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“Now I know the law”: Empowerment of Mining Communities by an Environmental Non-Governmental Organisation (ENGO)

**Yaw Asamoah, Kwabena Barima Antwi, Oheneba Akyeampong,
Paul Baidoo, and Daniel Owusu-Koranteng**

Environmental non-governmental organizations (ENGOs) became very prominent after the Rio Earth Summit in 1992 as vibrant social movements. Since then, ENGOs operating at the local, regional, or global levels have been instrumental in environmental management in both developed and developing countries. This study sought to investigate the performance of the Wassa Association of Communities Affected by Mining (WACAM), a local ENGO, in some selected mining communities in the Tarkwa-Nsuaem Municipality, in the Western Region of Ghana. Situated in the interpretivist research philosophy, the study employed in-depth interviews, focus group discussions, and observations to collect data from some staff of WACAM, community residents and some government agencies. Purposive and snowball sampling techniques were used to select 77 respondents for the study. Data collected was transcribed and manually coded into themes and categories for analyses. From the perspective of the respondents and participants, the study found that WACAM performed well in mitigating the environmental ills caused to the mining communities. WACAM employed the use of advocacy and capacity building as the means to empower poor and vulnerable groups of people and also to influence public decision making and implementation, to challenge the status quo of social injustices, and to defend their human rights. It is recommended that local and/or international donor agencies should sponsor the activities of such ENGOs. Moreover, there should be healthy collaboration between WACAM, government agencies, especially the Environmental Protection Agency, and local community residents to sustainably manage the exploitation of natural resources.

Background

If the news media in effect have become a fourth branch of government. . . , then the NGOs are the fifth . . . but never has this community (NGOs) had so many legal tools at its disposal or as many friends in high places as it does today. (Cutler, 1995, p. 190)

Environmental non-governmental organizations (ENGOs) have become very prominent since the United Nations Conference on Environment and Development (UNCED) in 1992 at Rio de Janeiro (Hens & Boon, 1999). The role of ENGOs in bringing balance to environmental policies and to decisions that affect the environment as specified in United Nations' Agenda 21 is increasingly recognized throughout the world. The emergence and development of ENGOs in modern society has been a fascinating occurrence in environ-

mental governance in both the developed and developing countries. They have emerged as alternative institutions to governments' failure in environmental governance both in the global as well as local scales. According to Cutler (1995), they may be considered the fifth branch of government, aside the legislature, executive, judiciary, and the media.

There has been a large body of literature exploring the role of ENGOs in promoting public participation in environmental management, improving environmental monitoring, and facilitating policy implementation. For instance, Alexeeva et al. (2007) have done an extensive comparative study of ENGOs performance in the former Soviet Union countries of the Baltic States, Belarus, Russia, and Ukraine. Specifically, their role covers confrontational actions, environmental education and advocacy, participation in environmental policy-making, and implementation. But, in the view of Sterner (2003), the major function of ENGO is advisory. These and many other roles they play have led to the modification in institutional arrangements of environment protection.

There seems to be an ENGO to meet every aspect of natural resources management, or any form of environmental protection. Snow (1992) grouped them into three categories: conservationists, preservationists, and environmentalists. Conservationists are interested in the wise and sustainable use of natural resources and the preservationists seek to maintain the natural living system while the environmentalists fight any form of pollution to the natural environment—air, water, land, atmosphere, etc.

ENGOs share characteristics with modern social movements that emerged in the 1960s to counter policies of governments, as well as paving way for political participation, and the formation of new socio-economic institutions in advanced industrial democracies. Social movements are collective and rational decision makers that mobilize their followers with the intention to promoting their interests with *by-all-means* strategies that are deemed fit and given limited cognitive and material resources (Kitschelt, 1986).

This perhaps explains why ENGOs of any category are so committed to their call and at times refuse to compromise their stand on environmental protection or even negotiate with government agencies. ENGOs are able to do this as a result of their ability to compete with government agencies and other institutions. As noted by Cutler (1995), ENGOs have access to “legislative bodies, courts, the news media, a pool of experts, and natural resource management professionals, etc.” due to their popular support (p. 192).

ENGOs the world over have achieved a lot in terms of establishing greater environmental awareness and protections. For example, Sterner (2003) observes that eco-labelling is considered a success in Sweden due to the massive presence of ENGOs. They have also played a very remarkable role in protecting and restoring the Zayanderood River in Isfahan in Iran (Koushafar, Amini, & Azadipour, 2007). In Africa, two of such movements, the Movement for the Survival of the Ogoni People (MOSOP) in Nigeria and the Green Belt Movement (GBM) of Kenya are exemplary.

Statement of the Problem

Mining has been done in Ghana for well over a century (Akabzaa & Darimani, 2001). It is one of the most important and influential sectors of Ghana's economy contributing immensely to the GDP (Addy, 1998; Aryee, 2001). In spite of the numerous financial or economic benefits derived from the sector, mining carries with it serious environmental hazards (Serfor-Armah, Nyarko, & Adomako, 2006). Akabzaa and Darimani (2001) as

well as Yelapaala (2004) observe that mining is one of the major factors contributing to environmental degradation in Ghana. Though the effects of this problem are widely felt by Ghanaians, the most unfortunate victims are those communities in which mining activities take place (Akabzaa & Darimani, 2001). Some environmental problems associated with mining are contamination of the environment with heavy metals; pollution of the air, water, and land with some harmful chemicals; and loss of natural resources such as forests and topsoil (Boamponsem, Adam, Dampare, & Essumang, 2010).

Many institutions, both public and private, have shown concern in resolving these problems, especially as they affect vulnerable residents of mining communities. The Wassa Association of Communities Affected by Mining (WACAM), an environmental human rights NGO, is one such private social enterprise. The large concentration of large-scale surface mining in the Wassa West District by mining companies and the environmental problems associated with the mining operations resulted in the formation of WACAM. Indeed, the Tarkwa-Nsuaem Municipality (TNM) is said to have one of the highest concentration of mining companies in Africa (Akabzaa & Darimani, 2001; WACAM, 2008). Surface mining by numerous mining companies has resulted in the destruction of farmlands, forests, and water bodies in the area. WACAM was formed to help project the community's voice against these destructions. This eventually led to the mobilization of some community members from these mining communities to fight for their common interest by preventing the attacks on their sources of livelihoods and human rights. It also sought to help government in this area since environmental management in Ghana had moved away from centralization, where government had the prerogative of ensuring environmental quality, to a more decentralized approach in which management is more integrated with other segments of civil society (Kessler, van Ginniken, Cornelissen, & Romijn, 2001).

In light of the above, the aim of the study was to discover the extent to which the performance of WACAM has had an impact on environmental management in the area it operates. It further sought to examine how effective WACAM has been, since its formation in 1998, and the impact it has had on TNM as well as the national environmental management policy.

Conceptual Framework

Two conceptual models inform this study. First, the Political Opportunity Structure (POS) is useful for understanding the broad context, while the Abilities Model is used to assess WACAM's effectiveness. Hence, these two will briefly be discussed.

Political Opportunity Structure

Authors such as William Sewell (1990) and Sidney Tarrow (1994) think that what we know as social movements erupted in response to the rise of modern states. This does not indicate the absence of social movements prior to the birth of nation-states, rather, the form and characteristics have changed remarkably. Hitherto, social movements were more local in origin and scope, reactive, spontaneous, and transient. Modern social movements are national, proactive, planned, and enduring in character and form, trig-

gered by the dramatic increase in power vested in the nation-state (Marks & McAdam, 1996). Another twist to their operation is that social movements in recent times examine opportunities and threats, and decide whether to act or not, based on that opportunity and/or threat. The POS emerged from the rise of these movements, especially in the United States in the 1960s. According to de Búrca (2009), this view is shared by McAdam (1982), Tarrow (1983), and Tilly (1978) on their studies about social movements.

