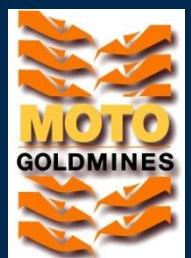




ISE -CONSULT

Moto Goldmines
Moto Gold Project,
Democratic Republic of Congo
Community and Social Development
Optimisation Report

January 2009



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Executive Summary

1. Introduction

The Moto Gold Project ("the Project") is located in the gold fields in north-eastern Democratic Republic of Congo (DRC). Following the departure of the Belgians in the 1960s, the State owned mining company, Offices des Mines d'Or de Kilo-Moto (OKIMO), undertook limited mining activity in the area and between 1996 and 1998 Barrick and Anglogold completed limited exploration.

More recently Moto Goldmines Limited (MGL), a TSX and UK listed gold exploration and development company acquired its interests in the Moto Gold Project in April 2003 and commenced exploration activities in February 2004. Having identified potentially high grade reserves, Moto now wishes to progress the Project beyond exploration to exploitation and production.

Borgakim Mining (a subsidiary of MGL) has entered into a joint venture with the Congolese state owned mining company Offices des Mines d'Or de Kilo-Moto (OKIMO) with Borgakim as the operator holding a 70% interest in the Project and OKIMO holding the remaining 30%. The land on which the Moto Gold Project is located was traditionally owned by OKIMO which controls 83,000km² of mining concession land in Haut-Uélé and Ituri districts divided into three concession areas (38, 39 and 40) and an exclusive research zone. The Moto Gold Project is located in concession 38. Upon the formation of the joint venture, the Exploitation Permits held by OKIMO for the Moto Gold Project were sub-leased to Borgakim.

This Optimisation Study builds on a feasibility study undertaken in 2008, and this social impact assessment delivers a high level assessment of potential Project related impacts on the communities that live and reside in and around the Projected Project area, and recommendations to maximize potential positive social benefits and prevent or mitigate any detrimental social impacts that the Project may have.

1.1. Project Overview

The Project is situated in the north east of the Democratic Republic of Congo, in the Haut-Uélé District, Orientale Province, some 560km north east of the city of Kisangani and 150km west of the Ugandan border town of Arua. The nearest towns to the proposed mine site are Doko and Durba, in the Kibali Sector of the Watsa Territory.

An Exclusion Zone of approximately 3,150ha is proposed for the Project. Most of this land will be turned over to the Project for the mine and associated infrastructure, including:

- Upgrading and diversion of several roads in the district including refurbishment and upgrading of the access road from Arua.
- The ore processing plant area including associated workshops, stores, laboratory, administration facilities, mining service facilities and amenities.
- The Tailings Storage Facility (TSF).
- The open-cut pits, underground mine, waste dumps and haul roads.
- Relocation of villages.

- Development of a 20MW hydro power station on the Nzoro River.
- Refurbishment of an airstrip.
- Establishment of a camp for management and senior staff personnel recruited from outside the local area.

The designated land is currently utilised primarily for residential sites, agricultural activities and ASM mining activities. As a consequence there will be a loss of land and associated resources for those communities currently residing on the land and/or making use of the resources found on it. The expected mine life is 14 years with significant potential to increase with conversion of high probability Inferred Mineral Resources.

For the purposes of this study, the area covered in the socio-economic baseline covers:

- 23 settlements (villages, towns and OKIMO camps) in the Kibali Sector in and around the Projected mine Project footprint area;
- 2 settlements in the Mangbutu Sector that are potential resettlement host community sites; and
- The administrative centre of the Watsa Territory, Watsa City.

The Project plans to employ 700 people on average during construction and 500 people during operation, in addition to the 200 local staff currently working for Borgakim in administrative and exploration jobs. Of the total number of jobs available, it is expected that during construction 10% of people can be recruited in the DRC as many contractors will come from outside the region. It is highly likely that the 10% will come from the immediate area. During operation it is predicted that 70% of the workers will be recruited from the DRC, and of this it is likely that 10% will be recruited from the Orientale Province.

