THE WEALTH IN THE UNDERGROUND THAT IS ELUSIVE TO LOCAL COMMUNITIES

Mining in Taita Taveta County Prospects & Problems



Heinrich Böll Foundation, Nairobi, Kenya

Mining in Taita Taveta County: Prospects & Problems

by Mwandawiro Mghanga for Heinrich Böll Foundation, Nairobi, Kenya

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ABBREVIATIONS

Anno domino
American Gemological Laboratories
Administration Police
District Commissioner
Environmental Impact Assessment
Environmental Management Plan
Kenya shilling
Kenya Wildlife Service
National Environmental Management Authority
Provincial Commissioner
Prospecting Rights
Special License
Square kilometers
United States of America

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Mwandawiro Mghanga

Part 1: Introduction

1. BACKGROUND OF THE RESEARCH AND REPORT

Research for this report on status and prospects of mining in Taita-Taveta County was carried out in the second half of 2010. Taita County is geologically located within the Mozambique Belt, and is endowed with one of the richest minerals deposits in Kenya and the Eastern Africa region. (Keller, 1992; Central Bank, 1991). These include both industrial minerals and gemstones, which have been studied, prospected and commercialized for several years generating considerable wealth to various mining prospectors and investors (Bancraft, 1984). But this wealth does not trickle down to the local people. They complain that they do not benefit from the industry. Furthermore, the mining is often carried out without clear government regulations. (Taita - Taveta Professionals Forum, 2008).

Consequently, conflicts over land and mineral resources are commonplace in Kasighau, Chungaunga, Kamtonga, Mwachabo, Alia, Kishushe and other parts of Taita - especially in the lower zones where mining is a major economic activity. Wealthy and politically-connected individuals, mainly from outside of the county, have a stranglehold on the industry; they acquire the right to prospect for minerals in the area from the administrative centres of Nairobi, Mombasa and the area district headquarters at Wundanyi often without the participation of the local communities – the custodians and owners of the land where the minerals are found. Armed with the licences, they proceed to map out, peg and fence off the chunks of land belonging to the local people. This not only excludes the locals from their ancestral lands, it also displaces various categories of small-scale local miners composed of the Wadawida, Gikuyu, Meru, Kamba, Somali and other ethnic groups who eke out a living through mining, collecting, buying and selling gemstones in the area.

Often, the poor small-scale miners labour for many months – even years – to prospect for the minerals. But they are often violently evicted from the mines by powerful and well connected large-scale prospectors, miners and traders who claim legal ownership of the land as soon as the locals discover mineral deposits. Residents around mining areas complain of human rights violations by the police and the rich and powerful miners. Their complaints include cases of arbitrary arrests, torture, imprisonment, and even murder. These have been reported mainly in Kishushe, Mwachabo, Chungaunga, Kamtonga, Kasighau and throughout the other mining areas.

It is against this backdrop that this research was conceived and conducted. The report collates and analyzes some of the critical issues facing local communities and small scale miners in Taita-Taveta county. It examines the legal and policy environment. It concludes by making some recommendations on ways of mainstreaming the industry to maximize the benefits and ensure sustainable development for the local communities and Kenya as a whole.



Map 2: The Mozambique Belt (Keller, 1992:4). Note that the whole of Taita is within the Mozambique Belt



2. AIM AND OBJECTIVES OF THE RESEARCH

The broad aim of the research was to get an overview of mining and minerals in Taita-Taveta, as well as the problems and prospects. The research also aimed at documenting the challenges involved and making recommendations based on the research findings of how the mining, mineral potential and trade could be utilised to contribute to sustainable development of the area. The specific objectives of the research included the following:

- (a) Documenting the known kinds of minerals in the district and where they are located.
- (b) Documenting the main dealers involved in the prospecting and mining in the district.
- (c) Documenting the nature of mining and the trade in the minerals, its problems and prospects.
- (d) Understanding the importance of the mining industry and trade to the economy and development of Taita-Taveta County and Kenya as a country.
- (e) Highlighting the potential of mining in Taita-Taveta for the development of the area.
- (f) Documenting and analysing the challenges involving mining and trade in minerals in the area.
- (g) Making relevant recommendations.
- (h) Publishing the research.

3. THE RELEVANCE OF THE RESEARCH

Due to its importance as a location of minerals, particularly gemstones (Central Bank, 2008), considerable information exists about mining in Taita-Taveta. However, most of the research and publications address the natural science and geological issues, since they are driven by prospector, investor and trade interests. Consequently, little has been published about the political economy, social and environmental impacts of mining in the area.

This calls for further research from the political economy, social and environmental perspectives. Critical here is the need to include the relationship between the people of the areas affected, the environment and the mineral resources. Such research would also need to explore more cogently why local people continue to be losers in the exploitation of the mineral resources in their ancestral lands, and what should be done to correct this in order to promote sustainable development. Given that Taita-Taveta is endowed with abundant minerals it was important to find out whether the local people were aware of this. Their indigenous knowledge will continue to be invaluable to future mineral resources prospecting.

It is also important to determine the benefits accruing from an industry that is reputed to make billions of shillings in profits annually, and whether the current policy, regulatory & legislative framework in the Extractive Resources Industry (ERI) adequately addresses the issues of royalties and benefit sharing between the investors, communities and government, as compared to best-practises from other countries with natural resources. So is the need to determine why the industry and trade in minerals has not brought about the development of local communities around mining areas. In this regard, it is important to investigate why the local people continue to be perceived as mere participants and losers in the mineral trade and industry found in their locality, and the possible ways of changing this in their favour.

The hypothesis of the research was that to have sustainable peace, a necessary precondition for sustainable development, this requires policies and measures that ensure communities fully participate in conserving and deriving benefits from their local natural resources. To expect people to remain peaceful when they are alienated from their natural resources by outsiders is to ignore logic; the country would have to contend with this, sooner or later (Mghanga, 2008).

Hence the need to examine mining in the Taita-Taveta county, and further to determine how it contributes to the development of the communities of the area.

One of the most important aspects of the newly-enacted Constitution of Kenya – promulgated on August 27th 2010 (Government Printer, 2010) – is the devolution of political, social and economic governance. The constitution divides the country into 47 devolved Counties. A total of 15% of the national income is to be shared among the counties. The aim is to devolve resources to the grassroots to trigger sustainable development. Of even more significance is the fact that the counties not only have more powers to decide their affairs, they also have more responsibilities in conserving and managing their natural resources.

Accordingly, this research report is an important source to both the national government and the country government of Taita-Taveta County. Elected leaders and professionals, meeting in Nairobi on 23rd October 2010 under the umbrella of Taita-Taveta Professional Forum Trust, (www.taitataveta.co.ke) identified minerals as one of the most important resources in the county. They also lamented that exploitation of the minerals has hitherto not benefited the people of the county. Thus the research would also help increase the knowledge of the people of Taita-Taveta about their mineral resources and the need to ensure that they are utilised sustainably to improve the community's welfare.

Based on the research findings, recommendations have been made on ways of maximizing the potential of mining in Taita-Taveta for local and national development. It is posited that the benefits accruing from the abundant minerals of Taita-Taveta should shared equitably with the local communities. The current scenario in which only outsiders benefit at the expense of the local people and the government is untenable. The county and central government should continue promoting under a well thought out benefit-sharing mechanism, for minerals that remain unexploited cannot contribute to development, and take cognisance of the reality that the skills and financial investment by foreign and local investors are necessary for the development of Taita-Taveta County.

Ownership of resources alone is not enough; the most important thing for development is how the resources could be harnessed and utilised to add value to the economy and development of the area, the county and the nation. Thus the research report recommends cooperation in sustainable exploitation of the minerals by both the large and small investors and the government.

4. HYPOTHESIS: THE NEED FOR SUSTAINABLE UTILISATION OF NATURAL RESOURCES

The people of Taita -Taveta county have, for a long time, been alienated from their land and land resources. Their struggles for land rights and tenure is well-known in Kenya. Many of them have either too little land or live as squatters. They are also alienated from the minerals, wildlife and forest resources in their local area. These impede the development of these communities. It is therefore necessary to document these realities and suggest solutions to ensure that the rich mineral resources contribute to local development.

5. METHODOLOGY

The research involved both quantitative and qualitative methods. However, more emphasis was put on qualitative field research. The aim was to generate living data on mining in Taita-Taveta by interviewing the stakeholders in the mining in the industry in area.

5.1. Quantitative research

Quantitative research was done to gather information about existing minerals, their types, quantities, the people involved, and value. It involved data collection through interviews and literature review of existing information. The literature review focused on:

- (a) what has been published about mining in Taita-Taveta by scholars, researchers, the media and government institutions in the county; and
- (b) Review of relevant Kenyan laws on mining in, particular, and natural resources, in general.

5.2. Qualitative research

Qualitative research sought to collect and collate the perspectives of the mining stakeholders, particularly the local communities. It involved visiting and living in the affected areas – especially its lower zones. It also involved making observations, interacting and discussing with the local people and conducting interviews with individuals and groups. The interviews targeted the people living around mining areas, particularly those involved in the mining industry – the investors, producers, workers, traders, prospectors and brokers, among others. The main objective was to:

- (a) Identify various case studies of mining areas and solicit for detailed information.
- (b) Document issues identified by the people of the case study areas regarding mineral prospecting and mining; and
- (c) Document the views and concerns of various stakeholders, like the large- and smallscale miners and local communities.

6. THE PLACES WHERE THE RESEARCH WAS CONDUCTED

Taita-Taveta county where the research was conducted, lies in the south-western part Kenya's coastline. The main research was conducted in Werugha, Kishushe, Wanjala, Mwakitau, Sangenyi, Mlechi-Mwandongo, Chawia-Dembwa, Mwatate, Kamtonga, Mkuki, Mwachabo, Voi, Kasighau, Chungaunga, Bura, Mgeno, Mangare and Maungu areas of the country.

Part 2: General geological information

1. INTRODUCTION

Commenting on the minerals in East Africa, Keller (1992: 111) explains:-

"Of approximately three hundred thousand mineral species that are found today, only 90 have beauty, rarity and durability that qualify them as gemstones. Of these species, twenty are known to the jeweller. East Africa has more than its share of these unusual gemstones.