As an offshoot of social movements discourse, POS was originally established in the analysis of movements whose main aim is more or less to cause a fundamental change in society's status quo—from revolutions to ecological activism (Bengtsson, 2007; McAdam, McCarthy & Zald, 1996; Tarrow, 1994; Tilly, 1978). The concept can be examined together with Tilly's "polity" model from an institutionalist perspective, which looks at the structure of political institutions and the state (Amenta & Zylan, 1991). Amenta and Zylan (1991) argue that "the polity model typically represents political parties as electoral outcomes and the state as a tool of repression" (p. 251). Whereas the political party system may result in opportunities for challenges, the state on the other hand, through its structure and its policies, may both aid challenges as well as represses them. Aside the polity model, challenger or mobilization theorists also blame institutionalized power arrangements for the surge of movements. Unequal power distribution propels movements that are usually in a disadvantaged position to seek redress for large-scale social changes of institutions and policies. In such cases, collective action often becomes "associational" instead of "communal," and "proactive" rather than "reactive" (McAdam, 1996).

Sidney Tarrow (1994), arguably one of the best known authors in the field of social movements, defines political opportunity structure as "consistent—but not necessarily formal or permanent—dimensions of the political environment that provide incentives for people to undertake collective action by affecting their expectations for success or failure (p. 85; Bengtsson, 2007, p. 8). POS as a concept can act to further or restrain the capacity of social movements, thus telling the success or otherwise of its activities. These are shown in three ways. First, mobilization depends upon the coercive, normative, remunerative, and informational resources that an emerging movement can extract from its setting and employ in its protest. Characteristically, Western democracies normally resort to the use of non-violent resources. Second, the access of the social movement to the public sphere and political decision-making is governed by institutional rules. And thirdly, a social movement faces opportunities to mobilizes protest that change over time with the appearance and disappearances of other social movements. If successful, the mobilization of one movement will have a "demonstration effect" on other incipient movements, serving as a catalyst for them to follow suit, "and a simultaneous appearance of several movements contesting the institution of social control often presents a best opportunity to maintain movement momentum and to change established policies" (Kitschelt, 1986, pp. 61-62).

Opportunity here is always in relation with both current and repressive threats as well as increase in repression, results in increased protest, mobilization and action (Goldstone & Tilly, 2001). Since the onus rests with the movement to act or not at any point in time, it is prudent for the movement to look at the political developments, and the political opportunities open to them by examining when to or when not to use a certain approach (de Búrca, 2009). Yet ultimately, the incentive for the opportunities must be a

collective outcome of the collective action, and not incentives that affect the expected individual payoffs and costs (Bengtsson, 2007). But it should be noted that such as collective outcome is hinged on a successful mobilization of followers to take part in collective action (Bengtsson, 2007).

Political opportunities structure abound when elites are vulnerable or receptive to social movements by groups excluded from the polity. Hence, “challenger” movements begin to make demands for the redistribution of social rewards and increased access to institutions (Maney, n.d.). The concept has turned out to be a clumsy one whose operationalizing appeals differently to various observers. However, certain key aspects are regular. Tarrow’s (1988, 1994) categorization included: 1) institutional access; 2) unstable political alignments; 3) divided elites; 4) the presence of support groups and allies; and 5) diminished repression by an authoritarian state. McAdam, McCarthy, and Zald (1996) on the other hand list four dimensions to the concept that includes all but “divided elites,” of Tarrow’s (1988, 1994) categorization. Wrote Lichbach (1998), “political processes, institutions, and alignments thus set the context for the strategic interaction of a movement with its allies and opponents in civil society and the state” (p.406).

While more inclusive and democratic political systems minimize exclusion, more exclusive and authoritarian regimes deny political rights and increase the possibility of vibrant and visible large-scale mobilizations to challenge state policy and institutions. Such movements normally operate undercover with the intention to seek the overthrow of the state, and are more likely to deploy violence (Maney, n.d.). Policy changes and political competition among elites on issues may lead insurgents to take their opposition outside government. But the elite’s alignment on national issues can also be a channel for mobilization of challenger movements that seek the opportunities for political access (Tilly, 1978 as cited in Maney, n.d.). In the case of “divided elites,” Tarrow argues that political and economic crises are sure to coax elites to render support for challenger movements (Piven & Cloward, 1977). Even in the absence of such support, disunity among elites, according to Skocpol (1979), lead to a less coordinated and resource laden opposition, and which eventually makes them vulnerable to insurgents. If a state which was formerly repressive lowers its repressive capacities, it opens a window of opportunity for movements to thrive more widely and openly, knowing that the risk involved in mobilizing (including beatings, incarceration, torture, and/or death) is lower (Jenkins & Schock, 1992). The state’s repressiveness capacity may also decline if the level, composition, consistency, and concentration of foreign aid move in that same direction of decline. For example, Kerbo (1978) affirms that substantial cuts in aid for the military have resulted from instability in the inter-state political system, declining capacities of donor states, and changing emphases on human rights in the foreign policies of donor states.

POS as a concept has survived to date, but not without criticisms. Gamson and Meyer (1996) disparaged the concept that it “explains too much” (p. 275). According to the authors, POS “threatens to become an all-encompassing fudge factor for all the conditions and circumstances that form the context for collective action (Gamson & Meyer 1996, p. 275; McAdam, 1996, p. 25). In spite of the criticisms, and even though not all the dimensions of POS indicated by Tarrow (1988, 1994) and McAdam et al. (1996) may apply, this paper specifically uses the political opportunity structure model to analyse how WACAM, an ENGO, mobilized some residents of Odumase and Teberebie, both

mining communities in the Tarkwa-Nsuaem Municipality of Western Region of Ghana to challenge the policy systems of mineral extraction in the areas.

It is however admissible that this paper is not the first of such study in the sub-region. Obi (2005, in Earle, 2011) speculates that in their attempt to challenge the monopolization of environmental resources and its, attendant abuses and corruption, environmental movements in Africa have resorted to political, ethnic, national and gender identities, and by extension, some of these movements have employed environmental discourse as part of their struggle over land ownership, and largely seek to condemn any attempt of destruction of ancestral lands and traditional livelihood strategies. Most of these environmental movements have a strong passion for human rights issues, and in many instances approach the issue of the environment through the lens of human rights. Therefore, to such environmental social movements, justice and the environment are positively related (p. 19)

The Abilities Model

The framework of analysis adopted for this study is the Abilities Model. The Abilities Model developed from work done by the International NGO Training and Research Centre (INTRAC) of the United Kingdom on “Participatory Self-Assessment of NGO Capacity.” The Abilities Model is a complex approach to assessing or evaluating organizational performance (Kruse, 1999). The model suggests that NGOs require four key *abilities* for effective performance, and hence it is these abilities that are assessed. They are the “Ability to be,” “Ability to organize,” “Ability to relate,” and “Ability to do” and as such show how the organization is perceived, and its performance and sustainability. Sustainability in this sense is defined by Hockerts (1999) as “any state of a business in which it meets the needs of its stakeholders without compromising its ability also to meet their needs in the future” (p. 37).