Figure 1: Maps of Project Location

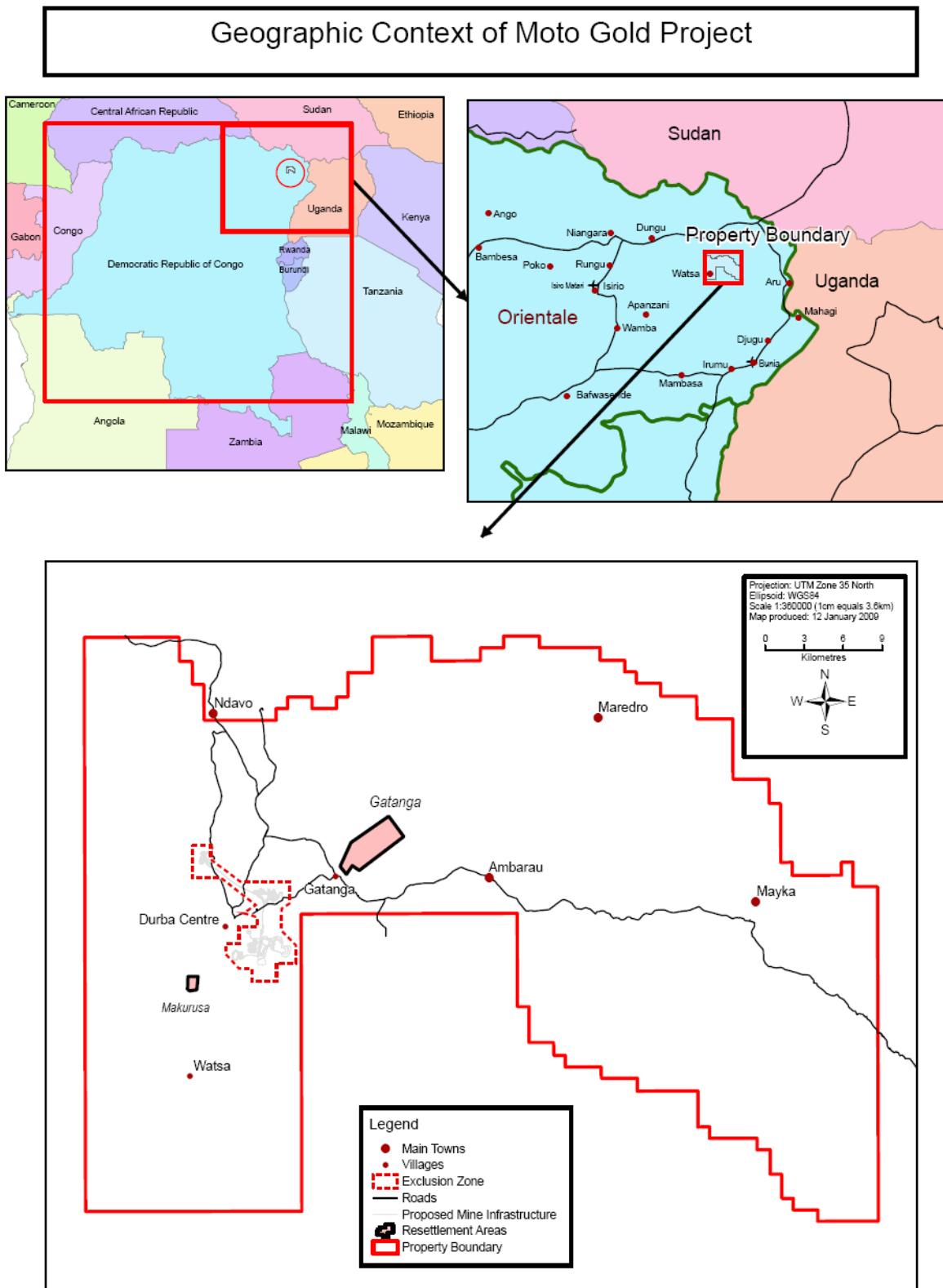


Figure 2: Maps of Project Affected Communities

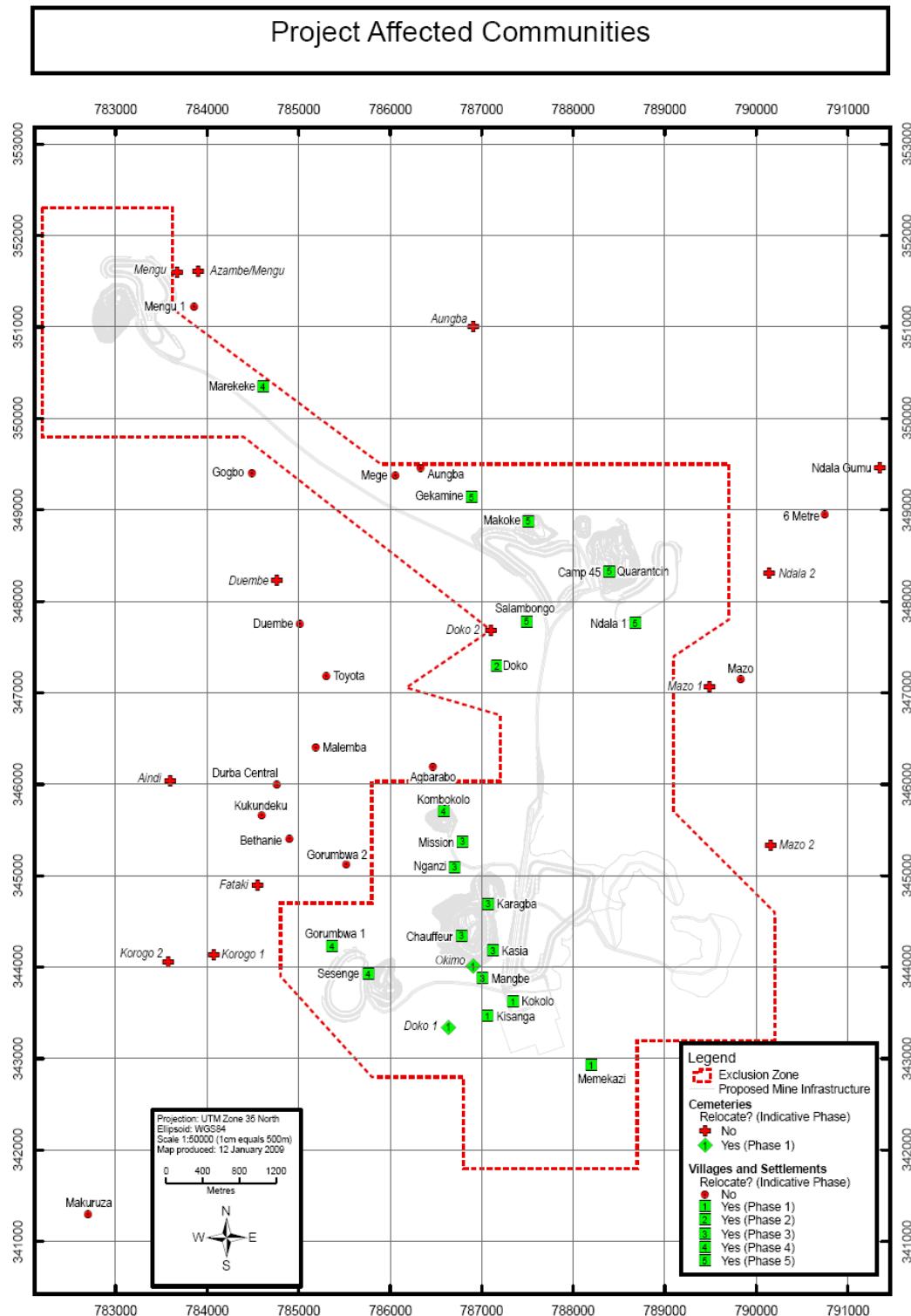
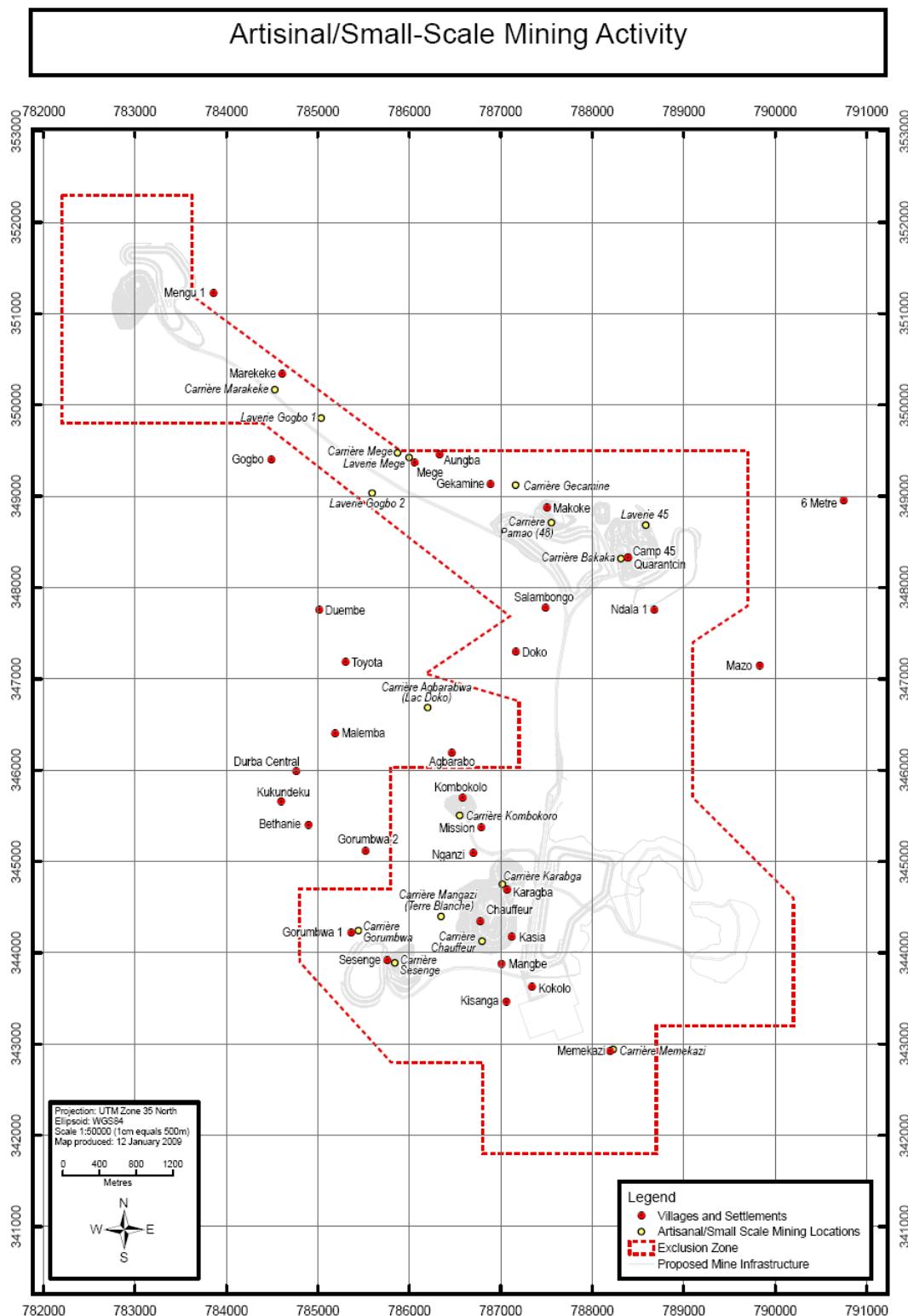


Figure 3: Maps of Artisanal and Small Scale Mining Activity



1.2. OKIMO

Moto's joint venture partner OKIMO has had a presence in the district of Haut-Uélé since colonial times. Prior to independence from Belgium the company was known as Société des Mines d'Or de Kilo-Moto, and established in 1926. It was nationalised and renamed in 1966. However, from then onwards, mining gradually declined due to a lack of investment and very limited exploration, whilst unofficial production from clandestine artisanal activity (artisanal mining was classed as illegal under national law) increased throughout the Orientale Province. Mining activity was gradually taken over by artisanal workers (*orpailleur*) and small-scale alluvial operations, with OKIMO nonetheless still officially owner of the concession area.

This history of OKIMO being entrenched in the socio-economic fabric of the area combined with a gradual breakdown in organised and structured mining brings with it a number of challenges for Moto.

2. Approach and Methodology

This social impact assessment builds on a number of other studies undertaken to assess the social and environmental risks and opportunities associated with the Project. This study provides a high level assessment of key social baseline issues in the Project area, and the potential social impacts, risks and opportunities. However, more in depth qualitative and quantitative baseline research is planned for 2009 in preparation for detailed works planning and construction.

This study is based on review and analysis of existing reports, publicly available information and Primary qualitative social research carried out during four weeks of fieldwork in October 2008.

3. Legal and Regulatory Framework

MGL intends to conduct its activities in DRC according to international best practice while complying with national legal requirements of the DRC. The International Finance Corporation (IFC), as a major lending agency, provides internationally accepted policies and guidelines for impact assessment and resettlement. While Moto may not seek funding from the IFC, its policies, guidelines and standards will be adopted.

The mining industry in DRC is governed by the Mining Code and its accompanying Law No. 007/2002 of 11th July 2002 relating to the Mining Code, and the subsequent Mining Regulations enacted by Decree No. 038/2003 of 26th March 2003.

During the post war period of 1999 to 2006 and while the transition government was in power, many mining and other natural resource deals were signed, which were subsequently found to have been based on corrupt practices. The transition government and the international community were keen to pass new legislation quickly to ensure that the country's natural resources could be properly managed. Many of the codes and laws were considered inadequate which has led to additional laws being created. In light of the new codes, the status of some of the agreements signed during the immediate post war period is still disputed. The Mining Code and the Forestry Code both suffer from these inconsistencies, and are subject to several additional laws.

Resettlement of residents within the Project's Exclusion Zone has been identified as a key impact. The main provisions of the 2002 Mining Code and 2003 Regulations make it clear that consultation

over potential loss of assets and land with affected parties is required. Compensation should be at their actual replacement value plus 50% or the assets returned to their original condition. A resettlement action plan (RAP) is not required under DRC law, however MGL desires to comply with international best practice in drawing up a RAP for the Project.

4. Local Socio-Economic Context

The Project is situated in a rural setting that has a history of mining activities and where artisanal mining is currently the most significant economic activity for the local population.

Settlements in the area include the towns of Doko and Durba, and a number of rural villages and camps housing OKIMO staff (active and retired) and their families. Altogether, these settlements support a relatively large population of roughly 30,000 people, it is suggested through interviews that a significant portion of which are migrant artisanal miners from other parts of the DRC. Apart from mining, other main forms of economic livelihood in the Project area are subsistence agriculture and small-scale trade. Table 1 provides a summary of the key characteristics of the local area.

Table 1 Summary of Key Local Socio-Economic Characteristics

Summary of Key Socio-Economic Characteristics

Key Livelihoods

- Limited employment opportunities
- Local population dependent on subsistence agriculture and/or ASM
- Large percentage of the population dependent on the ASM

Basic Public Services

- Limited access to education
- Limited access to health services
- Widespread health problems (malaria, HIV/AIDS, gastro-intestinal problems, etc)
- Poor or nonexistent infrastructure (water, electricity, housing, sanitation, etc)
- Deteriorated routes and lack of access to transport leading to isolation
- Corruption and a lack of capacity in local administrative bodies (police, local government)

Community Dynamics

- Tensions around land, particularly between the customary owners and the legal owner OKIMO
- High levels of social pathologies (alcoholism, drug use, prostitution)
- Tensions between youths and elders related to ASM
- High numbers of young people
- OKIMO legacy issues around non-payment of wages, death duties, pensions and accident compensations

Post Conflict Environment

- Potential legacy issues from the various wars and conflicts that have affected the area (traumatised local population, gender violence, high levels of HIV/AIDS)

4.1. Key Livelihoods

Artisanal mining is one of the key sources of revenue and livelihood in the Project area. The decline in OKIMO's production in the 1970s and the resulting drop in employment opportunities allied to an increase in migrant labour within the OKIMO concession has led to a dramatic rise in artisanal mining activity. It is now thought to be practised by 56% of the active male population.

The local population is also dependent on subsistence agriculture with all surplus sold in small local markets. The average daily revenue per household is \$1 although many households live on \$16/month. Subsistence farming in the Project area is inhibited through problems of parasites and livestock epidemics.

Employment in the Project area is extremely limited. The main formal sources in the area are OKIMO, local government (teachers, doctors etc), market trading and mining. More informal sources of employment include prostitution and gold trading.

4.2. Basic Services

There is limited access to quality education in the Project area.

There is also limited access to health care in the Project area and as a result significant health challenges including widespread HIV/AIDS, Malaria, and respiratory problems. These health challenges are exacerbated by poor and in some cases nonexistent basic services particularly water, electricity, housing and sanitation.

Road and transport infrastructure out of the area is extremely poor and therefore many communities remain extremely isolated.

A lack of capacity at the local administrative level (particularly within state institutions such as the police, the judiciary and local government) has led to high levels of systemic corruption.

4.3. Community Dynamics

Land disputes have historically and still cause significant tension with communities local to the Project. Legally the land and the subsoil rights belong to the state and therefore OKIMO as a state owned company. Additional sources of tension are the high levels of social pathologies closely related to high density settlements around artisanal mining including alcoholism, drug use and prostitution.

There are problems resulting from the ongoing conflict which has historically and continues to affect the Project area directly. These problems may include high levels of HIV/AIDS, gender violence, and a traumatised local population.

Potentially high risk legacy issues are undermining the relationship between OKIMO and the local community relating to the payment of outstanding pensions, salaries, death benefits, to repair housing and compensation for the death of miners.

