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Resource conflict in Kenya's titanium mining industry: Ethnoecology and the redefinition of ownership, control, and compensation

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ABSTRACT

The literature on community-mining enterprise conflict is currently dominated by discourses on equity, compensation, land ownership, and environmental degradation. While much debate has dwelled on whether mining is a curse or a blessing, little attention has been given to highlight the meanings that communities attach to the assets being fought over, and the need therefore to review existing laws on mining, and practices to reflect these realities.

The displacement of over 3000 residents in Kwale, Kenya to make way for the mining of titanium has raised serious concerns over indigenous resource ownership and control in Kenya's mining industry, calling for a fresh look at the Kenyan mining law. Using an ethno-ecological approach, this article explains how a community's loss of land assets can induce a sense of vulnerability which can prefigure conflict. The conflict demonstrates the need for a more sensitive approach to community resource ownership and indigenous mineral control.

KEYWORDS

Mining conflict; resource ownership; attachment to land; ethno-ecology

1. Introduction

The extraction of minerals has led to intense conflict over resource control between mining communities¹ on one side, and the government/extractive company on the other. The major source of conflict is usually over who owns (and therefore controls) the land on which the mining activity is taking place. While indigenes hold the view that they are the 'true' owners of the contested land (by virtue of having lived on it, and having been the allodial owners of the land for centuries – see Akpan, 2005; Uchendu, 2007), government considers itself as the real owner through the power of eminent domain. This view then cascades to the next phase of conflict, that is, conflict over compensation. Since mining invariably leads to social displacement, the affected community have to be compensated to ameliorate the effect of displacement. Displaced persons suffer certain losses, such as loss of homes, loss of livelihoods, marginalisation, food insecurity, poor health and illness, psychological trauma, and social and cultural

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¹The phrase 'mining community' is used in this article to refer to those communities that are directly affected by the mining project. In many cases, this is usually the resident community.

risks, among others (Ahmad & Lahiri-dutt, 2006), which by World Bank standards have to be compensated (see Cernea, 2003). Studies (see Abuodha & Hayombe, 2006, for instance) have shown that communities are usually dissatisfied with the compensation offered.

The foregoing, together with the conflict over land, then culminates in the third phase of the conflict, that is, conflict over the sharing of benefits accruing from the mining activity. Because mining communities consider that the land so condemned was theirs by right of birth (and use thereof), and further hold that they were unfairly displaced, and were inadequately compensated for their losses, these communities usually then agitate for a share of the profits emanating from the mining venture. Studies (see Omeje, 2004; Walton & Barnett, 2007) however, have shown that communities are usually dissatisfied with the lack of or the 'inadequate' share they receive from extractive companies and/or government. Corporate Social Responsibility (CSR) programmes pursued as a further form of compensation and as a way of sharing the benefits also appear not to work (see Vintró et al., 2012; Zu et al., 2014), leading to the witnessed conflict over resource management and ownership.

The question that then arises is how can such conflict be minimised so as to make mining work for all? It has been suggested that an ethno-ecological consideration of the resources being fought over, or assets targeted for compensation, would go a long way in minimising such conflict (Akpan, 2005). This article therefore adopts an ethno-ecological view in its analysis of how conflict in the mining sector can be minimised. The article assesses how this view (ethno-ecological analysis) can be used in fruitful debate to redefine resource ownership, resource control, and compensation. The article focuses on the displaced community of Kwale who were evicted from their land to make way for titanium mining. Ethnography, in-depth interviews, focus group discussions, and ethno-ecology were the main methods used in the study on which this article is anchored.