Like any organization, the Abilities Model is an open system since it depends on the external environment while also recognizing inputs that impact on the other variables in the model (Hurst, 1972). The *external dimension* of the model (“Ability to relate” and “Ability to do,” as illustrated in Figure 1) indicates that the organization responds to the operations of governments, the media, competitors, donor agencies, collaborators, etc. In the view of Katz and Kahn (1978), an organization which is open to external influence as described by the Abilities Model is seen to be operating in a social system. This is based on the premise that no organization operates within a vacuum. On the other hand, the *internal dimension* (“Ability to be” and “Ability to organize”) focuses on the activities that go on within the organization itself in terms of its day-to-day activities, together with the resources of the organization. Each *ability* is made up of three variables. However, for the purpose of this paper which is interested with the dealings of the organization (WACAM) and beneficiaries of its operations and other stakeholders in the environmental management circles, only the external dimensions will be briefly discussed.

Figure 1: The Abilities Model



Source: Kruse (1999).

The “Ability to relate” seeks to “respond and adapt to new demands among its users and changing needs in society, while retaining its standing amongst its stakeholders” (Kruse, 1999, p. 23). It is imperative for NGOs to maintain excellent relationships with all its stakeholders, particularly external funding agencies since it may lose the support of its members at any point in time due to a change in the mission, ideology, or needs of its clients. This normally is the case when greater portion of the NGO’s budget is externally sourced (especially from NGOs in developed countries), as is largely the case of southern NGOs or NGOs in developing countries (Dofiori, 2004). However, even when external source of funding is ceased, NGOs should be able to secure other sources of funding that would enable it to continue to provide quality services to those they (the NGO) seek to serve.

An organization should possess the “Ability to do” what it said it will do—performance, as manifested through the products or outcomes resulting from its operations. A thriving organization is the one whose outcome is of relevance to its end users

and/or its members. The onus therefore, is on the organization to be able to provide and implement those services which are of utmost significance to all its stakeholders. Hence, NGOs ought to go a step beyond having lofty ideals and vocal leadership to implementation. The variables measured under this ability of the organization are the relevance, effectiveness, and sustainability of its services to other stakeholders.

Study Setting and Methodology

Study Setting

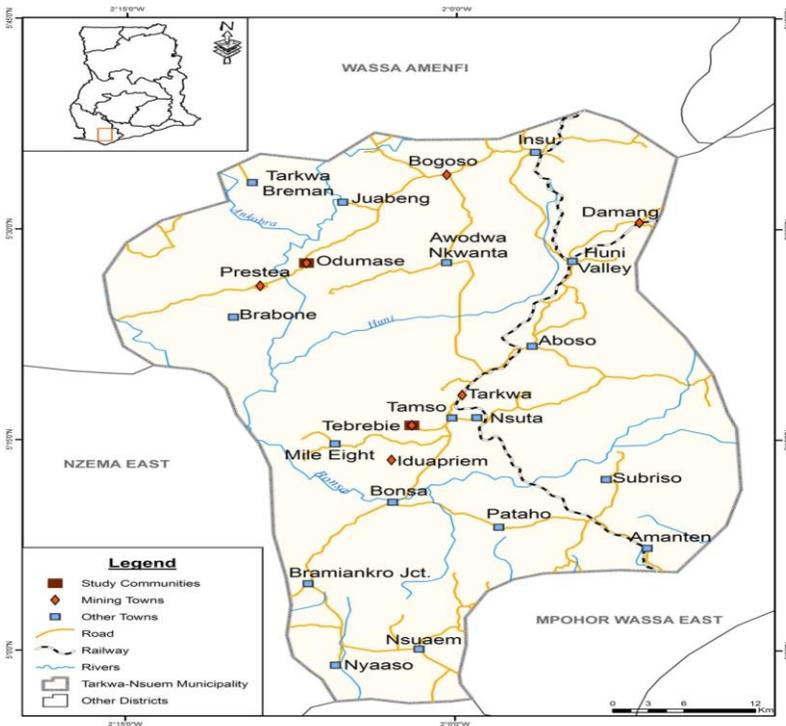
This study was conducted in the Tarkwa-Nsuaem Municipality (TNM) of the Western Region of Ghana. The municipality, which was formerly known as the Wassa West District, is located between latitude 4⁰N and 5⁰40' N and longitudes 1⁰45' W and 2⁰10' W (Figure 2). It shares boundaries with four other districts: Wassa-Amenfi East District to the north, Ahanta West District to the south, Nzema East Municipality to the west, and to the east by Mpohor-Wassa East. Tarkwa-Nsuaem Municipality has a total land area of 2.578km². Tarkwa, an old mining town, is the administrative capital of the municipality¹.

Precambrian rocks such as Birimian and Tarkwaian dominate this forest-dissected plateau region with the land rising between 240 meters and 300 meters above sea level (Dickson & Benneh, 2001). Several mining companies are found in the municipality since several important minerals such as gold and manganese are imbedded in these rocks. These mining companies are located around a number of settlements in the municipality. Mining communities constitute almost about half of the total settlements in the TNM (Akabzaa & Darimani, 2001). For the purpose of this study, two of these communities—Odumase and Teberebie—were selected. The choice of these two communities was based on the fact that the communities have been hosts to multiple mining companies including Golden Star Resources (Prestea/Bogoso) Mines (at Odumase) and AngloGold Ashanti Iduapriem Mines (at Teberebie).

Methodology

The case study research design was employed in this paper and was built on the interpretive philosophy or school of thought where research participants construct their own social world view (social constructivism) (Creswell, 2007; Mertens, 2005). In the view of Creswell (2007), interpretive researchers mostly depend on “participants’ views of the situation” (p. 20) being investigated. The approach mostly gathers qualitative data in a natural setting, a method which is referred to as naturalistic inquiry.

¹Additional information on municipality: www.ghanadistricts.com/districts/?r=5&_=141&sa=2921

Figure 2. Study Area in Regional and National Context

Source: Department of Geography and Regional Planning, University of Cape Coast (2010).

Accordingly, non-probability sampling techniques were employed in the selection of respondents. For instance, purposive sampling technique was used to select some members of WACAM, officials of government agencies, and opinion leaders. Snowball sampling technique was also employed to select individuals mainly from the study communities who have benefited directly from the operations of WACAM in a number of ways. On the other hand, the technique was also used to sample some residents who strongly believe that the activities WACAM in the communities are unfavorable to the development of the communities.

In this respect, primary data was sourced from 77 respondents, using focus group discussions (FGDs), in-depth interviews (IDIs), and observations. There were 66 respondents for the FGDs (31 in Odumase and 35 in Tebreebie). Overall four FGDs were organized in each of the two communities. Additionally, 11 IDIs were conducted. These key informant interviews were conducted for 7 WACAM officials, two opinion leaders, and two government agencies. Altogether, 40 males (52%) and 37 females (48%) were selected for the study. Laborious manual coding was done to better understand, review, and analyze the data collected. The coding identified five themes—conditions of the physical environment, pollution (water, air, and land), health implications of pollution,

residents' opinions of government agencies and/or institutions, and residents' opinions of WACAM including its relevance, effectiveness, and sustainability.

A major limitation worth mentioning was that the mining companies were not willing to participate in the study. A possible reason one could deduce is that this may be due to the voluntary disclosure of information that the new Mineral and Mining Act of Ghana, Act 703 of 2006 allows mining companies. Consequently, the perspective of mining companies would have added some useful insights on pertinent issues raised by the mining communities. In spite of that, the study provides some useful insights about the positive and negative impacts of mining and/or challenges mining communities face as a result of mining operations in the area.

Key Findings

This section presents some relevant findings and analysis from the study communities. Specifically, residents presented their own views about the state of their environment and the changes wrought by mining activities. In some instances, photographs were also used to complement the views expressed by residents. The last portion of the section describes WACAM's role helping to mitigate the issues confronting the communities.

Residents' views of the state of the physical environment.

