company Limited several thousands of Ghana cedis to process the water for domestic use.

Responses on the causes of river pollution in the areas were, however, mixed. Whilst some respondents viewed ‘*galamsey*’ as being responsible for the destruction of water bodies, others insisted that the rivers were destroyed even before the introduction of ‘*galamsey*’. Water is usually polluted by mining activities through the use of dangerous reagents which are used in the treatment of mineral ore. One of such commonly used reagents is cyanide, a chemical extremely toxic to man, aquatic life and animals (Nemerow, 1978). Law (1984) also posits that water can also be polluted by changing its state by other means rather than chemicals and these are mostly process related. Such process increases the sediment load which usually results in rising in water temperature through discharges into streams, increased turbidity, water cause diversion and ground water interception, causing the sustainability of some aquatic habitats to be very unfriendly for their occupiers. This, somehow, seem the case of the Bonsa River; a river which has suffered the consequence of harsh mining operations, losing its aesthetic appearance and support to various livelihoods.

Even though communities have been provided with pipe-borne water by some mining companies, respondents indicated that the quality (taste) is 'bad'. The regularity of supply of water provided by mining companies for communities was also questioned by respondents. Communities could get access to water from rivers anytime of the day, but now have to wait for electricity before having access to the water systems provided by mining companies. This brings to mind the quality and standard of replacement of community assets destroyed by mining companies. Conspicuously, most of these communal assets replaced by mining companies do not meet the standard and level of quality such assets used to have before being destroyed.

Admittedly, the provision of social infrastructure is the responsibility of the government but it is also important to note that most of these facilities in Tarkwa and Obuasi are deplorable because of the pressure exerted on them as a result of mining. Mining has undoubtedly increased the population of people living in these communities which in turn increase the pressure on existing infrastructure.

4.5. Socio-cultural life

Mining has been one of the most dangerous threats to socio-cultural life in the Tarkwa and Obuase areas. It is said to have changed the social pattern and almost the entire way of life of the people. Responses derived in this study reveal that sacred places, like cemeteries and shrines, have been destroyed as a result of mining. A chief in Obuasi revealed that:

"There have been several instances where cemeteries have been entirely moved because some gold has been found in the area. I mean, this is a total disregard to our culture and this is the extent to which mining, all in the quest of looking for gold can do to us. I have personally witnessed shrines being destroyed because of mining. I saw one where AngloGold Ashanti performed some rights to remove shrines".

Social stratification is very prevalent in Tarkwa and Obuasi. Evident in the social set-up is the fact that the settlement patterns clearly bring to bear the differences between the rich and the poor. Miners in these areas live very luxurious lives at the expense of the poor, especially indigenes who have never had the opportunity to have a taste of the mining cake. This has somehow made life unbearable for the ordinary person in Tarkwa and Obuasi. An indigene and resident of Tarkwa confirmed this in an interview:

"Landlords and market women think everyone in Tarkwa is a miner and so charge exorbitantly when you want to rent their houses. Same can be said of the market women; what is sold in Takoradi for GHS10.00 is sold in Tarkwa for GHS 30.00. In fact, this is making life unbearable for those of us here who are not working in the mine".

Prostitution is reported to be on the raise in both Tarkwa and Obuasi. Respondents claim that the prostitutes are not indigenes but people who have come from elsewhere because of the mining boom. A respondent at the National Youth Authority in Tarkwa shared his view on prostitution as follows:

“You can go to the rail station after 8:00 pm and see it for yourself. This was never the case until mining became intensive. Unfortunately, most of these prostitutes are not from Tarkwa and funny enough, most girls look at your dressing before saying yes to you when you ask them out for a date. They only want people in safety boots. Do not think of having any woman in Tarkwa if you are not wearing a safety boot”.

Also, according to an opinion leader in Obuasi:

“Obuasi is currently second to Koforidua in the national rating and first in the Ashanti region when it comes to HIV/AIDS rating”.

Although the economic life in both Tarkwa and Obuasi is very challenging for indigenes, trading, artisanal works and other income earning activities seem to have reduced, especially in Obuasi, the redundancy operations swept off close to 6,000 employees at AngloGold Ashanti four years ago. The situation is expected to worsen, considering the outright shutdown of AngloGold Ashanti’s Obuasi Mine early in April, 2016.

The future of the youths in both Tarkwa and Obuasi has become questionable, considering the fact that they are exposed to several uncertainties, economically and socially. Most teenagers in these areas have already given up on schooling and have adopted the ‘quick way of making money’ style of living in the ‘galamsey’ sector. A 24-year-old ‘galamsey’ operator affirmed this in an interview:

“I stopped schooling at age 15, my first year in senior high school. I just had to stop because I felt I was wasting my time in there when ‘galamsey, was fetching my colleagues so money. Now, I always have money on me and this is really what I want”.

The narrative above is a true reflection of the situation of the youths in Tarkwa and Obuasi. Whilst this observation may not apply to the entire youth in these two areas due other factors, including parental control, there is the need to have a critical focus on their future development.

5. Conclusion and policy implications

This paper has presented an analysis of local actors’ perspectives of mining and community development in the Tarkwa and Obuasi mining areas. The findings suggest that the communities are losing out as a result of mining – large scale, artisanal or small-scale. There have been substantive and staggering proofs indicating that mining in these two areas has not really been helpful, especially to local residents, although those in the mining operations (mostly non-indigenes) have seemingly benefitted immensely. It is also clear that these communities have been victims of threatening illegal and uncontrolled mining activities. Although the communities have suffered from ‘galamsey’, large-scale mining operations seem to have been very detrimental to human and environmental life: large mining corporations, which are deemed ‘legal’, have caused more harm than good.

Can Tarkwa and Obuase be described as being resource-cursed or on the verge of being cursed, considering the detrimental impacts of mining on agricultural activities? The way land is acquired and used by TNMCs, the fatal environmental, social and economic costs that communities would have to live with for ages and the instant outcomes of the deprivation of the use of their lands, make the situation in Tarkwa and Obuasi seemingly comparable to the resource curse phenomenon. Disaggregating the impacts of mining and development in Tarkwa and Obuasi has very considerable political and economic implications for both academics and politicians.

Averting the resource curse phenomenon in Ghana's mining case needs an all-encompassing approach, from both policy implantation and practice. This brings to mind the processes of policy implementation and its effectiveness in Ghana in relation to mining and mining laws. Implanting policies effectively requires a comprehensive understanding of the principles of corporate social responsibility (CSR). Large-scale mining corporations, especially, need to approach effective CSR differently; from a perspective entirely different from philanthropy. Alternative sources of livelihood, especially in agriculture (both food and fish) production, have to be encouraged in both Tarkwa and Obuasi. This will ensure sustainable livelihoods and a continuous supply of food crops and protein in these areas.

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