Indeed, Taita has more than its share of these unusual gemstones. For, as the Central Bank (ibid.) notes, "[T]he bulk of Kenya's gemstones are presently produced from one district known as Taita. The gemstone belt stretches between Kenya and Tanzania."

2. DEFINITION OF MINERALS

Minerals are naturally occurring solid chemical substances that are formed through geological processes and that have a characteristic chemical composition, a highly ordered atomic structure, and specific physical properties (Keller, 1992). By comparison, rocks are an aggregate of minerals and or mineraloids that do not have a specific chemical composition. Minerals range in composition from pure elements and simple salts to very complex silicates with thousands of known forms. The study of minerals is called mineralogy.

To be classified as a mineral, a substance must be a solid and have a crystalline structure. It must also be a naturally occurring, homogeneous substance with a defined chemical composition. According to the International Mineralogical Association, "a mineral is an element or chemical compound that is normally crystalline and that has been formed as a result of geological processes" (ibid.).

There are four thousand known minerals today. (International Mineralogical Association, ibid.). Those minerals and rocks that have commercial value are called industrial minerals. Rocks from which minerals are mined for economic purposes are referred to as ores.

The Mining Act, (Chapter 306 of the laws of Kenya) which is under review, defines thus:

"minerals" means all minerals and mineral substances, other than mineral oil as defined in the mineral Oil Act and may be precious metals, precious stones or non precious minerals, but save for the purpose of Part V of this Act and the Mining (Safety) Regulations, does not include clay, murram, limestone, sandstone or other stone or such other common mineral substances as Minister may by notice in the Gazette declare not to be minerals for the purposes of this Act, always provided these do not contain any precious metal or precious stone in economically workable quantities; non-precious metals means all minerals other than precious metals or precious stones.

¹Taita – Taveta district is now established as Taita/Taveta County by the new constitution.

²Keller, C. Peter in a research publication GEMSTONES OF EAST AFRICA, Geoscience Press, Phoenix, 1992, provides a lot of information on gemstones in Taita. He also provides sources of gemstones in Taita.

3. GEMSTONES

3.1. Definition of gemstones

A gemstone or gem (also called a precious or semi-precious stone, or jewel) is a piece of attractive mineral, which - when cut and polished - is used to make jewellery or other adornments . However, there are certain rocks and organic materials that are not minerals, but are still used for jewellery, and are therefore often considered as gemstones. Most gemstones are hard, but some soft minerals are used in jewellery because of their lustre or other physical properties that have aesthetic value. Rarity is another characteristic that lends value to a gemstone.

A gemstone is also defined as "a naturally occurring crystalline form of mineral which is desirable for its beauty, valuable in its rarity and durable enough to be enjoyed for generations. There are more than 40 popular gem varieties and many rarer collector gemstones. Although some gemstone varieties have been treasured since before history began and others were only discovered recently, they are all nature's gifts to us" (International Coloured Gemstone Association, 1994).

3.2. Classification of gemstones

Traditional classification of minerals begins by distinguishing between precious and semiprecious stones. In modern usage, precious stones include diamond, ruby, sapphire and emerald. The rest of gemstones are considered semi-precious. Under the Mining Act, precious stones mean: "any diamond, emerald, opal, sapphire, turquoise and any other stones which the Minister may by notice in the Gazette declare to be included in this definition." This is distinguished from precious metals, defined under the Act as:

Gold, silver, or metal of the platinoid group in the unmanufactured state, including ores containing such metal, but does not include ores any such metal in combination with another mineral where such metal cannot be worked part from such mineral and the value of such metal is less than the cost of producing both the metal and the mineral.

Because such a definition change over time and vary with culture, it has always been difficult to determine what constitutes gemstones or precious stones. The traditional distinction does not necessarily reflect modern values. For example, while garnets are relatively inexpensive, a green garnet called Tsavorite, can be far more valuable than a mid-quality emerald. It is important to note that ruby; sapphire, emerald and garnets including tsavorites are found and mined in Taita-Taveta.

In modern times gemstones are identified by gemmologists, who describe gems and their characteristics using technical terminology specific to the field of gemmology. The first characteristic a gemmologist uses to identify a gemstone is its chemical composition. Next, many gems are crystals which are classified by their crystal system such as cubic or trigonal or monoclinic. Another term used is the habitor form of the the gem. For example diamonds, which have a cubic crystal system, are often found as octahedrons.

Gemstones are characterised and classified into different groups, species, and varieties based on colour, reflective index, dispersion, hardness, cleavage, fracture, and lustre. They are also classified in terms of

³ See appendix 2 for some varieties of gemstones.

⁴ Bancraft describes tsavorite garnet – which is named after Tsavo National Park in Taita – Taveta County - in detail: its history, commercial value and significance in world gemstones.

their "water". Very transparent gemstones are considered "first water", while "second" or "third water" gems are those of a lesser transparency

3.3. Grading and pricing of gemstones

Apart from white (colourless) diamond, there are no universally accepted grading systems for any gemstone. The "four C's" criteria of colour, cut, clarity and carat that are used to grade diamonds are also used - with modifications - to grade all gemstones.

The four criteria carry different weight depending upon whether they are applied to coloured gemstones or to colourless diamond. In gemstones that have colour, it is the purity and beauty of that colour that is the primary determinant of quality. Physical characteristics that make a coloured stone valuable are colour, clarity to a lesser extent as in the case of emeralds and cut.

Apart from diamond, ruby, sapphire, emerald and opal are considered precious gemstones. It is important to remember that ruby, sapphire and emerald are found and mined in Taita.

4. MINERALS IN TAITA-TAVETA

4.1. Introduction: Taita-Taveta is rich in minerals

Taita - Taveta is rich in minerals (Central Bank, ibid., Keller, 1992; Bridges, 1982; Pohl, 1980; Pohl, 1971, Parkinson, 1947, Walsh, 1960; DuBois, 1970:11). Indeed, there could be than 250 varieties of coloured stone in Taita-Taveta (Bridges, ibid.). Geologically the whole of Taita is within the Mozambique Belt, which has the richest mineral deposits in the country. According to Keller (ibid)):

The richest mineral and gem wealth in Kenya and Tanzania is found in the Proterozoic – age-medium – to high – grade metamorphic rocks. The Mozambique Belt averages 250 and 325 kilometres (150 and 200 miles) in width and extends up the east coast of Africa from Mozambique northward at least 5,000 kilometres (3,000 miles) through East Africa (p. 8).

The main mining activities in Taita-Taveta are concentrated in the plains that include Tsavo East and West national parks. Both gemstones and industrial minerals (see also Kenya Engineer, 2010:10) are mined in the area. Because of the abundance of minerals, many people in Taita-Taveta have considerable general knowledge about names and types of minerals, mining and geology of the area. In fact, geologists operating in the area benefit a lot from the rich indigenous geological knowledge of the Wadawida (for example: Bancroft, ibid.; Shibata, 1975: 72 - 75; Walsh, 1960:26; Bridges, 1974 & 1982; Keller, ibid.; Pohl, ibid.).

4.2. Types of minerals and their location in Taita-Taveta

4.2.1. Gemstones

Table 1: some of the gemstones found in Taita and in places where they are found and mined.

1	GREENS	Kishushe, Mkuki, Ngongoni, Mgeno, Dari, Kuranze, Tsavo West, Lwalenyi, Tsavo East, Kamtonga, Mwakitau (Fumba hill)
	Green garnet	
	Green tourmaline	
	Green tsavorite	
	Green chrome	
	Green medium	
	Green scope-light, Green Khaki	
Tabl	e 1: Types of gemstones and wl	nere they are found in Taita-Taveta
2	RUBY	Kishushe, Ngongoni, Mangare, Kuranze, Tsavo West, Tsavo East, Kamtonga (Misasanyi), Lwalenyi
	Ruby gem	
	Ruby spinal	
	Ruby maziwa	
	Ruby corundum	
	Ruby nut	
	Ruby caption, 1, 2, 3	
3	RED	Ngulu – Werugha, Sangenyi, Bura, Mwatate, Kamtonga
	Red garnet	
	Red rose – malaya, mapande, gololi	
Tabl	e 1: Types of gemstones and wl	nere they are found in Taita-Taveta
4	BLUE	Kishushe, Kuranze, Kajire Saghala, Mkuki, Kamtonga, Kilili
	Blue sapphire	
	Blue marble	
	Blue sky	
	Blue kaynut	
	Blue tourmaline	
	Blue lolite	

Tabl	e 1:	Types	of	gemstones	and	where	they	are	found	in	Taita	Taveta

5	YELLOW	Kishushe, Ngongoni, Chungaunga, Alia, Lwalenyi
	Yellow garnet	
	Yellow quartz	
	Yellow golden	
	Yellow tourmaline	

	Yellow asali								
	Yellow savana								
Table	able 1: Types of gemstones and where they are found in Taita-Taveta 6 RHODLITE 6 Kisoli (Kuranze), Mgongoni, Mgeno Ranch, Kishushe,								
6	RHODLITE	Kisoli (Kuranze), Mgongoni, Mgeno Ranch, Kishushe, Bungule (Kasighau)							
	Rhodlite spirit								
	Rhodlite pink sapphire								
7	EMERALD	Mkuki, Kuranze							
8	BLACK	Kilema (Mwachabo)							
	Black ibon								
	Black tourmaline								
	Black garnet								
9	AMETHYST	Saghala, Irizi, Mwachawaza, Kishushe							
	Amethyst purple								
10	CHAWIA	Chawia, Kamtonga, Dembwa							
	Chawia blue (Crystal beryl)								
	Chawia green								
	Chawia yellow								
Table	e 1: Types of gemstones and w	here they are found in Taita-Taveta							
11	COLOURLESS	Starehe Kamili (Mwashuma) Alia							
	Colourless quartz								
	Colourless crystals								
12	TANZANITE	Mwairimba, Snake Hill, Buguta							
13	WATER	Kuranze, Kasighau, Mgongoni							
	White, sapphire								

4.2.2. Industrial minerals in Taita-Taveta

Table 2: some industrial minerals and areas where they are found mined.