Mining activities contribute to making the environment unsuitable for agricultural activities. For example, mining companies heap deposits of rock waste on farmlands in the communities. This phenomenon which is alien to residents, deny farmers space (farmlands) for farming, hence, interfering with their ability to earn a decent living. According to some residents, their lands are less able to sustain socio-economic activities such as farming and hunting as a result of the mining activities. This concern is epitomised by how a 68-year-old man, an opinion leader from Odumase, describes the physical landscape as well as the infertility of the soil to support agricultural production in the community. He says,

I will start from even before the mining companies came here. The environment was very nice and fertile. Whatever you planted did so well. But now, the whole place is totally destroyed.

The opinion leader cited above also stated that,

I swear our environment is really destroyed. Our lands, rivers, air, etc. are all gone.

He continues,

My father and my forefathers left for me lands, which feed me and my children. These lands were our food basket. But with the advent of the surface mining in Odumase by the mining companies, all our lands, including our rivers and all our properties, have been destroyed. . . A fallen rock from the blast site cut through my roof and entered my room in 2001 which I will even show to you. So our lives are at risk in this community.

Residents' perceptions about water, air quality, and health implications.

Apart from the destruction caused to the physical quality of the land and consequently agricultural activities, massive pollution of water bodies and air is evident in Odumase and Teberebie. Undoubtedly, clean water is of primary importance to people. Residents claim that water bodies, either surface or underground, are rendered non-potable due to mining operations. The water is polluted through seepage of some soluble minerals into underground water, and through direct discharge of toxic products used in mineral processing into rivers. Eventually, most water bodies in these communities have dried up due to water siltation resulting from dumping of rock waste in water bodies, as well as on farmlands. Rock waste dumped on farmlands are easily washed into water bodies. A male opinion leader from Odumase cries that,

The company has deprived us of so many things, and now the community is a ghost town because the entire environment, particularly water bodies, has totally been destroyed. Mind you “water is life,” but water is totally destroyed here, and God is the one who is taking care of us, other than that all of us would have been dead. . . We are even going to lodge a complaint against them because the silt (mining waste) that they have dumped on our lands has washed down into our rivers to destroy it, even at the downstream at Mansim and so all the farmers along the banks of this river have suffered this effect.

A 51-year-old woman shares similar sentiment, and yelled,

It's serious! When you put water in a saucepan, the saucepan rusts over a short period. When you cook with the water, the food becomes dark. For instance, when you put a peeled plantain in the water, it becomes dark. We can even demonstrate it to you now. It's amazing. Something serious should be done about these things. . .

To confirm the observation about the water turning blue-black (dark) when it comes into contact with fresh plantain, a demonstration was done with the participants of the FGD in Odumase.

There is also the issue of air pollution confronting the residents in the study communities. The dust is mainly generated through the explosion of rocks by mining companies at their various blast sites. Odumase and Teberebie are no exception to these consequences due to the decades of mining operations in these communities. However, the situation is relatively worse in Teberebie than Odumase since the concession site is so close to Teberebie community. Moreover, movement of mining trucks and other vehicles of the mining companies pass through the community (Teberebie), generating clouds of dusts, which cover the communities on a number of occasions. Below are some complains from the two study communities:

Oh as for the dust, don't talk about it—we eat it; drink it; smell it; wear it; bathe with it and what . . . just name it? Every time they will blast, and their cars are always moving up and down on this dusty road [pointing to the road] . . . so what do you expect . . . you can't stop them. So we only watch them. Look, when their cars pass by right now, you'll

[referring to interviewer] close your nose; but I won't because I am used to it. (FGD participant, 31-year-old man, Teberebie)

Even now, as I'm talking with you, when they blast the rocks at 13:30, you will feel the smoke (fumes) that will come out. It's really bad! (A 68-year-old man, opinion leader, Odumase)

Admittedly, there are problems in establishing a direct association between the present increasing surface mining activities and the health of residents. Still, it is evident that pollutants, accidents, and direct inhalation of toxic particles certainly contribute to the poor health condition of these communities. While it takes a long period of time to see the negative health effects of some of the pollutants (such as mercury), others like cyanide are immediate (Akabzaa & Darimani, 2001). In as much as residents of Teberebie and Odumase may not have scientific proof to buttress their assertions, they perceive their deteriorating health conditions as a result of the mining activities in the area. A 30-year-old woman at Teberebie complained that,

Sometimes I am even scared. At night, my husband will be coughing seriously as if he's going to die. It is always difficult for him to sleep . . . Yes, it's because of the mining because it wasn't like that when he was in Agona-Nkwanta until he came to settle here about three years ago.

And to support this allegation, a 38-year-old woman put it this way:

Who told you he's the only one suffering from that disease? It is TB, and I can say without excuse that everybody in this community has it . . . yes, I'm serious, and everybody has some in this community.

These findings were worrying, especially to the communities regarding the destruction caused to their water bodies. Plausible explanation to the blue-black (dark) color of the groundwater from the borehole selected could be attributed to the type of rock in the area—Birimian and Tarkwain. Particularly, the Birimian rocks have a very high iron (Fe) content which renders groundwater pH levels to fall below 6.5. For instance, Kortatsi (2007) found that some boreholes at Odumase had pH below 4.0, which indicates strong acidic character. This value falls below the recommended World Health Organization's (WHO) limits of pH range for potable water of 6.5 to 8.5. The high acidity naturally increases the capacity of the water to attack geological materials and leach toxic trace metals such as cobalt (Co), nickel (Ni), silver (Ag), etc. into the groundwater. When this toxic or polluted water comes into contact with any starch (as is found in plantain), it forms a complex with the Co, Ni, and Ag, etc., giving it the blue-black or dark color.

Though the mining companies may not be directly involved in this natural occurrence, they may be blamed for accelerating the process. One plausible explanation could be advanced that persistent blasting of rocks by mining companies in these communities creates fractures in the rock structure in the area, making it more vulnerable for acidic water to leach toxic trace metal from near-by sources to pollute groundwater. Moreover, the fractures also increase the rate of seepage of toxic chemicals from tailing dams owned by mining companies into groundwater aquifers, consequently polluting it.

It is important to note that the provision of boreholes in most mining communities mainly comes from the mining companies (sometimes in collaboration with the Government of Ghana) who do it as part of their corporate social responsibility (CSR). Scientists of the mining companies, testing and realizing the impurity of the groundwater from the boreholes could have capped it, instead of fixing a pump on it for use. They could also have raised awareness in the communities about the poor condition of the groundwater to prevent the communities from using the borehole. The intense mining activities have polluted the surface waters (rivers and streams) with silt which used to be the main source of drinking water for Odumase and Teberebie (Kortatsi, 2007). The communities are left with no option than to use the polluted but visually clean appearing borehole waters. However, the use of the deeper borehole ground water affects the communities in a number of serious ways.

Groundwater in hard-rock aquifers, particularly in mining areas, is well-known to be susceptible to contamination making it potentially harmful for human consumption. The high acidity of the water gives it a sour taste (Kortatsi, 2007). A number of studies in Odumase and Teberebie have shown that water quality in these communities is not good for human health (Armah, Obiri, Yawson, Pappoe, & Akoto, 2010; Commission on Human Rights and Administrative Justice (CHRAJ), 2008; Kortatsi, 2007). For instance, the CHRAJ report showed that the amount of silica in the Teberebie borehole water was higher than the levels allowed by the WHO. Additionally, the hardness of the groundwater (resulting from carbonate sources since alkalinity values have exceeded the total hardness in most cases) leads to soap wastage or more soap requirement for washing.