2. Mining and conflict over resource control

In 2007, over 3000 residents were displaced from their ancestral land in Kwale, Kenya, to make way for titanium mining (Mines and Communities, 2007). In keeping with World Bank procedures over projects funded by the body in which it is realised that social displacement can have a negative impact on communities in a number of ways, such as loss of homes, loss of livelihoods, marginalisation, food insecurity, poor health and illness, psychological trauma, and social and cultural risks, among others (Ahmad & Lahiri-dutt, 2006), the Kenyan government offered a compensational package to the local Kwale community as a way of mitigating the impact of the displacement. However, these measures did not succeed in assuaging the disaffection of the displaced farmers. As a result, since the inception of the mining project in 2001,2 the local community has been in conflict with the government and with the extractive company, Tiomin (K), over the mining project (Bank Information Centre, 2006).

It has been acknowledged that conflict is an inherent part of mining communities worldwide (see Hilson, 2002). Factors that are often cited as contributing to this conflict include lack of equity on sharing of benefits accruing from the mining enterprise, matters

²Prospecting licences were issued to Tiomin (K) at this time (2002–10). Tiomin changed its name to Vaaldiam Resources in early 2010. Its operations were acquired by Base Iron Ltd of Australia in July 2010.

touching on compensation of assets lost in the process of displacement, issues over land ownership, and conflict over environmental degradation (see Frynas & Wood, 2001; Eccarius-Kelly, 2006; Akiwumi, 2012). It has, however, been argued that contestation over land ownership (and its resources) breeds the most conflict (Akiwumi, 2012; Bebbington et al., 2008).

Hilson (2002:68) posits that this is the most contested issue for the reason that the two parties (the extractive companies and the local communities) place fundamentally different socio-economic values on land. On one hand, the local communities are convinced that they are the real owners of the land, and as such, no one, not even the government, has the right to dispossess them of their land (and the resources on it). Most indigenous landowners believe that this ownership extends to everything below and above the area of land they own, including the minerals below and the sky above (McLeod, 2000:116). They ascribe this right to the fact that they were the first occupants and users of the land (see Akpan, 2005; Uchendu, 2007). Governments on the other hand use the doctrine of eminent domain to forcefully acquire private land for public use. But, as Umejesi (2015) argues, to local communities, they are the concerned public who should directly benefit from the mining project. This dichotomy of thoughts is what makes the conflict particularly intense.

Local communities have always treated both the subsurface and the surface of their land as the same. To the locals, the surface of one's land is reserved for the living, while the subsurface is reserved as the eternal resting place of the ancestors (see Uchendu, 2007). Dead ancestors are not cut off from the living, but remain an integral part of their community and family. Hence, with the acquisition by the state of subsurface rights, the link between the abodes of the living and the dead members of the communities is disturbed. The symbolic nature of mining (be it deep-rock or open-cast mining) only worsens the situation, for in the eyes of the mining community, the government and the extractive company appear to be benefitting from the remains of their ancestors in the name of minerals.

As Kinsley and Townsend (2006:527) point out, humans rely intellectually, emotionally, physically and spiritually on nature - a relationship referred to as 'biophilia' - and become attached to their ancestral land in what is referred to as 'geopity' (Smith, 2002:434). This affinity is believed to be more evident among African communities. Again 'land is not only ... the basic source of subsistence for most African people, but also a basic necessary factor in [their] socio-cultural systems' (Kilson, 1955:109).

Van Donge and Pherani (1999) and Shipton (1994) also argue that to many African communities, land is a means of attaining power, a symbol of prestige, and a source of identity, and that it also serves as a sanctuary that bears restorative powers. For instance, a grave is not merely a place for remembrance, but it is also a 'gateway to the supernatural world' (De Beer, 2006:24). To some communities in Africa (e.g. the Luo of Kenya), ownership of land is not determined by some legal instrument such as a title deed, but is determined by the graves dotting the homestead (Shipton, 2009).

