

# THE MINING AND MINERALS SECTOR IN KARAMOJA REGION: DEVELOPMENT OPPORTUNITIES AND CONSTRAINTS



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**Irish Aid**

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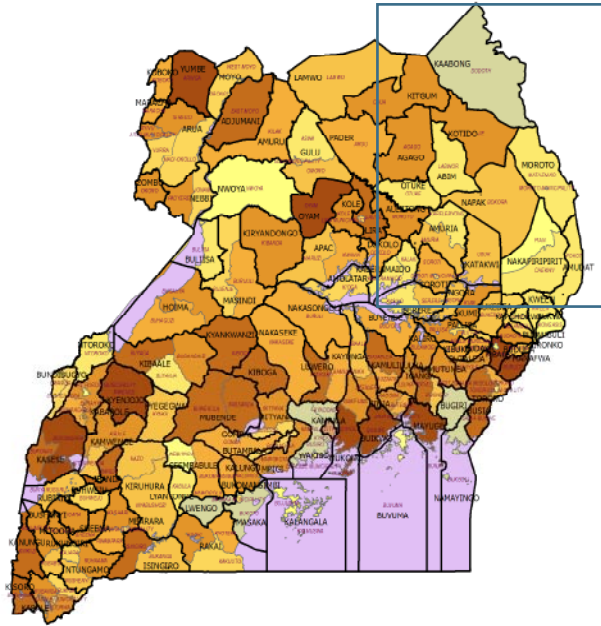
Published by:  
Ecological Christian Organisation (ECO)  
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**ISBN 9789970405008**





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## Authorship

This Assessment was prepared by ECO Research Team comprised of: Jennifer Hinton, Joseph Okedi, Ruth Mbabazi, Isaac Kabongo and Charles Kabiswa.

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# Acknowledgements



Ecological Christian Organisation (ECO) wishes to extend its gratitude and sincere thanks to Irish Aid for facilitating the baseline study and this publication. We gratefully acknowledge the contributions of the ECO Research Team that included Jennifer Hinton, Isaac Kabongo, Charles Kabiswa, Joseph Okedi, Ruth Mbabazi, Ben Twinomugisha and the Regional Senior Mines Warden, Nathan Mushetsya for joining the study team to various study sites / communities throughout the entire exercise. The efforts and time allocated for interviewing respondents by Apuna Godfrey and Simon Peter Nangiro is greatly acknowledged.

ECO is also grateful to the support and cooperation extended by the Ministry of Energy and Mineral Development (MEMD), specifically the Department of Geological Survey and Mines (DGSM), Karamoja Region Local Governments of Moroto, Kaabong, Kotido, Nakapiripirit, Abim, Amudat and Napak Districts for offering valuable information during the entire exercise. Community members/miners especially those from the mining sites of Rupa, Katikekile, Molurem, Kosiroi, Lopedo, Acherer, and Karita, the mining companies especially Tororo Cement Ltd and African Minerals Ltd, are highly appreciated for the information, patience and cooperation throughout the study.

# Foreward

This book is an outcome of a baseline assessment report titled “Mining and Minerals sector in Karamoja Region: Development Opportunities and Constraints”. With support from Irish Aid, Ecological Christian Organization (ECO) conducted this study (survey) to determine the significance and potential of the mining and minerals sector in Karamoja, characterize related governance and sustainable land use management issues and assess opportunities for upstream, downstream and lateral livelihoods development, among other core issues.

Despite Karamoja Region having occurrences of over 50 different economic minerals, not limited to gold, silver, copper, iron, gemstones, limestone and marble, thus making it one of the most prospective areas of the country and attracting over 20 foreign and Ugandan owned companies to conduct exploration, the region still experience slow rates of development coupled with hard economic hardships. However, the mining sector has led up to 18,000 Karimajong men, women and children into Artisanal and Small scale Mining (ASM) as a means of livelihood. Though ASM is one of the sources of livelihood options in the region, it's conducted using manual, labour intensive and often hazardous methods on a seasonal or year-round basis. Current projections indicate that exploration and mining activities, including those related to ASM are expected to escalate in Karamoja in the coming years, yet few efforts have been sought to understand potential development risks and opportunities associated with such activities.

This assessment aimed at exploring such issues in a region home to over 1.1 million people who endure significant hardship characterized by over 80 percent of the population living below the poverty line. The region also possesses tremendous assets, not the least of which include rich cultural traditions, values and beliefs, vast and diverse landscapes and what appear to be significant mineral endowments.

This book is an excellent attempt therefore, to generate knowledge that is detailed and context specific on mining and minerals sector in Karamoja Region. The knowledge presented here is invaluable in identifying the development opportunities and constraints of mining in the region. My hope is that this book will help to inform policy and improve the planning and interventions by central and local governments, NGOs, donor agencies, mining communities and companies and other actors. Besides, different practitioners could use the specific recommendations as entry points for livelihoods development, wealth accumulation and poverty reduction in the region.

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# LIST OF ACRONOMS

ASM -	Artisanal and Small scale Mining
CAO-	Chief Administrative Officer
CDO -	Community Development Officer
DEO -	District Environmental Officer
DGSM -	Development of Geological Survey and Mines
DRC -	Democratic Republic of Congo
ECO -	Ecological Christian Organisation
EIA -	Environmental Impact Assessment
EL -	Exploration Licence
GAM -	Global Acute Malnutrition
GOU -	Government of Uganda
HDI -	Human Development Indices
MDL -	Mineral Dealers Licence
MDP -	National Development Plan
MEMD -	Ministry of Energy and Mineral Development
ML -	Mining Lease
MoFPED -	Ministry of Finance Planning and Economic Development
NDP -	National Development Plan
NEMA -	National Environment Management Authority
OCHA-	Office for the Coordination of Humanitarian Affairs
PL -	Prosecuting Licence
UGX -	Uganda Shillings
UNDP -	United Nations Development Program
URA -	Uganda Revenue Authority
USD -	United States Dollar

# EXECUTIVE SUMMARY

The Karamoja Region hosts occurrences of over 50 different economic minerals, including gold, silver, copper, iron, gemstones, limestone and marble, making it one of the most prospective areas of the country and attracting over 20 foreign and Ugandan owned companies to conduct exploration and, to a much lesser extent, mining in the region. The mining sector has also led up to 18,000 Karimajong men, women and children into Artisanal and Small scale Mining (ASM), as a means to support their day to day survival. Unlike larger scale or more formalized mining, ASM is conducted using manual, labour intensive and often hazardous methods on a seasonal or year- round basis.

Exploration and mining activities, including those related to ASM are expected to escalate in Karamoja in the coming years, yet few efforts have sought to understand potential development risks and opportunities associated with such activities. With support from Irish Aid, this assessment sought to explore such issues in a region; home to over 1.1 million people who endure significant hardship resulting in over 80% living below the poverty line, yet who possess tremendous assets, not the least of which includes rich cultural traditions, vast and diverse landscapes and what appear to be significant mineral endowments.

In terms of mineral wealth, formal and, particularly, informal economic inputs from the minerals sector allude to potential for substantial contributions to development. Formally, this is largely through a 17% royalty share to local government and 3% to landowners, which, in 2010, amounted to over 86.7 million UGX paid to Moroto District while 15.3 million UGX has yet to be disbursed to as of yet unclear landowners. Informal contributions of extralegal ASM are perhaps most remarkable, and are estimated to account for up to 27.4 billion UGX in miners incomes' contributions that are spent in the local economy. Given that many extralegal miners in other parts of Uganda often invest earnings into agricultural development and small enterprises, targeted intervention to formalize and improve ASM activities suggest one opportunity to help bring the region out of poverty.

However, within the unique cultural and geoclimatic environment of Karamoja region, transforming the minerals sector as a platform for development is far from simple. Critical issues relate to: the need for land tenure and mining rights, particularly for those most marginalized (including artisanal miners); measures to ensure protection of environmental integrity (inclusive engagement of communities in processes to monitor such impacts); ensuring secured access of traditional land users; addressing critical health and development needs of artisanal miners, promoting much needed improvements in performance of the ASM subsector; empowering community stakeholders to drive their own development and building capacity and support mechanisms to promote good governance. While findings suggest that both ASM and larger scale mining have provided an alternative livelihood that has contributed to peace and security, each of the critical issues – if not addressed – suggests potential for increased conflict risks.



A number of recommendations have been put forward accordingly framed upon three primary goals:

1. Good governance, transparency, accountability & equitable benefit sharing;
2. Formalization and improvements to ASM and the mineral trade; and
3. Increase the role and efficacy of mining and exploration companies in supporting local development

Core principles woven throughout recommended actions relate to increased coordination, communication and collaboration between stakeholders at all levels; empowerment of communities vis-à-vis genuine engagement in all activities and through targeted interventions; reconciling mining, land and other legislations; bringing clarity to institutional roles of local and central government and supporting transparency and accountability by all.

Responsiveness to these issues will partly determine whether Karamoja's mineral endowments can be used as a platform for stability, wealth creation and development while inaction poses the risk of further undermining environmental integrity, human wellbeing, tenuous peace and security and the invaluable cultural assets that are unique to the region.

# 1 INTRODUCTION

Within the framework of the National Development Plan (NDP, 2010/11-2014/15), the Government of Uganda (GOU) envisions the transformation of Uganda into a modern, prosperous country within the next 30 years. Associated strategies are founded on elements of: stability and peace; knowledge-based economy; gainful and sustainable exploitation of resources; a private sector led economy and a strong federated East Africa with an effective common market<sup>1</sup>. In Uganda, as in neighbouring East African countries, the minerals sector is explicitly recognized within national poverty reduction strategies based on the contention that mining industry growth can advance development at community, regional and national levels. However, as minerals are non-renewable resources, the potential for the minerals sector to foster sustainable livelihoods development poses unique constraints and opportunities. Within Uganda, these challenges are perhaps most evident in the Karamoja Region of Northeastern Uganda. Karamoja is home to over 1.1 million people who endure significant hardship due to factors ranging from extreme climatic variations and food scarcity to environmental degradation and insecurity to deficits in social services and infrastructure, among others. As a consequence, a significant proportion of Karamojong have been unable to effectively engage in their traditional agro-pastoral livelihoods<sup>2</sup>.

These circumstances have drawn an estimated 18,000 men, women and children in Karamoja into artisanal and small scale mining (ASM), or “subsistence” mining, of gold, gemstones, limestone, marble and other minerals using basic, labour intensive and manual methods on a seasonal or year-round basis. ASM is, however, a facet of the minerals sector typically characterized by unsustainable mining methods, dire health and safety conditions, child labour, gender inequalities, exploitative pricing and environmental degradation, among other challenges. Particularly as incomes are often several times higher than those yielded from other activities, ASM nevertheless represents an important strategy to cope with abject poverty and is increasingly regarded as a potential platform for wealth accumulation and a catalyst for local economic development.

While the influx of Karamojong into ASM provides some indication of both mineral potential in the region and the need for viable livelihood options, licensed exploration and formal mining activities have also grown. Currently, 21 foreign and Ugandan owned companies hold licenses for mineral exploration and exploitation covering 13% of Karamoja’s area. Although large scale, mechanized mines have not been developed in the region, two semi-mechanized sites are operating. These conditions together suggest that additional projects are likely to be developed in the coming years. Potential local development benefits commonly associated with large scale mines – formal employment and spin-off ventures, infrastructure (e.g. roads, water, power), taxes and royalties and

social responsibility contributions, among others – hold promise; yet concerns with socio-cultural disruption, environmental impacts and sharing of benefits have been expressed by some local stakeholders<sup>i</sup> The implications of minerals sector growth in the region brings to the forefront important questions concerning equitable and sustainable livelihoods development as well as actual and potential development impacts and opportunities of minerals sector development for women and men in Karamoja.

With support from Irish Aid, Ecological Christian Organization (ECO) conducted this Baseline Assessment of the Mining and Minerals Sector in Karamoja in order to determine the significance and potential of the mining and minerals sector in Karamoja, characterize related governance and sustainable land use management issues and assess opportunities for upstream, downstream and lateral livelihoods development, among other core issues. The Baseline Study intends to inform policy and improved planning and intervention by central and local government, NGOs, donors and other actors and puts forth specific recommendations founded on entry points for livelihoods development, wealth accumulation and poverty reduction.

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<sup>i</sup> In Tanzania, for instance, formal minerals sector increased its GDP contribution from 1.8% in 1997 to 7.8% in 2009. Between 1997 and 2006, foreign direct investment totaled US \$2.5 billion and mining contributed 42.5% of foreign exports by 2005. Despite significant economic contribution at national levels, communities around large mines have vocalized concerns about limited local benefits, leading to significant legal reforms in 2010 which mandates companies to substantially increase benefits to mining-impacted communities. This situation seems to be exacerbated by lack of efforts to formalize and improve the livelihoods of the more than 1.5 million artisanal miners active in the country (compared to ~8,000 employed in the formal sector), most of which are working illegally on exploration or mining licenses held by others , .

# 1.1

## Livelihoods and Development in Karamoja Region

Agro-pastoral livelihoods underpin both the local economy and socio-cultural context in each of the Karamoja Region's seven districts (Abim, Amudat, Kaabong, Kotido, Moroto, Nakapiripirit and Napak). As such, development in Karamoja is invariably tied to the natural environment. Covering approximately 10% (10,550 mi<sup>2</sup>) of the area of Uganda, the region is divided into three main agro-ecological zones :

- (i) The “wet zone” or “green belt” that traverses the western boundaries with Acholi, Lango, Teso and Mount Elgon is marked by high precipitation and increased reliance on farming (livestock also continues to represent an important livelihood);
- (ii) The “pastoral zone” that runs along the eastern border with Kenya and is typified by semi- arid savannah covered with seasonal grasses and thorny foliage (e.g. acacia) that are well-suited to livestock grazing which dominates livelihoods in the area ; and
- (iii) The “agro-pastoral zones” that lies between the other zones, and relies on a mixed system of rain-fed agriculture (finger millet, sorghum) and semi-nomadic livestock herding.

In arid and semi-arid areas of Karamoja, most households have adopted semi-nomadic practices revolving around the manyatta (permanent homestead) where agricultural activities take place, and the kraals (mobile cattle camps) where pastoral production takes place. While most women, young children, older people stay in the manyatta year-long with small stock, milking animals or sick, a fluctuating population mainly comprised of men and adolescent boys (and to a lesser degree women and children) migrate with herds and flocks in the dry season with the kraals.

Factors such as insecurity, climatic variations, environmental degradation and reduced land access have taken their toll on traditional agro-pastoral livelihoods. High livelihood dependence on water (for both farming and livestock) coupled with limited and unpredictable rainfalls (ranging from 400mm/a to 1000mm/a in eastern and western zones, respectively) have resulted in both failed harvests and increased pressure on water sources, with distance to livestock watering points averaging four kilometers , . Prolonged dry seasons and, particularly in neighbouring Teso region, extreme flood events, cutting off access to many parts of eastern and northeastern Uganda for extended periods) have been occurring with increased frequency and intensity over the past two decades .



*Photo 1 to 3: (top) A group of men digging in Lorengedwat, Moroto; (center) Animals grazing in the semi-arid plains; (bottom) Women in Rupa Sub County ferrying wood to Moroto Town*

Furthermore, protracted inter- and intra-clan conflicts over cattle and pasture areas as well as cattle-rustling between clans is an often cited source of insecurity. As well, cross-border incursions by groups from neighbouring Kenya and Southern Sudan have reportedly exacerbated small arms proliferation and violence, thereby affecting the capacity of residents to engage in traditional or alternative livelihoods. Although on-going disarmament exercises have reportedly increased stability and security in the region, numerous families and almost entire clans have lost their cattle due to years of incessant raiding<sup>10</sup>.

Climatic unpredictability, insecurity, land access and diseases affecting crops (e.g. crop fungus effecting sorghum) nevertheless continue to pose challenges and perpetuate reliance on food aid. In actuality, Karamoja has some of the highest levels of food insecurity in the country, with a regional global acute malnutrition (GAM) rate of 10.9% (compared to 6% nationally) and malnutrition as high as 15.6% in Moroto District . In 2009, one Local Government Official from Moroto stated that, “poverty and food insecurity is so severe that, in many households, only two meals are eaten per week.” Almost half of children (44.8%) in the region live in households that eat only one meal a day and the stunted growth rate is 35.5% . As shown in Table 1, other development indicators are equally disconcerting. The crude mortality rate of 1.12 per 10,000 people per day is at humanitarian emergency levels . In 2007, it was estimated that at least 80% of the population of Karamoja lives below the poverty line, well in excess of the national average of 31%, while Districts of Moroto and Nakapirpirit have the lowest Human Development Indices (HDI) in the country (0.183 compared to 0.449 nationally)<sup>17</sup> .

**Table 1: Comparative Human Development Indicators**

Indicators	National	Karamoja
Life expectancy [UNDP 2007]	50.4 yrs	47.7 yrs
Population living below poverty line [World Bank 2006, OCHA/O PM 200 8]	31%	82%
Maternal mortality rate (per 100,000 live births) [UDHS 2006, WHO 2008]	435	750
Infant mortality rate (per 1,000 live births) [UNICEF/WHO 2008]	76	105
Under five mortality rate (per 1,000 live births) [UNICEF/WHO 2008]	134	174
Global Acute Malnutrition (GAM) rate [UNICEF/WHO 2008]	6%	11%
Global Acute Malnutrition (GAM) rate [UNICEF/WHO 2008]UDHS 2006]	46%	48%
Access to sanitation units [MoH 2007, OCHA/OPM 2008]	59%	9%
Access to safe water [UDHS 2006]	67%	43%
Literacy rate [UNDP HDR 2006, UDHS 2006]	67%	11%

Source: OCHA, 2008. Focus on Karamoja: Special report No.2

While pastoralism is the dominant economic livelihood for Karamojong, threats to this traditional livelihood has attracted thousands of Karamojong men, women and children to informal, artisanal mining as a means of survival. Like all persons, agro-pastoralists and artisanal miners alike are entitled to enjoy international legal protection of their rights and freedoms, including those of particular relevance to their survival and development as peoples, such as the right to culture, collective ownership of property, equality, and non-discrimination<sup>ii</sup>.

Whether related to land or minerals, in principle, security of tenure would promote investment, productivity and economic growth , . The transition from traditional to modern systems of tenure for both land and minerals and overlapping interests of each seems to have increased risks of tensions, particularly given the influx of formal exploration and mining companies in the region and reports that outside business interests are rapidly acquiring large areas of land under formal land tenure systems. While much work has been done to understand the significance of land rights on development in Karamoja, little has been done to the actual and potential contributions of the minerals sector and the interface between land, minerals and livelihoods.

<sup>ii</sup> These rights are provided for in the Universal Declaration of Human Rights, International Covenant on Economic, Social and Cultural Rights, International Covenant on Civil and Political Rights, International Labour Organisation Convention 169 and African Charter on Human and Peoples' Rights.



## 1.2

# Key Concepts: Defining Exploration, Artisanal and Large Scale Mining in Karamoja

The general public typically has limited awareness of the minerals sector, the diversity of actors and the different roles they play in the sector . Perceptions often center on the activities of large, foreign national companies running highly industrialized operations and related concerns of impacts on land access, environment, economy and culture.

In reality, there are three main categories of activities in Karamoja: (i) large scale, formal mining; (ii) exploration; and (iii) artisanal and small scale mining, each of which is subject to different licensing provisions under the mining legislation (Section 3.1). Main differences between these groups are summarized in Fig. 1 and introduced in simple terms below while Section 2.2 details the companies and distribution of current activities in Karamoja Region.

### (1) Large scale mining

Technically, the largest mines in Karamoja are two mining leases held by Tororo Cement Ltd. (TCL) While these operations are somewhat mechanized, reliance on local, manual labour is high. With more than 3000 women and men artisanal miners active on TCL mining leases, the company has heavily revised their plans to mechanize, primarily in response to overwhelming employment needs of local communities (Section 4.1.1). A few small Ugandan companies in the region are similarly reliant on local, manual labour and are also applying for mining leases for their activities, but are much smaller in area (footprint) and level of investment. Although companies holding mining leases may be considered “large scale” in Uganda (both in terms of the legal framework and relative scale of activities), internationally these activities are considered to be comparatively small operations (Photos 3 to 5).