4.4. Administration

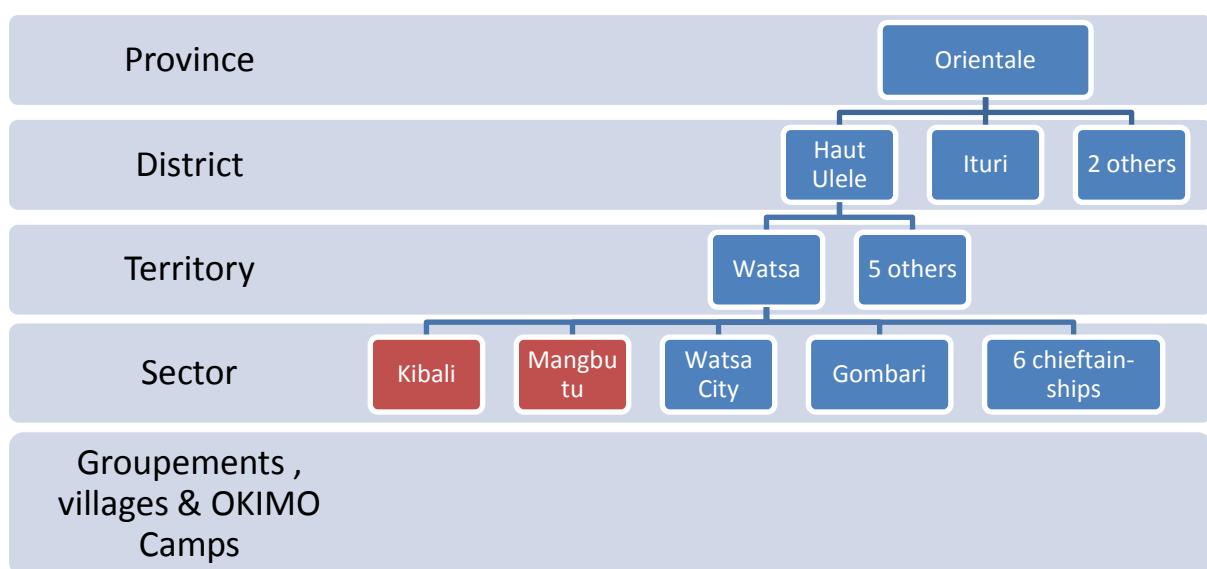
In 2006 the New Constitution for the DRC came into effect to replace the transitional constitution adopted in 2002. Under the New Constitution Provincial Government has greater autonomy over

decisions concerning localised social development and allocation of revenues. In particular it cedes significant control over mining regulations and revenues to the provincial governments.

In the Project area a combination of traditional chiefs, local administrative authorities and OKIMO officials are responsible for governance. At the village level, village chiefs and the councils of elders usually deal with community issues and represent the community. OKIMO's governance structure sits alongside local government administrative governance structures. In OKIMO camps, a camp chief is appointed by the OKIMO administration and this chief will report both to the OKIMO administration and to local government at the *groupement* and sector levels.

Figure 4 illustrates the administrative structure of the DRC indicating the sectors in which the Project is found.

Figure 4 DRC Administrative Structure



4.5. Post Conflict Environment

The Project area has a violent history, like most of the DRC, which is intrinsically linked to the minerals to be found there. The instability of the DRC has led to the emergence of new patterns of economic and political relations in the region. A small number of people have benefited from conflicts and the associated illegal trade in natural resources. However the vast majority of people have become further impoverished through the continued breakdown in society, administration, law, and the local economy. The wars, conflicts, and epidemics have left a large number of people dead, injured, abused and displaced. Conflict is ongoing in areas approximately 100km away from the Project site.

Table 2 provides a summary of the most significant conflicts and epidemics that have occurred in the area.

Table 2 Summary of Conflict in the Project Area and Neighbouring Districts

Date	Event
1964	The Lubumbist Rebellion The <i>Bataillon Speciale 412</i> when apparently Kilomoto complained to the government in Kinshasa about the miners working for them and the government sent in the army's 412 Battalion who carried out massacres in the villages of the area
1996 and 1997	The Liberation War of Kabilia
1998 to 2003	The Ugandan occupation It is widely thought that access to the region's resources was the primary reason for Uganda occupying the area. Ugandan troops used artisanal miners to mine for them and then channelled the gold out of DRC and into Uganda. The troops also carried out extensive explosions in the mines, including blasting supporting pillars, and this is believed to have led to collapses in the Gorumbwa mine in late 1999, killing over 100 miners trapped inside.
December 1998	Epidemics An epidemic of Marburg hemorrhagic fever killed more than 100 people in Durba, the majority of them miners. The fever is thought to have spread rapidly in the confined conditions underground. Further Marburg and Ebola epidemics, and a swine fever epidemic that wiped out most of their pigs, are also reported to have occurred.
1999 to 2007	War in Ituri District (Neighbouring Administrative District) A low level conflict continued in Ituri for seven years with more than six ethnically based armed groups fighting intermittently, leaving more than 50,000 people dead and another 400,000 displaced.
2005	United Nations Mission in the DRC Since 2005, the DRC government, with the help of United Nations Mission in the Democratic Republic of Congo (MONUC), and the support of the United Nations Development Programme (UNDP) have been attempting to demobilise former members of various armed groups in Ituri district.
2008	Lord's Resistance Army in Haut-Uélé District Since 2008, the Ugandan rebel group, the Lord's Resistance Army (LRA) has been attacking villages in the north of Haut-Uélé District, close to the Sudan border, looting, killing, raping, and kidnapping children to turn them into soldiers, sex slaves and porters. It is estimated that around 70,000 people have been displaced as a result, as people have fled the area to seek protection and shelter. The areas closest to the Project site that have been affected are Dunga and Faradja.
2008	Ituri District In September 2008, fighting broke out between the DRC Armed Forces (FARDC) and a newly formed militia <i>Front Populaire pour la Justice au Congo</i> (FPJC) southwest of Bunia in Ituri District. As of the end of 2008, the FARDC with the support of MONUC were said to have the situation under control, though the security situation remains volatile.

5. Impacts and Mitigation

The socio-economic environment around the Project has been severely degraded over the past 20 years. The results of the war, weak governance, internally displaced people, a breakdown of social infrastructure, and high levels of diseases have contributed to a highly vulnerable community. The vulnerability of the community means that their capacity to adapt to change is limited. Any negative impacts of the Project will be felt far more acutely than by a population that has the capacity to adapt. However, as well as negative impacts that need to be mitigated, the presence of the Project also presents a range of opportunities to improve the livelihoods and conditions for the local population. Maximising these opportunities will not only benefit the local population but also the company as a strong and stable society is more resilient to conflict and unrest.

Resettlement of certain communities located within the Project area has been identified as one of the most significant impacts of the Project. The need to resettle communities in such an environment poses considerable challenges to the company, the community and the authorities. However it is also evident that despite the communities being highly vulnerable to social change, there are opportunities for resettlement to be a constructive developmental initiative.

From site visits undertaken, analysis of the mine plans, examination of available documentation and from the qualitative interviews with residents, artisanal miners, local authority administrators, and other key stakeholders the key issues that emerge are the following:

- Issue 1: Employment
- Issue 2: Economic Opportunities
- Issue 3: Loss of Economic Activities
- Issue 4: Land and Natural Resources
- Issue 5: Involuntary Resettlement
- Issue 6: Population Influx
- Issue 7: Local Government and Decentralisation
- Issue 8: Community Health and Safety
- Issue 9: Upgrading Infrastructure
- Issue 10: Conflicts

The Project Optimisation Study risk assessment matrix (

Figure 5) has been used to categorise the impacts. Those impacts in the red shaded boxes are the highest risk. The matrix ranking is based on pre-mitigation impacts. There is the potential for many of the negative impacts to be managed and mitigated so as to produce a positive impact of benefit for both the community and the Project.

The impacts are discussed in detail below with the pre- and post-mitigation impact ranking indicated in each case.

Figure 5 Project Impacts (Assignment is Prior to Mitigation)

Likelihood	Consequences				
	1 Insufficient	2 Minor	3 Moderate	4 Major	5 Catastrophic
Certain (A)	10.1	7.2	7.1	5.2	5.1
Likely (B)	6.1	4.3	4.2	4.1	3.1
Possible (C)	1.1	6.2	8.1	9.1	3.2
Unlikely (D)	2.1			5.5	5.3
Rare (E)	2.3	2.2	5.4	1.2	

Risk Level	Priority	Example Action
Positive		Positive impact expected – action required to enhance effects
High	1	Senior management attention; immediate corrective and preventive action required
Medium	2	Management responsibility assigned; corrective and preventive action plan developed
Low	3	Manage by routine procedures; accept risk

5.1. Issue 1: Employment

- Impact 1.1: The construction of the mine will increase job opportunities.
- Impact 1.2: The operation of the mine will increase job opportunities.

Pre	Post
Low +	Med +
Med +	High +

Both the construction and operational phases of the Project will provide jobs in an area where employment opportunities are very limited. While this in itself is a positive impact, a significant challenge facing the Project will be to decide on a fair mechanism for allocating jobs to local people in order to reduce the potential for conflict over employment. Defining who is “local” will be a complex task and will need the full support of the traditional and government authorities. Tension already exists around who gets employed at the exploration site, with Borgakim being accused of not employing people who are traditionally from this area. A lack of local capacity and skill levels is a major impost to preferential local employment.

To manage these challenges the Project will need to ensure that robust recruitment and training systems are in place and that local people have access to information and a grievance mechanism.

5.2. Issue 2: Economic Opportunities

- Impact 2.1: The mine will provide taxes and royalties to the DRC government during construction.
- Impact 2.2. Employment at the mine during construction will strengthened the economy.
- Impact 2.3: The mine will increase the opportunities for regional business during construction and operation.

Pre	Post
Low +	High +
Low -	Med +
Low +	High +

The Project and the employment opportunities it offers will have positive impacts on the local, regional and in some cases national economy, through taxes and royalties, wages spent, goods and services procured and remittances sent home.

The Project should seek to ensure that the benefits to the local communities and economy are maximised as these are the people who will be most exposed to any negative Project impacts.

5.3. Issue 3: Loss of Economic Activities

- Impact 3.1: The mine will permanently displace income generating activities
- Impact 3.2: The Project will lead to loss of economic livelihoods

Pre	Post
High -	Low +
High -	Low +

Despite the potential boost to the local economy, the Project will also result in a loss of economic activity and livelihood for some people, particularly those benefiting from the ASM economy within the mine's boundaries, including those people employed by OKIMO (see Figure 3). Although the artisanal miners are bound, in terms of the DRC legislation, to make way for the Project as the legally entrenched industrial mining enterprise, they have the potential to be a formidable obstacle to orderly resettlement and development. Further, they have high expectations as to what their compensation is likely to be. In order to mitigate this impact and risk to the Project it will be necessary to formulate an approach to the re-establishment of the ASM economy. The obligations of Moto need to be carefully worked out in relation to those of OKIMO. Furthermore, as there are various social characteristics of ASM that could pose a risk to Moto it will be necessary to determine roles, responsibilities and social obligations.