Air pollution in the form of dust (and blast fumes) was another form of pollution that was observed by the authors while in the study communities. This situation is often the case when the mining companies blast the rocks which led to a blanket of dust and offensive fumes which are felt in almost all parts of the communities. It also resulted from the regular movement of the companies' trucks to and from the mining sites through the communities. In most instances, residents will cover their nostrils to prevent the inhalation of dust and fumes. Others will not because they are used to it. Obviously, these have health implications. As Laing (1994) notes all dust, be it toxic or not, carries with it a serious nuisance for nearby communities and has damaging effects on vegetation through the blocking of plant pores and reducing light penetration and photosynthesis.

There is ample evidence supporting the accusations made by residents in these mining communities concerning the health implications of the mining operations. For instance, according to Akabzaa and Darimani (2001), data available at the Municipal Medical Office, Tarkwa, indicated that mining related diseases such as diarrhoea, upper respiratory diseases (pulmonary tuberculosis and silicosis), skin diseases, acute conjunctivitis, and accidents form the top ten health problems in the area. Specifically, tuberculosis (TB) was noted to have a strong history in these areas due to the very high silica content of rocks which contain the gold. Therefore, the dust generated by mining activities contains silica, which causes the silicosis, tuberculosis, and silico-tuberculosis diseases. Anyone, miners and residents, who inhale this dust, are thus prone to these diseases. It is reported that between 1992 and 1998, the incidence of upper respiratory tract infections (URTI) was relatively high in the Municipality, with an annual average of 840 reported cases.

Pneumonia and pulmonary tuberculosis follow, with annual reported cases of 199 and 109 (Akabzaa & Darimani, 2001).

But who really cares the most?

Who really cares about the distress of the residents of Odumase and Teberebie in the TNM regarding the destruction of their environment that has translated into the loss of livelihoods and life-threatening health risks? On the one hand, government or public agencies such as the EPA and Mineral Commission which are responsible for handling complaints from residents could not be trusted. The agencies were accused of aiding and abetting the mining companies to cause destruction to the environment and human life in the study communities. Elites are able to do so, perhaps due to the greater autonomy they wield which makes them seek their own interests or even pursue what they consider to be the interest of the public (Skocpol, 1979). According to local residents of Odumase and Teberebie,

Look, let me tell you, the EPA, Minerals Commission, Mining Inspector, Lands and Forestry are the government body who should have been monitoring whether the mines are doing good or bad. . . They [Ghana's Mineral Commission] are one of the "bogus" and useless government institutions I have ever seen. . . What? EPA? I don't want to even hear their name? The EPA and those people, we should not even talk about them. They are only interested in their selfish interest. That is all! (Male FGD participant, Odumase)

Now the thing is that the government has "share" in whatever money they make, so they don't care about the people. (Female FGD participant, Teberebie)

Hence WACAM

The mistrust and alleged corrupt practices of the public agencies provided fertile ground to breed contention among residents since to them; they seem to have minimal or no access to decision-making, both by direct representation or indirectly, in the extraction of mineral resources in the areas. This led to mobilization of residents to challenge the supposed "wrong," and thereby fulfilling the model as described by Tarrow (1994), McAdam (1996), and Rucht (1996) that "access to participation is the first important incentive for collective action" [possibly for protest]. It is easy to reason that the state repressive capacity "fired-up" mobilization in these communities. The Wassa Association of Communities Affected by Mining was formed to address residents' concerns endorsing ENGOs message wholeheartedly. The message of WACAM is to "resist the oppression" (WACAM, 2008, p. 7) of the mining companies on one side, and the unconcern attitudes of state institutions on the other. Specifically, WACAM seeks "to work with mining communities for the protection of their rights" (WACAM, 2008, p. 7) through advocacy and lobbying, capacity building, campaigning, stakeholder dialogue, fact finding, research, and documentation. From a small group in Tarkwa founded by a couple, Daniel and Helena, the organization now operates in 70 mining communities in Tarkwa/Prestea and Nzema (Western Region), Obuasi (Ashanti Region), Kenyase (Brong Ahafo Region), and New Abirim (Eastern Region) (WACAM, 2007). This is reflective of

the “demonstrative effect” of a successful mobilization of a social movement as disclosed by Kitschelt (1986). The Municipal Social Welfare Officer of TNM confirms this,

One thing is that their (WACAM) operations have extended to other areas of the country, e.g. Obuasi. . . They are now also in Kenyase. Thus even though they are situated here in Tarkwa, they go beyond this border.

Though the ENGO sought to adopt legitimate and/or multiple points of access provided by established institutional practices of advocacy, lobbying, capacity building, stakeholder dialogue, etc., as its characteristic mode of operation residents sometimes went wayward, resorting to more confrontational and disruptive strategies of demonstrations. This according to Kitschelt (1986) occurs when the state’s [institutional] systems are closed and strong (as cited in Rootes, 1999). A male opinion leader from Odumase asserts:

We resort to court actions for redress, but sometimes it doesn’t help matters so we go on demonstrations. Even just yesterday, some farmers whose farms were taken over about three years ago by the mining company went for demonstration. . . they have been going to court for almost three years now but to no avail. So what do you expect them to do?

In this study, the performance or effectiveness of the ENGO was assessed with United Kingdom’s International NGO Training and Research Centre (INTRAC) Abilities Model. As far as this paper is concerned, two of the capacities—the “Ability to relate” and “Ability to do” are discussed. Sub-themes under this ability include relevance, effectiveness (achievements), and sustainability.

“Ability to relate”

The study sought to assess the credibility and standing of WACAM in the local community, its links with other stakeholders and how responsive WACAM is to issues relating to mining and the environment at large. These are discussed as follows.

Standing (legitimacy).

Overall, respondents had respect for and were confident that WACAM was capable of helping to resolve environmental problems in the mining communities. This translated into the NGO being the first point of call for the communities whenever their human and environmental rights are trampled upon. Akos (pseudonym), a 33-year-old female respondent from Teberebie expresses this belief well:

Where do you expect us to go? The EPA? We won’t even waste our time to go there because they won’t listen to us. . . this is what they have been doing to us. When we have any problem we go straight to WACAM where at least we are given a listening ear.

Linkages or network among stakeholders

Environmental management has been effective in areas where effective cooperation exists amongst all stakeholders (Stojkovski, 2007). By implication, it becomes very difficult for the expected objective to be met when there is a weak collaboration between stakeholders. Evidence gathered suggested that WACAM was not a lone ranger in the management of the environment in the communities. The organization cooperates with other organizations on national, regional (Africa or West Africa), and international levels for technical and financial support. WACAM particularly won the interests and supports of local, national, and international environmental NGO such as Oxfam America, Foodfirst Information and Action Network (FIAN), and Rights and Voice Initiative (RAVI) to charter the course of its activities. Aside its network of ENGOs, WACAM also partners other institutions such as the National Coalition on Mining (NCOM). At the time of the study, the WACAM had not been able to foster healthy relationship with the body that is responsible for environmental management in the country—EPA. This contentious relationship was interpreted differently by the two bodies.

To WACAM: “EPA see us as a threat. . . thinking that we have been inciting the communities against them” (ED, WACAM).

The EPA on the other hand claimed that it is inappropriate to collaborate with WACAM since the organization’s activities are not in consonant with theirs—to “ensuring environmental sanity in the country” (EPA, 1996, p.). This assertion by the Municipal EPA officer was found out to be the major challenge the organization faced in discharging its duties, as in many ways, EPA would fail to engage in any “jaw-jaw” [negotiation] with them. EPA and mining company employees interviewed in the study discounted the claims and “unnecessary” alarms raised by WACAM regarding the operations of the mining companies.