For example, a large scale mine in Tanzania, DRC or Ghana would typically have capital cost investments of more than \$500 million USD and similar annual operating costs . Levels of mechanization and use of advanced technology are high and work forces typically range between 800 and 1200 . Most large companies employ



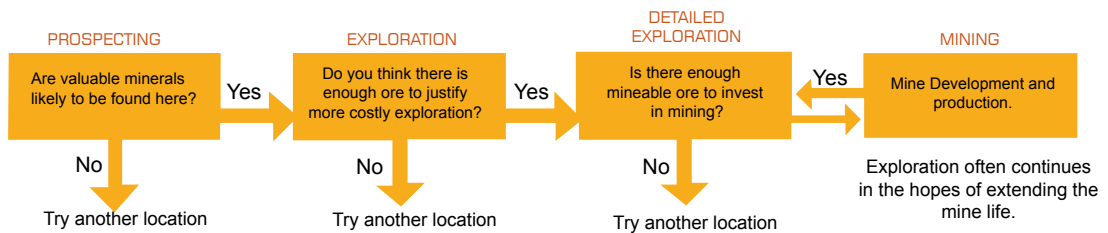
*Photos 3-5: (Top) Internationally, an average “large scale mine” is Batu Hijau Mine in Indonesia. Note the mill building, in the foreground, (Photo: Newmont Mining Ltd.) (Center and bottom) Tororo Cement Ltd.’s marble/limestone mine at Koseroi is much smaller by comparison but is considered “large scale” relative to most mining in Uganda.*

dedicated departments to address environmental and social issues and, particularly for large multinationals, performance in these areas is often under intense international scrutiny.

As a simple comparison of “scale”, large scale mines around the World are increasingly processing ore at rates of up to 100,000 tonnes per day , while the extraction rate on the TCL mining leases is on the order of 1,200 tonnes per day (when 40 trucks per day are operating).

## (2) Exploration

Finding mineral resources suitable for large scale mine development is a costly activity, requiring high levels of financial investment and technical expertise. When prospecting begins at a “greenfields” stage (i.e. very little is known about an area), the time from initial discovery to development of a large gold or copper mine can take 6 to 10



**Figure 1: The Main Steps from Prospecting to Large Scale Mine Development**  
(Source: Hinton et al, 2010)

years or more. (Fig.1). Exploration typically begins with desk-based analysis of geologic information (maps, reports etc) and progresses to mapping, sampling and analysis of rock and soils. If prospects are promising, activities may advance to detailed exploration including more in-depth sampling at depth (i.e. via drilling of holes to obtain samples) to assess whether mining is possible (Fig. 1, Photos 6-8). Activities become more costly as exploration progresses and, depending on the size of the prospect, it can cost as much as US \$20 million to “prove” that reserves are sufficient and large mine development is feasible (i.e. by international standards of “large scale”).

Most active exploration in Karamoja involves smaller Ugandan and/or foreign venture capital funded companies that are working at a much smaller scale. Although an exploration license provides neither the right to buy or mine minerals, a number of these companies are reportedly buying from artisanal miners. Many other companies seem to be speculators, holding exploration licenses with the intent of selling them to larger exploration investors. In addition to these companies, in Karamoja (as in most countries), companies holding licenses to mine are also exploring with the intent of extending their mine life (by proving more reserves) or identifying new resources for development.



Internationally, only 1 out of 5000 exploration prospects is likely to become a large scale mine, but many deposits may be suitable for artisanal, small or medium scale mining . As most exploration does not progress beyond preliminary phases (e.g. basic mapping and surface sampling), economic and environmental impacts are usually minimal while social concerns are common. Across Uganda, this appears to be most evident where artisanal miners are active and fear eviction by exploration companies and/or when local residents perceive “exploration” to equate with “mining” or even land rights, fearing that access to land (titled or otherwise) will be restricted .



*Photos 6-8: (Left) Preliminary field exploration often begins with geologic mapping and then taking small samples of rock and soil (J. Hinton). (Center) Sampling and analysis of soil from shallow trenches or pits is done once potentially prospective areas are identified (PDAC, 2007). (Right) Due to the costs involved, exploration drilling is typically only done once there is reasonable confidence in mineral potential (PDAC, 2007).*

### (3) Artisanal and Small Scale Mining (ASM)

Across Uganda, almost 200,000 Ugandan women and men use basic tools (like pick axes, hammers, shovels etc) to extract a wide range of minerals (Fig. 2) . These activities are predominantly informally organized or disorganized, un-mechanized and often characterized by hazardous working conditions, lack of planning and issues related to child labour, poor health conditions and gender inequalities . Most often women and men enter the ASM sector as it may be the most financially lucrative, most viable or sometimes the only livelihood option.

Because ASM is largely informal and unlicensed (and in many cases undertaken seasonally to supplement agricultural livelihoods), contributions to mineral production and local economies are rarely captured by official statistics and women and men miners are often invisible to the mainstream or, in some cases, regarded as criminals . Consequently, they rarely receive adequate, if any, support to formalize and improve their activities in order to realize its full development potential. In most countries where ASM is taking place, miners face major challenges in formalizing and licensing their activities, largely due to challenges related to bureaucracy, cost, and literacy, among others. Exploration companies often use the presence of artisanal miners as an indication of mineral potential and, therefore, availability of “free” areas for licensing poses an additional challenge .

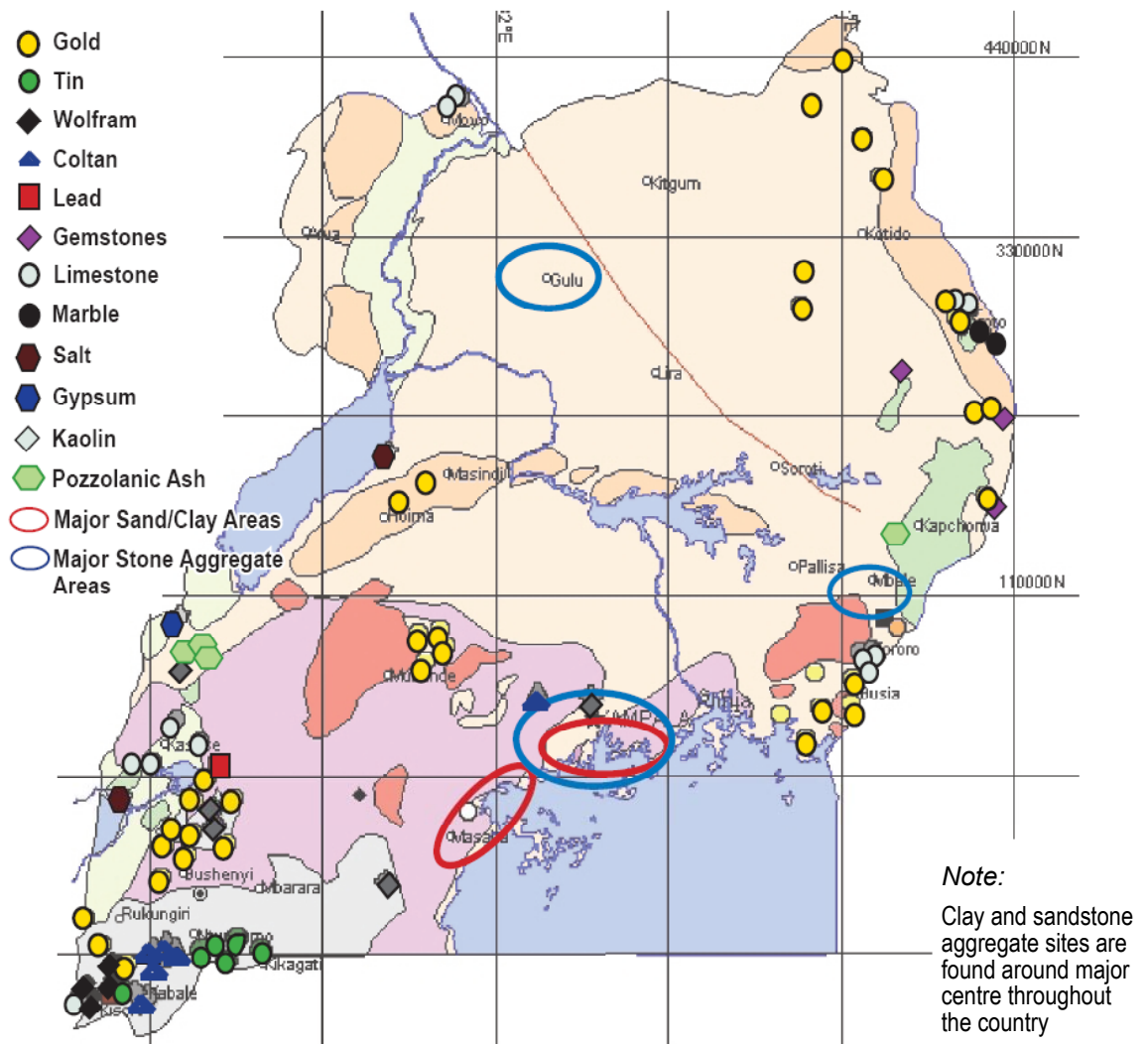


Figure 2 Active ASM Areas in Uganda (Hinton, 2009a)



*Photos 9-11: (Top) Men mining in small groups (6-10) work together to mine and manually hoist gold ore from deep shafts at Lopedo in Kaabong District. (Center) A women marble miner hauls and stacks marble for collection by TCL trucks at Koseroi, Moroto District. (Bottom) Women and men miners in Karamoja often work in family units as at this gold site in Karita Sub County, Amudat District.*

Due to these circumstances, ASM is often classified by many donors, NGOs and even some governments as an “extralegal” rather than illegal activity. Many view the informal economy as a reasonable response to formal systems that are impractical and even dysfunctional. This suggests that most artisanal miners work outside of the legal framework not by intent, but rather because the legal or institutional framework is inappropriate, inaccessible or unachievable for most.

Indeed, it has been found across Uganda, including Karamoja that most artisanal miners are unaware of legal requirements and provisions for licensing and, those that are aware, would prefer to work legally but lack capacity to do so. Around 80% of the World lives in the “informal” or “extralegal” economy and, in Uganda, this reliance may exceed 90% of the population .

With the exception of those miners achieving some form of recognition on mining leases held by Tororo Cement Ltd. and location licenses (for small scale mining) held by African Minerals Ltd. The majority of the estimated 18-20,000 artisanal miners active in Karamoja seem to face similar challenges as other miners in Uganda and around the World in terms of rights, recognition and lack of support for much needed livelihood improvements.

# **2 MINING & MINERALS IN KARAMOJA REGION**

The Karamoja region is endowed with occurrences of gold, chromite, copper, gemstones as well as limestone, marble and a host of other minerals yet the Department of Geological Survey and Mines acknowledges that most deposits have not been evaluated in detail. Consequently, while the current state of geologic knowledge provides insight (Section 2.1.1), an even more accurate picture of the sector's potential is provided by the nature and extent of current exploration, artisanal, small and small scale mining activities (Section 2.2.1) in the region.

## **2.1 Mineral Potential of the Region**

When reviewing the mineral potential of Karamoja Region, it is important to differentiate between the occurrence of a valuable mineral and feasibility for exploitation of mineral reserves. Specifically, a valuable mineral may occur in a location, but it may or may not be present in large enough quantities (and/or in a form conducive to mining) to justify mining. Increasingly detailed exploration is usually needed in order to establish that mineable ore reserves are “possible”, “probable” or, with detailed feasibility studies, “proven” at a given location.

Furthermore, as in most countries, detailed exploration in Uganda is typically the responsibility of exploration companies mainly due to the level of investment and technical expertise needed. Mandates of government Geologic Surveys, in this respect, are generally limited to general geologic mapping, compilation of geodata and documentation of mineral potential (in part based on exploration results provided by companies). The Dept. of Geological Survey and Mines (DGSM) is mandated to provide such information to promote investment and advise artisanal miners on such issues, yet, in the case of ASM, most rely on basic prospecting skills and knowledge developed through their experience, word of mouth and/or trial and error in order to assess mineral potential.

### **2.1.1 General Geology**

Because much of Karamoja is not mapped in great detail, the general geology can provide useful guidance in terms of identifying geologic environments that may be similar to that found in neighbouring countries where known deposits are found. For example, Karamoja shares many prominent geologic features with Kenya, including the Miocene volcanic rocks that make-up the mountains located along the border.

Uganda lies within the African plate, which is a continental crust that contains Archaean cratons that date at least 2700 Million years. Within Karamoja, major structures that run through the region include shear belts (extended zones of rock fracturing and faulting), which occur in Late Precambrian age rocks, and large areas covered by Archean rocks.





## Limestone/Marble

Commercial limestone/marble deposits exist in Karamoja region; some of which are being exploited and transported to Tororo, Jinja and Mbale for use. Important sites include:

- Katikekile marble (ore reserves are estimated to be 24 million tonnes);
- Rupa marble (extensive and variable in grades);
- Forest Reserve limestone/marble. A resource of 13 million tonnes at Forest Reserves has been estimated. The yellow and pink marble assayed 31.21% CaO; 20.88% MgO; 0.10% Fe<sub>2</sub>O<sub>3</sub>; 0.04% Al<sub>2</sub>O<sub>3</sub> ;
- Karikacham (no data on reserves and grade but about 40-100 tons of high grade marble is mined weekly)
- Toror Hill in Kotido district ( 44-49% CaO; 5.33%MgO);
- Naunyet, Ngolapulon and Nakagelmoru, Nakadapalait, in Kotido district, Napak Hill (Lokupoi and Moruangeber) in Moroto district, and Morumeri in Nakapiripirit District (Reserve and grade not determined while no production has taken place).

Companies that are currently mining or exploring for limestone/marble in the region include; Tororo Cement Ltd., African Minerals Ltd., Great Lakes Ltd., Moroto Cement Industries (U) Ltd., Tiger Cement Ltd., Harambe African (U) Ltd., and Supercom International Ltd. Limestone/marble mined from Karamoja is mainly used for cement production, while other uses (potential and actual) include the lime production and as an additive as a filler and whitener to paint, paper, plastics, tiles and tooth paste. Depending on the quality of rock, limestone/marble can also be used as dimension stone (tiles, slabs).

## Gold

Gold occurs in deformed high-grade metamorphic rocks of the type of the Mozambique Belt that stretches from north to south Karamoja in the Upe region. Occurrences of gold in a number of localities were first reported in 1960 while ASM in Alarek (Abim), Rupa (Moroto) and Lopedo (Kaabong) reportedly did not commence until 1983 . While gold is the focus of some exploration, mining is undertaken only by extralegal artisanal miners in almost every district including: Kaabong (Lopedo, Lemoyne, Sokodo, Lugoto, Nakapiril-Kekuul, Kanguoth), Abim (Morulem and Alarek subcounties), Moroto (Rupa and Katikikele Subcounties), Nakapiripirit (Acherer) and Amudat (Karita). Gold is mainly used in for international money exchange, jewellery and electronics, particularly in the computer industry.

## Platinum Group Minerals (PGMs) and Chromite

PGMs are high valuable minerals used in catalytic processes (platinum, palladium), in metal alloys (rhodium and iridium), and as catalysts (ruthenium and osmium) among other uses . Both chromite and PGMs occur together along a 6km belt north of Moroto Town at Nakiloro and Lolung, where some samples have contained as much as 3-7.5 grams per ton of chromite . The deposit shares similarities with large PGM deposits in South Africa.

## Building Minerals

Granite, gneiss, quartzite, limestone and marble are found throughout the area in the Precambrian basement and can be used for construction such as stone aggregate for road base and dimension stones (tiles, blocks, cut and polished slabs). While the white, gray and pink marble of Katikikele Sub County of Moroto District may be too coarse grained for dimension stone (due to difficulty cutting flat surfaces), the high magnesium green marble may be suitable for stone tiles and slabs (Photo 13). Clays suitable for manufacture of bricks, ceramics, tiles, etc have not been widely assessed but suitable deposits could be found in wetland areas, such as in Western Karamoja

## Gemstones

A number of precious and semi-precious stones have been reported by many artisanal miners from Abim, Amudat, Moroto and Kaabong Districts. These include corundum (e.g. ruby, sapphire), red and green garnet, labradorite, fluorite, quartz and others. Many of these gems are alluvial and hard rock sources are often not known.

Due to low quality and limited technical assistance (in identifying sources, valuation and, if viable, identifying markets), only a few parcels of gemstones have been successfully sold from the area. Most are collected by miners for purposes of individual sale as “gems”, yet evaluation of deposits for industrial purposes has not been conducted. For example, poor quality “gemstones” found in a number of localities may meet quality and quantity requirements for low value, high volume extraction rather than for sale as gems. Candidates include corundum (which may be suitable for industrial grade use as an abrasive in grits and powders used in sanding and grinding) and fluorite (which has uses as an ornamental stone, flux for smelting, production of certain glasses and, in its purest form, hydrofluoric acid).

## Other mineral occurrences

Other reported occurrences include copper-bearing fields situated in Jie County along the Moroto border, and smaller mineralizations in Bobong, Lokapelieth and Loyolo (in Karasuk Group rocks) while an ultramafic rock assemblage at Moroto has potential for nickel, chromium, copper and PGM mineralisation. In the Karamoja carbonatites, nepheline (a mineral used in making ceramics) is also found as well as in the volcanic rocks that make up Mount Elgon. The carbonatites of the area also host niobium (a high value mineral used in making super alloys and carbon steels) and columbium tantalum (coltan). Others include tin, beryl, haematite and magnetite (iron ore), talc, graphite, columbite and zircon.



*Photos 12-14: (Top) Gold from Morulem Sub County, Abim District (Center) Green marble is used locally as a decorative stone in Tapac, Moroto District. (Bottom) Low quality orundum is abundant in Katikikele, Moroto and across the region.*



## 2.2

# Distribution and Nature of Current Activities: Exploration, ASM and Large Scale Mining

The mineral sector plays a role in the socio-economic development of Karamoja through local employment, raw materials for local industries, export earnings for the country and opportunities for new investments. According to 2010 statistics from the DGSM, 3,711.08 sq. km (13.4%) of the 27,700 sq. km total land area of Karamoja region is licensed for mineral exploration and exploitation activities (Fig. 5). By comparison, national data indicates that the total land area licensed for mineral exploration and exploitation activities is 22.3% of the total land area of Uganda wherein 1.54% of this land area lies in Karamoja Region.

Most formal, licensed activities in Karamoja involve mineral exploration. There are currently 21 entities licensed for exploration and production, some of which are conducting activities in other parts of the country (Table 2). Particularly given that mineral potential is, by most accounts, considered to be promising, activities in the region are far less than that being undertaken elsewhere.

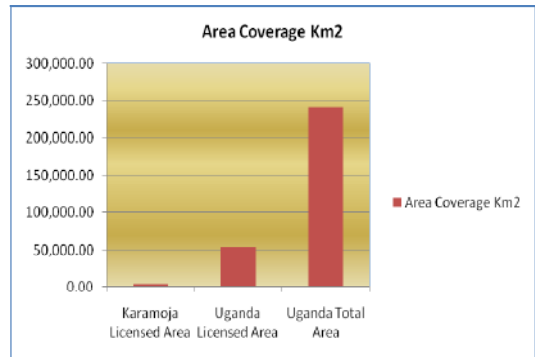


Figure 5: Comparison of Licensed areas in the region and national

The largest production company operating in Karamoja is Tororo Cement Limited. (which holds 2 Mining Leases and exploration licenses for limestone) while small scale mining under Location Licenses is being carried out by Africa Minerals Limited as well as Great Lakes Cement Limited and Harambe Africa (U) Limited, the latter two of which are sister companies now combined under Baracat Minerals (U) Limited.

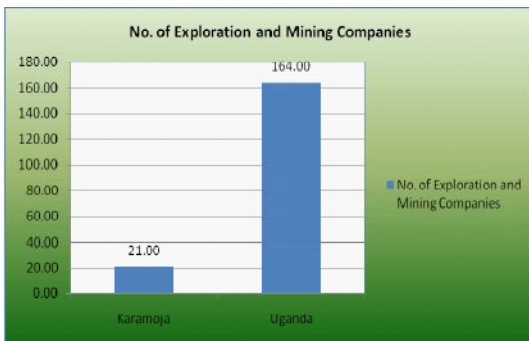


Figure 6: No. of exploration and mining companies regionally and nationally

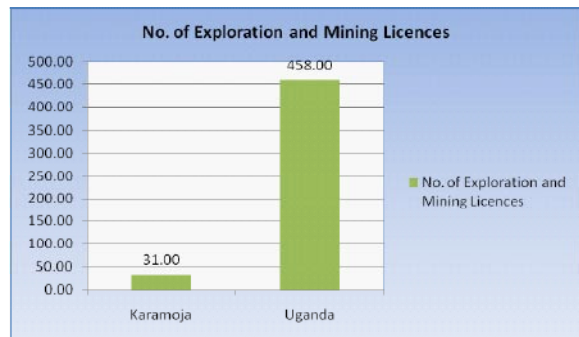


Figure 7: No. of licenses regionally and nationally

Extralegal ASM takes place in each district. In the case of gold mining, substantial influxes into the subsector are reported in the rainy season. For example, in Rupa Sub County of Moroto District, many gold miners stated that, the entire Sub County – all men, women and children – UGX to the rivers and alluvial wildcat pits when the rains come <sup>iii</sup>.