5.4. Issue 4: Loss of Land and Natural Resources

- Impact 4.1: The construction and operation of the mine will lead to increased pressure on surrounding land and resources.
- Impact 4.2: The construction and operation of the mine will lead to loss of land.
- Impact 4.3: The construction and operation of the mine will lead to loss of natural resources

Pre	Post
High -	Low +
High -	Low +
High -	Low -

The Exclusion Zone for the Project comprises approximately 3.150ha. Most of this land will be turned over to the Project for the mine and associated infrastructure. The land is currently utilised primarily for residential sites, agricultural activities and ASM mining activities. As a consequence there will be

a loss of land and associated resources for those communities currently residing on the land and/or making use of the resources found on it. The loss of this area of land will also place greater demand and pressure on other agricultural land and resources.

In addition, the mine will require water and will draw water from underground water sources. This is highly localised and communities living within 500m from the operating pits should not experience loss of supply.

To mitigate these impacts the Project should ensure proper systems for replacement and compensation for land are put in place. This is provided for in the Project's Resettlement Policy Framework and the Resettlement Action Plan that will be developed.

5.5. Issue 5: Involuntary Resettlement

- Impact 5.1: Resettlement and relocation of households
- Impact 5.2: Loss of social infrastructure.
- Impact 5.3: Propensity for conflict to arise during relocation.
- Impact 5.4: Relocation of cemeteries and graves.
- Impact 5.5: Relocation of community facilities.

Pre	Post
High -	Med +
High -	Med +
High -	Med +
Low -	Low +
High -	Med +

The Project will potentially displace 11,523 people in 2,315 households. These are households and people currently residing within the Project's Exclusion Zone (see Table 3). These populations stand to lose their physical, social and economic assets as a result of the Project operations. It is important to understand what these assets are in order to ensure that these populations are not made worse off by the resettlement process. This is provided for in the Resettlement Policy Framework and the Resettlement Action Plan that will be developed.

Table 3 Total Population to be Relocated

Total Population to be Relocated	11,523
Total Number of Households to be Relocated	2,315
Total Number of Graves to be Relocated	1,642
Total Villages to be Relocated	20
Total Cemeteries to be Relocated	4

Table 4 Estimated numbers of people and households from the villages and settlements within the Project's Exclusion Zone who will be displaced by the Project

Name	Surveyed	Estimated Population	Number of Structures	Number of Households
CAMP 45		126	49	25
CHAUFFEUR	✓	1,701	663	342
DOKO		257	100	52
GEKAMINE		67	26	13
GORUMBWA		10	4	2
1				
KARAGBA	✓	1,293	504	260

KASIA	✓	Combined with Chauffeur	Combined with Chauffeur	Combined with Chauffeur
KISANGA	✓	931	363	187
KOKOLO	✓	346	135	70
KOMBOKOLO		31	12	6
MAKOKE		682	266	137
MANGBE	✓	977	381	196
MAREKEKE		95	37	19
MEMEKAZI		603	235	121
MISSION		675	263	136
NDALA 1	✓	1,637	842	329
NGANZI		146	57	29
QUARANTCIN		Combined with Camp 44	Combined with Camp 45	Combined with Camp 45
SALAMBONG O		1,867	728	375
SESENGE		80	31	16
TOTAL		11,523	4,696	2,315

Table 5 Reported cemeteries and graves within the Project's Exclusion Zone

Cemetery	Reported Number of Graves
Azmabe / Mengu	45
Doko 1	425
Mengu	59
OKIMO Cemetery	1,113
TOTAL	1,642

Table 6 Physical Infrastructure to be Relocated

Physical Infrastructure	Existing Number
Churches	7
Market Places	6
Nursery Schools	2
Primary Schools	9
Secondary Schools	2
Higher Institutes	3
Health Centres	4
Dispensaries	6
Water Supply	30
Electricity Supply	2
Landfills/Rubbish dumps	1
Public toilets	0
Meeting halls	1

Soccer and recreation fields	3
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In addition to the individual households residing inside the exclusion zone that will need to be resettled, non-resident farmers, artisanal miners and tradesmen working within the zone will also be affected. Various community infrastructure including schools, health centres, markets, churches, and water infrastructure, as well as sacred sites will need to be considered. Land for resettlement purposes has already been identified and a resettlement committee will be established.

Table 7 Total Population to be Relocated by Trigger Event

Total Population to be Relocated by Trigger Event	
Site Mobilisation	1,880
Gold Plant Construction	257
KCD Pit	4,791
Mengu Hill Pit	95
Sessenge Pit	90
Pakaka Pit	3,630
Pamao Pit	749
Kombokolo Pit	31

Table 8 Total Population to be Relocated by Phase Number

Total Population to be Relocated by Phase Number	
1. Site mobilisation (Q1 Year -2)	1,880
2. Plant Construction (Q1 Year -2)	257
3. KCD Pit Mining and Tails Dam Bulk Earthworks (Q2 Year -1)	4,791
4. Mengu Hill / Sessenge / Kombokolo (Q1 Year 3)	215
5. Pakaka / Pamao (Q1 Year 6)	4,379

5.6. Issue 6: Population Influx

- Impact 6.1: The Project will increase the influx of people into the local area.
- Impact 6.2: The Project will lead to increases of social pathologies.

Pre	Post
Med -	Low -
Med -	Low -

As with all mines it can be expected that there will be an influx of people into the area looking for jobs or to take advantage of the economic growth during construction and operations. The years of war and ongoing conflict have created a large internally displaced population and increased levels of poverty, both of which mean that people are more likely to migrate for work. This impacts the access to housing, natural resources, employment and food in the local communities and will also bring with it increased levels of crime, prostitution, violence and disease.

To manage this influx the Project will need to have an Influx Management Plan and a robust recruitment plan that ensures that local people do not lose out on the opportunities. The establishment of a government endorsed moratorium on migration to the area will assist in this regard.

5.7. Issue 7: Local and Traditional Government

- Impact 7.1: The Project will disrupt the relationships with and between traditional authorities.
- Impact 7.2: The construction of the mine will place significant pressure on the current Watsa Administration.

Pre	Post
High -	Low +
High -	Low +

Each settlement that is due to be resettled has a leader; either, in the case of Okimo camps, a chef de camp or, in the villages, a traditional leader / chief. When these settlements are moved, a local leader will already exist in many of the new locations. The host site residents may not wish to have another chief staying on their land and the communities to be resettled will be concerned that their current chief will no longer have the authority. To avoid exacerbating tensions between settlements the Project should take care to include traditional and local leaders in all planning and decision making regarding the resettlement. A Resettlement Action Plan will be developed and implemented.

The local administration has few resources and lacks capacity in some areas. The additional administrative and financial management stretched resources.

5.8. Issue 8: Community Health and Safety

- Impact 8.1: The construction and operation impact on the health and safety of the community.

Pre	Post
High -	Med +

The activities of the mine, the changes in livelihood activities and the influx of migrant workers are all likely to have an impact on the health status of the local population and on the limited access to services. Vector borne and sexually transmitted diseases are likely to increase, as well as social pathologies such as alcoholism, drug abuse and violence. Accidents in and around the mine site may also increase.

Mitigation measures include health and safety plans, education programmes for the community, strict operating procedures for staff and contractors, and support for improved health facilities.

5.9. Issue 9: Basic Services and Social Infrastructure

- Impact 9.1: The Project will improve the social Infrastructures in the local area for community benefits.

Pre	Post
High -	Med +

Basic services including water, electricity and transport options are very limited in the Project area. The construction and operation of the mine will require water infrastructure, energy infrastructure and road infrastructure. There is an opportunity for the Project to contribute to the enhancement of these facilities while developing its own infrastructure requirements.

Any investment in local community facilities should only be undertaken after discussion with all relevant and interested stakeholders, and in cooperation or partnership with local government and where possible local organisations. This will ensure that benefits are equitably distributed and that the facilities will be functional and self-sustaining after the closure of the mine.

5.10. Issue 10: Conflict

Pre _____ Post _____

- Impact 10.1: The construction and operation of the mine could trigger conflict due to a variety of reasons.

The north east region of the DRC is heavily prone to conflicts with a long history of conflict. However the local environment being relatively free of armed conflicts over the past 5 years. The construction and operation of the mine could trigger conflict in a fragile environments such as the north east DRC. These conflicts may arise due to a variety of reasons some of which as a result of loss of income, land for substances, and tribal and ethnics tensions.

Table 9 Summary of impacts

Issues/Impacts	Extent	Duration	Probability	Confidence	Significance		
					Baseline	Before Mitigation	After Mitigation
Issue 1: Employment							
Impact 1.1: The construction of the mine will increase job opportunities.	Local	Short	Certain	High	None	Low (+)	Medium (+)
Impact 1.2: The operation of the mine will increase job opportunities.	Local	Medium	Certain	High	Low (-)	Medium (+)	High (-)
Issues 2: Economic Opportunities							
Impact 2.1: The mine will provide taxes and royalties to the DRC government during construction.	National	Medium	Likely	High	Low (-)	Low (+)	High (-)
Impact 2.2. The employment at the mine during construction will strengthened the economy.	Local	Short	Certain	Medium	None	Low (-)	Medium (+)
Impact 2.3: The mine will increase the opportunities for Regional business during construction and operation.	Regional	Medium	Likely	Medium	None	Low (+)	High (-)
Issue 3: Loss of Economic Activities							
Impact 3.1: The mine will permanently displace economic activities.	Local	Long	Certain	High	None	High (-)	Low (+)
Impact 3.2: The Project will lead to loss of economic livelihoods	Local	Long	Certain	High	None	High (-)	Medium (+)
Issue 4: Land and Natural Resource							
Impact 4.1: The construction and operation of the mine will lead to increase pressure on surrounding land and resources.	Local	Long	Likely	Medium	None	High (-)	Low (-)
Impact 4.2: The construction and operation of the mine will lead to loss of land.	Local	Long	Medium	Consistently	None	High (-)	Low (+)
Impact 4.3: The construction and operation of the mine will lead to loss of natural resources	Local	Long	Medium	Consistently	None	High (-)	Low (-)
Issue 5: Involuntary Relocation							