1	Iron-ore (and iron – ore magnetic)	Kishushe, Mwandongo, Shelemba, Mwambirwa, Kasighau, Kamtonga, Daku, Oza.					
2	Limestone	Rong'e Nyika, Wundanyi, Mugeno, Mgama, Lwaklenyi					
3	Graphite	Nyache, Wanganga, Choke, Mgeno, Lwalenyi, Mgama, Mindi Hill					
4	Kyanite	Mogho, Nyache, Mwatate, Mgeno					
5	Type of soil imported from Moshi the manufacture of cement	Mogho and Rong'e					
6	Asbestos	Sangenyi					
7	Chrome	Kamtonga, Chungaunga					
8	Potassiam feldspar	Kamtonga					
9	Hornblende	Kamtonga					
10	Diopside	Kamtonga					
11	Apatite	Kamtonga					
12	Magnentite	Kamtonga					
13	Vanadium grossularite	Mwatate area					
14	Marble	Mwatate area					
15	Ouartz – feldspar	Mgeno, Mwatate area, Mgama					

Table 2: Types of industrial minerals and where they are found in Taita-Taveta

Part 3: Legal framework of mining and trade in minerals

1. THE LEGAL PROCESSES OF INVESTING IN MINING IN MINERALS

The Mining Act is the main legislation dealing with mining in country. It is currently under review. But mining stakeholders feel the review is it is taking too long, thus hindering the development of the mining sector. (Omondi, 2010). In light of the newly-promulgated Constitution, the review is likely to take even longer since the draft Bill will have to be reviewed to conform with the constitution.

Under the Act, a person interested in mining has to apply to the Department of Mining and Geology for a Prospecting Rights (PR). In the case of Taita-Taveta, this is done at the local district headquarters in Wundanyi at the cost of Ksh.250/-. A PR gives the applicant the right to identify the area over which he wishes to be issued with prospecting license. The applicant is also required to pay Ksh. 2,000/= at the Provincial Commissioner's office in Mombasa before beginning to prospect for the mineral. After identifying the potential of minerals in the area, the applicant is required to carry out a detailed geological survey to determine the quantity and quality of the mineral. The Act provides for three different licenses: Location License; Exclusive Prospecting License and Special License.

The Location license is the smallest of the three. It is made up of various claims. A claim covering an area of less than 200m by 250m costs Ksh.100 per year. A location can have ten claims but one is allowed a maximum of eight locations in any one administrative district. The Exclusive Prospecting License and Special License require payment of Ksh. 250/- per square kilometer and a standing fee of Ksh.10,000/= before conducting geological surveys in an area. In addition the applicant is required to pay the local county council a single business license as well as consent fees and compensation for the land owner. But these are not specified in the Act.

To begin mining, the person who has met the above conditions is required to obtain a Mining Lease. The process of obtaining the lease includes making a mine feasibility report, undertaking an Environmental Impact Assessment (EIA) study and submission of a cadastral survey of the area. These processes have unspecified cost implications that may amount to hundreds of thousands of shillings. The Act requires a person interested in trading in minerals without investing in their production to obtain the relevant mineral dealer's license under the Mining Act. The Department of Mines and Geology may issue free export permits to mineral producers who wish to export their minerals and to licensed mineral dealers.

2. PROBLEMS OF MINING ACT CAP.306

2.1. Non-observance of the Mining Act

The biggest problem in Kenya is not the absence of relevant laws but rather the failure to implement them. Its weaknesses aside, the Mining Act is rarely enforced. Had the opposite been the case, the situation would have been better in Taita-Taveta. But the Act is neither observed by the majority mineral producers and dealers nor enforced by the government officers. The consequence is loss of revenue that would accrue to the central and local governments.. In fact, most mineral dealers operate informally. They make money from their trade but do not pay for licenses and taxes as required either to local government or national governments.

For example, the Act prohibits civil servants from dealing with minerals. Article 81 states:

No person, whether civil or military, while in service of the Government, shall directly or indirectly acquire or hold any right or interest under any prospecting right, exclusive prospecting license, special license, location or mining lease, and any right, license, location or lease or other document or transaction purporting to confer any such right or interest or any such officer shall be null and void.

Yet cabinet ministers, Members of Parliament, district commissioners, district officers, police officers, teachers and other civil servants engage in mining in Taita-Taveta.

Failure to enforce the Act escalates the exploitation and oppression of local communities and alienates them from the mineral resources. Under Regulation 2.2., investors are required to get the land owner's consent before they start pegging their claims. But this requirement is often ignored, alienating the poor peasant communities from their lands.

Other parts of the Act that have not been enforced relate to safety standards and working environments within the mines.

2.2. The Case for Review of the Act

The Mining Act has not been reviewed since 1987. But there is a review underway, which seeks to formulate a Mining and Minerals Act. Mining stakeholders, including the local communities of Taita-Taveta, are complaining that the review process is taking too long. As Omondi (ibid.) reports:

Kenya's ambition to grow national wealth from minerals faces uncertainty as the government delays new mining laws that could set the stage for large-scale production even as global prices rally....Last year, the government revised the Mining Act, changing it into the Mining and Minerals Act in a bid to attract foreign firms and make the sector more profitable to the artisanal workers who have dominated it over the last 50 years...Mines and Geology Department said slow legislative process has dimmed the prospects for the implementation of legal reforms that seek to encourage large scale mining in the country ... "The new laws are still at the Attorney General's chambers and there is nothing we can do or plan based on them until they are cleared for use," the deputy commissioner, Mr. S M Kimomo, told Business Daily....Global price rallies for precious metals have stirred fresh interest in the country's mining industry.

It seems the government is not in a hurry to review the Act despite the need to do so. Several minerals have been discovered during the twenty three year's since the Mining Act was last reviewed. Thus the definition of minerals provided in the Act is too narrow and static. For it does not provide for the discovery of new minerals or what needs to be defined as minerals in the country today. Important gemstones such as ruby and chawia, and also industrial minerals such as iron-ore, for example, are not mentioned in the Act. To-date, the Minister decides what is categorized as a mineral for the purposes of the Act. This could hinder investment in mining, and make the government lose revenues from mineral production.

2.3. The Commissioner of Mines is too powerful

Local people living in and around mining areas complain that the Commissioner of Mines and Geology is too powerful. The Commissioner presides over the allocation of prospecting rights (PRs) as well as claims and authority for investing in mining. Many respondents reported the Commissioner's powers are often abused and exercised arbitrarily. Furthermore, the office of the Commissioner of Mining and Geology is located in Nairobi, far away from the places points of activity mining activities, like those of in Taita-Taveta. Complaints abound about mineral investors who acquire PRs from the Commissioner's office in Nairobi and use them to enter and prospect for minerals on local peasants' private parcels of land without their consent.

Article 82 of the Act, on the discovery of minerals by government officers, indicates how powerful the Commissioner of Mining is:-

(1) In the event of the discovery of minerals by any person in the service of the Government of Community, the discoverer may peg, in a manner prescribed for pegging a location, an area, to be called Government Protection area, not exceeding two and a half square kilometres.

(2) Such discovery and pegging shall forthwith be reported to the Commissioner, and no person may there after prospect in such an area without the consent of the Commissioner.

(3) Notwithstanding the provisions of this Act, authority to mine in a Government Protection Area may be granted by the Commissioner to such persons and subject to such terms and conditions as he may think fit.

These enormous powers of the Commissioner are liable to abuse. Indeed, they have been abused at the expense of the Government, investors, small-scale miners and land owners, and local communities.

2.4. The Act and community land

The Act does not give local communities clear powers over their land and mineral resources. The situation becomes even more precarious where the land is neither demarcated nor titled, like most land in the lower zones of Taita. Not only does this lead to exploitation and oppression of local communities, it also breaches the spirit of the new constitution of Kenya (article 66:2) that seeks to empower communities over the natural resources in their areas. The ambiguities found in the Act over mining rights in private and community lands is a source of many disputes, even conflicts, between mining stakeholders in Taita-Taveta. This could be corrected by ensuring that the proposed Mining and Minerals Act conforms to Article 63 (d - 3) of the Constitution. That Article converts what has hitherto been Trust Land into Community Land. At the same time, implementation of Article 66(2) would greatly help. It states that "Parliament shall enact legislation ensuring that investments in property benefit local communities and their economies". This is actually the hope of the people of Kishuhe, Oza and Mbulia ranches, where large-scale iron-ore mining, processing and use for steel making are underway.

Part 4: Production of minerals in Taita-Taveta

1. INTRODUCTION: CATEGORIES OF PRODUCERS OF MINERALS

Hundreds of people engage in gemstone activities as owners of mines, employers and employees of various mining activities, prospectors, speculator, and brokers of all sorts. Industrial mining, mainly for iron-ore, is undertaken in the Western plains of Taita Hills, especially at Kishushe and Oza ranch areas. However, iron-ore deposits are also found in the eastern plains. But this is yet to be mined.

Mineral production in Taita-Taveta can be categorized as either large-scale or small-scale. The two differ in the size of the area mined, the quantity and quality of machinery and labour employed, and the level of organization of production, as well as the quantity of production of the minerals at a given time and place.

It is also important to note that in practice there is also no clear demarcation between mining and trading in minerals. Those who engage in production of minerals, also engage in its trade. Generally, the large-scale miners are also large-scale traders of minerals and have a wider scope of markets and benefits. However, there are people – mainly small-scalers - who mainly engage in the production of minerals, while the marketing and selling of their produce is done by others. And there are those who only engage in buying and selling minerals and are not involved in the owning and production of the minerals.

2. LARGE-SCALE PRODUCTION OF MINERALS IN TAITA -TAVETA

2.1. What is involved in mineral production

Large-scale production of minerals is a hard task demanding huge labour and capital investment. It begins by following the legal processes described in Table 3. It requires investing money before prospecting starts. Prospecting involves searching for the minerals and determining their quantity and quality. This may mean a long search and investment of huge amounts of money without making any returns. Modern geological technologies are employed for large-scale prospecting. These include expensive sophisticated mineral prospecting equipments and machines.

Mining involves digging minerals from the ground and bringing them to the surface. This requires excavation with various machines, including bulldozers, excavators and backhoes, and drilling hammers. Others use tractors, vehicles and wheelbarrows. The work also involves sieving the soil for precious stones, which requires removing soil from the stones and knocking and removing stones from the minerals to get the desired mineral. A separator uses high density chemicals to separate stones from gemstones is used. This is followed by sorting, which means vaaluing the quality of the mineral. As far as gemstones are concerned this does not only mean removing gemstones from stones but also looking at the gemstones to find out whether they are smooth, clear or have cracks.