<sup>iii</sup> Gold mining areas north of Moroto Town straddle the boundary between Rupa and Katikikele Subcounties, while even miners themselves consider the area to be part of “Rupa” and refer to the population living there.

Similarly, in Morulem Sub County of Abim District, while year-round miners number only around 600 women (~90%) and men (10%), this number reportedly almost doubles or even triples in the rainy season, and likely plays a role in children's seasonal absenteeism from school.

Limestone is mined mainly by ASM in Moroto and, to some extent, in Kaabong and Nakapiripirit, and is typically sold to holders of exploration, location licenses or mining leases where activities are occurring. Mainly alluvial gemstones (rubies, sapphires, fluorite) are mined to some extent in Moroto, Abim and Amudat, but the quality of stones is generally low and access to markets very poor, indicating an area where increased geological assessment and training in gemstone prospecting and valuation would be useful.

**Table 2: Summary of Exploration and Mining Entities in Karamoja Region**

<b>No</b>	<b>Exploration and/or Mining Entity</b>	<b>Sum of Area (Km<sup>2</sup>)</b>	<b>Sum of Mineral Rent Per Year (UGX '000')</b>	<b>Number of Licenses</b>
1	Aurua Green Metals Limited.	13.50	140.00	1
2	AVR Engineering & Infrastructure Limited	170.00	1,700.00	4
3	Baracat Minerals (u) Limited.	3.70	40.00	1
4	Blue Earth Refineries Uganda	50.00	500.00	1
5	Dohar Industries Limited	457.50	4,580.00	2
6	H K Mining Limited	266.30	2,670.00	1
7	KUGX Management Service Limited	500.00	5,000.00	1
8	Megha Minerals & Mines Limited	77.00	770.00	1
9	Moroto Cement Industries (U) Limited	130.00	1,300.00	1
10	Mota Limited	152.50	1,530.00	1
11	NPK Resources Limited	90.00	900.00	1
12	Omaniman Gem Prospectors Cooperative Society Ltd	48.00	480.00	1
13	Saba Saba Mining Limited	161.00	1,610.00	2
14	Savanah Mines Limited	15.00	150.00	1
15	Sunder Wallia	164.00	1,640.00	1
16	Supercom Interational Limited	57.00	570.00	1
17	Tiger Cement Limited	917.00	9,170.00	2
18	Tororo Cement Limited	192.28	69,778,930.00	3
19	XL Mining Limited	21.30	220.00	1
20	Zamani Mining Limited	117.00	1,170.00	1
21	Chn Henaa Zhonghua Geology and Mines (U) Ltd	108.00	1,080.00	3
	<b>Grand Total</b>	<b>3,711.08</b>	<b>69,814,150.00</b>	<b>31</b>

## MINERAL OCCURENCES AND CONCESSIONS OF NORTH EASTERN UGANDA

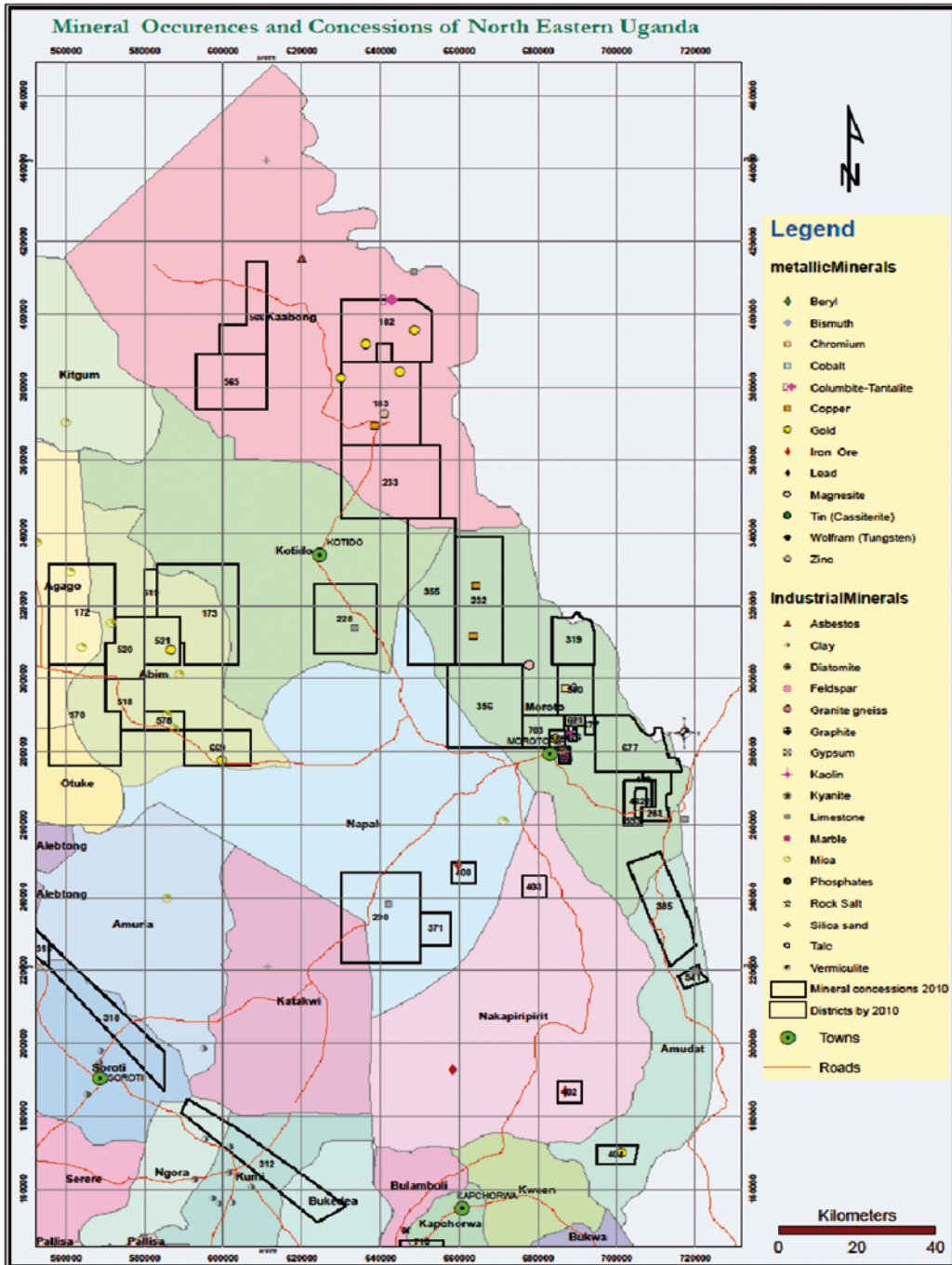


Figure 8: Distribution of Mineral Occurrences and Exploration and Mining Licenses in Karamoja.

The nature of exploration and mining (at various scales) strongly determine implications of the minerals sector in terms of environment, culture, land rights, gender and economic development. These aspects are described in Sections 2.2.1 and 2.2.2, while the distribution of activities is shown in Figure 8, above.

## 2.2.1 Exploration Activities

Given that exploration licenses constitute 98.1% of the area covered by all mineral licenses in Karamoja Region, it is interesting that few artisanal miners and community members have reported encounters with exploration companies and those that have seen geologists active on their sites mainly seem to be uncertain about the purpose of their activities. Local government officials – particularly the CAO’s offices who must sign-off on exploration license applications prior to submission to DGSM – have had periodic engagement with these companies but complain of lack of ongoing communication, in particular with respect the status of work and its results. Limited engagement between those conducting exploration and local stakeholders has been attributed to a number of factors, most of which are indicative of the nature of exploration activities at present:

- Financial crises ~2-3 years ago, resulted in suspension of work and/or relinquishment of license areas by many foreign companies coupled with difficulty in fielding geologic experts. While investment in mineral stocks has risen substantially much of this investment favours exploration prospects in more advanced stages and most exploration in Karamoja has been at a “greenfields” (early) stage. The lack of airborne geophysical survey data (which is available for all other areas of the country) has created an additional impediment as this is used as a vital tool for preliminary assessments of potential.
- Many venture capitalists are new to the minerals sector and only a few companies seem to be conducting exploration for metal prospects, while exploration seem more advanced for limestone and marble.
- In general, early phase exploration involves considerable desk based analysis and area “reconnaissance” work making encounters less likely. Given the size of many exploration licenses (up to 500 km<sup>2</sup>), most companies realistically engage with communities and leaders only as needed (e.g. to gain access or permission to land as they enter different areas, to deal with local security issues).
- Some license holders are reportedly speculators, holding areas with the intent of marketing them to larger investors and potential joint venture partners.

Despite limited, active exploration in the region, as awareness of the minerals sector increases, concerns of mineral rights infringing on land rights seem likely to increase. Many stakeholders seem not to distinguish between different types of mineral rights (in particular exploration versus mining) and – despite the reality of exploration – many express fears of vast “mining” concessions affecting land users (e.g. disrupting cattle corridors, restrictions on current land use, potential to take land), a situation that is heightened when the vast area covered by exploration licenses is cited.

At present, exploration license holders with the greatest presence on the ground and therefore most frequent interaction with local stakeholders seem to be: (i) the subset of exploration license holders who are actually buyers from artisanal miners; and (ii) companies holding licenses for exploitation (e.g. Tororo Cement Ltd., African Minerals Ltd.), who are undertaking sampling and drilling programs to further assess viability for expansion of operations.

With the exception of local government, most positive and negative sentiments not surprisingly relate mainly to those companies who are actually active. For instance, limestone miners across Moroto District have, for several years, complained that one exploration license holder, in particular, has been buying on credit and reportedly not paying miners while in some cases theft of limestone stockpiles at night have also been occurring. The company is well known to all, including local government.

Although exploration license holders are not legally entitled under the Mining Act (2004) to buy any minerals without a Mineral Dealers License, the practice seems to be of increasing concern by GOU, particularly given substantial losses in terms of royalties, fees and taxes. To an extent, the practice seems to be overlooked seemingly with recognition that, at ASM sites across Uganda:

- (i) Most artisanal miners face extreme difficulty in licensing their activities given the current legislation;
- (ii) Many artisanal miners frequently face challenges in finding buyers for their products (an issue frequently expressed in Karamoja, with negotiated prices being mainly driven by competition between buyers);
- (iii) When multiple buyers are present (whether an exploration license holder or otherwise), few exploration license holders have been able to ensure miners sell to them unless their prices are competitive and they are able to maintain a sustained presence (e.g. via buying agents) at ASM sites; and (iv) The arrangement seems to be a means to bridge the communication gap between artisans and “exploration” companies.

Although buying by exploration companies is technically illegal, it may practically provide a vehicle for formalization (e.g. by encouraging licensing of mining areas); however, the issue of artisanal miners lacking the opportunity to obtain their own security of tenure in exploration areas nevertheless still persists.

## **2.2.2 Mining Activities**

Less than 2% of the area under mineral licenses is for the purpose of extraction, including 69.8 km<sup>2</sup> for 2 mining leases under Tororo Cement Ltd. (TCL) and 0.92 km<sup>2</sup> for 6 location licenses. In all cases, these licenses are heavily reliant on artisanal mining labour, due to (i) community needs for livelihoods and their expressed concerns over the impacts of mechanization; and (ii) for location licenses in particular, the scale of activities and legal limitations under such licenses, which are restricted under the Mining Act (2003) not to involve “expenditure in excess of five hundred currency points or the use of specialized technology” (approximately 5,000 USD).

As such, technical, environmental, social and economic issues do not vary drastically from mine site-to-site (whether legal or extralegal) with the notable exception of the following:

- TCL Mining Lease areas in Katikikele include provision of excavators and rock breakers as well as intent to provide blasting services (which was formerly a manual activity) in order to break large limestone/marble blocks which are subsequently broken using sledgehammers by ~2,000 local miners (rather than the originally planned installation of mechanized crushers). Although an “employee” registry does not exist, miners have been organized into groups allocated to different areas and trucks directed to ensure regular and immediate purchase of broken rock. Water trucks travel from group to group to help meet water needs. Miners earn around 4-6,000 UGX/person/day while truck loaders can earn up to 20,000 UGX/person/day (loading two lorries per day in groups of 4) when the mine is in full production (i.e. due to a kiln breakdown at the TCL plant in Tororo Town, the company has continued to buy and stockpile material from the area although lorries from the site have reduced from 35-40 per day to 8-16 trucks per day).
- African Minerals Ltd. holds a 16 hectare Location License for limestone on the outskirts of Moroto Town. While activities are currently manual (involving around 160 miners in pits run by 75 pit “owners” or managers), planned mechanization of secondary crushing and installation of a lime production kiln(s) are planned. The company is in the process of helping miners to form a CBO (largely to increase their economic benefits), improving OSH conditions and providing blasting services to help miners break hard rock, among other planned endeavours. Miners earn, on average, 2,600 UGX/person/day plus lunch and work in groups of 2-4 people while loaders earn ~3,500 UGX/person/day. Limestone miners from this site are visibly “healthier looking” than those from other areas.
- Baracat Minerals (U) Limited (whose sister companies include Great Lakes Cement Limited and Harambe Africa (U) Limited) located north of Moroto Town seems to have a widely variable workforce (reportedly up to ~200) who earn 2,000 UGX/person/day contingent on 2 people together breaking rock sufficient to fill a 7-tonne lorry every 2 days. Recently, the company has submitted a 21-year Mining Lease application to DGSM and is presumably in the process of initiating the EIA process (inclusive of local consultations) required prior to approval.
- Extralegal ASM limestone sites, numbers engaged in which are not known, employs similarly manual methods as for licensed areas (pry bars and sledgehammers to break rock, manual hauling and loading). These sites are mainly found on exploration licenses in Kaabong and Moroto.
- Extralegal ASM gold sites may employ as many as 15,000 Karamojong (a significant proportion of which engage in mining seasonally and depending on security conditions). Methods are extremely manual, typically including pits, shafts and tunnels dug with sticks, in some cases iron rods, while if gold is associated with hard rock (e.g. in quartz veins) rather than alluvial deposits, rock is ground to fine powder using grinding stones or pounded using hard rocks. Separation of gold from waste minerals (tailings) is done using plastic basins and, in some locations, calabashes.



Participation of women and men is near parity at many sites.

Gold selling prices range from 55000-70,000 UGX per gram (compared to 68000-75,000 UGX per gram in Bushenyi District) and is mainly sold to buyers from Teso, Kampala and (recently to a lesser extent) Somalia. Pricing seems fairly reasonable considering the distance from Kampala and security issues while more formal, structured buying should, practically, provide prices closer to 75000-85,000 UGX.

On many days, miners yield little if any gold from non-producing pits. However, even when production is small, based on seasonal variations in production, miners are estimated to earn between 2,000 to 6,000 UGX/person/day in the dry season but can earn up to 6,000 to 70,000 UGX/person/day (or much more) in the rainy season. At some gold sites up to 90% of miners are women, bringing to the forefront concerns of gender-differentiated benefits and imbalances in control of these benefits.

Despite comparatively high incomes, the culture of savings by miners seems to be pervasively poor. Furthermore, issues such as alcoholism and, at some sites (e.g. Acherer in Nakapiririt), STD's (including HIV/AIDS) are significant concerns while, in most areas, women seem to be yielding far fewer benefits from ASM than men while bearing a greater proportion of the negative impacts. In ASM areas throughout the world, ASM communities are deemed to be "high risk" in terms of HIV/AIDS.

These issues are further detailed in description of sites visited in Abim, Kaabong, Moroto, Amudat and Nakapiririt Districts, provided in Annex Two, while associated issues related to human health and wellbeing, environmental, conflict, land, security issues and governance are described throughout Section 3.



*Photos 15-17: (Top) A gold miner using a stick to dig shafts and tunnels (Center) An elderly man picking marble in Koseroi. (Bottom) Wounds from flying rock fragments are far too common health impacts.*

## 2.3 Formal & Informal Contributions

The difficult challenges facing the minerals sector in Karamoja are found in numerous countries throughout the World and, in the case of ASM, despite very legitimate concerns with its social, cultural, environmental and economic affects, there is no jurisdiction in the World which has successfully eliminated ASM prior to eradicating widespread poverty. Furthermore, mineral endowments are increasingly regarded as an important opportunity, which, if properly managed, can make substantial contributions to development (Photos 18-20).

### 2.3.1 Value of Formal Mineral Production and Economic Contributions

Formal contributions from the minerals sector are largely in terms of formal employment and payment of taxes, fees and royalties to GOU. While taxes and fees are retained in the Consolidated Fund, as per the Mining Act (2004), royalties are currently divided according to 80% of royalties retained by Central Government, 17% to Local Government and 3% to the Land Owner.

In the past two years in particular, the GOU has increased efforts to collect a larger portion of revenues from the minerals sector by levying application/issuing, registration and mineral rental fees, and collecting unit and value based royalties on mineral projects within the country's borders. As more formal mines are established, the sector increases its bargaining power to review/change tax laws or royalties to better suit the objectives of the country's NDP.

In Karamoja, royalties are only collected on officially reported production while estimates of informal ASM production provide insight into lost revenues due to lack of formality of the subsector (Table 3).



Photos 18-20: Ideally, the minerals sector should support a number of development improvements.

(Top) Economic diversification (e.g. brick production) and housing improvements.

(Center) Improved access to water, such as at Rata.



**Table 3: Value of Officially Reported Production and Estimated Extralegal ASM Production of Minerals in Karamoja (Source: DGSM, 2010; and ECO, 2011)**

Commodity	Tororo Cement	Harambe Africa (U) Limited	Great Lakes Cement	African Minerals Limited	Extralegal ASM*
Limestone	19.9 billion UGX	119.9 million UGX	175.6 million UGX	145.2 million UGX	163.2 million UGX
Gold	n/a	n/a	n/a	n/a	39.4 billion UGX

Note: Value of Officially Reported Production of Limestone deducted from ASM Production

As mineral production for the region during the year 2010 was only reported for Moroto District and these activities mainly targeted marble/limestone production. The revenue contribution from these mining operations as paid by the different mining entities is presented in Table 4

**Table 4 Royalty Payment Schedule for Marble/Limestone produced in Moroto for the year 2010**

Tax Payer	Sum of Total Royalty Paid	80% For Central Govt	17% For Local Govt	3% Land Owner
Africa Minerals Limited	4,313,000	3,450,400	733,210	129,390
Great Lakes Cement Limited	5,669,220	4,535,376	963,767	170,077
Harambe Africa (U) Limited	2,451,000	1,960,800	416,670	73,530
Tororo Cement Limited	498,063,630	398,450,904	84,670,817	14,941,909
<b>Grand Total</b>	<b>510,496,850</b>	<b>408,397,480</b>	<b>86,784,465</b>	<b>15,314,906</b>

Nationally, official mining activities in Karamoja contributed only 16% of total contributions paid in the country, which totaled 3.96 billion UGX in 2010. Increased royalty collection in other parts of the country have been attributed by GOU to relatively increased awareness of the public on the investment opportunities in the mineral sector, much of which has focused on the west and southwest of the country.

The Ministry of Finance, Planning and Economic and Development (MoFPED) in January 2009 authorized the Ministry of Energy and Mineral Development (MEMD) to implement revised Non Tax Revenue Rates through statutory instrument (currently pending signature by the Honourable Minister of Energy and Mineral Development) in order to improve sector performance in service delivery, support formalization of ASM and improve regulation and enforcement. Additionally, the DGSM intends to start requirements for proponents of mineral tenements to pay preparation fees upon submission of applications for mineral rights.

## 2.3.2 Informal Contributions

With the exceptional production reported by TCL, African Minerals Ltd. and Baracat Minerals (U) Ltd., most ASM contributions are largely un-captured. Calculated estimates of informal mineral production (ASM) are based on artisanal miners activities in specific regions, with consideration of seasonality (of gold mining in particular), lost workdays due to illness and other causes. Estimates of ASM employment, royalties not collected (discounting that declared by licensed limestone mining) and, in particular, estimated incomes of miners are remarkable (Table 5).