As far as I am concerned, WACAM is not an environmental NGO; it’s a civil right activist. (Municipal Officer, EPA)

WACAM and her members in this community are litigants who find just problem with anything the mining companies do in the community . . . I don’t know what they are looking for . . . are they the only people living in this town? (28-year-old male participant in a FGD, Teberobie)

Responsiveness

As an organization which is open to the external environment, WACAM activities are affected or influenced by what goes on in the mining communities as well as situations such as world financial conditions, and political or governmental circumstances, among others (Falletta, 2005; Katz & Kahn, 1978). In view of this, the study sought to find out how responsive WACAM was to external issues, and how these issues shaped its operations. The study found that anything that concerned the environment, especially those that were mining-related, caught the attention of WACAM. It was also found that not only did residents approach the organization when their environmental rights are breached, but almost any social issues that they are confronted with. This, according to the ENGO,

gave them many issues to deal with—biting more than they could chew. Perhaps this might have informed the EPA assertion that the WACAM could not qualify as an ENGO.

Relevance

Most respondents were of the view that the activities carried out by the organization are very significant and useful to the communities. In other words, building the capacities of the mining communities to be able to have effective engagement with the multi-national mining companies eventually leads to sound management of the communities' environment. According to the Municipal Social Welfare Officer, if nothing at all, WACAM is able to instil some fear in the mining companies to adopt the appropriate environmental practices:

With their (WACAM) presence, I think the mining companies are forced to do the right thing because they (mining companies) are aware that should they fail, some people are there to take them up. So I think they have proved themselves worthy.

Effectiveness

The study looked at effectiveness from the point of view of the organization's self-assessment of its ability to achieve the objectives it has set for itself, and from the point of view of other stakeholders' assessment of the organisation. Again, the success has been assessed within the context of POS where social movements' struggles should not be for individual gains, but for a social or national policy change. Asked about whether the organization has been able to achieve some of its objectives, the Executive Director of WACAM strongly defended that the achievement of the organization in terms of mining policy or regulations, even transcends the borders of Ghana to other countries within the West African sub-region. He states,

WACAM is the premier community-based advocacy group in this country. There are a number of mining advocacies NGOs that are as a result of WACAM. Centre for Environmental Impact Analysis (CEIA), Youth for Action Ghana (YAG), Centre for Public Interest Law (CEPIL), etc. are offshoot of WACAM. We have been able to share our experience at national level, and now we are working in the sub-region; in Mali, Senegal, and Burkina Faso . . . we have also been able to influence the inception of the ECOWAS Mining Directive for the Harmonization of Guiding Principles and Policies.

Kitschelt's (1986) "demonstration effect" of a successful social movement is reflected in the achievements of the organization. He continues,

When you come to even policy advocacy, the previous Minerals and Mining Law, PNDC Law 153, we don't have compensation principles in it. Out of the campaign we waged with other advocacy NGOs, now we have it in the new law, Act 703 . . . once we have the (mining) communities empowered and know that agencies like EPA have the responsibility to give feedback and the communities hold EPA accountable, then the objective that

we set for ourselves has been realised. For us, we assess ourselves against such improvements.

Residents confirmed this assertion by considering a number of WACAM's achievements, including raising local people's awareness of their rights, training residents on Early Warning Systems to detect cyanide spillage, compelling mining companies to develop water supply system for communities, provision of water storage reservoir (Poly Tanks or water tanks) for communities, raising awareness and campaign to expose the plight of the mining communities to the outside world, and many others. For instance the provision of water tanks for the communities was necessitated when cyanide and other mining chemicals seeped into water bodies (both surface and underground) in the mining communities. While state institutions acted "unconcerned," WACAM took samples of the water to laboratories to check for the presence of harmful chemicals, and acted upon that to mount pressure on EPA to force the companies to supply water tanks to the communities. Most of these achievements were confirmed by members of the community who participated in the FGDs as the following quotations suggest:

. . . even though I am not a lawyer, I have a lot of knowledge about law, thanks to WACAM. They always organise workshops for us to educate us on the laws of Ghana, our rights as Ghanaians, and mining laws. As you can see pasted on the wall 'What is Law?' Am not a lawyer, yet I learn these things. So now I know the law." (FGD Participant, Odumase)

Mind you "water is life" . . . now we have poly tanks. There are about four which supply the whole community with water. It was as a result of pressure that was mounted by WACAM that made them bring the poly tanks. (FGD participants, Odumase)

Exactly! As for WACAM, they teach us to know our rights so that we can protect the environment. But apart from that, they have done a lot about these dumping by the mining companies, especially in our rivers. I remember a spillage occurred here about two years ago and it was reported to the leadership of WACAM. They responded immediately by coming down to take some pictures and other things. I remember very well that EPA wanted to cover up and to defend the mining companies, but WACAM exposed them. (FGD participant, Teberbie)

Sustainability

The study sought to find out from WACAM how it intends to sustain any achievement it had made. In this regard, we asked whether the ENGO would be able to sustain its activities with or without support from donors. The response was in the negative. Thus, both the administrative staff and executive director saw an uncertain future for WACAM in sustaining its achievements. In spite of this negative perspective on the future of the organisation's effort, WACAM had in place some measures to ensure the sustainability of its achievements focused on youth and women's educational and leadership development as was indicated by the executive director of WACAM:

We have developed the women's section to a point since last year. We think that once we are dealing with the youth, women or gender issues . . . our achievement will be sustained

. . . We have a programme among the youth especially in the tertiary institutions, GIJ, etc. That is a youth mentoring programme which is meant to ensure that new energies are brought on board to ensure that the successes are sustained . . . Also some teacher activists are now pursuing degree programmes, while the degree holders are pursuing masters' programme. We just want to be self-sufficient in terms of intellectual capacity in the area of activism.

Discussion

There is evidence to prove the assertion that residents of Odumase and Teberebie have been denied full access to their traditional lands that the communities have owned for centuries. These lands which hitherto were their major source of livelihood have been taken over by the state of Ghana, and vested in the president, and eventually transferred to companies. This is clearly made known in the Mineral and Mining Act, Act 703 of 2006 (Ownership of minerals and cadastral system: Minerals property of Republic):

Every mineral in its natural state in, under or upon land in Ghana, rivers, streams, water-courses throughout the country, the exclusive economic zone and an area covered by the territorial sea or continental shelf is the property of the Republic and is vested in the President in trust for the people of Ghana. (Section 1, p. 5)

Some residents are aware of this power offered by the constitution of the Republic of Ghana and have some problems with it, as suggested by a 48-year-old male FGD discussant at Odumase:

I will say that even though I own the land, but the concession is in the hands of the government for the good of the country, and so must manage it well. But if you leave it in the care of the companies, they will do things anyhow.

Residents' major concern has little to do with the extraction of the minerals, but much with how the resource is extracted and managed at the expense of their comfort, leaving them with nothing and excluding them from enjoying their full rights as citizens of the Republic of Ghana. The destruction, including deforestation and various forms of pollution, deprive the residents of Odumase and Teberebie respectable livelihoods and human rights. This has eventually plunged them into a vicious cycle of poverty. The reality is that the state of the physical environment as at the time of the study does not depict Dickson and Benneh's (2001) earlier description of the area—a forest dissected plateau. It is not uncommon to come across mined pits and waste rock dumps rising steep and high on the margins of the communities.

State institutions with the regulatory responsibility of protecting the environment and the rights of residents of the mining communities through policies against the destructive powers of mineral extraction by the mining companies, according to residents, have failed to perform creditably, and thereby fuels the rise of challenger groups including, WACAM. This paper extends the concept of political opportunity to the study of this ENGO since its activities resonates with that of many social movements across the globe.