Grading involves finding out the value of the stone, adding value to the stone by polishing, and removing the rough surface of gemstones. Cutting the gemstones into various shapes is part of the production process. However, this does not take place in the mines in Taita-Taveta; it mostly takes place outside Kenya – like Bangkok.

2.2. Large-scale mining demand large investments

Due to the huge investments involved in large-scale mining (Mnyamwezi, 2010; Nyambura Mwaura, 2010), very few of local people of Taita-Taveta participate in it, even where the

minerals are found in their individual private or community lands. It is mostly the rich and politically well connected people from outside the county and country who engage in large-scale mining. Large-scale mining requires huge capital outlay, hence most Kenyan large-scale mineral producers in Taita-Taveta partner with foreign investors. Besides, the final products of the gemstones produced in Taita-Taveta are made outside the County and abroad. That is why although the local people have considerable knowledge of gemstones only a few of them know why they are so valued or what they are used for.

Hardly any person in Taita-Taveta uses the finished products of gemstones as house decorations or ornaments. They are more concerned about the money the gemstones fetch and less about their uses. In any event, gemstone products are too expensive for the people in or around the mines where they originate. Yet it is the finished products that fetch the greatest profit.

2.3. Characteristics of large-scale mineral producers in Taita-Taveta

There are several large-scale gemstone mines in Taita-Taveta county. But, hitherto, there is only one large-scale iron-ore mine. This is found at Wanjala in Kishushe, and is owned by Sanghani/Wanjala Mines. The Sanghani/Wanjala Mines has the consent of the Oza Ranch community to start producing iron-ore in the land of the people Mgange and Mwanda. Devki Steel Mills, an iron smelting industrial company based in Athi River, recently signed a 99 year lease with Mbulia Group Ranch in Tausa. The lease is for 300 acres of land for the construction of an iron smelting mill. The mill will mostly obtain iron-ore from neighbouring Kishushe. The project will cost Ksh. 36 billion when it is completed (Mnyamwezi, 2010).

Observing the large-scale mines in Taita-Taveta reveals that the industry involves millions of shillings of investments: a lot of machinery is employed in the mines; sophisticated methods of production are used; and there is capacity to moving huge amounts of earth per day. The large-scale mines employ many workers (usually over sixty) doing various mining activities. They are highly organised under a specific management.

Workers in the large-scale mines live in fenced camps, which are heavily guarded at all times. For the mining activities in the camps, especially in relation to the quantity and quality of production and the conditions of workers, is highly secretive. This makes taxation by the government difficult.

The large scale miners benefit a lot from mining. Many of them have invested their money in Voi, Nairobi, Nyahururu and elsewhere. They have a lot of knowledge about the national and international mineral markets. They also have access to local and foreign markets. They mainly sell their minerals abroad, and control the price of gemstones in Kenya.

3. SMALL-SCALE MINERAL PRODUCERS IN TAITA-TAVETA

3.1. Small-scale mineral producers

Small-scale producers of minerals form the majority of mineral dealers in Taita-Taveta. There exist in various categories that differ in the size of mining area, number of people employed or involved and volume of production and profits they make. They use simpler, fewer and less sophisticated tools and machines. Most of them are self-employed and work in groups of friends, relatives or neighbours. For example, from about ten small-scale miners, only about three hire labour – usually less than 10 people. Most small-scale mineral producers depend on their own labour. They sell their minerals locally. Traders travel to buy gemstones from small-scale miners at Mkuki, Kasighau, Kamtonga, Chungaunga, Bura, Kishushe and Wanjala. However, a few small-scale mineral producers sell their gemstones as far away as Mombasa,

Nairobi and Arusha. But a few of them have market connections outside the country.

The small-scale miners rarely access loans to invest in mining as most of them do not meet the legal regulations for mining. Many of them operate informally and illegally although many small-scale miners are very good at prospecting for minerals. But once they discover the minerals, they are often dispossessed of their claims by the large scale-miners who employ or chase them away. They are also often exploited by brokers and the large-scale miners as they rarely know the value of their gemstones and have little access to the gemstone markets controlled by large-scale dealers.

There is some symbiotic relationship between the large- and small-scale miners. Some largescale mineral producers support small-scale miners with water, transport, food, security, and other requirements. In return small-scale producers sell their gemstones to large-scale miners. In return, they use the small-scale miners to obtain relevant information on minerals in the area.

3.2. Small-scale iron-ore producers

Many people in Kishushe, mostly peasants, are increasingly engaging in the production of ironore. This involves collecting the iron-ore found at the surface, gathering it, and sometimes – but not always - breaking it into small pieces. They also dig for the iron-ore. But they are unable to dig deep to where large quantities and qualities are, as they use only simple tools. Due to lack of the money, only few small-scale iron-ore producers in Kishushe have acquired prospecting rights and legal claims. They are always in conflicts with Wanjala Mining and other rich stakeholders over mining rights and claims at the Kishushe area.

3.3. Zururas

Some producers and sellers of gemstones do not fit in the various categories of small-scale miners. They are simply known locally as zururas; a nickname for miners and mineral dealers with no legal mining rights. They are mainly poor people from all over Kenya and the neighbouring countries who live in the plains of Taita-Taveta and depend on gemstones for survival. They live and struggle to earn livelihoods where the rich and powerful have privatised nearly all the land that is rich in minerals.

The zururas come from virtually all the ethnic groups of Kenya – especially Kikuyu, Embu, Meru, Tharaka, Maasai, Somali, Kamba, Taita, Luo, Luhya, Giriama. Some from outside Kenya belong to the Chagga and Pare tribes of Tanzania. They roam the mining areas in Taita, scavenging for gemstones which they sell for a living. Many of them are vagabonds, being criminals who have escaped from prisons or justice systems to seek refuge in the wilderness of Taita-Taveta. They hide in the mining areas and hardly leave the place, except for a short time at Mwatate and Voi to sell their gemstones. Some zururas are former employees of the mines who decided to continue living around the mining areas to scavenge for gemstones.

3.4. Other producers and dealers of gemstones

Many other people in Taita are involved in the production of minerals and gemstones in some way. These include herders who discover minerals and gemstones, collect them and sell them to traders of gemstones. Teachers, policemen and other business persons in Wundanyi, Mwatate, Voi, Bura, Maungu, Kasighau and other places of Taita-Taveta are also involved. But their involvement in the industry is mainly illegal. They work in mining activities to supplement their incomes. In fact, many civil servants, including district commissioners and district officers engage in gemstones production and trade whenever they are posted to work in Taita-Taveta.

Some even become small-scale miners. This happens despite fact that the law forbids it.

Some are brokers (middlemen) of minerals of all sorts at Voi, Mwatate, Kamtonga, Kasighau and in mining areas, as well as Nairobi, Mombasa and Arusha. They sponsor small-scale mineral producers or zururas with food, water and tools on condition that the gemstones produced are only sold to them.

Yet some are peasants who own land which has gemstones and who lease their land to people with prospecting rights (PRs). Others are large land owners who have minerals deposits in land. They include hotels, sisal estates and private farms. They secretly produce gemstones in their large properties.

Part 5: Trade in minerals

1. INTRODUCTION: WORLD TRADE IN GEMSTONES

Gemstones trade is highly speculative and the prices fluctuate a lot (Mwawuya, Appendix 2:6). But these fluctuations vary. For instance, while prices have been fluctuating a lot over the years, that of diamond has been fairly stable. In general, per carat prices of larger stones are higher than those of smaller stones, but popularity of certain sizes of stone can affect prices too.

There is no universally accepted grading system for coloured gemstones. But the American Gemmological Laboratories (AGL) has one of the better accepted systems. It grades gemstones for quality using a proprietary system. Most grading laboratories deal with diamonds. South Africa's Gemmology Institute of Southern Africa is Africa's premium gem laboratory. All the other major gemstone grading labs are located outside Africa. This means African gemstones, including those from Taita-Taveta, are valued, graded and priced outside Africa. This makes gemstones trade very complex not only for miners and traders but also for governments that collect taxes from it, but major gem dealers understand the differences between gem laboratories and will make use of the differences to obtain the best possible certificates.

2. TRADE IN MINERALS IN TAITA -TAVETA

There is no clear demarcation between producers of minerals and traders in minerals. For example, large mineral producers are also mineral traders; they sell the minerals they produce in their mines and buy from small-scale producers and zururas. Many gemstone producers in Taita-Taveta also have offices at Voi and Nairobi. These operate as stations for buying, selling and exporting gemstones.

2.1. Markets for minerals

2.1.1. Large-scale mineral traders

Large-scale traders mostly sell their minerals abroad, particularly in Bangkok, South Africa as well as Germany, Austria and the USA. As the villagers of Kamtonga (Appendix 13.1) informed me:

At Kamtonga many people make their livelihoods through collecting, buying and selling gemstones. They buy the stones from small-scale miners and zururas. Large-scale miners such as Bridges or Audi sell in Bangkok and thus do not benefit Kamtonga village where they get the gemstones from. Some people buy stolen stones and sell here in Kamtonga. They buy at Kamtonga and sell in Voi, Mwatate, Nairobi, Mombasa and Arusha. You buy the stones from 'miners' and zururas mostly employed in mines who steal and sell.

Iron-ore that is produced in large-scale at Wanjala in Kishushe is transported to Mombasa and then exported to China, India and Singapore. However, some of the iron-ore is sold locally in Athi River.

2.1.2. Small-scale miners and traders

The biggest market for gemstones from Taita-Taveta for the small-scale miners is in Mwatate and Voi. From there they are taken to Nairobi, Arusha, Mombasa and, sometimes, Malindi. There are many offices that buy and sell gemstones at Voi. Many shops and kiosks at Voi and Mwatate also deal with gemstones. Small-scale dealers in gemstones are often found at Shell Petrol Station at the Centre of Voi Town where buying and selling of gemstones takes place daily. Small-scale miners, zururas and other producers of minerals sell to large-scale miners at or near the mining areas. Many traders in gemstones operating in Voi and Mwatate also travel to the mining areas such as Mkuki, Chungaunga, Kamtonga, Kasighau, Alia, Mangare and other places to buy gemstones. Competition for mineral at Voi is so stiff it can be referred to as scramble for the gemstones.

There are now many small-scale miners of iron-ore at Kishushe and Wanjala. They sell their iron-ore to large-scale miners such as Wanjala Mining and Shangani. But small-scale iron-ore miners are also dealing with traders of the industrial minerals from Nairobi and Mombasa.