To rural communities therefore, land is not a mere 'piece of earth', but a 'piece of earth' that produces a sense of pride and attachment that is out of all proportion to the mere two hectares a family might hold. Land embodies:

[M]ystical qualities. For our people, land embodies the spirit of the Earth deity, a revered mother who blesses land with her bountiful gifts. Land is also the burial place for the ancestors, those invisible father-figures who bequeathed their land to a "vast family" which includes the dead, the living, and the unborn. (Uchendu, 1979:64)

Uchendu (1979) adds that in traditional African communities, land (and by extension the resources on and under it as the two are not separate) was 'owned' by the lineage, village or community and that control and management of land was vested in the heads of these various units (and not on the state as decreed by the doctrine of eminent domain).

The American legal system and the Kenyan legal system vary in so far as the allocation of property rights is concerned. In the American legal system, ownership of land carries with it ownership of all substances under the surface. This regime is premised on the Latin maxim cujus est solum, ejus est usque ad coelum et ad inferos, which suggests that the rights of the surface owner extend upward 'to the heavens' and downward to the 'center of the earth' (Wieland, 2013:204). However, in much of Africa, the state is the ultimate owner of all land and minerals. In Kenya for example, the Mining Act (Cap 306) vests all mineral rights on the government. Ojiambo (2002:12) points out that this law was enacted by the colonial government to 'bequeath all minerals to the Crown for ease of exploitation and repatriation to the parent country'; and he wonders why successive governments, even 52 years after attaining independence, have opted to retain this law despite its visible shortcomings.³ Very much like Kenya, the Nigerian petroleum industry⁴ is also governed by a plethora of laws. The Department of Petroleum Resources (DPR) identifies more than 35 of these pieces of legislation.⁵

South Africa, however, presents an interesting case as its legislation allows for community ownership and control of minerals. Under the Minerals and Petroleum Resources Royalty Bill, 2008, which is part of the mining policy framework accompanying the Mineral and Petroleum Resources Development Act (Act No. 28 of 2002), communities such as the Royal Bafokeng and Bakgatla BaKgafela are able to own and benefit directly from mineral wealth resting on communal land (see Mnwana, 2014). However, Mnwana and Akpan (2009) and Mnwana (2014) caution that community control does not necessarily translate to local 'ownership' and local development.

This article proposes that use of ethno-ecological knowledge in the face of social displacement, mining, and conflict can lead to better management of the conflict that arises out of this interaction. Ethno-ecological knowledge will provide the necessary insights to governments on the importance that communities hold on the assets lost and/or targeted for compensation, which will enable policy makers to enact better laws that take cognisance of this reality. The next section therefore looks at ethno-ecology and analyses its importance in discerning land ownership and resource control.

3. Ethno-ecology

Using an ethno-ecological approach, this article explains how a community's loss of land assets can induce a sense of vulnerability which can prefigure conflict. It does this by unearthing the meanings that a community attaches to 'nature' and cultural artefacts,

³It is worth noting, however, that a new mining act came into force in May, 2016.

⁴In the mining sector, Nigeria current engages only in the extraction of oil. Solid mineral exploitation is currently dormant. ⁵See http://www.dprnigeria.com/legislation.htm.

and then examines how the loss of these assets breeds discontent among members of the community.

Ethno-ecology is the interdisciplinary study of how nature is perceived by humans through a screen of beliefs and knowledge, and how humans, through their symbolic meanings and representations, use and/or manage landscapes and natural resources (Barrera-Bassols & Toledo, 2005:9). Ethno-ecology thus offers an approach that can enable social scientists to understand how people 'encounter' physiographic phenomena (Duvall, 2008:328). Sudden changes that affect this encounter may then be the origin of conflicts witnessed within mining enterprises. Close encounters with the environment lead to attachment to one's landscape, and alienation from such an environment would render a community vulnerable, and therefore prone to react angrily against such action. Proper understanding of the ethno-ecological value that communities place on their environment may lead to better management of the resources found in such environment, leading to enactment of better laws that would better define ownership and control of such resources.