Earle (2011) admits that the major impetus, aside from human rights abuses, to spark activism in fragile states is the extraction of natural resources. This is exactly the case in the Odumase and Teberebie in the Tarkwa-Nsuaem Municipality. Due to the increasing opportunities or threats and repression from state institutions as well as mining companies (foreign companies), WACAM mobilizes the residents of the mining communities to seek better environmental conditions to improve their health. WACAM has educated the communities to identify themselves with the struggle for sound environmental conditions, and met regularly with them to strategize on how best to achieve them. The threats and repressiveness of the state are reflected in the failure of government agencies and institutions to ensure environmentally and socially responsible extraction and management of mineral resources. The laissez-faire attitudes on the part of these government agencies, especially the Mineral Commission and the EPA, act as a catalyst of local mistrust in the agencies' ability to resolve environmental concerns in the communities. This mistrust for the public agencies and the trust for WACAM have developed over a period of time as the state institutions have failed to adequately show interest in attending to the pressing demands of the communities. The situation is different with WACAM according to this study. According to Knight and Bates (1995), ENGOs are able to do this because they have access to "legislative bodies, courts, the news media, natural resource management professionals, etc." (p. 192), and hence are able to match boot-for-boot with government agencies (or sometimes perform better than them) and other institutions.

ENGO's effectiveness in environmental management policy is one of the most difficult issues to discuss (Alexeeva et al., 2007), since it becomes unclear as to how to measure it. Various organizations measure it differently, especially quantitatively, in order to avoid misinterpretation. In this study, effectiveness was measured by WACAM's achievements as against objectives it has set for itself, and as confirmed by other stakeholders, including some residents and public agencies. In the context of political opportunity structure, the effectiveness could be measure by how the ENGOs activities are rippled (demonstrative effect) in other locations as a result of successful mobilisations in current location (Kitschelt, 1986). Flowing from this argument, one can conclude that WACAM have proved effective.

It was revealed that WACAM has evolved to become a household name in the Municipality in particular and in Ghana as a whole such that the organization is the first point of call for residents when they have any complaint with the mining companies—from compensation settlements to environmental issues. It therefore is reasonable to think that WACAM has emerged as an alternative institution (Knight & Bates, 1995) to governments' failure in environmental governance. The organization has become too relevant to be ignored. Expressing opinions and presenting practical solutions through stakeholder dialogue, capacity building, and advocacy and lobbying have proven effective in changing government's policy (response) on mining related concerns in the communities. Furthermore, other outcomes are evident in some respondents' depth of knowledge about Ghana's mineral and mining laws which has better equipped them to engage in legal tussles with the mining companies instead of engaging in violence and constant demonstrations.

Networks and alliances among NGOs with similar objectives enabled them (WACAM and allies) to act as a strong voice achieving their objectives, an observation in line with those made by the International Fund for Agricultural Development (IFAD)

Rural Poverty Report (2001), that NGOs are able to undertake programs more effectively when they partner with each other (IFAD, 2002). Still, connection with state institutions was found to be unfortunate and challenging for WACAM. Positions taken by the WACAM, like any ENGO, are not meant to frustrate government (as anti-government), but share a similar opinion about environmental protection as the central government does, thus hoping to coexist harmoniously with the government to create a safe environment for mineral extraction. This social movements (state interaction) reveals how the national state today evolved in tandem with social movement mobilization, arguing that to better comprehend the state, one cannot ignore the role of political protest (Johnston, 2011). Therefore, it is not surprising that WACAM has been influential in mineral extraction policies in Ghana and in the West African sub-region (not verifiable in this current study).

NGOs concerned about the future must find ways to ensure sustainability of their achievements and successes. VanSant (2003) opines that such a forward-looking attitude could be realized in an atmosphere of effective organizational autonomy (ability to make decisions about organizational goals, budget, pay incentives, and external linkages), organizational learning, and organizational leadership (measured by vision, innovation, decisiveness, and a strong people orientation). In the case of WACAM, the pessimism regarding sustenance of its achievement stems from its organizational autonomy since it depended largely on external aid (about 90% of its budget) to fund both administrative duties, including payment and incentive for staff, and conducting its programs and projects. Hence, cessation of such funding threatens to result in the collapse of the organization's programs. This should not be unexpected since NGOs in developing countries largely rely on funding from donor agencies, multilateral lenders, and charitable institutions for funding to sustain their operations. On the other hand, the leadership of the organization must endeavor to ensure sustenance by finding methods to internally generate funds perhaps through investment in women and youth capacity building, institutional collaboration, and other means. This to a greater extent will amount to "meeting the needs of its stakeholders without compromising its ability also to meet their needs in the future" (Hockerts, 1999, p.). Sustainability then emanates from WACAM's human capacity building as well as through its vision, innovation, and decisiveness for the environment.

Conclusion

In this paper, the performance of an ENGO has been assessed. It explored how WACAM mobilized and built the capacities of some residents of Odumase and Teberebie in legal matters to orient them to engage in legal wrangles regarding take-over of their natural asset (farmlands), and damage caused to their environment by mining companies within their localities. Women, youth, and intellectual capacity development as well as collaboration with tertiary educational institutions are some of the structures put in place by the NGO to ensure the sustenance of successes made.

References

- Addy, S. N. (1998). Ghana: revival of the mineral Sector. *Resource Policy*, 24(6), 229–241.
- Akabzaa, T., & Darimani, A. (2001). Impact of mining sector investment in Ghana: A study of the Tarkwa mining region. *Third World Network*.
- Alexeeva, N., et al. (2007). *Performance of environmental NGOs in former Soviet Union countries: A comparative study in the Baltic States, Belarus, Russia and the Ukraine*. Retrieved from http://www.befde.org/Members/befadmin/publikationen/notbalt3_publication.pdf
- Amenta, E., & Zylan, Y. (1991). It happened here: Political opportunity, the new institutionalism, and the Townsend Movement. *American Sociological Review*, 56.
- Armah, F. A., Obiri, S., Yawson, D. O., Pappoe, A. N. M., & Akoto, B. (2010). Mining and heavy metal pollution: Assessment of aquatic environments in Tarkwa (Ghana) using Multivariate Statistical Analysis. *Journal of Environmental Statistics*, 1(4), 1–13.
- Aryee, B. N. A. (2001). Ghana's mining sector: Its contribution to the national economy. *Resource policy*, 27(2), 61-75.
- Bengtsson, B. (2007). Ethnic organisation, integration, and political opportunity structures: Some theoretical considerations. *Comparative Studies of Political Integration in a Multicultural Europe*, Elsevier Science, *Comparative Social Research*, 25.
- Boampongsem, L. K., Adam, J. I., Dampare, S. B., & Essumang, D. K. (2010). Assessment of atmospheric heavy metal deposition in the Tarkwa gold mining areas of Ghana using epiphytic lichens. *Nuclear Instruments and Methods in Physics Research Section B: Beams Interactions with Materials and Atoms*, 268(9), 1492-1501.
- CIDA, P. (1996). Capacity development: The concept and its implementation in the CIDA context. *Hull: CIDA*.
- Commission on Human Rights and Administrative Justice. (2008). *The state of human rights in mining communities in Ghana*. Retrieved from <http://www.nodirtygold.org/Human-RightsInGhanaMiningCommunities.pdf>
- Creswell, J. W. (2007). *Qualitative enquiry and research design: Choosing among five approaches* (2nd ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Cutler, M. R. (1995). Old Player with New Power: The Non-Governmental Organisations. In R. L. Knight & S. F. Bates (Eds.), *A New Century for Natural Resource Management* (pp. 189-220). Washington, DC: Island Press.
- de Búrca, A. (2009). Suicide Missions: The 'political opportunity structure' and constraints of constituency. *ConWeb*, 1.
- Dickson, K. B., & Benneh, G. (2001). *A new geography of Ghana* (Rev. ed.). City, United Kingdom: Longman Group Ltd.
- Doftori, M. R. (2004). *Education and child labour in developing countries. A study on the role of non-governmental organisations in Bangladesh and Nepal*. Helsinki, Finland: Helsinki University Press.
- Earle, L. (2011). *Literature review on the dynamics of social movements in fragile and conflict-affected states*. Issues Paper, Governance and Social Development Resource Centre
- Environmental Protection Agency (1996). *Environmental assessment in Ghana: A guide*. Accra, Ghana: Environmental Protection Agency.
- Falletta, S. V. (2005). *Organisational diagnostic models: A review and synthesis*. City, CA: Leader Sphere.
- Gamson, W. A., & Meyer, D. S. (1996). Framing political opportunity. In D. McAdam, J. D. McCarthy, & M. N. Zald (Eds.), *Comparative perspectives on social movements* (pp. 275-290). New York, NY: Cambridge University Press.
- Goldstone, J. A., & Tilly, C. (2001). Threat (and opportunity): Popular action and state response in the dynamics of contentious action. *Silence and voice in the study of contentious politics*, 179-94.