3. KNOWLEDGE OF MINERALS IS NECESSARY IN THE TRADE

Knowledge of gemstones is necessary in order to engage effectively in the minerals trade and avoid the risk of being conned or harmed by unscrupulous buyers and sellers.

In fact, tales of people losing their money and gemstones from cone persons in the trade are so rife that the trade is associated with bad people. Some religious people in Taita-Taveta even believe that it is sinful to deal with minerals; they associate the trade with all forms of immoralities. Contacts of mineral producers on the ground and being prepared to travel swiftly to mining areas as soon as the gemstones are unearthed is necessary in doing good business of gemstones.

4. THE IMPACT OF THE TRADE IN MINING TO THE TRADERS

4.1. Large-scale traders

The large scale-miners make a lot of money from mining. That is why they can afford to invest large amounts of money in mining and trading in minerals. They control large pieces of land and build large camps in their mining areas. They also employ huge labour and use a lot of expensive machinery.

However, it is not clear how much of their wealth is from gemstones in Taita-Taveta because statistics on trade in mining are not available. Exporters of minerals are required to declare the value of the minerals they export to the Department of Mines and Geology. But usually it is not the Department of Mines and Geology that determines the value (including prices) of the minerals but the exporters themselves. What is certain is that many properties and businesses at Voi are owned by people who deal in gemstones.

4.2. Small-scale mineral traders

There are several small-scale miners and traders who have made substantial amount of money from mining and trading in minerals and invested the money in other businesses within Taita-Taveta and elsewhere in the country.

There are also a few businesspersons at Wundanyi who have a lot of money from mining and trading in minerals, and invested in other businesses. But the majority of the local small-scale miners seem to earn money that only supports their subsistence. Many hope that one day they will make a fortune from the minerals. But their hope somehow remains elusive. Nonetheless, many remain in the business, perhaps because , as they say, it is akin to gambling, speculative, and addictive.

5. PROBLEMS OF TRADE IN MINERALS IN TAITA-TAVETA

A major challenge for the small-scale gemstone traders in Taita-Taveta are the cartels. The large-scale traders and dealers operating from Nairobi, Voi and Mwatate have formed cartels that control gemstones in Taita. The cartels are formed by people from outside the County, yet they are very powerful and dominate the trade here. They control the markets and prices of gemstones. Small-scale traders are denied access to the gemstones and markets for the gemstones. Taita people, especially, are being forced out of the trade in gemstones by these cartels.

Similar problems also face small-scale iron-ore miners at Kishushe and Wanjala. Large-miners seek to monopolise the mining and trade of iron-ore in the area. Small-scale miners are forced out of their lands to become prospectors and employees of the large-scale miners and traders. Sometimes they are coerced into selling their ore to large-scale miners at prices fixed by cartels. Other dealers who come to Kishushe and Wanjala to buy iron-ore or to seek partners in the area are fought by the existing cartels who use both legal and illegal means.

Part 6: Challenges of mining in Taita-Taveta

Mining in Taita-Taveta faces many challenges. Understanding and appreciating the challenges is important; it should form the basis for formulating policies and strategies for the mining sector.

1. ALIENATION OF THE LAND OF THE LOCAL PEOPLE

Most land in the lower zones of Taita where mineral activities take place is not titled (Mghanga, 2010: 33 -34). This fact has been used to rob people of their land and natural resources.

2. MARGINALISATION OF THE LOCAL PEOPLE IN MINING AND TRADE IN MINERALS

A lot of wealth is made in the district through the minerals yet the indigenous and majority of the people hardly benefit from the industry and trade which is often carried out without clear implementation of Government regulations especially in practice. The exploitation of the minerals only benefits a few rich people, mostly from outside the Taita-Taveta, while alienating land from the local people, escalating poverty, destroying the environment and breeding conflicts as a consequence. Very few local people of Taita-Taveta participate in mining and trade in minerals on a large-scale. Some attribute this to the myths that were deliberately created by early geologists who came to Taita to prospect for minerals.

Nearly all large-scale miners and traders come from outside the Taita-Taveta: Kikuyu, Meru, Kamba, Indian, European, etc. There are very few indigenous Taita-Taveta people who own and engage in mining and trade in minerals at a large scale. The majority of the small-scale miners are also from outside the area. Many people from Taita-Taveta participate in mining and trade in minerals but mostly on very small-scale. Furthermore, very few of them engage in mining as a fulltime activity. No wonder the rich mineral resources have hitherto hardly brought about development in the mining areas. Poverty and underdevelopment is observed throughout the mining areas. Local communities have hardly accrued any benefits from the mineral resources. Please re-write

3. PROBLEMS OF CHARGING AND COLLECTING TAXES FROM TRADE IN MINERALS

Licenses for prospecting rights is the main source of mining revenues. These are collected as stipulated under the Mining Act (Cap. 306), and by county councils. To trade in minerals, one needs a mineral dealer's license is required (see Appendix). This costs 20,000/- Kenya shillings per year for general minerals; Ksh. 350,000/- per year for precious metals; and Ksh. 350,000/- per year for export license for diamonds, and an annual stamp duty of Ksh. 105/- Kenya shillings is issued.

If one takes account of the billions of shillings that are estimated to be made by producers and dealers of minerals from Taita-Taveta, little tax is collected by the national and local governments. This may indicate the Government's little interest the mining sector as a source of revenue – despite the existence of Department of Mining and Geology in the Ministry of Environment and Natural Resources.

The meagre revenues derived from mining in Taita-Taveta could be attributed to endemic corruption in the industry. After all, many wealthy and influential personalities in the country and government deal with minerals in Taita-Taveta.

In addition, it is technically challenging to determine the quality and quantity of the minerals mined. This is particularly the case with gemstones. To begin with, access to the mines is highly restricted; the mining establishments that are highly secretive and guarded. As Keller (1992:78) explains, "Since all gem mines are private and heavily guarded it is essential to have clearance from owners before attempting to visit these otherwise restricted areas". Under these circumstances, true information on production and profits is not easily available. Furthermore, given the high costs of prospecting and production of minerals, the investors often claim that they hardly make any profits, yet they remain in business, and many rich people continue to invest in gemstones in Taita-Taveta. There are clear indications that they make a lot of money from the industry and trade. This debunks the myth that this is a loss making business venture as it fails to explain why they continue to engage in the business if at all it does not provide economic returns.

Apart from the difficult of collecting taxes and determining the market value of the minerals, a related challenge is the limited capacity of the Government in negotiating mining contracts with large-scale mineral producers, especially foreign investors. Therefore there is an urgent need to continuously build the capacity of governments and communities, like those of Taita-Taveta, that own the land where minerals and found and mined, to ably negotiate for fair contracts. Incidentally, this problem is not unique to Kenya, and is common in many resource-rich countries in Africa and other parts of the developing world.

4. MINING RISKS

Mining and trade in minerals is not only a highly speculative industry and business, it is also risky. It is easily comparable to gambling, for it is addictive and speculative. Intrigues and cheating is part and parcel of trade in gemstones. Cases abound of prominent business persons at Wundanyi and Voi who have made fortunes from cheating their mining partners or employers. Many people also practice trade in gemstone and coning at the same time. That is why unless one is experienced in identifying minerals he or she cannot succeed in its trade as he or she is likely to be conned.

Employees also steal minerals from their employers and sell to buyers who wait for them around mining areas such as Kamtonga, Chungaunga, Kasighau, Bura, Alia , Mwatate and Voi. Trade in minerals is often associated with dishonesty – and rightly so. Thieves from the mines sell to brokers (middlemen) of gemstones at Chungaunga, Kamtonga, and Mwatate and the nearby mining sites. It also involves murder, as evidenced by the unresolved and high profile murder case pending in court of the murder of a prominent miner and dealer of gemstones from Wundanyi, in 2009.

5. IRON-ORE IS EXPORTED INSTEAD OF BEING USED TO STIMULATE LOCAL INDUSTRY

According to Were and Soper (1986:29) the culture of working with iron has been existing in Taita Hills for many centuries:

Early Iron Age sites with Kwale-type pottery dating from the early first centuries AD have been found at Saghasa and Nyache in Taita Hills and at Mrongo in Saghala. The Saghasa site is particularly important as it is the earliest industrial iron-smelting site yet found in Kenya and gives valuable techniques of early iron working. Iron slag is also found at Nyache associated with iron bones of wild animals and a few human bones. These sites belong to the early Iron Age complex, which can be attributed to the first Bantu-speaking peoples in eastern and southern Africa. One is only left to speculate why the culture of iron smelting produced only simple tools and could not develop to produce more complex ones. But as recently as the 1960s, local iron-smiths at Wundanyi made simple iron implements, particularly those for farming, from locally produced ore using indigenous techniques.

It is paradoxical that earlier generations utilised local iron-ore to make tools for their use, yet today currently all the iron-ore produced in Wanjala and Kishushe is transported away. This is happening at a time when the current generation claims to be more educated in science and technology, and Kenya then imports manufactured iron for industrial needs from abroad. The abundant iron ore in Taita-Taveta can be used to stimulate local iron industry. Indeed, this could be the justification of the plans to construct a multi-billion shillings steel manufacturing plant at Mbulia in Taita-Taveta in the near future. (Mnyamwezi, ibid.)

6. ENVIRONMENTAL DAMAGE

One requires a lease before embarking on mining. In order to qualify to get the lease, one must provide an environmental impact assessment (EIA) study of the area where the mining is to be conducted. These requirements are contained in the Environmental Management and Co-ordination Act No 8 of 1999. In addition, the potential investor must submit a cadastral survey of the area applied for (Department of Mining and Geology, ibid.).

But legal requirements are rarely adhered to. Rarely do those undertaking major mining projects conduct environmental impact assessments nor prepare cadastral surveys in accordance with the law. As a consequence, mining in Taita-Taveta impacts very negatively on the environment. This can clearly be observed in the areas where mining takes place.

Environmental impact assessments in mining in Taita are extremely important as mining activities are within or around Tsavo East and West National Parks. Already, the mining being carried out without effective environmental impact assessments is disturbing and threatening the rich wildlife resources found in Taita-Taveta. Wanjala iron-ore mining, for example, is within the elephant migratory corridor. The company's workers live in constant fear of being attacked by elephants, lions and buffaloes.