**Table 5: Estimates of ASM Production, Value and Employment in Karamoja Region**

Type of License	Est. No. of Miners	Est. Value of Production	Royalties (not collected except a % of limestone)	Est. Total Contribution of Miners Incomes spent in Local Economy
Gold	15,000	39.4 billion UGX	1.2 billion UGX	24.8 billion UGX
Limestone	3,000	163.6 billion UGX	4.6 billion UGX	2.6 billion UGX
<b>Total</b>	<b>18,000</b>	<b>203 billion UGX</b>	<b>5.8 billion UGX</b>	<b>27.4 billion UGX</b>

The cumulative contribution of extralegal ASM suggests tremendous development potential and creates an obvious impetus to support improved technical, environmental, social, health, safety and financial performance of ASM. Government mineral policy around the World – from Tanzania and Ghana to Peru and Mongolia – increasingly recognizes ASM for its potential to contribute to non-farm employment, reduce rural-urban migration, stimulate local business development and increase cash component of household incomes .

Many miners in other parts of Uganda often invest earnings into agricultural development and small enterprises, thereby increasing their resilience and capacity to weather shocks (e.g. climate change, commodity price drops) and improve their overall living conditions. In Karamoja, it seems that how revenues are used and a shortage of opportunities for savings (e.g. in SACCOs) and investment are limited. A major opportunity for diversification appears evident while needs in terms of basic business skills and building a savings culture also emerges.

Additional benefits in Karamoja were identified to reduce security risks. For example, in Acherer it was frequently noted by multiple miners that more than 3,000 miners from multiple clans and ethnic groups were drawn together to the gold UGX (including the Pokot, Matheniko, Tapeth and others across Karamoja as well as from Teso, Western Uganda and as far away as Rwanda). All of whom are residing together peacefully at the mine camps, despite seemingly abject living conditions (e.g. 1 borehole servicing 6,000 people, no health clinic etc as described in Annex Two). One leader even went so far as to unofficially name the site as the “Peace Camp.” Upon further discussion, many miners have suggested that mining is, in some ways, more conducive to peace than keeping of livestock. Miners and license holders alike, at numerous sites further affirm that many miners would, in the absence of ASM, resort to cattle rustling.

While allusions to the conflict risk potential of mining have been expressed by some – particularly in association with overlapping land uses – these examples suggest a potential added underlying opportunity to explore. However, in the absence of focused efforts, risks to peace (e.g. at Acherer) are likely to increase as mineral resources are depleted, particularly in the absence of clear tenure. Simple registration, plot designation and permitting systems – such as those established at extralegal ASM areas in Central African Republic, Liberia, Brazil and elsewhere – may be a means to help prevent future conflict, particularly if combined with efforts to diversify and strengthen local economies.

Legalization and formalization of ASM is a critical entry point for capturing this potential but, as found in numerous countries, any strategies must recognize that (a) miners will undoubtedly opt to work outside of a regulatory framework if obvious benefits cannot be derived from operating within it and (b) many miners must, in any event, have the resources or skills to effectively participate in the legal system. Indeed, when made aware of the legal framework, including royalties many miners expressed interest in legalizing their activities, yet are sceptical of receiving any benefits from taxation:

Conversely, when presented with estimates of ASM production in different districts, many in local government are astonished with the losses in royalties and revenues from ASM and see potential for local development. Creating incentives for licensing of ASM (by formalized commitment of local and central government to respond to miners expressed needs), building miners' capacity to obtain and comply with license requirements and legalization of the mineral trade are, therefore, the foundation for most ASM formalization strategies.

Informal contributions of players in exploration and large scale mining hold additional promise.

TCL has reported instituting a number of measures including:

- Road maintenance and construction and erection of bridges at Amudat, Loro and Albamun (1.5 billion UGX);
- Construction of a classroom block and pit latrines for Kosoroi Primary School (200 million UGX) that, despite agreement with local government, has yet to be staffed with teachers;
- Sinking of nine boreholes (only one of which is marginally producing water at Loka maraluk (25 million UGX) and currently providing a water truck serving mining groups on the site;
- Construction of a water dam for animals;
- Distribution of 3000 iron sheets worth to the local community (22.5 million UGX), most of which were subsequently sold by beneficiaries;
- Distribution of over 250 mosquito nets and plastic water jerrycans to expectant mothers and mothers with small children; and

Projects underway include establishment of a Medical Aid post at Katikekile (medical equipment worth 8.5 million UGX has already been procured) and construction of 33 phytosanitary latrines on the Mining Lease. Indeed, these efforts seem to be favourably received by miners working on these licenses to the extent that, during the multi-stakeholder consultative workshop conducted by ECO, limestone miners from other areas requested that TCL expand their operations to their areas.

Many local formal and informal leaders are, nevertheless, harshly critical of TCL with respect to poor working conditions at the site, i.e. no protective personal equipment (PPE) such as hardhats, safety goggles and gumboots is provided to miners, while (despite reliance of the company on artisanal miners for production) there is no formal registration, recognition as employees or provision of identification cards for workers. Child labour presents an additional concern. One of the most contentious issues relates to the ground price paid in Karamoja, particularly in comparison to that paid for limestone imported by TCL from Kenya. Furthermore, ground purchase and transport are a subcontracted activity, and some have stated that lorry drivers receive as much as 1.2 million UGX per shipment.

When approached in one of the consultative meetings held, the General Manager of TCL responded that the distance from Karamoja to Tororo is 293 km and roads are generally poor, resulting in exceptionally high transport costs and a limestone cost 40–45 USD per tonne instead of 4 USD per tonne if limestone was exploited from sites near to the factory. Irrespective of the production costs, he indicated said that the company has, since inception of the project, held several awareness and sensitization meetings with the people concerning pricing and other issues.

Additional local concerns relate to the amount of production officially declared by TCL and other producers (e.g. African Minerals Ltd., Great Lakes Cement Ltd.), with much skepticism by many local and central government officials alike concerning discrepancies resulting in lower than expected payment of royalties and taxes. A number of mechanisms have been put forward by local stakeholders including: (i) reporting of production values rather than only royalties owing to local government in quarterly notification letters issued by DGSM; (ii) construction of a weigh bridge (which TCL has plans to construct but has also been requested of other producers), with monitoring co-conducted by Local Government and company representatives.

# **3 MINERAL RESOURCES MANAGEMENT IN KARAMOJA**

# 3

## MINERAL RESOURCES MANAGEMENT IN KARAMOJA

The potential for women and men in mining-affected communities to claim their rights and benefit from the exercise of rights are partly determined by the way in which rights are not just defined but actually interpreted and implemented . This section outlines key aspects of the prevailing policy, legal and institutional frameworks governing the minerals sector in Uganda, how such legislation seems to be brought into effect in Karamoja and resulting opportunities and constraints to development of the region.

The management of mineral resources in Uganda falls within the provisions in the Constitution, national fiscal policy framework, the environmental policy and legal framework and crosses into various sectoral laws and regulations. In addition to the Mining Act (2003) and Regulations (2004), licensed engagement in the minerals sector therefore requires compliance with a multitude of legislation, inclusive of the National Environment Regulations (2001), the National Water Resources Regulations (1998), the National Environmental Management Regulations (2000), the Occupational Safety and Health Act (2006) and the Employment Act (2000), among many others.

The Constitution of Uganda 1995 and its Amendments cites provisions for enhancing conservation and management of the environment and natural resources. Section 43 of the Land Act, Cap 227, states “a person who owns or occupies land shall manage and utilise the land in accordance with the Forests Act, the Mining Act, the National Environment Act, the Water Act, the Uganda Wildlife Act and any other law”.

Fulfilling the multiple, often overlapping legislation governing mining and land use in Karamoja undoubtedly presents a major challenge for artisanal miners and other land occupiers, most of whom likely have limited awareness of such laws, requirements for compliance or means to claim their rights. This gap points to a clear need and potential role of Government, rights-focused NGOs, mining companies and other stake holders, yet deciphering the legislation governing the minerals sector is an expressed need of these stake holders as well. This section seeks to bring clarity.

### 3.1 Mineral Policy, Legal and Regulatory Frameworks

Several national and international studies show that inadequate policy frameworks, legal anomalies and inappropriate or prohibitive legal requirements often form a basis for illegal and unsustainable mining activities . Historically, the minerals sector in Uganda has been hindered by a number of policy, legal, regulation and enforcement constraints. For instance, the Mining Act of 1964 enshrined a number of problems ranging from granting absolute discretionary powers to administration to creating size and duration of tenure for various licenses that were not suited to the nature of the sector to inappropriate taxation given regional and international norms.

As such, the policy and legal framework was reformed, beginning with a Mineral Policy in 2001, followed by the Mining Act (2003) and Mining Regulations (2004). The resulting code is essentially in-line with international “best practice” and enables Uganda to compete for investment by creating liberalized, stable and conducive conditions.

As for all other sectoral policies in Uganda, the Mineral Policy (2001) is framed within national poverty reduction strategies: Uganda's vision for the mineral sector is "The new dawn in mining: to attract investment in, build capacity for acquisition and utilisation of geodata and increase mineral production for social and economic development of Uganda" and its goal is "to develop the mineral sector for it to contribute significantly to sustainable national social and economic growth". - Mineral Policy (2001), p. 5. In order to develop recommendations to promote the realization of these intended benefits in the Karamoja region and inform future legal reforms, it is useful to outline key aspects of the policy and legislation and assess the underlying causes of non-compliance and challenges in distribution of such benefits in order.

### **3.1.1 The National Mineral Policy**

Under the 2001 Policy framework, the GoU49 : (i) expects to receive fair value for its mineral resources and, through private sector investment, to obtain the transfer of skills, know-how and technology to nationals; (ii) gives high priority to protection of the environment and avoidance of waste and misuse of its resources and (iii) recognizes that people living in the immediate area of mineral development will bear significant environmental and social costs and will therefore seek to ensure that regional development, compensatory development, employment preferences, and small business opportunities offset these inevitable costs for the local residents and communities.

#### **Specific objectives of the Policy include to:**

- i. Stimulate mining sector development by promoting private sector participation;
- ii. Ensure that mineral wealth supports national economic and social development;
- iii. Regularize and improve small scale mining by local artisans;
- iv. Minimize and mitigate the adverse social and environmental impacts of mineral exploitation;
- v. Remove restrictive practices on women participating in the mineral sector and protect children against mining hazards;
- vi. Develop and strengthen local capacity for mineral development; and
- vii. Add value to mineral ores and increase mineral trade.

While the Mineral Policy (2001) provides a plan to guide actions and decisions by the Ministry of Energy and Mineral Development (MEMD), the private sector and other actors, bridging the gap between well intended policy and practice is determined largely by the mining code. Specifically, this includes the Mining Act (2003) and Regulations (2004), which specify the rules and procedures needed to achieve the goals and objectives of the policy.

### BOX ONE: SECTORAL LAW AFFECTED BY ENVIRONMENTAL LEGISLATION

The National Environment Act, Cap 153 seeks to support sustainable management of the environment and established the National Environment Management Authority (NEMA) as the principal government agency for the management of the environment. NEMA is mandated to coordinate, monitor and supervise all activities in the field of the environment.

The framework law sparked off the enactment, amendment and/or harmonization of sectoral laws on environment. The affected laws include but are not limited to:

- The Mining Act 2003, sections 108 to 112 of which require EIA, environmental audit, environmental protection standards, environmental restoration plans and environmental performance bonds;
- The National Forestry and Tree Planting Act (hereafter Forest Act) with a provision on EIA;
- National Forestry and Tree Planting Act, the National Environment Act,
- Water Act, Cap.152, Laws of Uganda - 2000 edition;
- Uganda Wildlife Act (1996), Cap. 200, Laws of Uganda - 2000 edition (Uganda Law Reform Commission); , sections 15 and 16 of which provide for EIA, audits and monitoring of projects that may have an impact on wildlife;
- Town and Country Planning Act, Cap. 246, Laws of Uganda - 2000 edition (Uganda Law Reform Commission)
- The Land Act, Cap. 227, Laws of Uganda (Uganda Law Reform Commission).
- Investment Code Act, Cap. 92, Laws of Uganda - 2000 edition (Uganda Law Reform Commission) section 19(1)(d) of which makes it an implied term and condition of every holder of an investment license to take necessary steps to ensure that the operation of their business enterprise does not cause any injury to the ecology or the environment;
- Local Government Act, Cap. 243, Laws of Uganda - 2000 edition (Uganda Law Reform Commission) the second schedule of which outlines environmental management areas for which district councils are responsible; and
- Any other laws such as the Occupational Safety and Health Act, 1997 and Labour Legislation.

The DGSM is designated as the “Lead Agency” by the National Environment Act), charged with monitoring the environmental implications of the minerals sector and subsequently reporting to the National Environmental Management Authority (NEMA).

## 3.1.2 Legal and Regulatory Framework

As in most jurisdictions, all minerals in Uganda are owned by the State, who is responsible for granting rights to individuals, organizations and companies in order to prospect, explore, develop, exploit and sell mineral resources. The Mining Act (2003) provides for these rights through its licensing regime as follows :

### 1. Prospecting License (PL):

A Prospecting License (PL) enables the holder to prospect for minerals country wide, except in areas where other rights (exploration, mining) have already been granted. It is not area specific, does not bestow exclusive rights, and is granted for one year only and is not renewable (i.e. a “new” License must be obtained annually). A Prospecting License is a prerequisite to apply for all other mineral rights (with the exception of that related to mineral dealing) and can be obtained through simple application via the DGSM in Entebbe at a cost of 150,000 UGX (~75 USD).

In an effort to increase visibility of artisanal miners and provide some form of formal recognition, some officers in the DGSM have encouraged extralegal miners to obtain prospecting Licenses, particularly with recognition that requirements for Location Licenses (small scale mining licenses) may be difficult for some to obtain and the PL is, in any event, a pre-requisite for mining rights.



## **2. Exploration License (EL):**

Although a given company can legally obtain multiple exploration Licenses, a single license can cover a maximum area of 500 sq. km. Given the cost of licenses and practical constraints in exploring such large areas, most exploration Licenses are much smaller. Preparation of an exploration License requires a fee of 500,000 UGX (~250 USD) and payment of annual rent of 10,000 UGX (~5 USD) per km<sup>2</sup>.

Exploration Licenses are granted for a maximum duration of seven years (initially three years and renewable for two terms of two years each) to enable the investor carry out conclusive exploration work. On each renewal, at least half of the license area is relinquished to enable other interested parties to explore the ground. The application process requires that the area of interest is available (i.e. not covered by an existing mineral right), and is granted on a first-come, first-serve basis determined by the application date and time of signature of the Chief Administrative Officer (CAO) of the District(s) where the area is located.

Many CAOs in Karamoja are concerned that, once the application form has been signed, they have little or no engagement with exploration companies yet are interested to learn of mineral potential in their areas and progress of companies. Furthermore, although local government engagement in the process partly intends to create some form of communication of activities on the ground, there seems to be little “trickle down” of this information. In addition, as many EL holders are engaged in buying minerals from extralegal miners, some district oversight seems warranted.

## **3. Retention License (RL):**

The License is granted to a holder of an Exploration License when a mineral deposit has been identified in the exploration area but, due to adverse market conditions, economic factors and other factors beyond reasonable control which are temporary, commercial exploitation of the deposit is not possible at the time. It is granted for a period of three years and is renewable for a single period not exceeding two years.

## **4. Location License (LL):**

ASM licensing is provided for in the legal framework by way of a “Location License”, which pertain to “small scale operations” or prospecting or mining operations which do not involve expenditure in excess of five hundred currency points (~5,000 USD) or the use of specialized technology. Applicants must be individuals or association members that hold Ugandan citizenship or companies that are more than 50% Ugandan owned. The License is exclusive, granted for a two-year period, renewable in two-year periods and the holder is obligated to declare production and engage in selling of minerals they have produced. While the Location License category is aimed at encouraging formalization and legalization of ASM, only a fraction of artisanal miners hold or work on Location Licenses. The process requires 51 :

- A prospecting license (~75 USD) through a simple process at the DGSM in Entebbe;
- Confirmation from DGSM in Entebbe that the area is available (not under license already);
- Completion of a relatively simple application form and preparation of a Project Brief (5-10 pages)

addressing environmental issues) and a 1:50,000 map sheet of the area (with assistance usually costing \$75-420 USD);

- Endorsement of the Chief Administrative Officer (CAO) of the district where the License area is located (~25-100 USD);
- Obtaining a Bank Payment Advice Form (BAF) from the DGSM, Entebbe (~340 USD for one year or 450 USD for two years, which includes mineral rent, preparation and registration fees);
- Payment using the BAF at Diamond Trust Bank in Kampala, who provide a URA receipt which is taken to the MEMD Accounts division who provide another receipt; delivery of the MEMD receipt to DGSM Entebbe for recording and submission of the location License application.

Review and processing can take several weeks and does not guarantee approval. Total formal and informal costs typically range between ~\$515 USD to \$1045 USD excluding transport, accommodation and day to day expenses. These constraints are likely more pronounced for women miners, who face additional challenges in terms of autonomy and confidence to travel to Kampala/Entebbe to facilitate the process, literacy and savings, among others. Most Location Licenses in Karamoja, as in the rest of the Country, are therefore held by small, better capacitated companies, many of which also hold exploration Licenses.

## **5. Mining Lease (ML):**

A Mining Lease targets operations involving “substantial expenditure” (which, given the lack of an intermediate licensing category, means expenditures above the 5000 USD limit of a Location License). It is granted for a period not exceeding 21 years or the estimated life of the orebody to be mined – whichever is shorter – and is renewable for a period not exceeding 15 years and rights of the holder include selling of minerals they have produced. Grant of the lease is subject to submission of an approved Environmental Impact Assessment (EIA) report.

Because involvement of the CAO’s Office is one of the first steps in an ML application, an entry point exists to identify land owners (e.g. where communal land certificates are being processed) while this should also be clarified during stakeholder consultations required of the EIA Process. Significant concerns have been voiced from multiple stakeholders in Karamoja concerning the legitimacy of the EIA Process and need for genuine engagement. This is detailed further in Section 4.1.2: Priority: Protection of the Environment.

## **6. Mineral Dealer’s License:**

A Mineral Dealer’s License allows the holder to engage in buying and selling of minerals and lasts up to end-December in the year in which the License is granted. There are two types of MDL’s (i) License to deal in precious minerals (e.g. gold, gemstones) and (ii) License to deal in non-precious minerals (e.g. limestone, marble): The holder of mineral dealers license is required to keep records indicating from, where, whom the mineral was purchased, the quantity and price paid. Such reports are required to be submitted to the Commissioner every three months. The price of the Mineral Dealer’s License ranges between 1 million UGX (~500 USD) for industrial minerals such as limestone to 2 million UGX (~1000 USD) for precious metals, such as gold, and gemstones.

While Karamoja is undoubtedly a major producer Uganda, most gold leaves the country undeclared via Kenya (where selling prices are reportedly higher than Kampala) or is purchased by agents of Kampala buyers, who often declare out-of-country origin (e.g. South Sudan, Tanzania). This is because the taxation rate is lower for imported-exported gold (0.5% of London Metal Exchange value) than for that produced in Uganda than exported (requiring 3% royalties paid on artisanal gold), the original intention of which was to address Uganda's role as a "pipeline" for illicitly traded minerals from DRC and elsewhere. While much easier to track (i.e. as large trucks are needed), widespread illicit trading of limestone has also been cited by many.

In many cases, Local Government officials have stated they don't even know who is legal and who is not. Many are also uncertain as to what role they can and should play in monitoring these activities. Section 3: Institutional Roles and Responsibilities lend further insight.

## Other Instruments and Provisions

Other instruments provided for in the Mining Act (2003) and Regulations (2004) include Imports and Exports Permits, which are used to monitor cross-border trade in minerals, and the Goldsmith's License, which is granted for fabrication of artifacts / articles using precious minerals. Other key provisions concern:

- **Mineral Agreements between the Government** and usually large exploration and mining companies related to legal, social and economic obligations of either party, taxation and royalties (in some cases providing for reductions or holidays), local employment requirements (often requiring training and targets for increasing the proportion of local technical staff over time) and the role of DGSM authorities <sup>iv</sup>.
- **Adequate compensation and/or resettlement** of land owners or lawful occupiers. The holder of a mineral right (for exploration or mining) is required to pay the owner or lawful occupier of private land *"fair and reasonable compensation for any disturbance of the rights of the owner or occupier; and for any damage done to the surface of the land by the holder's operations; and shall on demand made by the owner of any crops, trees, buildings or works damaged during the course of such operations, pay compensation for any crops, trees, buildings or works so damaged"* <sup>v</sup>.
- Environmental Protection by holders of an Exploration License or Mining Lease through completion of an Environmental Impact Assessment (EIA) and annual Environmental Audits (describing conformance with the EIA), compliance with the National Environmental Act, Cap 153, (included that related to pollution prevention) and development and implementation of Environmental Restoration Plans, which detail how the site will be reclaimed once mining is complete and payment of a Performance Bond by the Mining Lease holders.