- Government of Ghana (2006). Mineral and Mining Act (Act 703).
- Hens, L., & Boon, E. K. (1999). *Institutional, legal and economic instruments in Ghana's environmental policy*. Human Ecology Department, Vrije Universiteit, Brussels, Belgium.
- Hockerts, K. (1999). The sustainability radar: A tool for the innovation of sustainable products and services. *Greener Management International*, 25, 29–49.
- Hurst, M. E. E. (1972). *A geography of economic behaviour: An introduction*. City, CA: Duxbury Press.
- International Fund for Agricultural Development. (2002). *IFAD and NGOs: dynamic partnership to fight rural poverty*. Retrieved from <http://www.ifad.org>
- Jenkins, J. C., & Schock, K. (1992). Global structures and political processes in the study of domestic political conflict. *Annual Review of Sociology*, 18, 161–185.
- Johnston, H. (2011). *States and Social Movements*. Cambridge, England: Polity Press.
- Katz, D., & Kahn, R. (1978). *The social psychology of organisations* (2nd ed.). New York, NY: John Wiley & Sons.
- Kerbo, H. (1978). Foreign involvement in the preconditions for political violence: The world system and the case of Chile. *Journal of Conflict Resolution*, 22, 363–391.
- Kessler, J. J., van Ginniken, P., Cornelissen, W., & Romijn, B. (2001). *Environmental management: Towards a conceptual framework for environmental governance*. Washington, DC: Inter-American Development Bank.
- Kitschelt, H. P. (1986). Political opportunity structures and political protest: Anti-nuclear movements in four democracies. *British Journal of Political Science*, 16, 57–85.
- Knight, R. L., & Bates, S. F. (Eds.). (1995). *A new century for natural resource management*. Washington, DC: Island Press.
- Koushfar, M., Amini, F., & Azadipour, S. (2007). The role of environmental NGOs in protecting Zayanderood River in Isfahan. *International NGO Journal*, 2(2), 27–29.
- Kruse, S. E. (1999). *How to assess NGO capacity? A resource book on organisational assessment*. Oslo, Norway: Norwegian Missionary Council.
- Kortatsi, B. K. (2007). Groundwater quality in the Wassa West District of the Western Region of Ghana. *West African Journal of Applied Ecology*, 11, 25–41.
- Laing, E. (Ed.). (1994). *Ghana Environmental Action Plan. Technical Background Papers by Six Working Groups*. Environmental Protection Council. Accra, Ghana: Advent Press.
- Lichbach, M. I. (1998). Contending theories of contentious politics and the structure-action problem of social order. *Annual Reviews Political Science*, 1, 401–24.
- Lusthaus, C., & Adrien M. H. (1998). Organisational assessment: A review of experience. *Universalia Occasional Paper*, (31).
- Marks, G., & McAdam, D. (1996). Social movements and the changing structure of political opportunity in the European community. *West European Politics*, 19, 249–278.
- Maney, G. M. (n.d.). International sources of domestic protest: creating theories and assessing evidence. *Unpublished Paper*. University of Wisconsin, Madison.
- McAdam, D. (1982). *Political process and the development of black insurgency, 1930-1970*. Chicago, IL: The University of Chicago Press.
- McAdam, D. (1996). Conceptual origins, current problems, future directions. In D. McAdam, J. McCarthy, & Zald, M. (Eds.). *Comparative perspectives on social movements: Political opportunities, mobilizing structures, and cultural framings* (pp. 23-40). Cambridge, England: Cambridge University Press.
- McAdam, D., McCarthy, J. D., & Zald, M. N. (Eds.). (1996). *Comparative perspectives on social movements: Political opportunities, mobilizing structures, and cultural framings*. Cambridge University Press.

- Mertens, D. M. (2005). *Research methods in education and psychology: Integrating diversity with quantitative and qualitative approaches*. (2nd ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Obi, C. I. (2005). *Environmental movements in sub-Saharan Africa: A political ecology of power and conflict*. Geneva: United Nations Research Institute for Social Development.
- Piven, F. F., & Cloward, R. A. (1977). *Poor people's movements*. New York, NY: Pantheon.
- Rootes, C. A. (1999). Political opportunity structures: Promise, problems and prospects. *La Lettre de la maison Française d'Oxford*, 10, 75–97.
- Rucht, D. (1996). The impact of national contexts on social movement structures: A cross-national comparison. In D. McAdam, J. D. McCarthy, & M. N. Zald (Eds), *Comparative perspectives on social movements* (pp.—). Cambridge, England: Cambridge University Press.
- Schubert, L. (1993). Environmental politics in Asia. *Environmental Politics in the International Arena: Movements, Parties, Organizations, and Policy*, 239-55.
- Serfor-Armah, Y., Nyarko, B. J. B., & Adomako, D. (2006). Levels of arsenic and antimony in water and sediments from Prestea, a gold mining town in Ghana and its environs. *Water, Air and Soil Pollution*, 175, 1–4.
- Sewell, W. H. (1990). Collective violence and collective loyalties in France: why the French revolution made a difference. *Politics & Society*, 18(4), 527-552.
- Skocpol, T. (1979). *States and social revolutions: A comparative analysis of France, Russia and China*. Cambridge University Press.
- Snow, D. (1992). *Inside the environmental movement: Meeting the leadership challenge*. Washington, DC: Island Press.
- Sterner, T. (2003). *Policy instruments for environmental and natural resource Management*. Washington, DC: RFF Press.
- Stojkovski, Z. (2007). *Draft report on need assessment and performance evaluation of the KIP NGOs*. Kosovo, Serbia: Danish Refugee Centre.
- Tarrow, S. (1983). Struggling to reform: Social movements and policy change during cycles of protest. *Western Societies Paper 15*. Cornell University, Ithaca, NY.
- Tarrow, S. (1988). National politics and collective action: Recent theory and research in Western Europe and the United States. *Annual Review of Sociology*, 14(42), 1–40.
- Tarrow, S. (1994). *Power in Movement*. Cambridge, England: Cambridge University Press.
- Tilly, C. (1978). *From Mobilization to Revolution*. Reading, MA: Addison-Wesley.
- VanSant, J. (2003). *Challenges of Local NGO Sustainability*, Duke Center for International Development. Retrieved from http://wwwpps.aas.duke.edu/centers/cidr/downloads/vansant_200310.pdf
- WACAM. (2007). *WACAM programme strategy for 2008—2012*. Accra, Ghana: WACAM.
- WACAM. (2008). *An organisation of communities affected by mining*. Accra, Ghana: WACAM.
- Yelpaala, K. (2004). *Mining, sustainable development and health in Ghana. The Akwatia case study*. Brown University Luce Environmental Scholars Programme, Providence, RI.