At the iron-ore mining at Wanjala in Kishushe, plant life over large surface areas of land has been destroyed leaving land that appears to be a small desert with empty stony dams. Although, this may be an inevitable consequence of the mining activity, there seems to be no plans of rehabilitating the environment after the ore is exhausted. Should the situation be left as it, the people of Kishushe, who hardly accrue any benefits from the iron-ore mining, will in the future carry an added burden of the destruction of their environment by the mineral investors.

In fact, if the large-scale gemstone miners in Taita-Taveta who create mounds and hills of earth they move from underground to the surface are not compelled to implement plans of sealing the mines and rehabilitating the environment after they finish mining, they will leave permanent damage to the environment. The consequences of such damage will remain with the local communities around the mining areas.

7. SAFETY IN MINING IN TAITA-TAVETA

Safety in mining is extremely important; it is about life, which is a fundamental human right. Not to care about safety in mining is to violate basic human rights. Failure to take precautionary measures to safeguard the lives of miners is to be highly irresponsible. It is for these reasons that mining (safety) regulations are described at length by the Mining Act (Cap. 306), 87 – 117.

Unfortunately, the regulations are scarcely implemented as far as mining in Taita-Taveta is concerned.

As a consequence, accidents – many of them fatal, occur in both large-scale and smallscale mines. For example, in 2006 two people suffocated in Daudi's mine at Mkuki, with the Department of Mines and Geology reponding by closing the mine. In 2008, two men suffocated to death inside a mine in Alia. And in 2009, a man was buried alive in Wanjiru's mine. The same year, another man died in similar circumstances at Saul's Kutima Mines at Kamtonga. Minor injuries from falling stones occur on a daily basis. Illegal blasting in small-scale tunnel mines, some of which are very deep, is used as a means of mining. This exposes the miners to immediate danger and long term diseases from the fumes emitted by the blasts. The problem is that many small-scale mines are illegal, and mines inspectors rarely bother to inspect or regulate their actives.

The case study of John Saul Mine in Kasighau provides a picture of the conditions of safety conditions in large-scale mines in Taita-Taveta. A consultant mining engineer, Peter Kitchen was hired by the owner to make an assessment of his mine and to make relevant recommendations of improving the production of the mine.

After studying John Saul Mine in March 2000 he advised as follows:

The present mining methods are illegal, and highly dangerous. It is a miracle that no one has been killed, and amazing that the Inspectors of Mines allow it to continue. The author wishes to professionally disassociate himself entirely from the present operation of the mine, and feels it is his duty to draw to the attention of the management that in the event of serious accident or death, the consequences for the owner in law are severe. The law allows a vertical face to be a maximum of 8 feet, or, 2.5 metres high. There are few faces that meet this criteria, and without written permission from Director of Mines, they are illegal. It is recommend that (1) immediate steps are taken to reduce the faces where possible, (2) not to allow men to work underneath them, and (3) to insist on the securing of men who are required to work above and close to the edges and face.

The 'bridge' of ground that exists between the present working area and the deeper, older workings to the south, MUST, be allowed to stand, and the vein should not be extracted. To do so would subject the hanging wall of gneiss behind the present workings to instability, in an area which is potential site for a shaft.

In law it is required to have Blasting license holder in charge of safety – such a person should be employed at once. He will be useful in the future should blasting be necessary underground. (Please site the report)

Clearly, the mining had been operating without qualified personnel and thus gambling with the lives of the people employed in the mine. Given the profile of the mine, Inspectors of Mines must have visited the mine and most probably several times. Yet they allowed the illegal and dangerous mining activities to continue with impunity.

Kitchen returned to visit John Saul Mine in September 2001 and after studying it he advised as follows:

Ventilation: The fan used is inadequate, being more of a domestic design. It is recommended that a fan of proper underground design should be purchased from South Africa....If in the future, the condition of the ground requires blasting with explosives, the reentry period should be determined by careful physical examination of the clearing of the dust and fumes

from the working face, but should in any case be not less than 2 hours. The fumes from the blasting contain highly noxious gasses and much carbon monoxide and dioxide are produced.

Safety and health: Men working underground must not work barefoot, as at present. It is both illegal, and dangerous. They should also be properly dressed in full overalls, not the standard shorts and pants, in order to prevent injury to exposed legs and arms. The men at the face should be provided with safety goggles and when dry drilling facemasks for filtering the dust. The wearing of hard hats must be strictly enforced. These simple precautions will go a long way towards reducing the possibility of accidents, and the resultant loss of production when men are laid off injured. A stretcher should be provided at the bottom of the decline for use in the case of serious accidents. At the bottom of the decline, chains should be fixed to the walls at a suitable distance (2-3 metres) away from the end of the tracks. These should be kept closed during the hoisting operations, no person other than the banks man should be allowed beyond men, in case of a runaway of the escape.

Many of the miners in Taita-Taveta, both large and small-scale, consider the observance of safety standards expensive. That is why safety in the mines is usually overshadowed by the desire to produce minerals cheaply and make as much profits as possible in the quickest time possible. On the other hand, inspectors of mines rarely visit the mines to scrutinize their safety. Even when they do, they tend to be compromised the mines' management and do not insist on ensuring adherence to safety standards, like those recommended by the professional mining engineer, Kitchen. Impending disasters that can be avoided or reduced are always present in the mines in Taita-Taveta.

8. CONFLICTS OVER MINERAL RESOURCES

8.1. Conflicts over iron-ore

There is scramble for minerals in Taita-Taveta, which is leading to conflicts between large-scale investors over the control of the iron-ore in Kishushe. The scramble for iron-ore in Kishushe and Wanjala in particular has intensified of late, as awareness of the value of iron-ore among the people the people of Kishushe increases. Many women and men – as individuals, families and groups – are engaging in iron ore mining of iron and searching for markets and business partners. This brings them into conflict with Wanjala Mining and Sanghani. Cases of corruption, threats, intimidations, inorder to extend mining boundaries and establish a monopoly are commonplace.

Conflicts between the large-scale miners and peasants of Kishushe are now more of a norm than an exception. For example, on Saturday 23rd October 2010 there was a huge demonstration of the people of Kishushe at Wanjala demanding the eviction of the mining company that is apparently operating illegally. The demonstration was led by the area councillor. Although the company has mined thousands of tonnes of iron-ore from the area, it has only fulfilled legal requirement number 1 described in table 3 of this report while it has violated all other legal requirement. The people of Kishushe were therefore protesting against the unscrupulous investor who is robbing the community and the government of the iron-ore resource. Yet, the police arrested and detained the leaders of the demonstration.

Competition for prospecting rights, pegging, claims over mining areas is now rife in Kishushe. Conflicts between the people of Kishushe over boundaries of mining areas have escalated. Several people can claim mining rights or claims in one area at the same time. It is a matter of survival for the fittest. Those with money and better connections and more knowledge of the laws of mining have more advantages.

8.2. Conflicts over gemstones

Conflicts between small-scale gemstone miners on one hand and large scale-miners gemstones miners on the other is also the order of the day at Kasighau, Chungaunga, Kamtonga, Mwachabo, Alia and all parts of the lower zones of Taita where mining of gemstones is a major economic activity. Often, the rich and well connected people, most of them from outside the districts, acquire the right to prospect for minerals in the area from Nairobi and the area district headquarters at Wundanyi without the participation of the communities of the area concerned. Armed with the licences, they come to map out and fence the land belonging to the local people. In the process, they not only exclude the communities from their ancestral lands but also the small-scale miners composed of the indigenous Dawida, the Kikuyus, Merus, Kambas, Somalis and other ethnic groups who eke a living by collecting and selling precious stones in the area. They take advantage of the fact that most land in the lower zones of Taita-Taveta where most mining activities take place is not demarcated and titled.

The wealthy and more established prospectors and traders have alienated land at the expense of the local community. While they become wealthy from the rich mineral resources composed of various gemstones, the local people are robbed of their land and resources, and the small-scale miners are driven into poverty through violent evictions from their sources of livelihoods. They have acquired multiple prospecting rights over large areas of land in the county, yet mining activities take place in only the few of the areas so claimed; they retain the rest of the land only for speculative purposes.

Part 7: Conclusion and recommendations

1. THE PROSPECTS FOR MINING IN TAITA-TAVETA COUNTY

In spite of the challenges discussed in this report, particularly in part six of this report there are still great prospects for mining in Taveta- Taveta County which is rich in minerals, both industrial and gemstones. Some of the most precious gemstones - ruby, sapphire and emerald - are found in the County. Iron-ore, one of the most important industrial minerals is also found in abundance there. Taking into account that hitherto the potential of minerals is neither fully known nor exploited, there are possibilities that other minerals will be found in the future. With good leadership and more commitment to the mining sector both at the national and county governments, the existence of minerals could be used for attracting local and foreign investments. This could help to eradicate poverty, create employment and contribute to the development of Taita-Taveta, in particular, and Kenya, in general. The country could derive a lot of revenue from the minerals.

2. POTENTIAL FOR INDUSTRIAL DEVELOPMENT

The abundance of industrial minerals such as limestone and iron-ore in Taita-Taveta means there are possibilities of industrial development in the area in future. Other resources include the iron-ore at Kishushe, the coal from the nearby neighbouring Kitui County (Kenya Engineer, ibid.), and the area amounts of water from Mzima Springs. These could help trigger the development of a formidable mining industry in the area.

The national and county governments should source for funds to invest in professional prospecting to establish the extent, quantity, quality and type of the minerals in the area. The data should be published and popularised through the electronic and print media and in the soon to be established county website. This will be a form of attracting both local and foreign investments to the area and country.

3. COMBINATION OF PRECIOUS STONES AND ABUNDANCE OF WILDLIFE

Already, the gemstones and industrial minerals, particularly iron-ore, attract a lot of interests and investments in Taita-Taveta from the local people, Kenyans from outside the county and even foreigners. Taita is already famous the world over not only for tourism attracted by its rich wildlife in Tsavo West and East national parks, but also by the precious gemstones - ruby, sapphire, emerald and other garnets. The national and county governments should take advantage of this fact by creating mechanisms, including legal instruments, to formalise mining and trade in minerals in areas such as Voi, Mwatate, Kasighau and Bura to enhance development, increase revenue, boost trade and tourism in the area.