It is important to recognize that copies of EIAs and Environmental Audits are required to be submitted by the License Holder to the CAO's Office and the District Environment Officer (DEO) and Community Development Officer (CDO) have clear roles to play in performance monitoring and engagement with DGSM. In Karamoja, this role seems to be largely un-fulfilled, calling for increased sensitization of local government and strengthening their links with DGSM.

To the credit of the Mining Act (2003), environmental criteria for Location Licenses are far more appropriate to the reality of ASM. This requires completion of a Project Brief (5-10 pages describing how the environment will be affected and measures to be taken to mitigate this) and completion of reclamation and rehabilitation activities (usually requiring backfilling of pits and re-vegetation). Although these requirements are far simpler than those for Exploration Licenses and Mining Leases, even generating (and understanding) the Project Brief presents a challenge for most artisanal miners.

## **3.2 Fiscal Policy and its Intended Benefits**

Government uses fiscal policy to: (i) raise revenues by implementing a “fair and equitable” system to yield financial benefits from economic activities, and (ii) guide taxpayer behavior through “command and control” mechanisms. The fiscal and monetary policies of the GoU are usually developed by the Ministry of Finance Planning and Economic Development (MoFPED) in concert with affected government agencies. In the case of the minerals sector, important factors determining fiscal measures include: (i) regional harmonization of royalties and taxes (a factor that can reduce cross-border illicit trade); (ii) international competitiveness (in order to attract foreign investors); (iii) licensing and maintenance costs (particularly in the case of ASM and traders); and (iv) financial benefit sharing (typically calling for greater benefits to areas most affected by mining).

In Karamoja, areas of greatest fiscal concern seem to relate to distribution of benefits through sharing of royalties (Section 3.2.2) and implications of costs of Location and Mineral Dealer's Licenses on mineral trade formalization (Section 3.2.3).

### **3.2.1 Mineral Taxation Instruments**

Large scale mines, in particular, have unique characteristics such as high level of capital cost expenditures often resulting in deferred profitability for several years (in some cases a decade or more) and concomitant investment in infrastructure (roads, electricity etc) that can provide broader social benefits in the interim. As a consequence, DGSM has indicated that special tax rates can be applied to the mining sector as investment incentives in specified circumstances (e.g. zero import tax on mining equipment) or for specific projects (e.g. through Mineral Development Agreements). For example, the Minister may waive a royalty with the approval of Cabinet, in the interest of mineral exploitation and production. In many countries, most of these fiscal concessions focus on production-based taxes (e.g. sales and excise taxes, royalties, import duties, etc).

## 1. Royalties

A royalty is like a tax or fee that is a percentage of the latest value of a precious or non-precious mineral on the London Metal Exchange, any other Metal Exchange or other market. The justification for payment of a royalty, in addition to other taxes and fees that most companies pay in other sectors (e.g. corporate tax, income tax), is that it provides some form of compensation for permanent loss of a non-renewable resource and it constitutes revenue in return for permission to mine.

Rates for royalties paid on mineral production vary according to the mineral commodity as follows: 3% for precious and base metals (based on price given by international metal exchanges, which fluctuates daily), 5% for precious stones and 3,000 UGX per tonne for limestone or marble . Buying, selling or exporting minerals also requires a royalty payment .Royalties on mineral production are shared among Central Government (80%), Local Government in areas where the mineral was produced (17%) and owners or lawful occupiers of the land (3%) where the mine is located .

Cumulatively, these contributions can be significant (as described in Section 2.3.1) but, despite expressed interest of some local government officials to do so, collection of royalties on a truck- by-truck or gram-by-gram basis is financially impractical to administer and this practice extends beyond their mandate. When informed of the estimated production value of informal ASM in his area, one CAO enthusiastically voiced an interest in policing the situation to collect taxes on the ground.

While a coordinated approach is certainly needed to ensure production quantities are accurately reported and the mineral trade is formalized, this approach can pose a significant risks for exploitation of artisanal miners and further widen the gap between already marginalized (and largely invisible) artisanal miners and government (as demonstrated in Venezuela, Brazil and numerous other countries).

## 2. Taxes and Other Charges

Like any other Ugandan business, mining investors have to pay income tax based on taxable profits from their business. The income tax rate ranges from 25% to 45%, depending on the profitability of the venture, while investors also pay a number of other taxes and fees:

- *Annual Mineral Rent which is based on the size of a license (10,000 UGX/km<sup>2</sup>/ar for an Exploration License or Mining Lease) and 200,000 UGX/a for a Location License.*
- *Personal Income Tax for employees including NSSF Contribution.*
- *Withholding Taxes on interest, dividends, royalties and services.*
- *Stamp Duty on legal documents (e.g. district fees for endorsing application forms, which typically range between 50,000 UGX and 150,000 UGX).*
- *Any Applicable Land and Building Taxes related to the area where mines are constructed.*
- *Levies, taxes, charges and duties imposed by Local Government as approved by the Central Government.*

While some Local Governments in Karamoja are currently charging fees or levies (particularly on limestone producers) and others have expressed interest in revenue collection (e.g. royalties from artisanal gold miners), many of these fees appear not be in-line with Central Government approved fees, thereby resulting in a form of “double taxation”. Harmonization between Central and Local Government seems necessary.

### **3.2.2 Collection and Distribution of Mining Revenues.**

Revenue sharing describes arrangements whereby minerals taxes are collected by Central Government, with a certain portion being directed back to the Local Government (and in some cases land owners) in the areas where mining occurs. Revenue sharing arrangements are typically structured with recognition that (i) communities around mining areas bear the brunt of environmental impacts and social disturbances (e.g. HIV/AIDS, increased price of goods, etc.) and (ii) such revenues are also needed to respond to national development priorities. In an effort to increase local benefits, MEMD officials have indicated that a revision to this distribution arrangement is currently under way wherein Local Government royalties shall, in future, be divided with 10% to the District Government and 7% to the Sub county where mining activities are located (rather than 17% to the District as previously administered). Interests in an increased royalty share by Local Government in Karamoja are certainly well founded, particularly as the low development status of the region is partly attributed to the limited ability of Local Government to provide essential services. However, in most countries that are now instituting such revenue sharing arrangements (e.g. Ghana, Tanzania, Sierra Leone) many problems have been encountered, most of which relate to local revenue management and translating returned royalties to development on the ground.

Concerns over appropriate, transparent and accountable use of mineral revenues do not seem to be limited to other countries and many stakeholders in Karamoja expressed skepticism of receiving any benefits from royalty transfers. In the case of Moroto District, one official suggested the amount received was “too little” to bother with separate expenditure guidelines or reporting requirements. In light of increased mine development in Karamoja and around the country, MEMD has nevertheless stated their plans to institute requirements for Local Government to use districts specifically for local development activities (e.g. boreholes, roads, health care) but one DGSM official has further suggested that guidelines, procedures and training in the use of royalties is also needed to ensure these directives are actually implemented transparently and effectively.

In any event, royalty collection from the Consolidated Fund by Local Government (via MoFPED and URA) is a commonly voiced challenge (Box 2). This is undoubtedly even more difficult for land owners, particularly given that most Karamojong lack legal land title. In discussions with MEMD, officials stated the intent of GOU to disburse the 3% owing to land owners to Sub county Government holding documents affirming that they hold the communal lands in public trust. However, this seems to be in contradiction with views of many Karamojong, many of whom have



**BOX TWO: MECHANISM FOR PAYMENT AND COLLECTION OF ROYALTIES**  
(Source: DGSM, 2010)

As one of its mandates, the Department of Geological Survey and Mines (DGSM) collects, collates, processes, analyses, archives and disseminates geoscience data. Subsequently DGSM compiles verified production statistics upon which basis the DGSM makes an assessment of the mineral royalty due from every mineral right holder Licensed to exploit and/or process minerals from their ore. These statistics are compiled on a monthly basis.

The DGSM then grants the mineral right holder(s) a Bank Payment Advice Form (BPAF) of Uganda Revenue Authority (URA) whose mandate is to collect the Non Tax Revenue (NTR) accruing from royalties. When NTR is collected, URA retains 80% (Government) share of the NTR collected and remits 20% to Ministry of Energy and Mineral Development (MEMD) which maintains a record at the DGSM of the royalty actually paid as evidenced by URA payment receipts.

MEMD subsequently publishes the royalties due to each mining district in the print media and requests Accounting Officers of the different Local Governments to collect their share (17%) of the royalty collected from mineral exploitation in their respective districts via MoFPED. Owners or lawful occupiers of land subject to mineral rights are also notified to collect their share (3%) of the royalty due from the respective districts.

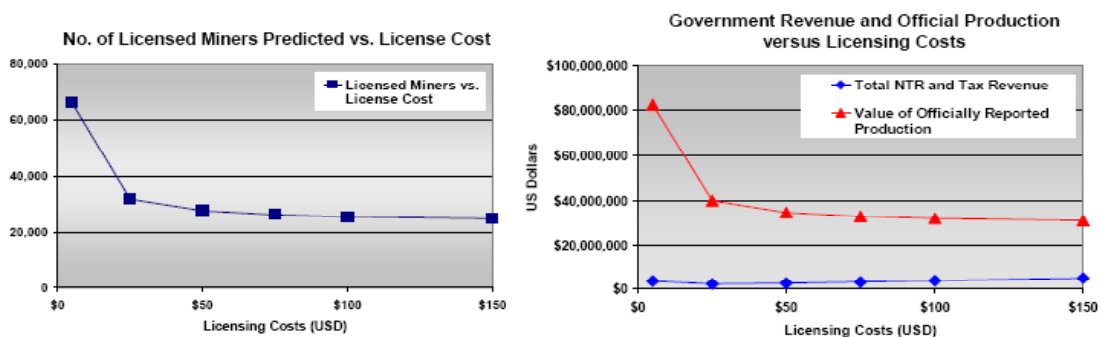
DGSM considers this procedure to be fair to all parties because the DGSM maintains records for all the minerals produced, royalties paid by each mineral rights holder, information about all licensed mining areas and particulars of owners or lawful occupiers of land subject to mineral rights

sought Certificates of Customary Ownership (approved at District levels but seemingly confounded by central government bureaucracy) while, interestingly, private ownership (e.g. freehold title) also seems to be an increasingly desired option for many households. In fact, many individuals in both communities and government in Abim, Kaabong and Moroto indicated that, despite the absence of title or certificates, “the (individual) owner is known”. MEMD is informed of the situation and have expressed intent to revise their original intentions for disbursements to Sub counties. As a consequence, no disbursements to land owners in Karamoja have been made to date, which has resulted in a delay in benefits to those most affected by mining but seems appropriate until the situation is rectified.

Resolution of issues concerning both land owners and Local Government would benefit all stakeholders including those in the private sector. While artisanal miners desperately need services from Local Government and royalty payments can provide a means to partly finance such efforts, companies also face high expectations to directly contribute to local development. Small companies, in particular, have limited resources and those, such as African Minerals Ltd., explicitly recognize that if local communities are not benefiting from mining (directly or indirectly), then they are likely to face considerable difficulty in the course of their work.

### 3.2.3 Implications of Licensing Costs and Charges

In terms of formalization of ASM activities, multiple factors come into play (i.e. availability of areas, capacity of miners to deal with bureaucratic requirements, lack of incentives). One of the identified barriers to licensing of ASM is also the cost of licensing (Fig. 9). Uganda has extremely high licensing costs relative to miners incomes when compared with other jurisdictions, i.e. official application and preparation fees alone total 650,000 UGX or ~325 USD for a Location License, presenting an additional hurdle resulting in high national rates of informality (~90-95%)<sup>54</sup>.



**Figure 9: Relationship between License Cost, Number of Licensed Artisanal Miners and Government Revenues (including NTR=non-tax revenue) in Central African Republic**  
(Source: Hinton and Levin, 2010; based on data compiled from multiple jurisdictions)

Figure 9: Relationship between License Cost, Number of Licensed Artisanal Miners and Government Revenue (including NTR=non-tax revenue) in Central African Republic (Source: Hinton and Levin, 2010; based on data compiled from multiple jurisdictions) In comparison, Guyana imposes annual fees of only 5 USD for individual diamond diggers, 50 USD for dredges (production units) and 75 USD for traders and exporters. Since these measures have been instituted, almost 100% of ASM production units have been licensed and diamond exports in 2009 rose to 14.6 million USD . In Madagascar, a locally administered permitting system (costing 5 USD/a per individual miner) have achieved licensing rates of 92% of artisanal miners in areas where sensitization of miners and Local Government took place . Countries effectively promoting ASM legalization through fiscal incentives seem to be doing so with a view towards capturing even greater revenues from royalties and taxes rather than License fees. Compared to royalties and import/export taxes, licensing fees and charges actually comprise a comparatively small proportion of GOU revenues from mining. In 2010, royalties and export taxes constituted 80.2% of non-tax revenues from the minerals sector. Related “success factors” also pertain to low-cost trading Licenses, simple reporting requirements and collection of ASM royalties from dealers rather than miners on-the-ground . The cumulative value of lost ASM royalties was estimated in Section 3.2.2 at 5.8 billion UGX (~2.9 million USD). Any attempts to capture some of this potential revenue stream must be cognizant of the reality of ASM in the region. Poor savings culture, low levels of organization and issues such as illiteracy were common to ASM sites visited across Karamoja. Formalization efforts are often

instituted on a piecemeal basis. Building necessary incentives and capacity to operate legally calls for responsiveness to the expressed needs of artisanal miners and commitment from Local and Central Government, larger private sector players and civil society actors. Institutional roles and responsibilities point to a way forward in terms of support for formalization of ASM as well as equitable and effective revenue sharing and, in general, responsible mineral development in Karamoja.

### 3.3 Institutional Roles and Responsibilities

The Ministry of Energy and Mineral Development (MEMD) is the central agency responsible for the minerals sector, however, in reality, regulation, enforcement and support for responsible mineral development falls under the mandate of multiple institutions and offices at central and local levels, each of which are summarized below.

#### 3.3.1 Department of Geological Survey of Mines (MEMD)

Under MEMD, the Department of Geological Survey and Mines (DGSM), founded in 1919, is technically responsible for administration, management and support to the minerals sector. The department's mission is "to promote and ensure rational and sustainable development and utilization of mineral resources for socio-economic enhancement of the people of Uganda" which is brought into effect through four DGSM Divisions (Mines, Laboratories, Geology and Geodata) and overseen by the Commissioner, DGSM.

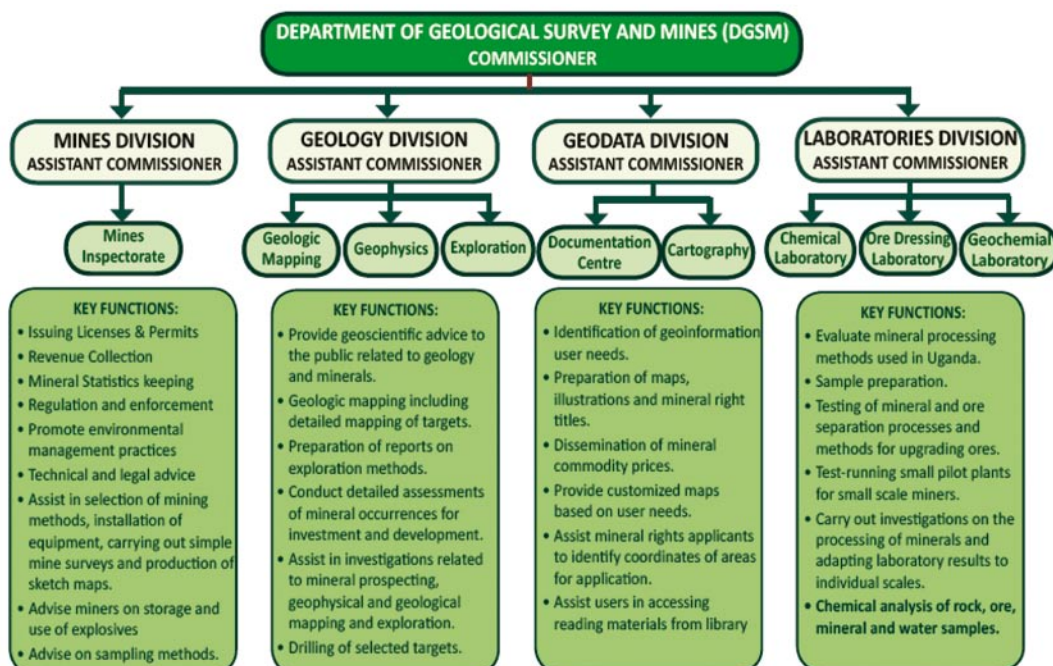


Figure 10: The Current Macro-Organizational Structure and Main Functions of DGSM Divisions (Source: SMMRP, 2009)

Upon close examination of DGSM division functions (Fig. 10), many key issues identified in Karamoja are considered. These range from that related to revenue collection and regulation of activities to provision of geological information (geodata) to the public and customized maps based on user needs to assistance in identifying options for mining and mineral processing (particularly for ASM). While much of these functions are centralized, three regional offices in Mbarara, Kabale and Tororo Towns (the latter of which covers the Karamoja Region) provide an opportunity for much called for decentralized implementation of some activities. These offices, however, are only marginally active due to lack of resources, thus most work is undertaken via the central DGSM office in Entebbe. Under the Mineral Policy (2001), the DGSM is also mandated to: *“Regularize and improve artisanal and small scale mining through light-handed application of regulations, provision of information on production and marketing, provision of extension services through miners associations and implementation of awareness campaigns targeting artisanal and small scale miners.”*

Despite its mandates, DGSM Officers have reported that they face major constraints in terms of human and financial resources needed to fulfill objectives related to provision of extension services, information and other support to ASM as well as those functions related to regulating activities at a grassroots level. Despite high levels of mineral production (both formal and informal), DGSM seems to be scarcely represented on the ground in Karamoja. Furthermore, based on discussions with a number of public and private sector stakeholders, political will and institutional commitment – particularly with respect to support to ASM and engagement in non-traditional roles (e.g. public sensitization) – seems to be highly variable within MEMD. In terms of DGSM receiving necessary resources and being held accountable for such functions, one of the key gaps identified in legislation is the notable absence of a legal mandate for DGSM to engage in ASM extension services, geological survey functions and other activities beyond those related to regulation, monitoring and enforcement of mining activities. It seems that the well conceived visions, missions and objectives for responsible minerals sector development are more likely to be implemented if the GOU is legally mandated to implement them.

### 3.3.2 Central Government Institutions

While many Central Government institutions do not have a mandate that precisely refers to the minerals sector, many, however, do have mandates that intersect and certainly compliment key issues identified in the minerals sector in Karamoja. These include:

- **Office of the Prime Minister**, whose mandate includes implementation of special programmes in Karamoja, including those vis-à-vis the Minister of State for Karamoja. Key activities include those under the Karamoja Disarmament and Development Programme (KIDDP) which seeks “to contribute to human security and promote conditions for recovery and development in Karamoja”, as described in Section 4.2.3.
- **National Environmental Management Authority (NEMA)**, who is not an implementing institution but is mandated to “co-ordinate, monitor and supervise all activities in the field of environment” (including review and approvals of EIA’s, Environmental Audits (EAs) and oversight of lead sectoral agencies, such as DGSM). NEMA has developed detailed “Guidelines for the Environmental Impact Assessment Process for the Mining Sector in Uganda” which are based on international best practice yet appear to be a bit too ambitious for smaller sector players. Simple guidelines for ASM would likely prove to be useful.
- **National Forest Authority (NFA) and Uganda Wildlife Authority (UWA)** who are recognized as “land owners” when mining and exploration activities are taking place within gazetted parks, forest and game reserves. Written approval and support for mining activities is required by UWA or NFA when activities fall within their areas. Of note, neither agency has specific regulations, procedures, rates (e.g. rents) or protocols concerning the minerals sector.
- **Ministry of Gender, Labour and Social Development (MGLSD)**, who is mandated to play an active role in supporting gender mainstreaming within the minerals sector (including its policy and legislation) as well as in promoting decent working conditions and mitigation of child labour (i.e. via the Dept. of Occupational Safety and Health) among other development functions.
- **Ministry of Health (MoH)**, who is positioned to extend programs to ASM areas in Karamoja, including those related activities to high risk behaviour for HIV/AIDS (e.g. in Acherer), sexual and gender based violence (SGBV) and application of the Village Health Worker model at ASM sites (e.g. Acherer, Lopedo, Morulem).
- **Uganda Police Forces (UPF)** who have a role to play in addressing – in coordination with DGSM and Local Government – issues related to the illicit minerals trade and its potential linkages with the illegal arms trade.