Impact 5.1: Resettlement and relocation of households.	Local	Long	Certain	High	None	High (-)	Medium (+)
Impact 5.2: Loss of social infrastructures.	Local	Short	Certain	High	None	High (-)	Medium (+)
Impact 5.3: Propensity for conflict to arise during relocation.	Local	Long	Likely	High	None	High (-)	Medium (+)
Impact 5.4: Relocation of cemeteries and graves.	Local	Medium	Certain	High	None	Low (-)	Low (+)
Impact 5.5: Relocation of community facilities.	Local	Short	Certain	High	None	High (-)	Medium(+)
Issue 6: Population Influx							
Impact 6.1: The Project will increase the influx of people local area.	Local	Medium	Likely	High	Low (-)	Medium (-)	Low (-)
Impact 6.2: The Project will lead Increase social pathologies.	Local	Long	Certain	High	Low (-)	Medium (-)	Low (-)
Issue 7: Local Government and Decentralisation							
Impact 7.1: The Project will disrupt the relationships with and between traditional authorities.	Local	Long	Likely	Medium	Low	High (-)	Low (+)
Impact 7.2: The construction of the mine will place significant pressure on current Watsa Administration.	Local	Medium	Likely	High	Medium (-)	High (-)	Low (+)
Issue 8: Community Health and Safety.							
Impact 8.1: The construction and operation impact on the mine and safety of the community.	Local	Medium	Likely	High	Low (-)	High (-)	Medium (+)
Issues 9: Upgrading Infrastructure.							
Impact 9.1: The Project will improve the social Infrastructures in the local area for community benefits.	Local	Medium	Certain	High	Medium (-)	High (-)	Medium (+)
Issue 10: Conflicts							
Impact 10.1: The construction and operation of the mine could trigger conflict due to a variety of reasons	Local	Medium	Likely	Medium	None	High (-)	Medium (+)

6. Conclusions

The Project represents the first large scale investment opportunity in this remote corner of the north eastern DRC. The plan to construct a modern mine to exploit a significant reserve of gold in this socio-economic context poses significant risks to the Project as well as impacting on the community. However it also represents an opportunity for Moto to contribute to the improvement of local peoples' lives and the development of the country in a number of ways. The social environment is highly degraded as a result of ongoing conflict and a brutal war, poor infrastructure, weak government, very low levels of access to basic services (health, education, welfare, housing, energy, roads, water and sanitation) and poor economic opportunities (subsistence agriculture, artisanal, small scale mining and trading) for the majority of the population. A successful investment in a mine will require a significant focus on the social environment to ensure that the risks posed to the Project are successfully mitigated; and the positive and negative impacts generated through the Project on the communities are successfully mitigated.

The highest risks facing the Project as well as the community relate to the resettlement of communities and loss of economic livelihoods from inside the exclusion zone. These will include loss of dwellings and physical structures, and also loss of land, loss of agricultural assets and natural resources, and a loss of access for artisanal miners working inside the exclusion zone. The immediate area around the Project accounts for the vast majority of the gold trade into Uganda. Any disruption to this economic activity could exacerbate conflict further. The development and implementation of a Resettlement Action Plan should seek to ensure impacted communities consent to the plans based on a participatory and well informed process; provide opportunities for impacted communities to improve their living conditions; ensures host communities are in agreement with new settlements; handle potential conflicts and grievances in a way that does not lead to violence; and is well governed. Without achieving this, the risks to the Project remain very high.

If successfully managed, however, there is the real opportunity for the enhancement of the communities from their current dire social conditions. The creation of jobs and the procurement of goods and services locally, where possible, have the potential to revitalise the ailing local economy. If managed appropriately, royalties and taxes from the Project will benefit the whole country. The living conditions for those communities being resettled should be an improvement to their current situation. The Project has identified possible upgrading of local infrastructure as well as community investments which will bring benefits to the society.

The Project will also put a strain on local resources as migrant workers move into the area and the traditional balance of power and authority is disrupted. The expectations on the Project are high and need to be managed. In planning and managing the construction, operation and closure of the mine, the Project needs to take special care to ensure that all relevant stakeholders are involved in the decision making process. In such a fragmented and complex web of loyalties and allegiances, it would be easy to exclude a key representative and provoke new tensions. It will be necessary to work closely with the government and encourage Kinshasa to dedicate greater resources to the decentralisation process, ensuring greater capacity building for the Watsa Administration.

Some social issues may appear to be beyond the control of the Project. Nevertheless the Project's ability to influence the local socio-economic, political, human rights and security context should not be

underestimated. Similarly the Project should understand that it may be held accountable or perceived as being complicit in issues or events over which it has no control.

The social issues and impacts associated with operating in DRC are complex and represent significant risks to the Project. A significant benefit to the Project and the associated investment is that the immediate local area has been free of conflict. The current management of community relationships has resulted in the exploration site being free of conflict and serious crime. This status needs to be maintained to ensure the success of the Project. Recent events with regards to the violence of the LRA highlights the critical need for the Project to have a well managed security plan in place and to ensure that the best form of security is through excellent community relationships. Attention to community and worker health, safety and welfare will be an important issue.

Despite the current environment being difficult to operate in, it also represents an important opportunity for the society to move itself out of conflict, war and under development to a state of greater human and economic potential. In these very conditions the greatest human rights risks are presented to companies. The north eastern DRC is a volatile region and gaining stability will not only be good for the immediate area, but the region (DRC, Uganda, Rwanda and Sudan) as a whole.

If the Project is managed in such a manner so as to ensure that the recommended mitigation measures are implemented, the Project has the potential to make a significant positive contribution to the region. The mitigation measures aim to reduce the significance of negative impacts and to optimise positive impacts.

Table of Contents

Executive Summary	3
1. Introduction	3
1.1. Project Overview	3
1.2. OKIMO	8
2. Approach and Methodology.....	8
3. Legal and Regulatory Framework	8
4. Local Socio-Economic Context.....	9
4.1. Key Livelihoods	10
4.2. Basic Services	10
4.3. Community Dynamics.....	10
4.4. Administration.....	10
4.5. Post Conflict Environment	11
5. Impacts and Mitigation	13
5.1. Issue 1: Employment	14
5.2. Issue 2: Economic Opportunities.....	14
5.3. Issue 3: Loss of Economic Activities	15
5.4. Issue 4: Loss of Land and Natural Resources	15
5.5. Issue 5: Involuntary Resettlement	16
5.6. Issue 6: Population Influx	18
5.7. Issue 7: Local and Traditional Government.....	18
5.8. Issue 8: Community Health and Safety	19
5.9. Issue 9: Basic Services and Social Infrastructure	19
5.10. Issue 10: Conflict	19
6. Conclusions	22
 Main Report	29
1. Introduction	29
1.1. Overview of the Report.....	29
1.2. Project Description	30
2. Methodology.....	32
2.1. Previous Reports and Project Related Activities	32
2.2. Baseline Data	32
2.3. Baseline Fieldwork October 2008	33
2.4. Study Limitations and Gaps.....	35
3. Wider Country and Regional Context.....	36
3.1. Democratic Republic of Congo.....	36
4. Legislative Context.....	41
4.1. DRC Legal and Regulatory Framework	41
4.2. National Legislation	41
4.3. International Standards	42
4.4. Land Tenure and Resettlement.....	45
4.5. International Requirements	47
5. Administration	49
5.1. National Administrative and Territorial Organisation	49

5.2. Decentralisation	51
6. Socio-economic Context in the Project Area.....	54
6.1. Overview of the Communities in the Project Area.....	54
6.2. OKIMO Camps	54
6.3. Historical Overview: Mining and Conflict	57
6.4. Overview of the Local Population	61
6.5. Governance and Institutions.....	62
6.6. Household and Community Dynamics	64
6.7. Health	65
6.8. Education.....	67
6.9. Infrastructure and Public Services.....	68
6.10. Economy and Livelihoods.....	70
6.11. Land.....	78
6.12. Summary of Key Baseline Issues.....	79
7. Stakeholder Engagement	80
7.1. Overview.....	80
7.2. Key Issues Raised During Stakeholder Meetings	80
8. Social Impact and Mitigation	82
8.1. Introduction	82
8.2. Cumulative impact	82
8.3. Issues	84
8.3.1. Issue 1: Employment	84
8.3.2. Issue 2: Economic Opportunities.....	86
8.3.3. Issue 3: Loss of Economic Activities	87
8.3.4. Issue 4: Loss of Land and Natural Resources	89
8.3.5. Issue 5: Involuntary Resettlement	89
8.3.6. Issue 6: Population Influx	93
8.3.7. Issue 7: Local and Traditional Government.....	94
8.3.8. 5.3.7: Issue 8: Community Health and Safety	94
8.3.9. Issue 9: Basic Services and Social Infrastructure	95
8.3.10. Issue 10: Conflict	96
9. Conclusions	101
Bibliography	103
Appendix 1: Stakeholder Engagement Report	105
Appendix 2: Resettlement Policy Framework	105
Appendix 3: Artisanal and Small Scale Mining Study	105
Appendix 4: Stakeholder Engagement Strategy.....	105
Appendix 5: Maps.....	105

List of Tables

Table 1 Summary of Key Local Socio-Economic Characteristics	9
Table 2 Summary of Conflict in the Project Area and Neighbouring Districts	12
Table 3 Total Population to be Relocated	16
Table 4 Estimated numbers of people and households from the villages and settlements within the Project's Exclusion Zone who will be displaced by the Project.....	16
Table 5 Reported cemeteries and graves within the Project's Exclusion Zone	17
Table 6 Physical Infrastructure to be Relocated	17
Table 7 Total Population to be Relocated by Trigger Event	18
Table 8 Total Population to be Relocated by Phase Number.....	18
Table 9 Summary of impacts.....	20
Table 10 - Settlements Covered by Community Profiles	33
Table 11 - Profiled Quarries	34
Table 12 - Key Interviews	34
Table 13 - Key Social Indicators.....	36
Table 14 - Relevant Sections of the Mining Code Compared with the IFC Performance Standards	43
Table 15 - Comparative DRC legal requirements with regard to Resettlement and IFC PS5	48
Table 16 - Population of the DRC by Province	50
Table 17 : Settlements considered for the baseline survey	56
Table 18 - Watsa Territory Demographic Figures, 2007	61
Table 19 - Key health services in Watsa Territory	65
Table 20 Social Infrastructure	69
Table 21 : ASM workers: Roles and Responsibilities.....	73
Table 22 Value in GB£	76
Table 23 Value in US\$	76
Table 24 Okimo	77
Table 25 Artisanal miners.....	77
Table 26 Summary of Key Baseline Issues.....	79
Table 27 Impact Parameters	83
Table 28: Types of Job	85
Table 29: Locations	85
Table 30: location and their Values.....	88
Table 31 Total Population to be Relocated	90
Table 32 Estimated numbers of people and households from the villages and settlements within the Project's Exclusion Zone who will be displaced by the Project.....	90
Table 33 Reported cemeteries and graves within the Project's Exclusion Zone	91
Table 34 Physical Infrastructure to be Relocated	91
Table 7 Total Population to be Relocated by Trigger Event	91
Table 8 Total Population to be Relocated by Phase Number.....	92
Table 37: Summary of impacts.....	99