In this regard, there should be a revision of the extent of the boundaries of the Tsavo national parks, especially where minerals are found. A smaller wildlife area which is well managed is better than a vast area with wild animals perishing due to lack of water and pasture. The current position is that the Kenya Wildlife Services (KWS) provides licenses to rich and selected people for mining inside the national parks with the requirement of payment of a small fee and adherence to their rules. With the coming of the new Constitution, Tsavo East and West national parks, the largest parts that are located in Taita-Taveta county, should revert to the county. But they should continue to be managed by KWS on behalf of the County. Taita-Taveta County Assembly, in consultation with KWS, should therefore create specific laws and rules of managing mineral activities within the national parks. Such laws should conform with article 66 (2) of the Constitution. They should include regulations dealing with human-wildlife conflicts, community participation in the management and conservation of the wildlife resources, and

sharing the benefits accruing from conservation.

4. THE CONSTITUTION OF KENYA NOW EMPOWERS LOCAL COMMUNITIES

The local people of Taita-Taveta complain that they do not benefit from the mineral resources found in their area. The resources benefit outsiders but alienate them (the local people) from their ancestral lands. Thanks to the new Constitution, the Taita-Taveta people are now empowered to realise their rights to derive economic benefits from their land and natural resources, including minerals. Article 66(2) of the Constitution of Kenya states that "Parliament shall enact legislation ensuring that investment in property benefit local communities and their economies", and therefore land belonging to communities and individuals throughout Taita-Taveta and especially in the lower zones should be demarcated and titled. This will safeguard local communities from being exploited by rich mining prospectors and investors. The land issue in Taita-Taveta should be addressed and solved in the spirit of the Constitution. The historical injustices need to be addressed to ensure the rights of communities to their land and land resources, equity and justice.

The proposed Mining and Minerals Act should also be reviewed to conform with the spirit of the Constitution. It should be reviewed to safeguard the interests of local communities, smalland large-scale miners, and traders, and individual owners of land. This could also help make it reflect history, change, new discoveries, definitions and realities of minerals, mining and trade in minerals. Prospecting Rights (PR's), for example, should to be localised and issued by county governments which should have mining offices within its headquarters and in the mining areas. Mobile monitoring units of the governments could be formed with the role of updating data on minerals in pegged areas to avoid duplication of pegging, ensure safety in the mines and to avoid conflicts.

Particularly, it should be recognised that all land in the country, wherever it is situated, has local claimants who were born there and who have the right to claim it as their inheritance irrespective of whether that land is marked, demarcated or titled. As such, land and minerals should not be given to outsiders without the participation of local communities.

5. LOCAL PEOPLE ARE INCREASINGLY PARTICIPATING IN MINING

The local people of Taita-Taveta are now increasingly participating in mining and trading in minerals, rather than only complaining that they are marginalised. The same applies to mining of iron-ore in Kishushe. What the people of Taita-Taveta from the Government knowledge, skills and capital to enable them to engage more actively in mining. These positive developments point towards a growing entrepreneurship within the community; something that should be harnessed by the local and national governments.

To facilitate local people's participation in mining in their areas, prospecting rights should be reviewed regularly. People should not be allowed to peg mining areas for speculative purposes. At the moment, the some claim ownership of thousands of acres of land and peg large and many mining areas for speculation. This alienates other mining stakeholders, especially local communities, from the land and natural resources. It explains why as soon as mines prospected by small-scale miners and zururas start producing minerals, the rich persons resurface to pay pending feesto the Department of Mines and Geology and reclaim the minerals found in their land and claims. This is the greatest source of the numerous conflicts over land and mineral resources in Taita-Taveta.

There should be conditions that state that unless mining starts within the claimed and pegged

area within six months, the area will be located to other investors who are ready to start mining. Again, individuals however rich, should not be allowed to monopolise mineral production and trade. In fact, this will be in harmony with the spirit of the new Constitution on land tenure that discourages the holding of land for speculative purposes rather than production.

6. INDIGENOUS KNOWLEDGE ABOUT MINERALS

There is a lot of rich indigenous knowledge about mining and minerals among the local people of Taita-Taveta. This has been used for free by geologists and investors to prospect for minerals in the area. This should not continue. The only recourse for local people has been to refuse to reveal their knowledge for fear it will be used to exploit them and their resources by outsiders. These people need assurance that their knowledge could be used for their own benefit and that of their communities. This way, they would release it, together with the creativity embodied in them and their community. Research in indigenous iron works technology in Taita-Taveta which is the earliest in the history of Kenya (Were & Soper, ibid) could, for example, challenge the present generations to think more of utilising the iron-ore for local iron industry rather than for export only.

It should also be appreciated that indigenous knowledge has limitations and should be used only to enhance modern geological and technological methods of prospecting and mining. As many local people realise, one of the biggest impediments to their participation in mining is lack of access to modern mining technologies. Many of the small-scale miners use very simple tools that hinder meaningful production. The county government could establish a department of mining with the specific objective of, among other things, helping potential miners to acquire mining tools (such as compressors and hammers). Local miners should also be assisted with access to loans to invest in mining as well as markets for their mineral produce.

7. THE CONCERNS OF LOCAL PEOPLE SHOULD BE LISTENED TO

For ensure sustainable mining in Taita-Taveta, the concerns of local people should be listened to and addressed while dealing with the existing conflicts and avoiding future ones. In the spirit of the Constitution, the local people should be educated about their rights in relation to land tenure and the land resources thereof with the aim of empowering them legally, economically and with knowledge to participate more actively and effectively in prospecting, mining and trading in minerals. At the same time ongoing scramble for minerals in Taita-Taveta should be stopped through progressive government reforms and regulations at the national and county levels, to ensure the sustainable utilisation of the mineral resources by both large-scale acd small-scale investors . Formal markets for buying and selling minerals, especially from small-scale miners and traders should be opened at Mwatate, Voi, Kasighau, Bura and other mining areas.

8. SAFETY & ENVIRONMENTAL STANDARDS IN THE MINES

The research observed that the safety of mines in Taita-Taveta are below the standards expected to protect employees Miners work in dangerous environments, and reports of accidents that cause injuries and deaths are often reported. The government safety measures are hardly implemented by the owners of the mines – who are only concerned with making profits from minerals at the expense of the lives of the workers. The government should therefore conduct regular inspections of the mines to ensure that the safety measures are adhered to by the owners of the mines.

9. THE MINING SECTOR SHOULD BE TAKEN MORE SERIOUSLY BY THE GOVERNMENT

At the moment, mining and quarrying contributes very little to the Kenya's national economy (Central Bank, 2008:218):

Kenya's monetary economy currently relies only to a very small extent - 0.2% - on mining and quarrying. Compared to other enterprises and non profit institutions the sector has for the last few years made the least contribution to the country's national income. In spite of this unflattering standing, recent production accounts suggest that mining in Kenya is far from dormant.

Both the national and county governments should realise that there is great potential in mining in the country in general and in Taita-Taveta county in particular. If properly regulated mining could attract and boost foreign investments, develop local communities and businesses, create employment and contribute a great deal to national and county governments' revenues.

References

Anonymous, 1974. A first look of rubies from Kenya. Gems and Gemology, v. 14, pp. 334 – 336.

Bancraft, P. (1984). Gem and Crystal Teasures, Western Enterprises Mineralogical Record, Fallbrook, CA, 488 pp (also published in Palagems.com).

Bridges, C. 1982. Gems of East Africa. International Gemological Symposium. Geomological Institute of America, Santa Monica, Calif. Pp. 266 – 275.

Central Bank, 1991. Kenya Land of Opportunities, Nairobi.

Central Bank, March 2008. Kenya Portrait of a Country, Nairobi.

Department of Mining and Geology, (not dated).Wundanyi, "Mining Road Map".

DuBois, C. (Revised by J Walsh) 1970. Minerals of Kenya. Geol. Surv. Kenya Bull. 11, 82p.

Government Printer, (Revised 1987), Mining Act Cap 306, Nairobi.

Government Printer, 2010., The Proposed Constitution of Kenya, Nairobi.

International Coloured Gemstone Association, http://www.gemstone.org/gem-by-gem/gem-by-gem.html

Keller, P.C. 1992. Gemstones of East Africa, Geoscience Press, Phoenix.

Kenya Engineer, Journal of the Institution of Engineers of Volume 31 No.4, 2010. Intercontinental Publishers Ltd., Nairobi.

Mghanga, M., 2008. Usipoziba Ufa Utajenga Ukuta – Land, elections, and elections in Kenya's Coast Province, Heinrich Böll Foundation East and horn of Africa, Nairobi.

Mnyamwezi, B., 2010. "Taita to host new steel plant" The Standard, Nairobi.

Manyindo, J., 2010. "Insecurity on the rise in gemstone mining grounds", Daily Nation, Nairobi.

Nyambura-Mwaura., 2010, "Miner says Kwale's titanum project needs up to \$250m, The Standard, Nairobi.

Omondi, G., 2010, 'Laws delay Kenya's large-scale mining', 'Business Daily', Daily Nation August 6, 2010.

Parkinson, J. 1947. Outlines of the geology of the Mtito Andei-Tsavo area, Kenya Colony. Kenya Geolo. Surv. Rep. v. 12, p. 40.

Pohl, W., 1977. Geology of Mangari ruby mines, Kenya. Austria Mineral exploration Project No 9, 70p.

Pohl, W., and A, Horkel, 1980. Notes on the geology and mineral resources of the Mitito Andei-Taita Area (Southern Kenya), Mitt. Oesterr. Geol. Gessell.v 73, pp. 135-152. Pohl, W., and G Niedermayr. 1979. Geology of the Mwatate Quadrangle (sheet 195/2) and vanadium grosularite deposits of the area. Kenya – Austria Mineral Exploration Project 1975 – 1978, Kenya.

Shibata K., 1975. "Preliminary geochronological study on metamorphic rocks from Taita Hills", southern Kenya. Fist Prelim, Rep. African studies, Nagoya University (Japan) pp. 72-75).

Taita-Taveta Professionals Forum, 2008. Pamoja Tu Washindi (pamphlet), Nairobi.

Taita/Taveta Professional Forum (Forum)Trust (2010), (www.taitataveta.co.ke) Walsh, J. 1960. Geology of the area south of Taita Hills. Geol. Surv. Kenya Rep. No 49, 26p.