4. Theorising vulnerability

Ethno-ecology on its own is insufficient in explaining how displacement from a socially constructed world may lead to states of vulnerability. It is also limited in explaining how such feelings of vulnerability may lead to conflict among mining stakeholders. Vulnerability discourse therefore helps in finding the 'missing' analytical threads that may inform such conflict.

Vulnerability is defined as the degree to which a 'system is susceptible to, and unable to cope with, injury, damage or harm', and is a function of exposure, effect (also termed as potential impact, sensitivity) and recovery (also termed as resilience or adaptive capacity) (De Lange et al., 2010:3872). Using this approach, this article posits that damage is impacted on communities when they are evicted from their land. They feel vulnerable when they lose assets with important ethno-ecological value that could otherwise have been used to face adversity. The constructivist strand is particularly useful in this approach as it emphasises the role that culture plays in shaping definitions and exposure to risk and that vulnerability is socially constructed and is a result of economic, social, and political processes (McLaughlin & Dietz, 2008:102). In particular, in developing countries, changes in the environment processes increase the vulnerability index (Cardona, 2003). This article demonstrates this progression from relative comfort to states of vulnerability, and then attempts to show why recognition of the ethno-ecological value of assets lost during instance of displacement would go a long way in minimising such conflict.

5. Notes on methods

The study aimed at unearthing the meanings that the community in Kwale attach to 'nature' and cultural artefacts. From this analysis, it hopes to convince readers of the importance of redefining resource management and control and land ownership. This kind of study therefore called for a qualitative approach.

A five months' ethnographic study was carried out among the displaced residents of the villages of Maumba and Nguluku in Kwale District. Kwale District was selected as the study site as titanium mining has started here. The villages of Sokoke, Mambrui, and Vipingo, for which Tiomin (K) was issued a mining licence, were left out as social displacement or mining was yet to commence.

Ethnography (which is the art of 'subjective soaking', which involves the researcher immersing him/herself into the culture he/she is studying to gain deeper insight into the research matter at hand) was undertaken in the study area. In-depth semi-structured interviews (122 in all) were conducted among the target group, and a combination of snowball and 'convenience' sampling methods was used. This enabled the researcher to obtain the rich qualitative data required for a study in the phenomenology tradition, where meanings and social construction of phenomenon are unearthed.

Extensive semi-structured in-depth interviews were conducted with key informants at the offices of Tiomin (K) Ltd (four in total) and from the Ministry of Environment and Natural Resources (three in total). This enabled the researcher to have a glimpse of how these establishments perceived resource control and management and resolution of mining related conflict.

Focus Group Discussions (FGDs) were also conducted, two each at Mwaluvanga, Kikoneni, and Ukunda Locations, one in Mrima-Bwiti Msambweni Division and another at Mvumoni Location. Each focus group had between nine and 12 participants. Again, snowball and convenience sampling were used to select participants. FGDs enabled the exchange of information from the respondents to the researcher.

Ethno-ecology was the other important method used in this study. Its importance and choice for this study has already been discussed in Section 3 of this article. Both ethnoecology and ethnography therefore share the common goal of pursuing an 'emic' understanding of society, which involves 'immersion' into the group one is studying (see Berg, 2001 for this discussion).

6. Ethno-ecology of land

Shipton (1994) defines 'land' as the soil or the sand, a political power base, an aspect of divinity, a resource to be exploited, minerals, or other dimensions of it such as plants, animals, and the inhabitants themselves.

The study revealed that land in Kwale was revered among the inhabitants, mainly composed of the Mijikenda and the Kamba ethnic community. Land was endowed with the following ethno-ecological importance:

- (i) Land is part and parcel of human life. In other words, people believed that they could not exist without land. This resonates with Whittlesey's (1953:89) assertion that land is the 'soul (sic!) foundation of human life'. One respondent emphasised that land meant 'everything' to him.
- (ii) Land was described as the source of all sustenance, echoing Kilson's (1955:103) observation that 'land was significant as it was the basic source of subsistence for most African people'. One respondent asserted that an 'African's life is [dependent and spent] on the "farm" [land]'.
- (iii) Land is considered important as it is the 'final resting place' for human beings. Land is where one's ancestors are buried. But ancestors were also believed to live above ground as spirits, echoing Uchendu's (2007) sentiments that land is the abode of

both the living and the dead. It is also argued that complete unity with land is achieved through death, when, through burial, people become part of the spiritual landscape as ancestral spirits (Bovensiepen, 2009).