Other key agencies include Ministry of Finance, Planning and Economic Development (MFPED), Uganda Investment Authority (UIA), Uganda People's Defense Forces (UPDF) and, given their role in provision of information on mineral production and trade, the Uganda Bureau of Statistics (UBOS).

In general, awareness of both the minerals sector and complimentary of institutional mandates seems to be fairly low and, with the exception of the Office of the Prime Minister, no other institutions consulted indicating that they had initiated any mining sector specific efforts in Karamoja. While some efforts to streamline and harmonize legislation and institutional roles seems to be underway (e.g. between DGSM and UBOS; DGSM and MoLG), already limited resources of government agencies are unlikely to be directed to what seems to be perceived a low priority sector.

In the absence of concerted lobbying and sensitization, the priority afforded to the minerals sector is likely to remain low. Thus, complimentary roles and functions of government bodies engaged in health, safety and micro-enterprise development, for example, are likely to be limited to (if any) peripheral engagement through local government officers. Given the need for action at a grassroots level, many central institutions may, in any event, be more effective via their vertically linked officers in district and Sub County government.

### **3.3.3 Local Government**

Many Local Government officials expressed enthusiasm about what mineral development can bring to their areas. In reality, many of the expressed constraints to responsible mineral development in Karamoja call for action at a local level. Potential entry points include increased roles of Local Government in functions ranging from monitoring of mineral production and environmental performance to support for small enterprise development and organization of miners to constructively addressing issues such as child labour, HIV/AIDS and water needs in ASM areas to clarification of issues and community engagement related to mining rights as they relate to land tenure. Indeed, by virtue of their proximity, Local Government appears to be better positioned in many respects to tackle such issues.

As a simple example, while DGSM is defined as a Lead Agency in environmental monitoring of the minerals sector, this is under the coordination of NEMA who (via the Ministry of Water and Environment) is vertically linked to the District Environment Officer (DEO) and District Environmental Committees. DEOs are responsible for incorporation of environmental concerns into district plans, formulation of bylaws, information dissemination and preparation of annual environmental reports. Other than lack of clarity concerning roles and inadequate facilitation for such functions, there is no clear reason why such functions do not extend to the minerals sector, particularly given that doing so could lead to increased revenues and facilitation of Local Government officers to fulfil their functions in multiple sectors. The same principle apply to mandates and functions of Community Development Officers, Health Inspectors, Commercialization Officers, Labour Officers, Social Welfare Officers, Internal Security Officers and others at district and (in some cases if present) Sub County levels.



In 2008, concern was expressed by the Local Government Finance Commission (LGFC) to MEMD that the Local Governments (LGs) in Mining Districts lacked a forum through which to express and share their views on fiscal matters in the minerals sector. One DGSM Officer indicated that the 2008 consultation that followed was “a great step in streamlining sharing of benefits among stakeholders”. The result was clarification of LGFC roles as follows:

- To ensure equity in financial transfers to local governments and fair vertical and horizontal fiscal arrangements under the decentralization principle.
- To continually provide technical advice to local governments on ways and means to improve revenue mobilization
- To establish an independent capacity to provide advice, carry out surveys/collect and analyze data and conduct well targeted investigations as a means of providing useful inputs for determining mechanisms for equitable allocation of public resources for decentralized services.
- To build and maintain a smooth and collaborative working relationship with stakeholders.

Certainly, implementation of these roles articulated in 2008 as well as related DGSM coordination strategies would go far in addressing needs expressed by Local Government with respect to communication and guidance in mineral resource management. The need for harmonization, sensitization and stakeholder engagement is evident while formalization of commitments to roles seems equally relevant. For instance, with respect to ASM it has been stated: *“Informality begets informality. Unless ASM support is formally enshrined in (key actors) work programs and budgets, ASM is unlikely to make much progress towards formalization.”*

- National Strategy for the Advancement of ASM in Uganda, 2009

This principle seems applicable to all facets of the minerals sector and actors at both central and local levels. Integration of the minerals sector in Sub County and District Development Plans, coupled with effective mechanisms for monitoring implementation would fill a significant gap. Given the gender dimension of ASM in particular, efforts to mainstream practical and strategic gender needs in all efforts are also needed.

# 4 **CRITICAL ISSUES AND RECOMMENDATIONS**

## 4

# CRITICAL ISSUES AND RECOMMENDATIONS

Assessment of the current status of the minerals sector in Karamoja elicits a number of critical issues. These primarily relate to: (i) the interface between land, minerals and other natural resources; (ii) opportunities and constraints for sustainable livelihoods development; (iii) core governance issues including those related to benefit sharing; and (iv) the need to empower communities to drive their own development. In this section, these issues are analyzed further, providing a basis for a series of specific recommendations. Ultimately, responsiveness to these issues will likely determine whether Karamoja's mineral endowments can be used as a platform for stability, wealth creation and development while inaction poses the risk of further undermining environmental integrity, human wellbeing, tenuous peace and security and the invaluable cultural assets characteristic of the region.

### 4.1 The Interface between Land, Minerals and other Natural Resources

The Karamojong depend on their lands for survival and maintenance of pastoral livelihoods, which are strongly linked to their traditions and values as a central part of their lives. Many suggest that this attachment to tradition combined with the legacy of historical discrimination has resulted in their being marginalized and discriminated against by mainstream Ugandan society<sup>iii</sup>, thereby creating a dilemma for governments with regard to management of land issues in pastoral regions. It has also been argued that the failure to implement appropriate and effective 'land tenure policies and laws' in pastoralist areas has created a problem with regard to dry season grazing areas . Some international organizations contend that the undue focus on policies which promote settled agriculture represents a failure to understand the rationale for nomadic pastoralism<sup>62</sup> . Stites et al (2007:30), in their study of Bokora County, strongly called on the government to recognize 'pastoral transhumance' as the appropriate livelihood strategy for the ecosystem of Karamoja and to therefore drop the promotion of a sedentary, agriculturalist lifestyle

The entry of almost 20,000 Karamajong men, women and children into ASM – largely driven by challenges in sustaining traditional pastoral livelihoods – poses a number of challenges, particularly given that support for ASM activities as a legitimate livelihood choice may not be appreciated by all. Some people seem to be of the view that traditional pastoralist livelihoods should be supported as much as possible, since they are the most viable form of livelihood in environments such as Karamoja and have a strong cultural history, without being innately violent. Others argue that a more peaceful and prosperous model for the development of Karamoja would support alternative forms of livelihoods, which are not so closely linked to cattle rustling or vulnerability to changes in climate.

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Report on the African Commission's (ACHPR) working group of experts on indigenous populations/communities, ACHPR Report 2005:89

Switzer and Mason (2006:1) argue that “livelihood strategies should be demand-driven and integrated into existing local development plans”. They see resource access rights as key, as well as expanding the range of available livelihood options; reinforcing the ‘synergistic relationship’ between different land users; strengthening community capacity to resist ecological shocks; reinforcing traditional and administrative dispute resolution mechanisms; promoting access to markets; and ensuring cross-border harmonization (ibid:4). When as to whether acquisition of cattle or farmland would lead to the abandonment of ASM, most artisanal miners seem to see inherent opportunities in undertaking both activities:

*““They (the miners) have realized there is something there... in the past we didn’t know there is a life here (at the mine)... I think the best life can still be from mining”*

– a male gold miner, Rupa, Moroto District

Indeed, at multiple ASM sites in Western Uganda as well as countless countries around the World, ASM is undertaken as a supplement and important means to invest in agricultural livelihoods . Such diversification speaks to the ability of individuals and households to deal with shocks or stresses such as injury and ill health, seasonal food insecurity, crop failure, seasonal loss of primary livelihood, drought or conflict, displacement from homes, commodity price drops and loss of markets and a host of other potential events<sup>64</sup>.

ASM now seems to be entrenched as a livelihood strategy for many Karamojong, yet this combined with the growth of exploration activities and more organized, slightly mechanized, formal mining brings to the forefront three key issues: (i) protection of environmental integrity crucial to pastoralism and all other livelihoods; (ii) effects of the minerals sector to access to the land and other natural resources; and (iii) security of land tenure and its linkages to benefits from mineral endowments.

#### **4.1.1 Priority: Protection of Environmental Integrity**

Mining, as any economic activity, has repercussions on the natural environment yet effects vary depending on the nature and scale of activities, methods used and commitment of those undertaking mining to environmental protection. A broad range of potential environmental impacts are possible including: siltation of rivers, effects on quality and quantity of groundwater; deforestation and degradation of landscapes; disturbance to migration corridors; dust and noise; etc. In the current state of the minerals sector in Karamoja, no chemicals are being used in processing, the scale is relatively small (compared to other localities) and activities are largely un-mechanized.

Main environmental issues related to mining include:

- Exploration: Likely occurrence of shallow pits and trenches (1-2m deep by 0.5-2m wide) used for the purpose of near surface sampling (which are likely few and can be easily backfilled following sampling).

- Mining Leases and Location Licenses: Disturbance of land surface; degradation of trees and vegetation, small spills of diesel, oils, etc from heavy machinery, potential disturbance to migration corridors.
- ASM: siltation of rivers (via cumulative effects of gold panning), wildcat pitting (i.e. tens and in some cases hundreds of shallow (5-10m) pits and shafts across a land scape), localized degradation of vegetation.

For each potential impact, a number of preventative or corrective measures is possible, which, in the case of “large scale mining” are to be identified, rectified and mitigated vis-à-vis the Environmental Impact Assessment (EIA) process. In cases where activities are proposed in a gazetted area (e.g. forest reserve), approval of “land owners” (e.g. NFA or UWA) is also needed to vet a Mining Lease application. For ASM, intensive sensitization and training is typically needed for adoption of environmentally responsible methods. Harmonization with traditional land management structures, which are intended to keep environmental pressures in check (for example by reserving wetlands for grazing in the dry season) would significantly inform environmental protection approaches.

### **Environmental management of the minerals sector seems to depend on two issues:**

- (i) Genuine and informed engagement of communities and local government in the EIA process and subsequent monitoring and management to ensure proper measures are put in place; and
- (ii) Capacity of artisanal miners to adopt appropriate, intermediate and environmentally responsible methods that are appropriate to the nature of their activities. Many options and approaches exist, mostly introduced via collaborative, grassroots intervention and intensive training (Section 4.2).

Much concern over EIAs relates to lack of “genuine” engagement, which necessarily requires informed participation. Community members and even local government cannot fully express concerns, identify potential risks and put forth alternatives if implications of potential impacts are not well understood. This can extend past the EIA phase into mine development and operations, where “best” alternatives should actually be implemented. Traditional knowledge of suitable management approaches are, therefore, unlikely to be brought to the table. Scarcity of DGSM on the ground, lack of clarity in DEOs roles and limited engagement of communities in environmental monitoring are issues but pressure from Senior Government Officials to let such infractions go have also been alluded to. Of credit to TCL, what emerged through the process was a very strong local opposition to large, scale mechanization. As stated by the Operations Manager: “If they brought the machines, what would the people do?”, and thus, mine development plans were adapted in response to expressed needs. In any event, plans for “progressive reclamation” (i.e. rehabilitating one area as work is complete and activities advance to another area) seems to be left to nature and, while measures such as pit latrine construction and water truck services are useful, sanitation, hygiene and working and living conditions continue to need attention.

## 4.1.2 Priority: Access to Crucial Natural Resources

One of the most contentious issues in the minerals sector concerns perceptions of State ownership of minerals and powers of GOU to grant “mineral rights” for exploration and mining on land owned or occupied by others. In most rural areas of Uganda, many owners, occupants and land users in mining areas have difficulty accepting that ownership of land provides “surface rights” but not the right to extract minerals and limited say in whether mineral rights should be granted there. This situation is exacerbated by lack of understanding of the difference between “exploration” and “mining”. Oftentimes, owners and occupants (inclusive of artisanal miners) and even local leaders are unaware that they reside within an EL, which is largely a consequence of License size (up to 500 km<sup>2</sup>) and nature of exploration in Karamoja (i.e. most is at greenfields stage and many companies are largely inactive).

In cases where exploration companies are active, geologists must (for their own security) necessarily engage and sensitize land owners as they enter areas (e.g. for sample collection), typically through government channels (LCIII or LCI Chairpersons) and to a lesser extent clan chiefs and elders. In most cases, these are primarily men and seem to focus sensitization towards household “heads” or land owners, who are mainly also taken to be men, bringing to light concerns the gender dimension of such communication, which seem to be overlooking information needs of women . With limited knowledge of the exploration sector, fears seem to abound that companies are there to “take the land”, mine without sharing benefits, evict resident artisanal miners or a combination thereof.

The nature of exploration actually precludes such harsh disturbances (including alleged fencing of areas, disturbance to cattle corridors, restricted access to watering points) and any activities to the contrary would be illegal (e.g. exploration companies commencing unauthorized mining; use of force or intimidation to obtain access to land). Unfortunately, a subset of local opinion leaders and others do seem to be aware of the differences between exploration and mining yet seem to be perpetuating fears for reasons that are unclear, thereby heightening risks of conflict, hostility towards exploration companies and decreasing the attractiveness of exploration in the region.

Widespread sensitization on mining and land legislation, as well as the peculiarities of the minerals sector, would help mitigate such risks, indicating a critical role for local government. Local government (through the CAO’s office) does need to approve and sign-off on applications for Exploration Licenses in their areas, providing an opportunity to communicate the presence of such activities with DEOs, CDOs, District Surveyors and others whose mandates may intersect that of the mineral sector. Introduction of such measures would be substantially improved with formalization of other mechanisms for regular reporting by exploration companies on progress of their activities and regular issuance of concession holders lists and maps by the DGSM.



### 4.1.3 Priority: Security of Land Tenure

In the process of applying for a Mining Lease, the proponent company is required to show proof of ownership of exclusive rights over the land covering the intended mining period or verify that an agreement has been reached and approval received from the lawful land owner. Identification of lawful land owners could take the form of a Freehold or Leasehold Title, a Certificate of Customary Ownership or, in the case of Sub County governments, “holding documents affirming that they hold the communal lands in public trust” (the latter of which has not been invoked).

In some cases in Uganda, mining companies have sought to purchase the land outright. Although this doesn't seem to yet be the case in Karamoja, if such an action were to transpire, obvious challenges emerge. Typically, companies commence by negotiations with land owners and lawful occupiers. Given that failure to secure land (through purchase or approval) can be regarded, under the Mining Act (2003), as a form of blockage of access for mineral extraction, this can move towards decisions by the District Valuer for adequate compensation rates and, if sale or lease is not tenable, then GOU can invoke powers of compulsory acquisition, mandating a valuation against which payment is made for purchase of the land by either the licensee or the Government. In Busia and Tororo, efforts to resettle and compensate land occupiers have led to conflict and resulted in cessation of mine development.

Whether land ownership is retained or land is purchased by a company, the current status of land tenure is critical. Prior to passing of the Constitution (1995), the Land Act (1998) and subsequent degazettement of certain protected areas in 2002, it was impossible for land users and ancestral owners of land in Karamoja to obtain titles for their land, as state agencies officially held the whole region either as protected or reserved lands. The only forms of registered tenures were restricted to the urban centres mostly in and around the towns of Moroto and Kotido previously gazetted as statutory leaseholds to their urban councils viii

There are four recognized land holding systems stipulated in the Constitution (1995): customary, freehold, mailo and leasehold tenures, Aside from customary land tenure, the other tenure systems entail exclusive private ownership in which the title holder of the land has full powers to develop and dispose of his land as private property . Main characteristics of customary tenure are: it is applicable to a specific area of land, specific description and to a specific class of persons who agree on rules to govern the use of the land; it provides for communal ownership and use of the land; parcels of the land can be recognised as divisions belonging to a person, family or traditional institution; and land under this tenure can be owned in perpetuity 69.

Although customary tenure seems compatible with pastoralists' land holding system, there seems a divergence with pastoralists understanding of land ownership. Section 3(1) of the Land Act on customary tenure specifies that ownership and use of the land is restricted to an area of land with a specific description, for a specific class of people. Further, section 4(1) states that owner-

ship of the customary land is to be evidenced by show of a certificate of customary ownership obtained by an individual, family or community. Many suggest that these provisions are unsuitable given the nomadic practices of pastoralists. Ownership of land has been suggested by some as a foreign concept to own grazing land 'for it is not worthwhile defending plots that they can only use for a short period'. Many factors, including invasion of a place by enemy raiders, depletion of forage, and presence or absence of other inhabitants in the area determine whether an area will be abandoned <sup>ix</sup>

The Land Act (1998) does provide for the formation of Communal Land Associations for the purposes of ownership and management of land under customary law or other law. A Communal Land Association may own land under a CCO, leasehold or a freehold. Members of the association can also hold some or all of the land within it, in an individual capacity while other parts are set aside for common use under a common Land Management Scheme. It should however be noted that, registration of communal interests or group rights in natural resources and other common pool resources is not in the names of the Communal Land Associations but rather in the management committees under the Common Land Management Scheme. Attempts were previously made to form and register communal land associations but without much success because of the absence of personnel in the district land office and the hefty survey costs, besides the would-be beneficiaries of these associations were also very ignorant of the intent of the associations.

In Kaabong district, efforts in 2010 to form a land association could not proceed because of the non-operational land office<sup>72</sup>, although the CAO and District Land Office have indicated that they are now active.

Many are reportedly now seeking Certificates of Customary Ownership. Only freehold and leasehold tenure is granted at central levels, while procedures to obtain a certificate of customary land ownership are, at first glance, seem to be comparatively simple. During the application process, the application form and fee for a certificate for customary ownership must be submitted to the committee or parish in which the land subject to the application is situated, where reference to a parish or committee implies a settled community<sup>73</sup>. A parish is a unit of local government authority at sub-county level in a district set up in rural settled areas while the committee is a local government office at county level. In essence these are permanent office structures set up to administer land issues but such structures may not be viably accessible to many Karamojong<sup>75</sup>.

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<sup>viii</sup> Rugadya, Kamusiime & Nsamba-Gayiiya (August 2010) TENURE IN MYSTERY: Status of Land under Wildlife, Forestry and Mining Concessions in Karamoja Region, Uganda,

<sup>ix</sup> JT McCabe Cattle bring us to our enemies: Turkana ecology, politics, and raiding in a disequilibrium system (2004)

Claims of any other person affected by the land, for example, through rights of way, must also be heard and the Land Committee can adjourn its proceedings if necessary to carry out more detailed investigations. On conclusion of its hearing, the Land Committee is required to write a report setting out its findings with respect to the claim and its own conclusions and recommendations' regarding the application and a report is submitted to the relevant district land board together with the original application. The Land Committee could recommend acceptance, rejection or conditional acceptance of this application. On receipt of this report the District Land Board can then decide whether or not to issue a Certificate of Customary Ownership (CCO). Once the board has made a decision it must communicate this to the Recorder. Where the board recommends that a certificate be issued the Recorder should do this, subject to any qualifications or restrictions required by the board .

Despite these provisions, limited awareness of procedures, low capacity for statutory land administration and lack of knowledge of the land law by both the district technical staff and local people were commonly noted during field assessments, challenges that are compounded by limited staffing and resources in the relevant departments (e.g. the District Land Office). A number of applications have nevertheless been vetted and approved but certificates have not been granted. Suspicions of ill motivations of central government seem to be high.

Reconciliation and harmonization of mining and land legislation as they apply within the context of Karamoja is urgently needed as is local capacity to engage in reform processes. In the interim, simple mechanisms may be acceptable to MEMD with respect to Location License and Mining Lease applications. Given the role of the CAO's office in signing off of applications, an intermediary step of cross referencing areas with pending or current Certificates of Communal Ownership or other title would be useful. Given that land owner approval is needed to vet a Mining Lease application, some of the onus can also be placed on companies (particularly during the EIA process) to identify land owners and by local residents and land users and support formalization of their tenure rights.