	Table 3: Summary of the legal procedures and requirements of investing in mining in Kenya							
	Type of Licence	Rights Conferred	Procedures	Time Frame (Approx.)	Cost (in Ksh.)			
1	Prospecting Right (PR) (Renewal annually subject to payment of the 250/- renewal fee	For identifying potential mineral- ised areas	 Purchase of Mining Act and studying and understanding the provisions and & regulations thereof. Issuance of in- troductory letter to Provincial Commis- sioner's office of the area of interest and payment of Ksh. 000/- cash deposit at the PC's office. Issuance of the prospecting right on payment of Ksh. 00/- upon filling the necessary form (Form 1) 	1 – 2 days 1 – 2 days (travel consid- eration) 1/2 hour	232/- Ksh. 2,000/- plus travel (Ksh. 500/- 10,000/- depend- ing on the node of transport Ksh. 250/-			
		Total		2 – 4 days	Ksh. 2482/- Direct Ksh. 500/ 10,000/- Indirect			

2	Mining Locations (renewal annually subject to satisfac- tory performance and payment of renewal fees)	To carry out detailed geologi- cal investigations to quantify the mineral deposits over small areas (in unclosed zones up to 4 sq. km per	 Have a valid PR as in 1 above Get land owner consents 	2 – 4 days 1 – 7 days	Ksh. 2,482 Direct Ksh. 500 – 10,000/- Indirect. Indirect costs that are negotiable varying from Ksh. 20,000/- to
		district)	3.Survey and peg/ stake the area	1 – 4 days depending on size & number of locations	Ksh. 100,000/- Indirect costs that are negotiable varying from Ksh. 5,000/- to Ksh. 30,000/-
			4.Get County Coun- cil consents in case of Trust Land.	1 – 7 days	Indirect costs that are negotiable varying from Ksh. 5,000/- to 30,000/-
			5. Apply for the registration of the areas by filling Form 8 and seek- ing and enclosing sketches, certificates of business registra- tion, etc.	1 day	Nil
			6.Applied areas are then checked on ground before be- ing recommended for approval to the Prospecting and Mining Licensing Committee which sits quarterly.	2 weeks to 3 Months	Nil
			7.Issuance of the necessary certifi- cates (titles) on pay- ment of fees.	1 – 2 weeks	Direct Ksh. 100/- to Ksh.8,000/- depending of number of claims in a district.
Tot	al			1 – 3 months	Direct Ksh. 2,561/- – Ksh. 10,461/- Indirect Ksh.40,500 – Ksh. 40,000 – Ksh. 132,000/-

3	Exclusive prospecting licence	To carry out detailed geological in-	1. Have a valid PR.	2 – 4 days	Direct Ksh.2,461/- Indirect Ksh.500 – Ksh.10,000/-
		to quantify the mineral deposit over	2. Consent from land owner.	1 – 7 days	Direct Ksh.2,461/- Indirect Ksh.100,000/- and over for areas
		in unclosed zones. (Is- sued for I year and renewable up	3. Consent(s) from County Council(s) in case of Trust Land.	1 – 7 days	Ksh. 10,000/- and more if area includes several councils
		to 5 years)	4. Document preparation, i.e, sketch plans and area descrip- tion, proposed work program and expenditure proposals	1 – 2 days	Ksh.3,000/- or more
			5. Apply for Exclusive prospect- ing license by filling form 6 and enclosing documents in (4) above, company's registration certificate, financial statement, etc.	1 day	Nil
			6. Application is checked before being recommended to the Pros- pecting and Mining Licensing Committee which sits quarterly.	1 – 3 months	Nil
			7. Application is published in Kenya Gazette for any objections within 30 days from the date of publication.	1 – 2 months	Direct Ksh. 5,000/ Ksh. 1,000/-
			8. If no objection, license docu- ment prepared upon payment of necessary fees.	1 – 2 weeks	Direct Registra- tion Ksh.10,000/- Preparation Ksh.20,000/- Fees Ksh.250/- per sq.klm.
			9. Stamp duty at Land's office	2 days – 1 week	Direct Ksh. 105/-
		2-6 months	Direct Mini- mum Ksh19,561/ depending on acreage. Indirect Ksh.30,000/ -Ksh.133,000/- or more.		

4	Special Li- censes (S.L.) Issued nor- mally for 2 years subject to renewal (s)	To carry out detailed geological investiga- tions to quan- tify mineral deposits over closed zones (No acreage limitations). One can be allowed lim- ited mining	Same procedures as EPLs	Same as EPLs	Same as EPLs
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5	Mining Lease or Special Mining	Right to mine the mining de- posits estab- licked up dor	1. Undertake mining feasibility study on the established mineral deposit.	1 – 6 months	Several hundred thousands or more.
	Lease	proceeding exploration license, i.e., mining loca-	2. Undertake cadastral survey of the deposit area by registered surveyor and have it ap- proved by the Director of Surveys.	1 – 2 months depending on acreage	Several hundred thousands or more.
		tion, EPLs and SLs	3. Undertake an Environmental Impact Assessment Study (EIA) for Mining Project; Environmental Action Plans, etc, approved by NEMA. EIA reports are published in the media for public comments before approval at the applicant's cost.	3 – 6 months or more	Several hundred thousands or more.
			4. Undertake compensation survey esti- mates, negotiating rates with the land own- ers in case of private land. Come up with compensation agreements.	1 – 3 months	Several hundred thousands or more.
			5. Apply for the mining lease /special min- ing lease by filling form 18 and enclosing mining feasibility study report, approved cadastral survey by the Director of Sur- veys, EIA and Environmental Action Plans (EMPs) approved by NEMA, compensation agreed with land owners, company's regis- tration documents, financial capability, etc.	1 – 3 months	Several hundred thousands or more.
			6. The application is checked before being recommended to the Interministerial Pros- pecting and Mining Licensing Committee which sits every three months.	1 – 3 days	Nil
			7. Application is published once in the Kenya Gazette and three (3) times in a local newspaper at intervals of not less than a week to invite any objections within 90 days from the date of the last publication, at the cost of the applicant.	Not less than 3 months	Several hundred thousands.
			8. Carry out compensation exercise to land owners for private land parcels.	Between 3 – 6 months	Several hundred thousands or millions
			9. Issuance of the mining/special mining lease followed by stamp duty and Land's office.	Within a month	Annual rent is Ksh. 1,000,000/- per hectare. Payment to NEMA restore dep.

			Total	Within a year or more	Several hundred thousand to several millions depending on the land is Gov's or Private.
			1		
6	Mineral dealer's license	To trade in minerals. (Buy and sell locally or export)	Apply for license indicating type of miner- als and trade (e.g) export or local trade for some minerals), enclosing experience, physical address of a premises (office), financial capability, registration documents in case of a company, etc.	1 – 2 days	Annual fees Ksh. 20,000/- general minerals; Kshs. 350,000/- for dealers export licence for precious metals; Ksh.350,00/- for dealers export license for diamonds.
	Issued for calender year (re- newable)		Stamp duty	1 – 4 days	Ksh. 105/-
7	Export permit. Given per particular mineral consign- ment	xport Authority ermit. to export a particular mineral con- nineral signment nent	Fill and submit 5 copies of export permit from attaching invoice and address of consignee.	Approval within a few min- utes	Free
			Customs documentation is done by con- signor.	1 – 2 days	Purchase of customs' seal for precious stones at Ksh.30/-
			The mineral consignment is inspected and ascertained before authorisation.	Authorisa- tion within a few hours to a day	Free
			Total	A few hours to a day	Free

About the author



Mwandawiro Mghanga, was born in November 1959 at Werugha - Kese, in Taita District of Coast Province of Kenya. He started school in Werugha Primary School in 1967 before joining Starehe Boys' Centre, Nairobi, in 1974, where he completed secondary and high schools in 1977 and 1979 respectively. He is married to Manga and they have three children Wandoye, Mighulo and Mghanga.

Mghanga has always been a political, democracy and human rights activist. Between 1980 and 1974 he studied Literature, Philosophy and Kiswahili and obtained Bachelor of Arts degree at the University of Nairobi. While at the university he was active in student's politics and served as students' representative immediately after being admitted, after which he was elected Chairperson of Students' Organisation Nairobi University (SONU) from 1983 to 1985. He also participated in several political and cultural activities within the university and outside. Soon after completing his undergraduate studies, in 1974, he joined the Department of Linguistics and African Languages in the same university for an MA course. However, at the end of March 1985 he was expelled from the university for being a member of the movement for multiparty democracy, political and social liberation.

Immediately after being expelled from the university he was arrested, tortured and imprisoned for one year at Kamiti Maximum Security Prison near Nairobi. He left the prison in December 1985. In March 1986, while working as a head teacher in a harambee school in Taita, he was rearrested, tortured and imprisoned for five years for political reasons. He left prison in September 1989 and when there were attempts to arrest him again he succeeded to flee to Tanzania where he stayed as a political refugee until the end of 1991 and then was forced to flee once more to Uppsala, Sweden, through the UNHCR. He was adopted by Amnesty International as prisoner of conscience. He obtained MA in Literature from Stockholm University and MSc. in Development Studies at Swedish University of Agricultural Sciences, Uppsala.

He now works as an independent consultant and researcher of issues of political economy, development, natural resources management, literature and culture, conflicts and peace building. In this regard he has written and presented several papers in Kenya and abroad. He is also a prolific writer of popular and researched essays, articles to the press, poetry, plays

and short stories, in Kiswahili Kidawida and English. He is a columnist with Taifa Jumapili newspaper. His poems, plays and short stories will be published soon. In 2010 HBF published one of his research books, USIPOZIBA UFA UTAJENGA UKUTA – Land, elections, and conflicts in Kenya's Coast Province.

The author is also the immediate former Member of Parliament for Wundanyi, Kenya (2002 – 2007). While in Parliament he was member of the Parliamentary Committee for Defense and Foreign Relations. In that capacity he traveled extensively in the countries of the Horn of Africa and Great Lakes, Tanzania, Uganda, Kenya, Rwanda, Burundi, Democratic Republic of Congo, Ethiopia, Sudan, Djibouti, among others.

Mghanga is the current National Chairperson of the Social Democratic Party (SDP).

Mwandawiro Mghanga

HEINRICH BÖLL STIFTUNG EAST & HORN OF AFRICA