List of Figures

Figure 1: Maps of Project Location	5
Figure 2: Maps of Project Affected Communities	6
Figure 3: Maps of Artisanal and Small Scale Mining Activity	7
Figure 4 DRC Administrative Structure	11
Figure 5 Project Impacts (Assignment is Prior to Mitigation)	14
Figure 6 – Geographic Context of the Moto Gold Project	31
Figure 7 Organisation Diagram	50
Figure 8: District of Haut-Uélé	51
Figure 9 : Project Affected Communities	55
Figure 10 : Administrative Structure	63
Figure 11 : ASM Quarries around the Moto Gold Project.....	72
Figure 12 Project Impacts (Pre Mitigation)	84

Abbreviations and Acronyms

ADF-NALU	Allied Defence Force- National Army for the Liberation of Uganda
AIDS	Acquired Immunodeficiency Syndrome
ASM	Artisanal and small scale mining
CDF	Congolese francs
CNDP	Congrès National pour la Défense du Peuple
CTCPM	Cellule Technique de Coordination et de Planification Minière (Congolese government body)
DEX	Director for Exploitations
DRC	Democratic Republic of Congo
EHA	Environmental Health Areas
EIS	Environmental Impact Statement
EITI	Extractive Industries Transparency Initiative
EMP	Environmental Management Plan
ESIA	Environmental and Social Impact Assessment
FARDC	Forces Armées de la République Démocratique du Congo
FC	Franc Congolese
FDLR	Forces démocratiques de libération du Rwanda
FEC	Federation des Enterprises du Congo (FEC)
FPJC	Front Populaire pour la Justice au Congo
HIV	Human Immunodeficiency Virus
ICC	International Criminal Court
IDP	Internally Displaced Person
IFC PS	International Finance Corporation Performance Standards
KCD	Agglomeration of Karagbwa, Chauffeur, Kasia, Mangbe, Kokolo, Kisanga
LRA	Lord's Resistance Army
MGL	Moto Goldmines Ltd
MLC	Mouvement de Libération du Congo
MONUC	United Nations Mission in the Democratic Republic of Congo
NGO	Non Governmental Organisation
OECD	Organisation for Economic Cooperation and Development
OFIDA	Office de Douanes et Accises
OKIMO	Offices des Mines d'Or de Kilo-Moto
OP	Operational Policy
PAP	Project Affected Person
PARECO	Patriotes résistants du Congo
RAP	Resettlement Action Plan

RPF	Resettlement Policy Framework
SCIAF	Scottish Catholic International Aid Fund
TB	Tuberculosis
The Project	Moto Gold Project
THI	Teaching Higher Institute
TNG	Transitional National Government
TSF	Tailings Storage Facility
UN	United Nations
UNDP	United Nations Development Programme
UPC	Union des Patriotes Congolais
UPDF	Uganda People's Defence Force
USAID	United States Administration for International Development
VPSHR	Voluntary Principles on Security and Human Rights

Main Report

1. Introduction

1.1. Overview of the Report

Moto Goldmines Ltd (MGL) is undertaking an Optimisation of the previous feasibility study of the Moto Gold Project (“the Project”) in north-eastern Democratic Republic of Congo (DRC). The Optimisation Report is intended to inform the feasibility for the final design and development of the project. This Community and Social Development Optimisation study and report was commissioned with the objective to deliver a high level assessment of potential project related impacts on the communities that live and reside in and around the projected project area, and recommendations to maximize potential positive social benefits and prevent or mitigate any detrimental social impacts that the project may have. As a final mine plan is not yet available, assessment of impacts is based on the Technical Report (March 2008, site visits) and the consultants previous experience of mine projects of a similar nature.

This Optimisation Report presents:

- An overview of the project and its footprint
- The methodology for the collection of social baseline data
- An overview of the historical, political and legislative context of the Democratic Republic of Congo;
- An initial high level overview baseline of current socio-economic conditions describing the status of the local populations in the Kibali Sector of the Watsa District that will be most affected by the primary impacts of the project;
- A description of the project’s stakeholder engagement that has taken place to date and a strategy plan for future stakeholder engagement;
- A high level assessment of Project social impacts, risks and opportunities
- Mitigation measures and recommendations for these identified social impacts, and
- A Resettlement Policy Framework (RPF) for the project, which outlines amongst others the estimated number of settlements and affected populations that will be resettled, eligibility criteria for defining various categories of displaced persons, a legal framework reviewing the fit between DRC laws and regulations and IFC policy requirements and measures proposed to bridge any gaps between them, and organizational procedures for delivery of entitlements (Appendix 2).

The following are annexed to this report (as separate PDF documents):

- Appendix 1: Stakeholder Engagement Report

- Appendix 2: Resettlement Policy Framework
- Appendix 3: Stakeholder Engagement Strategy
- Appendix 4: Artisanal and Small Scale Mining Study
- Appendix 5: Maps contained in the report in A3 format.

1.2. Project Description

The Moto Gold Project is a gold exploration project, situated in the North East of the Democratic Republic of Congo, some 560km North East of the city of Kisangani and 150kms west of the Ugandan border town of Arua. The project is located on the Kilo-Moto Gold Belt. The exploration permit area covers approximately 1,841sq km, whereas the Moto projected mine area covers a 7km by 5km area near the towns of Doko and Durba, in the Kibali Sector of the Watsa Territory, Haut-Uélé District, Orientale Province.

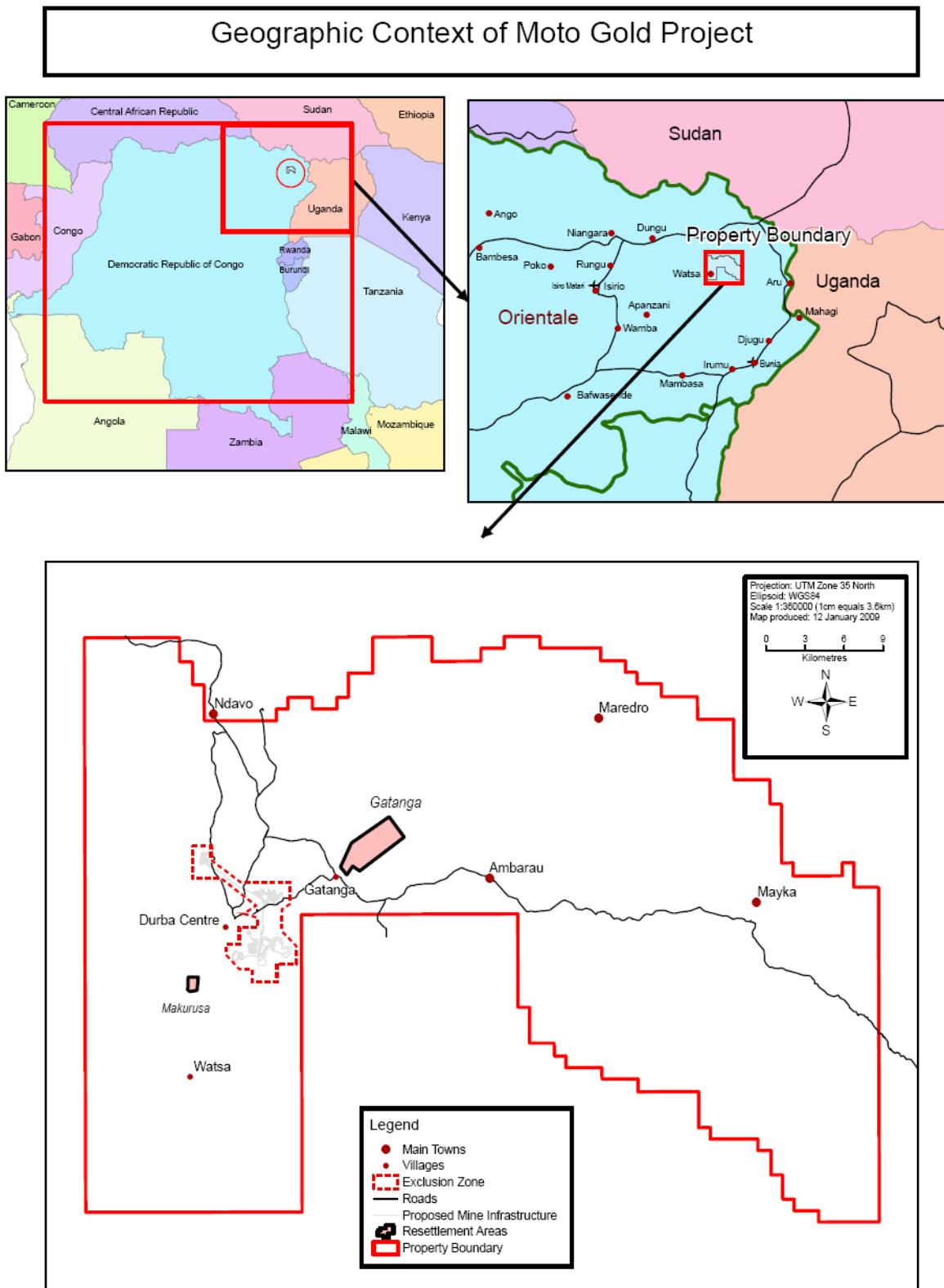
The Project is a joint venture between Borgakim Mining (a subsidiary of Moto Goldmines) and the state owned mining company Offices des Mines d'Or de Kilo-Moto (OKIMO), with Borgakim currently holding a 70% interest and OKIMO 30%. Moto is the operator and in charge of exploration activities. The operating company is called Borgakim Mining sprl ("Borgakim").

Exploration activities in the concession area have been taking place since February 2004. A small exploration camp and associated infrastructure have also been built in Doko. A feasibility study was completed in December 2007, and an Independent Technical Report was completed in April 2008.

The initial projected project's footprint over an estimated area of 35 km² is planned to include the construction of:

- Six open pits and associated waste rock dumps;
- Underground mine;
- Ore processing plant;
- Tailings storage facility;
- A mine services area and administrative area including site offices, mine workshops, and accommodation for personnel (partly constructed in the exploration camp in Doko);
- An airstrip (already constructed);
- A staged 20MW 'run of river' hydroelectric power scheme on the Nzoro River to the north; and
- Haul roads and road upgrades.

Figure 6 – Geographic Context of the Moto Gold Project



2. Methodology

2.1. Previous Reports and Project Related Activities

A number of project related activities and reports had already been completed prior to the tasks carried out as part of this Optimisation study. These have included:

- A partially completed baseline data collection programme within the Project area. The baseline data collection programme included a preliminary Socio-Economic Survey, which was carried out in 2005/06/07 by ISE Consult (a DRC based consulting firm);
- Environmental Impact Assessment conducted by SGS (January 2008);
- Consultation, Social Assessment and Resettlement Work Plan by SGS, May 2007;
- A Community Relations and Social Management chapter in the December 2007 Moto Gold Feasibility Study. This was completed by SGS Ghana based on the baseline work done by ISE Consult;
- Stakeholder engagement (meetings with community delegates, village chiefs, groupements chiefs, local authorities, local civil society groups, artisanal miners, etc); and
- A Rapid Health Impact Assessment by the consultancy Newfields, December 2008.
- A Health Risk Assessment by the consultancy Newfields, December 2008.