## 4.2

### Opportunities and Constraints to Sustainable Livelihoods Development

The concept of sustainability and the minerals sector seem to be terms in harsh contradiction, particularly given that minerals are non-renewable resources. Internationally, it has now become a widely held view that application of sustainable development concepts to the minerals sector relates to how temporary use of natural resources for the purposes of mining can be used as a platform for sustainable development. Much of the discourse is founded on the development of sustainable livelihoods in mining affected areas.

*“A livelihood comprises the capabilities, assets and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base.”*

- DFID, 2001:1

With escalating commodity prices (particularly for gold, copper and other metallic minerals) and increasing demand for industrial minerals (such as limestone used in cement), exploration interests and engagement in mining is undoubtedly going to increase in Karamoja. Explicit focus is needed on improvements to largely uncontrolled and ignored ASM activities. Main priorities relate to: (i) addressing critical health and development needs; (ii) providing security of tenure and formal recognition of ASM; and (iii) realizing the development potential of ASM.

## 4.2.1 Priority: Critical Health and Development Needs

Suitable ASM strategies are often designed within the context of the ASM Poverty Cycle (Fig. 11). Most artisanal miners easily enter the ASM sector due to lack of opportunities and poverty.

At its most basic levels, ASM does not require much skill or even tools to start mining and it often appears be a “logical” choice for many women and men. Due to lack of training, experience and money to invest of better methods, incomes are generally low or inconsistent (a less significant problem for industrial minerals). Variable incomes, lack of awareness of other methods and often a poor savings culture prevent miners from investing in better technologies and methods. Because of inadequate methods and poor practices, environmental damage can be serious and working conditions can be very dangerous.

These issues contribute to poor health and, when someone is sick or injured, they cannot be as productive and their incomes continue to be low. So the cycle of poverty continues. In many cases, miners are migratory, travelling from site to site which, if combined with cash incomes earned from mining and a high proportion of youth engaged in ASM, can contribute to high risks of HIV/AIDS and other STDs in ASM communities<sup>77</sup>. This ASM is even more pronounced in the face of inappropriate legislation, lack of government support and other factors contributing to further marginalization.

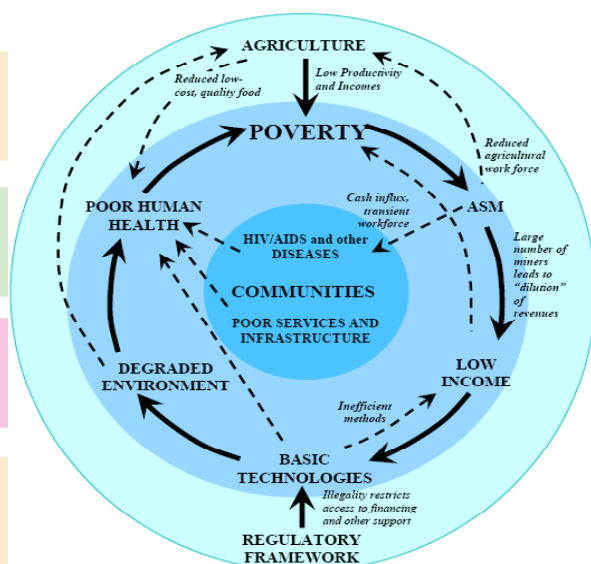


Figure 11: The ASM Poverty Cycle within an Agricultural Context (Source: Hinton, 2005)

The situation in Karamoja seems to echo this cycle. While incomes of Karamojong miners seem to be high compared to other livelihoods, most women and men miners are concerned with inconsistency of production, particularly in the case of gold. Most miners state incomes are still insufficient to invest in improved tools for mining or save for other purposes. “We pay school fees, buy the foods for the children... there is nothing left, the money isn’t enough”. While incomes seem to be high (particularly in comparison to other livelihoods), the lack of savings and sufficient food – together with the extremely laborious nature of work seems to create a dangerous cycle.

The work itself is extremely labourious and hazardous with occupational risks including chronic exposure to dust and heat (typically with lack of water on most sites) and accidents such as flying rock fragments and collapse of open pit walls or underground tunnels (particularly in gold mining areas) in some cases causing fatalities. “Wildcat pitting” (numerous small shafts and pits dispersed across a relatively large area) create additional hazards for livestock and humans, who can fall into pits, while in the rainy season, gold panning is likely to result in siltation of rivers.

Children and youth are found at many sites engaged in mining, particularly on weekends, school holidays and (for gold) in the rainy season. According to one women miner in Morulem Sub County in Abim District, “others are failing to go to school because of no uniforms, no fees” so they (kids) are here mining to raise their fees”. Even UPE schools can be expensive. For instance, in Morulem Sub County, miners reported that with costs of registration, uniforms and books, costs of one primary student is on the order of 50,000 UGX per term while secondary school is even more elusive, with tuition and boarding costs amounting to 280,000 UGX per term plus two bags of cement.

The officer recognized the conundrum “Should we allow that kid to go for mining?” Particularly if it is driven out of need for food. Indeed, in all ASM areas visited (main exceptions being the African Minerals Location License and the gold rush at Acherer in Nakapiripirit), hunger was cited as the first and foremost concern of miners and many indicated it is the main reason many begin mining in the first place.



Photo 15: Sachets of waragi are sold at many ASM sites.

Many miners suggest that lack of food and extreme physical demands of working conditions are main reasons that most drink alcohol throughout the day, a situation that seems pronounced in almost every mining area. A male miner from Acherer stated that “because of drinking, people don’t have self control” and diseases such as gonorrhoea, syphilis (and likely HIV/AIDS) were not surprisingly cited by a remarkable number of women and men miners as a critical issue, demanding government attention in that site. The linkages between alcohol abuse and poverty were most succinctly captured by the Site Manager of TCL.

Awareness of alcohol abuse in mining areas seems to be recognized at all levels. According to the CAO of Moroto District “Our people are dying (from over-drinking)... that’s what they get from the stones” while a Senior Central Government Official stated, with respect to the school constructed by TCL in Koseroi, “No one will go to school there, not when, at all hours everyone is drunk” suggesting further that there is no reason to have cows if you just “break the rock for 45 minutes and there... and (then) you drink.” In both Acherer and Koseroi, some miners have called for construction of a place of worship, such as a church, to reduce immorality and overdrinking as “The only place of worship (now) is drinking.”

Thus, while the incomes of miners appear to be relatively high (particularly given alternatives) and should provide a platform for development, the almost daily income coupled with hardship of work may be plunging many into deeper levels poverty. Priority issues identified include:

- Lack of awareness of safe mining methods and high risks of occupational accidents, injury, illness and even fatalities;
- Community health issues, including sanitation and hygiene and lack of clean water;
- Child labour and its linkages with school absenteeism (and, conversely, as a basis for school fees)
- Widespread alcohol abuse, degradation of values and increased risks of HIV/AIDs (particularly in “rUGX” sites such as Acherer).
- Lack of savings culture, partly related to informal organization of ASM activities, and limited opportunities to save (e.g. through SACCOs).
- Gender disparities and sexual and gender based violence (SGBV) which have been documented as issues throughout the region, and may be exacerbated through widespread alcohol abuse.

## **4.2.2 Priority: Security of Tenure for Artisanal Miners**

Since 1995, it has been recognized that ASM is unlikely to progress positively in the absence of legal title and recognition of artisanal miners . In reality, cases of miners’ activities being halted by exploration or mining companies, or even government, were not identified during field assessments (with the exception of Branch Energy at Lopedo that concluded several years ago), but lack of mining rights nevertheless leaves artisanal miners in a precarious position and at risk. Despite the existing of an ASM licensing provision, only a fraction of artisanal miners in Uganda hold or work on location Licenses. In Karamoja, this seems to be attributed to two key factors:

- (i) Lack of Availability of Suitable Areas: Almost all ASM areas for gold, limestone and other minerals are already covered by exploration Licenses (ELs). Although EL holders are required to relinquish 50% of their areas within the first 3 years of exploration, available areas are almost immediately taken up by another company. Also, most Location Licenses in Karamoja, as in the rest of the Country, are held by small, better capacitated companies.



(ii) Capacity to Obtain and Maintain Licenses: Most artisanal miners have little if any awareness of legislation and, even if aware and interested to obtain a License, procedures are daunting to most many. Most obvious constraints relate to costs, language (all documents are in English), illiteracy, licensing costs, transportation, accommodation and unforeseen, unofficial facilitation costs as well as the potentially intimidating experience of navigating the bureaucratic channels of Central Government <sup>79</sup>.

Due to gender inequalities, these constraints are likely more pronounced for women miners, who face additional challenges in terms of autonomy and confidence to travel to Kampala/Entebbe to facilitate the process, literacy and savings, among others. Given women's participation of up to 90% of miners at some sites, formalization may be a relatively low priority for men in mining.

Models provided by initiatives such as the Property Rights and Diamond Development Project (PRADD), which is currently being implemented in Central Africa Republic (CAR) and Liberia, may be useful within the Karamoja context and, in particular, in sites such as Acherer, where conflict risks may increase as resources in a given area are depleted. The bottom-up approach calls for close engagement with land users to develop tenure systems appropriate to a situation, working closely with community stakeholders to identify and demarcate plots and their owners (whether individuals, households, groups or clans), a system that lends itself well when ASM is undertaken in small groups (often family units) rather than through "site based" approaches. Linked with this approach is engagement with government to recognize such tenure and formalization of the mineral trading chain, ideally yielding both fairer prices to miners and benefits to government by way of royalties and fees. Mining legislation in many countries is developed in a "top down" manner despite the fact that it is widely recognized that inadequate consultation with women and men miners is a key factor that has led to failure of much ASM legislation. Furthermore, given that legislation that claims to be "gender neutral" has potential to actually exacerbate gender disparities, gender responsiveness is often overlooked. It is worth noting that sometimes a complete review and redrafting of the entire mining legislation might be the best approach. In Peru, it was shown that engaging miners in policy and legal reform processes can not only result in legislation that is appropriate for ASM but can create an opportunity to unify miners nationally through a shared goal<sup>81</sup>

Intense sensitization of miners on legislation and procedures, ideally through approaches that bridge gaps between miners, local government and DGSM would help the situation. However, a degree of organization to help miners overcome these shared barriers is nevertheless essential.

### 4.2.3 Priority: Fulfilling the Development Potential of ASM

Supporting improved performance of ASM in Karamoja calls for an integrated approach to address critical health and development issues, security of tenure in an appropriate form with respect to land rights of other users and building upon the opportunities associated with the economic potential of ASM. A number of opportunities exist.

#### 1. Introduction of Appropriate, Intermediate, Environmentally Responsible and Safe Technology & Methods.

Extensive work has been done over the past two decades to develop a range of appropriate options for ASM. With consideration that technical guidance must be integrated with training related to organization formation and strengthening, business skills and savings capacity development and should explicitly address the linkages between improved health, safety and environmental management, the following measures have a high likelihood of yielding positive outcomes:

- **Low-cost sluice boxes and dry separators** (ideally made by local fabricators) can significantly increase production of gold miners. Large proportions (50-90%) of gold processors are women and the gender dimension of positive and negative implications must be considered.
- **Training in gemstone prospecting and basic valuation**, initially in Moroto District and expanding to other districts in the Northeast. It should be emphasized that some officials are actively promoting establishment of expensive cutting and polishing centres in the northeast. Although this may be viable in future, the present quality of gemstones is insufficient for more advanced processing. Training of prospectors would help fill this gap. More strategic, regional market assessments may increase the feasibility of such initiatives and justify introduction of value addition to gemstones.
- **Dimension stone production**, especially from high magnesium green marble (which is unsuitable for cement production) in Katikikele Sub County, Moroto District. With a focus on skills development and youth alternatives, public-private sector partnerships or support from IFC's Community Development may yield a viable project, perhaps with African Minerals Ltd. who holds licenses over the green marble areas. Particularly given distance to regional markets (e.g. Gulu, Lira, Soroti, Tororo), a market study will be needed.
- **Manual or small mechanized jaw** crushers would substantially increase the productivity of limestone, stone aggregate and hard rock gold miners. Given that most crushing is undertaken by women, potential for reduced burden of work is significant while additional attention would be needed to assess potential gender-differentiated impacts and benefits.
- **Working models for technical assistance could later be expanded to other ASM sites in the region** and may involve incorporation of ASM certificates in existing technical training institutes (i.e. vocational training), such as those in Moroto.

Given that more than 18,000 women are directly engaged in ASM in North and North-eastern Uganda, special effort is required to ensure any efforts serve to reduce women's burden of work while increasing their incomes. These must explicitly be designed to ameliorate rather than exacerbate any gender inequities, particularly those related to autonomy, power, access and control of mineral resources and benefits yielded from them.

## **2. Support Upstream, Downstream and Lateral Economic Activities In many ASM**

areas, miners had cash on hand yet seemingly very few opportunities to (productively) spend it. Furthermore, at some sites, miners said they would gladly purchase food (rather than alcohol) if someone were there to cook it. In sites such as Acherer, in particular, numerous opportunities for micro-enterprise development exist. While this suggests both the need and opportunity for various goods, additional economic linkages between mineral production and direct inputs and outputs of ASM exist.

These include goods such as basic tools (e.g. pry bars and hammers would increase productivity as most miners currently rely on sticks and other rocks), and ideally in future phases (linked with technical assistance interventions) local fabrication of some equipment, such as simple sluice boxes and dry (waterless) separators. Personal protective equipment (PPE) should also be introduced, particularly given the severity of occupational safety risks.

Opportunities for value addition were also identified and include:

- Cutting and polish stone (like granite, marble and quartzite) for making exterior and interior tiles and countertops used in building (as discussed in the previous section).
- Making ventilation bricks, tiles, charcoal stoves and other ceramics as well as pottery and beads for jewellery from certain types of clay.
- Carving stone (like marble) into candle holders, sculptures, ashtrays and other products.
- Jewellery production from even low-quality gemstones. Certain low quality precious stones or semi-precious stones can be tumbled and crafted into jewellery or collectables. Viable higher quality gemstones may be viable in the future.

## **3. Support Fair Market Access**

Internationally, individuals and corporations have shown a growing commitment to environmental and social responsibility. With a desire to reduce environmental degradation and address poverty through “conscious consumerism”, more and more buyers are willing to spend above average prices for jewellery, electronics and other products derived through “ethical” supply chains. International market demand for certified sources of metallic and gemstone products is therefore escalating steadily. In response to this, a number of initiatives have been established to link artisanal and small scale miners to these emerging markets through certification of ASM sites and supply chains. Many individual consumer companies (e.g. jewelers) are also trying to make direct links with specific ASM sites for this purpose.

This has remarkable potential to provide an added incentive for formalization and adoption of safer, more environmentally friendly and economically productive methods and practices. Although different certification standards vary in terms of specific criteria and requirements for certification, most share basic principals related to: safer, environmentally-responsible mining methods and practices; Social requirements related to profit sharing, organization and elimination of harmful practices such as child labour; Transferring higher selling prices to end-consumers down the supply chain to producers and Simple Verification Procedures, such as documentation and auditing systems throughout the supply chain to ensure sourcing.

These include Fair **Trade and Fair Mined Gold** Certification through the Alliance for Responsible Mining (ARM): Using ARM's Standard Zero, and with assurance of a selling price about 10% higher than standard prices for mercury free gold, ASM sites - if certified - would need to make progress towards criteria related to: social practices (e.g. child labour, gender equality, health issues and organizational structure); economic development (e.g. taxation, royalties, licensing); environmental practices (e.g. use of chemicals, forest degradation). Fair Trade Gold Certification, supported by grassroots support mechanisms, has yielded considerable success in certified areas.

ARM Standard Zero is flexible and applicable to a range of producer groups (e.g. cooperatives, micro-enterprises, small enterprises or other types of organizations) and artisanal miners can work on a license held by someone else assuming there is a formal agreement. ARM is exploring opportunities to establish pilot projects for certification in Uganda, and potential sites in Karamoja (e.g. Morulem, Lopedo) have been suggested to them. Ideally, these efforts would be conducted in partnership with others in order to support best practice models.

## **5. Building upon and Coordinating with Existing Initiatives**

There are promising projects to try to mechanize agriculture by the Prime Minister's Office through the Karamoja Livelihood Improvement Project (KALIP). Given that farmers cannot keep oxen as they are "stolen immediately", the PMO has availed tractors which, in Kaabong, have opened 800 acres of land this year and 400 acres were identified last year and also farmers were selected to try to shift from poor quality animals to raising food for consumption. While some local leaders have expressed optimism about the project, they are concerned about the project not being in position to benefit many people since a few were selected to participate.

The Karamoja Private Sector Development Promotion Centre (KPSDPC) sees the promotion of alternative livelihoods as a means to encourage people not to engage in cattle rustling and to diversify economic activity in the region (OPM, 2008:50). They provide support for 'beekeeping, mushroom growing, stabilised block technology, gum-arabic and aloe development, post-harvest technology, metal fabrication, and mineral identification and processing' (ibid:50). IN addition and of note, the KIDDP prioritises the development of the energy and mineral sector in Karamoja as a means by which to uplift the region economically. It proposes connection to the national electricity grid and a series of 'Artisanal Small-Scale Mining' projects, to support alternative livelihoods (OPM, 2008:39).

A significant number of initiatives related to livelihoods, peace and security, environmental protection and community health, among other critical issues, are currently being implemented by a wide range of national and international organizations. Ensuring complementarity with these efforts (and promoting inclusion of ASM and other facets of the minerals sector in their endeavours) would further support a strengthened coordinated approach to regional development.

Opportunities also exist to coordinate with international programs targeting ASM. In October 2010, WWF held a conference in Entebbe in order to explore its possible role in mining and oil on the African continent. Among its outcomes, they have identified support to ASM as an area of thematic work. This has recently evolved into an initiative between WWF and Estelle Levin Limited (ELL) entitled the “Artisanal and Small Scale Mining and Sustainable Land Use Management in Sensitive and Protected Ecosystems Project”. Activities have been initiated in Gabon and Liberia with plans to expand work to East Africa (as well as other parts of the World). Given that much of Karamoja can easily be classified as a “sensitive ecosystem” and some work seems to be occurring in and near to reserves (e.g. Pian Upe, Namuru), WWF-ELL are exploring opportunities to partner for implementation.

## **4.3 Governance of the Minerals Sector in Karamoja**

Some stakeholders in government and communities perceive the sector as dominated by powerful actors who may engage in lucrative illegal mining on a wide scale because they know that in certain settings they can get away with it while other views suggest that the Karimojong and local migrants carrying out ASM commit illegal acts on a daily basis and are sometimes characterized as “criminals”. Many Karimojong expressed views of harsh skepticism that Local Government is unlikely to use mineral revenues properly while some in Local Government feel the blame should be placed on MEMD and DGSM. Concerns about lack of responsiveness of government were expressed at all levels, including by government officials themselves.

### **4.3.1 Priority: Formalizing Information Flows and Communication Channels**

Many issues seemed to be founded on lack of information and transparency. Ensuring full and mandatory disclosure of documents of public interest concerning the minerals sector will enable people to contribute directly to law enforcement by equipping them with a knowledge of which exploration and mining operations in their local area are legal, and who to talk to if they are not. This can improve legal compliance and give public credibility to the decisions and actions of the regulating authorities. The following information should therefore be in the public domain:

- all mining-related legislation and associated rules, regulations, decisions and decree;
- an inventory which shows mineral potential, mineral reserve estimates or proven reserves, whether the type of activity is exploration or mining, its location and a value;
- concession maps with boundaries and current status;

- concession and investment agreements, showing the social and environmental responsibilities of the mineral right holders, and including the explicit right of regulators and independent monitors such as Civil Society Organisations to inspect the tenement areas at any time;
- details of ownership of concession holders;
- the structure of Mines Departments and the contact details and roles of Mines Department personnel;
- a registry of business flow processes familiar to the minerals industry for all government officials;
- blacklists of companies/ASM groups that have been found to operate illegally, including an explicit ban on participating in subsequent concession allocation processes.

It is good practice to ensure that these documents should, to the extent possible, be made available on the Internet, while printed copies should also be made available via DGSM to Local Government and other stakeholders.