- (iv) Land is also important for inheritance purposes.
- (v) Land is a 'book' of community history. One can trace one's family and clan lineage through the graves found on one's land.
- (vi) Land is where one can practise one's culture, have holy places and shrines for prayer and carry out sacrifices. It was also where one can hide one's charms.
- (vii) Land is a form of security as it was 'there' for one to till 'forever'. One respondent said that land was one's 'pension scheme'.
- (viii) Land is a form of wealth.
- (ix) A large acreage of land is a 'sign of good luck' as it is a reward from a higher being (God) or from one's ancestors.

The above demonstrates that to indigenes, land is not just another form of property, but determines the very rationale for existing as a human being. In other words, land justifies human existence (see Havemann, 1999).

A government official in the Ministry of Lands observed that the Kwale community was attached to land as they considered it an asset, more so because of its use as a tool for inheritance (views shared by Carr, 2004). He added that land was rarely disposed of as future generations would blame any member who either sold or allowed the family land to be 'taken away'. Land therefore belonged to the clan and not just to an individual (an observation shared by Uchendu, 2007).

A farmers' representative during the period of displacement and (at the time of the field work) an influential opinion leader in the community elucidated the importance of land as follows:

We love our land because unlike the developed countries that have industries, our land is our only factory. We do not look for employment because our farms are our employers. We depend on our land for rearing of animals and growing food, the produce of which we use to raise our children. Our land is our source of livelihood. Land belongs to the whole family and as such, we do not sell it as this will not only impoverish the seller, but it will also impoverish the generations to come. One therefore holds land in trust not only for himself and for his immediate family, but also for his clan and for future generations as well; and even for the dead.

Ng'weno (1997:63) earlier noted that land inheritance among the Mijikenda, especially among the Digo, was held in high esteem. The author added that 'land connected social kin relations' through matrilineal and patrilineal inheritance . The displacement in Kwale threatened this system.

As to how social displacement has affected these meanings, most respondents were categorical that the condemned land had lost all the meanings previously attached to it. This was how one of the affected farmers put it:

Our abandoned land has lost all the meanings attached to it! We only look at it now with envy. It now only serves as a source of anguish and frustration. Our coconuts and mangoes are now ripe in our farms but we can't do anything.

Another relocatee lamented that the condemned land had lost all its meaning.

The land means nothing to us now! The trees and other plants we left there no longer serve as a source of nourishment to us; but are a reminder of a good life we once had but which is now lost. We only see our land and coconuts once in a while when we sneak back to our possessed land to take a peep at our lost treasures, and it only reminds us of the good life we had, but now lost. This fills me with great sadness when I think of it [the land].

This respondent also lamented that the land has acquired a new meaning - of serving as a reminder of a good life now lost.

The displaced also reckoned that they were left the poorer with the dislocation. A 57year-old displaced farmer said:

With our farms we could never go to bed hungry. But now our stomachs are grumbling like posho mill machines. We educated our children with proceeds from the farm but now that we have been deprived of these, some of us can no longer take our children to school - most of our children have dropped out of school and are in [the resort town of] Diani trying their luck in the tourist trade.

Elderly residents now perceived the condemned land as 'cursed land' on account of the fact that ancestors had been abandoned there - such abandonment was a cultural taboo.