2.2. Baseline Data

The baseline chapter in this report (Chapter 4) is based on a wide range of primary and secondary information sources, including:

- Primary qualitative social research carried out during three weeks of fieldwork in October 2008;
- The Community Relations and Social Management chapter of the 2007 Feasibility Study;
- The Socio-Economic section of the SGS Environmental Impact Statement Draft Report socio-economic study;
- The Rapid Health Impact Assessment and a Health Risk Assessment by the consultancy Newfields, December 2008; and
- Publicly available secondary data.

The socio-economic baseline chapter describes the social, economic and political conditions of the local populations of the communities that will be most affected by the primary impacts of the Project. This includes:

- 23 settlements (villages, towns and OKIMO camps) in the Kibali Sector in and around the projected mine project footprint area;

- 2 settlements in the Mangbutu Sector that are potential resettlement host community sites; and
- The administrative centre of the Watsa Territory, Watsa City.

2.3. Baseline Fieldwork October 2008

Primary baseline data collection during fieldwork in October was carried out using the following methodologies:

- Community profiles (see Table 10 below);
- Artisanal mining quarry profiles (see Table 11 below);
- Key informant interviews (see Table 12 below); and
- An asset survey in KCD (Karagba, Chauffeur, Kasia, Mangbe, Kokolo, and Kisanga Villages)
- An asset survey in Ndala Village

Table 10 - Settlements Covered by Community Profiles

Settlement	Sector	Number of People Interviewed
Agbarabo	Kibali	14
Aungba	Kibali	7
Bakangwe (Makoke)	Kibali	7
Bethanie	Kibali	5
Camp Chauffeur (KCD*)	Kibali	4
Camp Doko	Kibali	10
Camp Kasia 1 & 2	Kibali	5
Camp Kisanga	Kibali	5
Camp Mission	Kibali	6
Durba Centre	Kibali	55
Gatanga	Mangbutu	43
Gogbo	Kibali	2
Gorumbwa	Kibali	5
Karagbwa (KCD*)	Kibali	6
Kokwa (Kokolo)	Kibali	1
Kukundeku	Kibali	1
Makuruza	Mangbutu	10
Malemba	Kibali	24
Mangbe camp	Kibali	4
Marakeke	Kibali	4
Mengu	Kibali	3
Ndala	Kibali	11
Nganzi camp	Kibali	6
Sala Bongo	Kibali	20
Toyota	Kibali	30
Watsa City	Cite Watsa	7
TOTAL		295

*KCD = agglomeration of Karagbwa, Chauffeur, Kasia, Mangbe, Kokolo, Kisanga.

Table 11 - Profiled Quarries

Quarries / Processing Area	Function	Within Exclusion Zone	ASM Study
45	Processing Area (Laverie)	Yes	
AGBAREBWA	Quarry	No	
BAKAKA	Quarry	Yes	
CHAUFFEUR	Quarry	Yes	
GEKAMINE	Quarry (Carrière)	Yes	✓
GOBO 1	Processing Area (Laverie)	Yes	✓
GOBO 2	Processing Area (Laverie)	Yes	✓
GORUMBWA	Quarry (Carrière)	Yes	
KARABGA	Quarry (Carrière)	Yes	
KOMBOKORO	Quarry (Carrière)	Yes	✓
MANGAZI	Quarry (Carrière)	Yes	
MARAKEKE	Quarry (Carrière)	Yes	
MEGE	Quarry (Carrière)	No	✓
MEGE	Processing Area (Laverie)	No	✓
MEMEKAZI	Quarry (Carrière)	Yes	✓
PAMAO	Quarry (Carrière)	Yes	□
SESENGE	Quarry (Carrière)	Yes	✓

Table 12 - Key Interviews

Key Informants	
1	Chef de Bureau des Titres Fonciers – Isiro District
2	<u>Watsa Territory Administration</u> <ul style="list-style-type: none"> • Chef de Bureau des Affaires Sociales • Chef de services Genre, Famille et Enfants • Chef de cellule au Bureau de la Cite
3	Chef de Division Provinciale de Mines – Isiro District
4	<u>Watsa Territory Administration</u> <ul style="list-style-type: none"> • Administrateur du Territoire of Watsa • Administrateur Assistant charge des questions administratives, Politiques et Coutumières • Administrateur Assistant charge des finances et Développement du Watsa • Chef de Bureau de l'Administrateur du Territoire
5	Chef du Secteur - Kibali Sector
6	Federation des Entreprises du Congo (FEC) – Kibali Sector
7	OKIMO Director of Exploration - Kibali

2.4. Study Limitations and Gaps

The current assessments used for this report are robust and fit for the purpose of a high level assessment of key social baseline issues in the project area, and of the potential social impacts, risks and opportunities. However, more in depth qualitative and quantitative baseline research is planned for 2009 in preparation for detailed works planning and construction.

3. Wider Country and Regional Context

3.1. Democratic Republic of Congo¹

3.1.1. Overview

The Democratic Republic of Congo (DRC) is a vast equatorial country situated at the heart of the west-central portion of sub-Saharan Africa and bounded by Angola, the Republic of Congo (Brazzaville), the Central African Republic, the Sudan, Uganda, Rwanda, Burundi, Tanzania and Zambia. Spread over 2.34 million sq km, its territory also straddles the Equator, with one-third to the north and two-thirds to the south. The Congo River system dominates the region.

The Great Rift Valley, in particular the Eastern Rift, plays a key role in shaping the DRC's geography. Not only is the north eastern section of the country much more mountainous, but due to the rift's tectonic activities, this area also experiences low levels of volcanic activities. The rifting of the African continent in this area has also manifested itself as famous Great Lakes which define the DRC's eastern frontier.

The DRC's mineral wealth is greatest near its eastern borders and south into Katanga where it shares the rich Copper Belt of the Lufilian Arc with neighbouring Zambia. In the south central part of the country there is also a large, prolific diamond area within the Kasai Craton.

The country's population is estimated to be around 62.2 million inhabitants (UN, 2007).

Table 13 - Key Social Indicators

Life expectancy	45.8 years
Adult literacy rate	67.2%
Per capita GDP	\$US 714

Source: United Nations Report on Human Development (2007/08)²

The official language of the DRC is French, while the four other major national languages are Kikongo, Lingala, Swahili and Tshiluba.

¹ Publically available references for this section: BBC country profile:

http://news.bbc.co.uk/1/hi/world/africa/country_profiles/1076399.stm; UK Foreign and Commonwealth Office (FCO) country profile: <http://www.fco.gov.uk/en/about-the-fco/country-profiles/sub-saharan-africa/congo-democratic-republic/>; The Economist Intelligence Unit December 2008, Country Report: Democratic Republic of Congo; Final report of the Panel of Experts on the Illegal Exploitation of Natural Resources and Other Forms of Wealth of the Democratic Republic of the Congo, 2002, <http://www.natural-resources.org/minerals/CD/docs/other/N0262179.pdf>

² http://hdrstats.undp.org/countries/data_sheets/cty_ds_COD.html

3.1.2. History and Conflict

Originally a Belgian colony, the DRC gained its independence in 1960 after 75 years of often brutal colonial rule. Since independence, the DRC has endured social and political turmoil, and a number of civil wars. After independence, the Prime Minister Patrice Lumumba was captured and killed by troops loyal to army Chief Joseph Mobutu. Mobutu later seized power in 1965, declared himself president and ruled the country for over 30 years. He renamed the country Zaire and himself Mobutu Sese Seko. Institutionalised corruption, misappropriation of state resource and state repression became endemic under Mobutu's dictatorship.

In 1997, neighbouring Rwanda invaded Zaire to flush out extremist Hutu militias, giving a boost to the anti-Mobutu rebels, who quickly captured the capital, Kinshasa, deposed Mobutu and installed Laurent Kabilia as president and renamed the country Democratic Republic of Congo.

However, rifts between Kabilia and his former allies developed and a new rebellion was sparked in 1998 supported by Rwanda and Uganda. Kabilia received the support of Angola, Namibia and Zimbabwe and as a result the country was turned into a vast battleground. By mid-1999 front-lines had stabilised, with 3 belligerent groups respectively controlling a third of the country, each backed by different regional states.

In 1999 in Lusaka a cease-fire was signed by the six nations involved in the conflict. The United Nations Security Council established a peacekeeping force known as *Mission de l'Organisation des nations unies en République démocratique du Congo* (MONUC) to facilitate the implementation of the Lusaka Accord. It has a budget exceeding US\$1 billion and is now over 17,000 strong making it the largest current UN peacekeeping mission.

In 2001, Laurent Kabilia was assassinated and succeeded by his son Joseph Kabilia. Foreign forces gradually departed, and a protracted Inter-Congolese Dialogue led to an agreement between the members of the political opposition on the formation of a transitional national government (TNG). This was agreed by the parties on 2nd April 2003 in Sun City (South Africa). The TNG was promulgated on 30th June 2003, formally ending the war. Joseph Kabilia was later democratically elected to rule the vast country as president in an election in 2006. However, sporadic fighting and violence has continued, particularly in the eastern provinces (Kivu Provinces, along with Ituri District, have been the main areas of conflict between armed actors since the cease-fire was signed in 1999). Furthermore, corruption has remained endemic, and the government's relations with the opposition have deteriorated sharply since 2006, raising the possibility of a drift to authoritarianism and urban unrest.

In 2008, after years of small-scale intermittent clashes, full scale conflict has erupted once again in Eastern DRC, in particular in the Kivu Provinces. Fighting between the Tutsi rebel militia, *Congrès national pour la défense du peuple* (CNDP), under rebel General Laurent Nkunda, and government forces broke out in North Kivu in late August, drawing in other armed groups, including the UN peacekeeping force. Laurent Nkunda claims to be defending Congolese Tutsis against the 10,000-15,000-strong guerrilla army of Rwandan Hutu rebels, *Forces démocratiques de libération du Rwanda* (FDLR) as well as a Congolese Hutu militia, *Patriotes résistants du Congo* (Pareco). The FDLR have been based in eastern DRC since its members fled Rwanda after the genocide in 1994, and it is reported that they not only harass and kill Congolese Tutsis but have the ultimate aim to re-conquer

Rwanda. The Congolese army, *Forces armées de la République démocratique du Congo* (FARDC), with support from MONUC have been fighting Laurent Nkunda's CNDP, but have a lost territory to the insurgents, and the CNDP has moved the combat front line to within only a few kilometres of the provincial capital of Goma.

At the UN Security Council in October 2008, the DRC's ambassador to the UN accused Rwanda of backing Mr Nkunda, and demanded that the Council take action. The Rwandan government denied the DRC government's charge, retorting that the real problem was the failure of the DRC government and MONUC to deal with the FDLR. Frustrated by its failure to persuade the UN Security Council to take a firm line on Rwanda, and fearing the growing political threat that Mr Nkunda poses to its rule, the DRC government has turned for military assistance to its allies in the previous war, Zimbabwe and, particularly, Angola.