### **4.3.2 Priority: Supporting Empowerment of Communities through Governance and Targeted Intervention**

Information is only relevant if it is understood. This point to the importance of community empowerment and improved governance of mineral development of the region. A number of related recommendations have been woven throughout this report and structured within the framework put forth in Section 4.4 and framed upon the following principles:

- Strengthening linkages (inclusive of communication and reporting mechanisms) between Local Government, DGSM, Ministry of Lands and other authorities (e.g. NFA), private sector players (inclusive of artisanal miners) and mining affected communities;
- Reconciling mining, land and other legislation, bringing clarity to institutional roles and Ultimately formalizing such roles in support of responsible minerals sector development;
- Instituting mechanisms that improve collection and use of revenues from the minerals sector; and
- Improving stakeholder engagement and empowerment of communities via multiple efforts (inclusive of those related to legal reforms, formalized communication mechanisms of companies, etc.).



Specific mechanisms are provided below.

## 4.4 Recommendations

A series of needs, issues and opportunities have been identified and call for action. These are put forth in Table 7.

**Table 7: Recommendations Framework – Karamoja’s Mineral Endowment as a Platform for Development**

Goal/Objective	Critical Need	Recommended Action
<b>GOAL #1: SUPPORT GOOD GOVERNANCE, TRANSPARENCY, ACCOUNTABILITY &amp; EQUITABLE BENEFIT SHARING</b>		
1. Improve capacity of local government with respect to mineral resource management.	<ul style="list-style-type: none"> <li>Lack of awareness of mineral potential, legislation &amp; potential support/coordination roles.</li> <li>Lack of communication between DGSM, MoL and Local Government.</li> </ul>	<ol style="list-style-type: none"> <li>Sensitization Workshops: District &amp; Sub County Govts <i>with</i> local women/men miners.</li> <li>Formalized Support Framework (district and S/C focal points, community focal points, linked with DGSM focal points)</li> </ol>
2. Improve stakeholder engagement in legal and institutional reforms (commencing 2011)	<ul style="list-style-type: none"> <li>Risk of inadequate stakeholder input in reforms.</li> <li>Stakeholder understanding (especially at community level).</li> </ul>	<ol style="list-style-type: none"> <li>Facilitate stakeholder engagement (formalized process via focal points, “SDC Model”, link with organizational strengthening).</li> <li>Stakeholder Position Paper: Legal Reforms</li> </ol>
3. Improve collection and use of revenues from minerals sector	<ul style="list-style-type: none"> <li>Lack of transparency in use of mineral resource revenues (and revenue potential)</li> <li>Substantial losses in royalties.</li> <li>Gap: mechanisms for information sharing (e.g. EITI)</li> </ul>	<ol style="list-style-type: none"> <li>Training: Integrating Mining in Local Development Plans</li> <li>Guidelines for Mineral Resource Management</li> </ol>
<b>GOAL #2: CONTRIBUTE TO FORMALIZATION AND IMPROVEMENTS TO ASM &amp; THE MINERAL TRADE</b>		
4. Build functioning effective local and regional ASM associations.	<ul style="list-style-type: none"> <li>Most ASM associations inactive</li> <li>Need a vehicle for support, engagement, participation.</li> </ul>	<ol style="list-style-type: none"> <li>Organizational Strengthening Workshops: 10-15 communities. <ul style="list-style-type: none"> <li>Organization formation, leadership and advocacy, management and administration,</li> </ul> </li> <li>Regional ASM Workshops (increase voice, identify shared needs, build capacity to engage in other processes)</li> </ol>
5. Demonstrate Best Practice at Selected Sites (with a view towards expanding the model)  Potential Target Sites: - Limestone (in partnership with African Minerals Ltd.) - Gold (in partnership with IMI Metals)	<ul style="list-style-type: none"> <li>Low awareness of technology, safe methods, child labour, limited voice of women, alcoholism.</li> <li>Poor savings culture, potential for increased incomes un-met.</li> <li>Lack of positive examples of small company: ASM and need to improve such links as a model for others.,</li> </ul>	<ol style="list-style-type: none"> <li>Introduce best practice, appropriate, intermediate technology: <ul style="list-style-type: none"> <li>Sluice boxes, dry separators, underground supports, hoisting &amp; hauling, water &amp; waste management (gold)</li> <li>Manual crushers, hauling (limestone/marble)</li> <li>Dimension stone cutting (green marble)</li> </ul> </li> <li>Conduct Intensive Training: Technology, geology (exploration) occupational safety, environmental management, business skills, and organizational effectiveness.</li> <li>Facilitate Fair Trade Gold Certification.</li> <li>Miners-as-Trainers: facilitate training of miners from other sites.</li> <li>Introduce integrated initiatives such as those proposed by WWF-ELL, which recognize links between environmental integrity, poverty, rights and their outcomes.</li> </ol>
6. Address critical development needs and catalyze development opportunities through targeted	<ul style="list-style-type: none"> <li>Child labour is pervasive, potential to impede long term development.</li> </ul>	<ol style="list-style-type: none"> <li>Develop and implement an initiative (with Save the Children) to mitigate child labour (sensitization, empowerment of women,</li> </ol>

Goal/Objective	Critical Need	Recommended Action
interventions in ASM Communities		engagement of local leaders and schools).
	<ul style="list-style-type: none"> <li>▪ Inequitable distribution of benefits and impacts between men and women</li> </ul>	15. Conduct gender training in ASM communities. Ensure gender adequately mainstreamed in all other efforts.
	<ul style="list-style-type: none"> <li>▪ Widespread alcoholism is hindering realization of development benefits</li> </ul>	16. Sensitization campaign (integrated with organizational strengthening). 17. Youth leadership program in ASM areas.
	<ul style="list-style-type: none"> <li>▪ Potential of gemstones unrealized</li> </ul>	18. Training (Moroto, Abim, Nakapiripirit): Gemstone identification and valuation, identification of quality sources. 19. <i>Longer term:</i> market potential evaluations, gemstone cutting and processing
<b>GOAL #3: INCREASE ROLE AND EFFICACY OF COMPANIES IN DEVELOPMENT</b>		
7. Improve communication between companies, local government and communities	<ul style="list-style-type: none"> <li>▪ Lack of formal communication mechanisms.</li> <li>▪ Opportunities for geodata sharing (identification of ASM sites) not realized.</li> <li>▪ Misperceptions of exploration and mining affecting everyone, increasing conflict risk</li> </ul>	20. Advocacy: Legal reforms concerning provision of information on production (quarterly), mineral resources information. 21. Introduce appropriate EITI mechanisms. 22. Geo-data sharing model (with DGSM) for artisanal miners.
8. Improve relationships between artisanal miners and companies	<ul style="list-style-type: none"> <li>▪ No recognition of ASM and little capacity to formalize given coverage of exploration licenses.</li> <li>▪ Responsiveness to miners needs (health, welfare)</li> </ul>	23. Formalize agreements (with DGSM) between exploration companies and artisanal miners (MOUs, relinquishment of key areas). 24. Provide support to companies and miners to formalize agreements between them (registration, employee recognition, company OSH policies) – Pilot at African Minerals and Tororo Cement Ltd.
<b>GOAL #4: DEVELOP A 3-5 YEAR STRATEGIC PLAN FOR CREATING A PLATFORM FOR DEVELOPMENT FROM KARAMOJA'S MINERAL ENDOWMENT</b>		
9. Develop an inter-sectoral, multi-partner strategic plan for suitable intervention	<ul style="list-style-type: none"> <li>▪ Risks of conflict, poverty likely to be perpetuated in the absence of coordinated action for sustained progress</li> </ul>	25. Support development of a strategic framework, inclusive of a comprehensive work plan, budgeted action plan and targeted, time bound actions by multiple stakeholders.

# 5 CONCLUSIONS

## 5 CONCLUSIONS

The Karamoja Region hosts occurrences of over 50 different economic minerals, including gold, silver, copper, iron, limestone and marble making it one of the most prospective areas of the country. This has attracted 21 foreign and Ugandan owned companies who hold licenses for mineral exploration and exploitation covering 13% of Karamoja's area as well as up to 18,000 men, women and children into artisanal and small scale mining (ASM), who have been drawn into mining primarily to ensure day to day survival. In Uganda, as in neighboring East African countries, the minerals sector is explicitly recognized within national poverty reduction strategies based on the contention that mining industry growth can advance development at a community, regional and national levels.

Indeed, in Karamoja Region, formal and, particularly, informal economic contributions of the minerals sector alludes to considerable development potential. Formally, this is largely through a 17% royalty share to local government and 3% to landowners. In 2010, Moroto District received over 86.7 million UGX in their royalty share while 15.3 million UGX has yet to be disbursed to as of yet unclear landowners. Informally, extralegal ASM is estimated to accounts for up to 5.8 billion in un-collected royalties and 27.4 billion UGX in miners incomes' contributions that are spent in the local economy. Given that many extralegal miners in other parts of Uganda often invest earnings into agricultural development and small enterprises, thereby increasing their resilience and capacity to weather shocks (e.g. climate change, commodity price drops) and improve their overall living conditions, improvements to ASM suggest an opportunity to help bring the region out of poverty.

However, within the unique cultural and geoclimatic environment of Karamoja region, transforming the minerals sector as a platform for development is far from simple. Critical issues identified relate to: the need for land tenure and mining rights, particularly for those most marginalized in Karamoja (including artisanal miners), measures to ensure protection of environmental integrity, inclusive of engagement of communities in processes to monitor and assess such impacts; ensuring secured access of traditional land users; addressing critical health and development needs of artisanal miners and promoting much needed improvements in performance of the subsector; empowering community stakeholders to drive their own development and supporting good governance.

A number of recommendations have been put forward accordingly framed upon three primary goals:

1. Good governance, transparency, accountability & equitable benefit sharing;
2. Formalization and improvements to ASM and the mineral trade; and
3. Increase the role and efficacy of mining and exploration companies in supporting local development

Core principles woven within the recommended actions relate to increased coordination, communication and collaboration between stakeholders at all levels; empowerment of communities vis-à-vis genuine engagement in all activities and through targeted intervention; reconciling mining, land and other legislation; bringing clarity to institutional roles of local and central government and supporting transparency and accountability by all.

Escalation of exploration and mining activities in Karamoja is expected in the coming years. Responsiveness to these issues will partly determine whether Karamoja's mineral endowments can be used as a platform for stability, wealth creation and development while inaction poses the risk of further undermining environmental integrity, human wellbeing, tenuous peace and security and the invaluable cultural assets that are unique to the region.

# ANNEX ONE: Distribution of Mineral Licenses

## Mineral Concession Holders in Moroto District as of February 2011

TYPE	License No.	LICENSE HOLDER	POSTAL ADDRESS	CONTACT PERSON TEL./EMAIL	OPENING DATE	EXPIRY DATE	SHEET NUMBER	ADMINISTRATIVE DISTRICT	COMMODITY / MINERAL	AREA/ Km <sup>2</sup>	Mineral Rent/ Year (UGX '000')
EL	0290	KUGX Management Service Limited	P.O. Box 37398 Kampala	Paul Anthony Douglas & Carl Kemp	03/11/08	03/10/11	35/3 & 35/4	Moroto	Uranium & Graphite	500.00	5,000
EL	0319	Moroto Cement Industries (U) Limited	P.O. Box 7257 Kampala	Moroto Cement Industries (U) Limited	05/06/08	05/05/11	27/1	Moroto	Marble, Limestone	130.00	1,300
EL	0356	Tiger Cement Limited	P.O. Box 40008 Kampala	Henry Mukisa 0752212521	07/18/08	07/17/11	27/3 & 4	Moroto	Limestone & Marble	437.00	4,370
EL	0371	Omanman Gem Prospectors Cooperative Society Limited	P.O. Box 44 Moroto	Lopoton Sagal Peter	08/27/08	08/28/11	35/4	Moroto	Precious stones and Base Metals	48.00	480
EL	0377	Supercorn Interantional Limited	P.O. Box 12155 Kampala	Mawada Michael	10/06/08	10/05/11	36/2	Moroto	Pozzolana, Limestone, marble,	57.00	570
EL	0400	Cnn Henaaz zhonghua Geology and Mines (U) Limited	P.O. Box 807 Entebbe	Zhang Daogang	11/26/08	11/25/11	35/2 & 4	Moroto	Iron	36.00	360
EL	0421	Tororo Cement Limited	P.O.Box 74 Tororo	B. M. Gagani +26745442481	01/29/09	01/28/12	36/2	Moroto	Limestone	122.50	1,230
EL	0425	AVR Engineering & Infrastructure Limited	P.O. Box 11179 Kampala	Pravin Ghelani 256 774706033	02/20/09	02/19/12	36/1	Moroto	Iron & Basemetals	20.00	200
EL	0426	AVR Engineering & Infrastructure Limited	P.O. Box 11179 Kampala	Pravin Ghelani 256 774706033	02/20/09	02/19/12	27/3	Moroto	Gold & Basemetals	4.00	40
EL	0446	NPK Resources Limited	P.O.Box 71457 Kampala	Nathan Wolukawo	05/13/09	05/12/12	27/3	Moroto	Gold, Copper Cobalt, Nickel &	90.00	900
EL	0589	AVR Engineering & Infrastructure Limited	P.O. Box 11179 Kampala	Pravin Ghelani 256 774706033	4/6/10	04/05/13	27/3	Moroto	Limestone, Gold & Basemetals	20.00	200
EL	0590	AVR Engineering & Infrastructure Limited	P.O. Box 11179 Kampala	Pravin Ghelani 256 774706033	4/6/10	04/05/13	27/3	Moroto	Limestone, Talc & Basemetals	126.00	1,260
EL	0638	Baracat Minerals (u) Limited.	P.O. Box 83, Moroto	Sraji Mwenyi Bukanya 256 77266306	6/17/10	06/16/13	27/3	Moroto	Limestone	3.70	40
EL	0671	Savannah Mines Limited	P.O. Box 552, Kampala	Molting Samson	7/30/10	07/29/13	27/3	Moroto	Gold, Marble and Limestone	15.00	150
EL	0677	Aurua Green Metals Limited.	P.O. Box 23525 Kampala	Azim Nahoo 256 712955522	8/10/10	08/09/13	27/3	Moroto	Lithium, Tin & Cobalt	13.50	140
EL	0703	Megira Minerals & Mines Limited	P.O. Box 30814 Kampala	Pravin Ghelani 256 774706033	11/18/10	11/17/13	27/3	Moroto	Gold, Lead, Copper and Limestone	77.00	770
ML	0593	Tororo Cement Limited	P.O.Box 74 Tororo	B. M. Gagani +26745442481	04/16/10	04/15/31	36/2	Moroto	Limestone	49.77	49,767,700
SML	4622	Tororo Cement Limited	P.O. Box 74 Tororo	B. M. Gagani +26745442481	12/20/02	12/19/23	36/2	Moroto	Limestone	20.01	20,010,000

THE MINING AND MINERALS SECTOR IN KARAMOJA REGION:



## Mineral Concession Holders in Kotido District as of February 2011

TYPE	NUMBER	LICENSE HOLDER	POSTAL ADDRESS	CONTACT PERSON TEL./EMAIL	OPENING DATE	EXPIRY DATE	SHEET NUMBER	ADMINISTRATIVE DISTRICT	COMMODITY / MINERAL	AREA/ Km <sup>2</sup>	MINERAL RENT PER YEAR (UGX '000')
EL	0355	Tiger Cement Limited	P.O. Box 4008 Kampala	Henry Mukisa 0752212520	07/18/08	07/17/11	282 & 184	Kotido	Limestone & Marble	480.00	4,800

## Mineral Concession Holders in Nakapiripirit District as of February

TYPE	NUMBER	LICENSE HOLDER	POSTAL ADDRESS	CONTACT PERSON TEL./EMAIL	OPENING DATE	EXPIRY DATE	SHEET NUMBER	ADMINISTRATIVE DISTRICT	COMMODITY / MINERAL	AREA/ Km <sup>2</sup>	MINERAL RENT PER YEAR (UGX '000')
EL	0385	H K Mining Limited	P. O. Box 286 Jinja		11/07/08	11/08/11	361 & 4	Nakapiripirit	Marble & Gypsum	266.30	2,670
EL	0402	Chn Henaaz zhonghua Geology and Mines (U) Limited	P.O. Box 807 Enebbe	Zhang Daqing	1126/08	11/25/11	45/3	Nakapiripirit	Iron	36.00	360
EL	0403	Chn Henaaz zhonghua Geology and Mines (U) Limited	P.O. Box 807 Enebbe	Zhang Daqing	1126/08	11/25/11	36/3	Nakapiripirit	Wolfram	36.00	360
EL	0541	XL Mining Limited	P.O.Box 948 Jinja	Etuunye Umar 256 782 172666	1125/09	11/24/12	45/2	Nakapiripirit	Marble & Limestone	21.30	220

## Mineral Concession Holders in Abim District as of February 2011

TYPE	NUMBER	LICENSE HOLDER	POSTAL ADDRESS	CONTACT PERSON TEL./EMAIL	OPENING DATE	EXPIRY DATE	SHEET NUMBER	ADMINISTRATIVE DISTRICT	COMMODITY / MINERAL	AREA/ Km <sup>2</sup>	MINERAL RENT PER YEAR (UGX '000')
EL	0518	Saba Saba Mining Limited	P. O. Box 33563 Kampala	Mutebi David 0702771717	1008/09	10/07/12	25/3	Abim	Gold & Basemetals	117.00	1,170
EL	0519	Saba Saba Mining Limited	P.O. Box 33563 Kampala	Mutebi David 0702771717	1008/09	10/07/12	25/1 & 2	Abim	Gold & Basemetals	44.00	440
EL	0520	Mota Limited	P.O.Box 34936 Kampala	Mutebi David 0702771717	1008/09	10/07/12	25/1 & 3	Abim	Gold & Basemetals	152.50	1,530
EL	0521	Zamani Mining Limited	P.O. Box 33563 Kampala	Mutebi David 0702771717	1008/09	10/07/12	25/1 & 2	Abim	Gold & Basemetals	117.00	1,170
EL	0578	Blue Earth Refractories Uganda	P O Box 524 Kaseese	Eng Tabaro	3/5/10	03/04/13	25/3 & 4	Abim	Gold & Basemetals	50.00	500
EL	0669	Sunder Wallia	P.O. Box 128, Mbarata	Sunder Wallia Kaka 0772332682	7/30/10	07/29/13	25/4	Abim	Gold	164.00	1,640

## Mineral Concession Holders in Kaabong District as of February 2011

TYPE	NUMBER	LICENSE HOLDER	POSTAL ADDRESS	CONTACT PERSON	TELEMAIL	OPENING DATE	EXPIRY DATE	SHEET NUMBER	ADMINISTRATIVE DISTRICT	COMMODITY / MINERAL	AREA/ Km <sup>2</sup>	MINERAL RENT PER YEAR (UGX '000')
												YEAR
EL	0565	Dohar Industries Limited	P.O.Box 11179 Kampala	Pravin Gheani	256 774706033	01/29/10	01/28/13	9/4 & 17/2	Kaabong	Gold & Basemetals	271.00	2,710
EL	0566	Dohar Industries Limited	P.O.Box 11179 Kampala	Pravin Gheani	256 774706033	01/29/10	01/28/13	9/4	Kaabong	Gold & Basemetals	186.50	1,870

## ANNEX TWO: Exploration Activities and Royalties by District

**Table A2:1: Summary of Exploration Activities and Royalties by District**

(Source: DGSM, 2010 Statistics)

District	No. of Exploration Licenses	Area	Type	No. of Location Licenses	Area	No. of Mining Leases	Area	Type	Royalties Share to District (UGX, 2010)	Royalties Share to Landowner (UGX, 2010)
Abim	2	214	Gold, base metals	0	0	0	0			
Kaabong	6	578.2	Gold, chromite, PGM, marble	0	0	0	0			
Moroto	18	1510.7	Gold, base metals, limestone, marble, uranium, talc, lithium, tin, cobalt, precious stones	4	0.6	2	69.77	Limestone	86,784,465	15,314,906
Kotido	2	980	Gold, base metals, PGM, limestone, marble	0	0	0	0			
Nakapiripirit	5	428.6	Limestone, marble, iron, wolfram	2	0.32	0	0			
	<b>31</b>	<b>3,711.1km<sup>2</sup></b>		<b>6</b>	<b>0.92</b>	<b>2</b>	<b>69.77 km<sup>2</sup></b>		<b>86,784,465</b>	<b>15,314,906</b>

A number of mechanisms to improve royalty sharing and use of these royalties have recently put forward by the Ministry of Energy and Mineral Development (MEMD) and are detailed further in Section 4.3: Fiscal Provisions.

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ISBN 9789970405008