Our abandoned land is now just a reminder of a good life once lived, and our ancestral spirits are now hovering aimlessly over "our" taken land. Do you think the ancestors moved with us to our various areas of relocation? I doubt that very much! I don't think they did! That land is only now a cursed land. (A 67-year-old displaced farmer)

To other respondents, the possessed land now reflected a 'lost life'. These respondents said that they were now forced to begin life afresh in an entirely different environment with all its hardship.

The land here is very "hard". We were used to our land in Maumba. In this place I can't even find Mikoma and Mikerekere [local tree species] to construct a toilet! There is too much hardship here. In fact, we are now suffering from diseases, such as cholera, that were previously unknown to us. Perhaps this was because we had a lot of wild vegetables in our land whose intake shielded us from these diseases. I came here with over 50 chicks but now I have none as they have all died from some mysterious disease present in this new place. In my land I had game such as ndezi [hedgehog] and wild pigs. But now my hunting dogs are useless as there are no wild animals in this place. And when my children ask me when it is we are going to eat ndezi, I have no answer and this saddens me. (A 52-year-old male respondent who had relocated to Kikombero)

Other ethno-ecological loses experienced by the community included the inability to access local flora that served as medicinal herbs, loss of construction materials (alluded to above), loss of grazing ground (as they now had tiny pieces of land and the host community were not willing to share their grazing spaces with them), loss of watering points (they now had to buy water from water vendors, whereas before they had clean streams or communal boreholes to draw water from), among others.

Some missed the wild animals that roamed the land, some of which served as community/clan and/or individual totems. Others missed the trees that were able to 'tell' season changes (as they would shed their leaves, change their colour, or flower to reflect changing weather patterns). Others reminisced about the birds they now missed, not only for their aesthetic value, but also for the manner in which they alerted the residents of potential danger (from snakes or buffaloes for instance) or 'alerted' them as to the time of the day. This was because they had resettled in completely different ecological zones.

Others lamented that they were now unable to catch forest rats and give them to their Duruma neighbours to whom this was a delicacy, an act which previously cemented social relations. As things now stood, rats and other animals were terrorising them in their new settlement as they had no predators. This shows how the community had formed an inextricable web with their environment. During the displacement, the community were not compensated for certain trees, herbs, and other fauna as it was thought that the community would find these resources at their resettlement areas. Mburugu (1994) criticises this type of assumption as land of equivalent agro-ecological potential is not always available: every environment has its own unique features.

The displacement left many feeling vulnerable and restless, with many describing their current life as 'wasted'. The community was also greatly troubled that with the displacement, they had lost some of their secret kaya⁶ sites. With this loss, the community felt that they had lost the protection that came with the existence of these kayas, consequently, the community felt even more exposed and vulnerable.

The displacement had also weakened the spiritual connection that previously 'bound' the community with their ancestors, leaving them more vulnerable. As Bovensiepen (2009:328) found in his study among the Fumar of East Timor, 'people's relationship with the landscape is ... a holistic one, since the spiritual aspects of the landscape encompass political and economic factors'. The loss of their land and other cultural artefacts (such as graves) that bore crucial meaning to the community elicited a feeling of vulnerability among the community - this hence formed the 'roots' of vulnerability and the ensuing conflict.

As to the pressing question of who owns the land (and its embodiment), the respondents were categorical that they were the real owners of the land as they were the first occupants of the said land. The presence of graves was cited as evidence of this ownership. They dismissed the mining law that bestows mineral rights on government as a colonial relic. Though the compensation offered was twice the market value of the land (paid out at Ksh 80 000⁷ per acre), all those interviewed deemed the compensation inadequate given its ethno-ecological value. Some questioned why they should be paid a 'mere' Ksh 80 000 while the titanium to be mined was worth millions, while others questioned why they could not share in the profits emanating from this enterprise.

Now that they have chased us away from land, why can't we have shares in this industry so that we can get dividends as happens in other companies where people have bought shares? Why do they have to cart away the raw materials for processing in foreign lands and hence robbing us of gainful employment? This processing industry should have been established here, don't you think so? (A 58-year-old community leader)

The idea that the titanium ore would be exported as raw material and not processed in the country, thereby adding value to it and generating more income for the country, was an issue that irked many community members, as evidenced by the above sentiments.

⁶Kayas were holy places that were held in high reverence by the Mijikenda. They served not only as important shrines and places of prayer, but also as burial sites for Mijikenda ancestors.

⁷Approximately US\$1,013 at the time.

Another issue that was raised was why they were forced to sell their land, contrary to an earlier decision by which they would have leased their land (at US\$0.07 per day) and this would be returned to them upon expiry of the life of the mine. The community would also receive 'compensatory' land (five acres of farmland for each household and an acre of residential land at Ramisi, at Kenya's South-Coast). Crops, trees, and physical structures were also to be paid for (Allbusiness, 2004). However, the government later opted for outright purchase of the land at Ksh 80 000/ = per acre (which was then approximately US\$1,013; the exchange rate at the time standing at 1 US\$ = Ksh79⁸), and did away with the lease and the accompanying lease fees. This decision was perhaps informed by disputes with various environmental groups who insisted that the land would not be suitable for human occupation as rehabilitation would largely be unsuccessful given that what was being mined was radioactive.

7. Discussion, conclusions, and recommendations

Of the many factors that cause community-government friction over mining enterprises, none is more intense than that over land (Akiwumi, 2012). Hence, to minimise conflict, it is imperative for governments to acknowledge the ethno-ecological importance of land to communities. This will debunk the often quoted rhetoric that no one wins in mining ventures (see de Wet, 2002).

This article demonstrates that communities attached various meanings to land arising from the ethno-ecological use that they put to it. These socially constructed meanings lead to community attachment to land (geopity), which leads to feelings of vulnerability should these assets be lost in the event of displacement. This then acts as the trigger that leads to conflict. In coming up with mining policies/laws, therefore, governments should take cognisance of the ethno-ecological meanings that communities attach to land. In so doing, governments will be able to develop appropriate laws and policies/practices that are sensitive to the needs of local communities. This will turn mining into a profitable venture for all.

Kenya's 1940 Mining Act and other laws that affect mining such as the Land Act and the Agriculture Act have been found to be insensitive to the needs of local communities (see Mburugu, 1994; Odari, 2014). The new mining bill and the new 2014 mining policy also fall short in demonstrating this concern. Should the current bill be enacted in its present form, mining conflict such as that witnessed in Magadi (over soda ash mining that has been carried out since the 1930s to date – see Hughes, 2008) and the present titanium mining conflict will continue unabated. With the discovery of oil in northern Kenya, gas in the coastal region of Kenya, and coal and gold in Kenya's interior, the need for proper laws is now increasingly urgent.

It is therefore crucial for Kenya to urgently carry out the much needed reforms in its mining sector. For instance, it could borrow a leaf from South Africa which has enacted laws that allow for community ownership and management of mining resources. This however, has to be tempered carefully so as to ensure that locals truly participate in the management of these resources, and not allow the local elites to capture the process (as Mnwana and Akpan, 2009 caution). Such steps will represent a bold and critical departure

from the past where laws were enacted to benefit the state at the expense of local communities. Such bold moves however, call for serious commitment on the part of the government: commitment that will see to realisation of radical reforms in the mining sector. But going by the current goings on with the new mining bill, for instance that saw the deletion of the provision that provided for direct payment of royalties to mining communities, it may be a while before Kenya realises these desired reforms. But the mere fact that a new bill has been drafted to replace the archaic 1940 Act gives hope that change is on the way. What is imperative now is the management of this change. Countries such as South Africa, which is also grappling with a similar titanium conflict in Xolobeni in the Eastern Cape Province, oculd learn vital lessons from Kenya's experience.

As mentioned earlier, granting mining communities land rights would be one of the bold steps that could be taken towards resolving community/state conflict over land and mineral rights. But this step also bears certain inherent problems, one being that it may fuel intra-community strife. This problem may partly be resolved by using the various Acts that regulate land tenure and compensation following displacement. These include the Survey Act (Cap 299) – to determine the extent of land being possessed/compensated; the Land Adjudication Act (Cap 284) and the Chiefs Authority Act (Cap 128) to determine land ownership in cases of dispute; the Registration of Titles Act (Cap 281), the Land Titles Act (Cap 282), and the Registered Land Act (Cap 300) - to determine land ownership for compensation purposes; the Land Control Act (Cap 302) – for purposes of relocation and compensation, and to determine the body to effect the resettlement and compensation plan, and the Land (Group Representatives) Act (Cap 287) - that regulates group ownership of land. More specifically however, the Mining Act (Cap 306), currently under review, should include provisions that address this particular concern and should provide guidelines on how this issue (intra-community strife over mineral control and benefits) should be resolved.

The sharing of benefits emanating from mining enterprises is another matter that needs urgent attention. Initial drafts of the new mining bill recommended the payment of royalties to mining communities, but in subsequent drafts of the bill, this provision was deleted. To appease mining communities, it is imperative that this concern must be addressed. Payment of mining royalties forms an integral part of the raft of regulations under the EITI¹⁰ initiative, and as such, this requirement should be included in any future mining project. To make this effective, it must be anchored in law by including it in the Mining Act.

Regulation of CSR activities is another way through which the sharing of benefits emanating from mining ventures can be realised. CSR has been cited as one of the ways through which benefits can be cascaded to communities and it is known to minimise conflict over management of mineral resources (see Imbun, 2007). Kenya could emulate South Africa which has enacted into law a requirement that provides for mining companies to be actively engaged in CSR activities. As it currently stands, this is a voluntary undertaking in Kenya.

⁹Refer to http://mg.co.za/tag/xolobeni-mineral-sands-project Accessed 21 December 2016.

¹⁰The Extractive Industry Transparency Initiative (EITI) is a global initiative whose aim is to strengthen governance by improving transparency and accountability in the extractive industry. It is the standard for companies to publish what they have earned and what they have paid out (in the form of taxes or CSR benefits) and for governments to disclose what they have received and the ends to which they have put the money - see http://www.eiti.org.

In order to take into consideration the ethno-ecological importance of land and its embodiment (that is, trees, crops, graves, houses, etc.) to communities, the various laws that touch on this (such as the Land Acquisition Act Cap 295 - which provides for compensation in the event of displacement; the Agriculture Act Cap 318 - which generally determines compensation rates for crops; and the Forest Act Cap 7 – which determines compensation of tree products) must be revised to reflect the reality on the ground. Of note is that the rates for compensation, where indicated, are way below market rates and are thus potential sources of conflict. The review of these rates is currently left to the discretion of the concerned Minister and there is no effective mechanism for regular review of these rates. It is suggested that a steering committee consisting of various arms of government be established with the mandate to review these rates from time to time and to avoid the current practice of fire-fighting whenever such issues arise. Other forms of compensation, other than cash, should also be considered. The laws should be revised to include compensation by way of provision of traditional beer and indigenous cattle to fulfil certain traditional requirements, and by translocating selected (significant) trees from condemned spaces (especially from burial sites) to new settlement sites, as is the practice in South Africa. At present, no such policy or law is in place.

In order therefore to minimise conflict in the mining sector, it is important that governments should take into cognisance the ethno-ecological importance that land holds for local communities, more so when dealing with matters touching on displacement and mining. Failure to do so makes communities vulnerable and susceptible to shocks and this only intensifies the conflict.

This article has endeavoured to demonstrate that this consideration is particularly useful to governments when drafting laws and policies that would guide operations for successful development of their various mining industries.

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