The humanitarian crisis resulting from the fighting in North Kivu since August has been devastating. Casualty figures are unknown but an estimated 250,000 people fled their homes in the last three months of 2008, most of them not knowing where to find safety. It is widely reported that civilians have been the target of rape, pillage and murder by most of the combatant groups, including the Congolese army. International diplomatic activity has attempted but so far failed to find a lasting solution to the region's instability.

Violence also flared up again in late 2008 in Orientale province: in the north near the border with Sudan and near the town of Dungu, the Lord's Resistance Army, a Ugandan rebel group has attacked and pillaged Congolese villages, and in Ituri district a new militia has attacked government and UN forces, near Bunia.

According to a 2008 mortality survey released by the International Rescue Committee, conflict and humanitarian crisis in the DRC have taken the lives of 5.4 million people since 1988 and continue to leave as many as 45,000 dead every month³.

3.1.3. Human rights

Abuses of human rights and humanitarian standards by the remaining rebel militias and Congolese army continue at a high level, particularly in the east of the country. There are frequent reports of summary execution of civilians, widespread rape and sexual violence, banditry, forced enlisting of children and forced labour.

Rape and extreme sexual violence towards women and children has been and is continued to be used as a weapon of war and armed groups rape to terrorize and control women and communities, and to humiliate families. According to Scotland's Aid Agency (SCIAF), there are currently on average 45 rapes a day in South Kivu, and in one region of South Kivu it is estimated that 70% of the female population have been raped⁴. Rape victims range from 1 year old to 90 year old, and the brutality of the attacks mean many victims die as a result of their injuries whilst others contract HIV/AIDS or have their reproductive systems damaged. A near total breakdown in law and order in the region has led to virtual impunity for perpetrators of rape.

³ See <http://www.theirc.org/special-report/congo-forgotten-crisis.html>

⁴ See http://www.sciaf.org.uk/get_involved/campaigning/ending_mass_rape_in_the_drc.

Targeting whole villages with violence, brutally raping and murdering residents, removing livestock, food and other property and dispersing residents has been the trademark of armed aggression in the DRC. A portion of those who flee seek protection in nearby villages, abandoning their own productive activities in their home village while becoming dependent on the resources of host populations. Population displacement has a direct impact on agricultural production, food security and levels of malnutrition. Malnutrition, in turn, substantially increases the exposure of the population to life-threatening illnesses.

Reports of intimidation and arbitrary arrest of human rights workers, journalists and political leaders have remained high since the election period. According to a recent Human Rights Watch report, Congolese state security forces have killed an estimated 500 people and detained about 1,000 more, many of whom have been tortured, in the two years since the elections⁵.

Justice for victims of human rights abuses has been sparse, but in 2006 some trials were carried out in the DRC, and perpetrators of abuses sent to prison. 2006 also saw the transfer of former militia leader Thomas Lubanga to the International Criminal Court (ICC), on charges of war crimes, followed in 2007 by fellow Ituri militia leader Germain Katanga. Jean-Pierre Bemba, the leader of the biggest opposition party, *Mouvement de libération du Congo* (MLC), has also been under detention since mid-2008, and is to be tried by the International Criminal Court for war crimes in 2009.

3.1.4. Triggers and Causes of the Recent Conflicts

The potential triggers and causes of the various conflicts in the DRC are numerous and complex and based on a variety of political, ethnic, social, historical and economic factors.

One of the long-term causes of the conflicts in the DRC and the degradation of human security conditions can be found in the gradual erosion of state authority and capacity, particularly since the mid-seventies. The turmoil that accompanied independence from Belgium, the many violent secessionist attempts, and the 32 years of brutal and debilitating dictatorship under President Mobutu resulted in the near collapse of the state and the emergence of a predatory system at almost all levels of society. Cronyism and corruption created and exacerbated political and ethnic rivalries. Furthermore, the weakening of the state and of the formal sector of the economy encouraged groups and foreign interests to exploit for their own benefit the DRC's natural resources.

Many believe that a fundamental factor of conflict in the DRC has lain in different groups vying for the country's vast natural and mineral resources. In 2002, a specially formed United Nations Panel of Experts on the Illegal Exploitation of Natural Resources and Other Forms of Wealth of the Democratic Republic of the Congo⁶, found that though the regional conflict involving several African states' armies fighting on DRC territory started to diminish in intensity after 2001, overlapping micro-conflicts that it provoked were continuing. These micro-conflicts were generally fought over minerals, farm produce, land and even tax revenues. Criminal groups linked to the armies of Rwanda, Uganda and Zimbabwe and the Government of the DRC were benefiting from these, and many areas of the eastern DRC were experiencing a self-financing war economy centred on illegal

⁵ See Human Rights Watch report: 'We Will Crush You', November 2008, <http://www.hrw.org/en/reports/2008/11/25/we-will-crush-you-0>

⁶ See Final report of the Panel of Experts on the Illegal Exploitation of Natural Resources and Other Forms of Wealth of the Democratic Republic of the Congo, 2002, <http://www.natural-resources.org/minerals/CD/docs/other/N0262179.pdf>

mineral exploitation and the general intent to exercise economic control over portions of the DRC. One of the strategies used to gain control over resources involved the creation and exploitation of inter-ethnic rivalries leading to widespread violence.

Another structural cause of conflict in eastern DRC has been the unequal access to land acquisition. According to the authors of a 2004 report, funded by the United States Agency for International Development (USAID)⁷, both insecure or insufficient access to land has been a significant factor in the impoverishment of thousands of rural people, and is therefore a 'structural' cause of conflict, and the marginalisation as a result of land alienation has given an important stimulus to militia formation in many parts of eastern DRC. The complete and systemic failings of the land tenure legislation, the administration and justice system have contributed significantly in igniting conflict in the region. In many parts of the eastern provinces of the DRC, land has been a source of conflict for many years, from the colonial period under the Belgians to the period during the rule of Mobutu and thereafter.

Conflict itself and its violent and humanitarian legacies are another factor in ongoing instability. Large numbers of young men joined and continue to join one or another armed group because they have no other means of finding food or medicine or because they have no one to care for them. The Congolese government has struggled to disarm various militias and thousands of ex-combatants are still armed.

The ongoing militia activity, continued human rights violations by all armed groups, entrenched institutional corruption, continued involvement of regional actors in illegal economic activities (especially the illegal trafficking of resources), and the availability of small arms have further facilitated the conflicts and violence.

3.1.5. Economy

The economy of the DRC has declined drastically since the mid-1980s. The ongoing conflict has dramatically reduced national output and government revenue, increased external debt.

DRC's economy is dominated by the mining sector, in particular in copper, cobalt and diamonds. The DRC has long been recognised as one of the most mineral endowed countries in the world. It has substantial reserves of copper, cobalt, cadmium, diamonds, gold, silver, zinc, manganese, tin, uranium, germanium, columbite-tantalum (Coltan), bauxite, iron and coal. It is estimated that the DRC Congo contains: 80% of the world's Coltan reserves; 34% of cobalt reserves and 10 % of the copper reserves, while the gold potential is substantially under unexplored.

However, despite its mineral wealth, the DRC is ranked as one of the poorest countries in the world. Real GDP per capita fell from \$380 in 1960 to \$115 by 2004. The tense political situation, corruption and smuggling, as highlighted by the UN Panel on the Illegal Exploitation of Mineral Resources of October 2003, have resulted in a shortage of development capital that has stifled the development of the mining and other sectors. The DRC signed up to the Extractive Industries Transparency Initiative (EITI) in 2005 and is a member of the Kimberley Process.

⁷ Koen Vlassenroot and Chris Huggins, 'Land, Migration and Conflict in Eastern D.R. Congo', published by the African Centre for Technology Studies (ACTS) and the Institute for Security Studies (ISS), [http://www.reliefweb.int/rw/RWFiles2004.nsf/FilesByRWDocUNIDFileName/EVIU-65PHTK-acts-drc-12oct.pdf/\\$File/acts-drc-12oct.pdf](http://www.reliefweb.int/rw/RWFiles2004.nsf/FilesByRWDocUNIDFileName/EVIU-65PHTK-acts-drc-12oct.pdf/$File/acts-drc-12oct.pdf)

4. Legislative Context

This section reviews the national DRC legal and regulatory framework and international best practice guidance within which Moto will operate, highlighting sections or documents that are of particular relevance to the project. The analysis in this section is specific to social, community, cultural heritage and resettlement aspects of the project and should not be read as an analysis of DRC legislation in general. The section identifies the key documents and highlights relevant requirements; it is recommended that Moto read the documents for a full understanding.

4.1. DRC Legal and Regulatory Framework

DRC's wealth of natural resources and the extent to which these have fuelled the wars in its recent history are well documented. Although a cease-fire was agreed on in 1999 it was not until 2006 that democratic elections took place to elect a president. During the post war period and while the transition government was in power, many mining and other natural resource deals were signed, which were subsequently found to be riddled with corruption. The transition government and the international community were keen to pass new legislation quickly to ensure that the country's natural resources could be properly managed. Many of the codes and laws developed during this time are flawed, containing loop holes and inconsistencies, which has led to additional laws being created to compensate. In light of the new codes, the status of some of the agreements signed during the immediate post war period is still disputed. The Mining Code and the Forestry Code both suffer from these inconsistencies, and are subject to several additional laws. This section should be read with this context in mind.

4.2. National Legislation

The key documents of national legislation relating to social and community issues in the mining industry are:

- Mining Code 2002, Law No. 007/2002 of 11th July, 2002; and
- Mining Regulations enacted by Decree No. 038/2003 of 26th March 2003, including ANNEXE IX – Directive sur l'étude d'impact environnemental (chapitre IV, article 38 De la description de l'environnement sociologique).

Additional relevant documents include:

- The Forestry Code, Law No. 011/2002 of 29th August 2002
- The Investment Code, Law No. 004/2002 of 21st February 2002, and
- The Labour Code, Law No. 015/2002, of 16th October 2002.
- The mining industry in DRC is governed by the Mining Code and its accompanying Law No. 007/2002 of 11th July 2002 relating to the Mining Code, and the subsequent Mining Regulations enacted by Decree No. 038/2003 of 26th March 2003.

The evolution of mining codes (regulatory and legal frameworks aimed at creating stability within domestic mining sectors) in Africa is described as having three generations, each building on and

learning from its forerunners. The DRC Mining Code is considered as one of the third generation mining codes which places greater importance on the participation of affected people, and requires some level of state involvement to meet wider environmental and social development objectives. In particular, it has made provisions to ensure that revenue distribution favours social development and those impacted by mining activities. 60% of royalties remains in the hands of the Central Government, 25% is paid to the Provincial Administration where the project is located and 15% to the town or the administrative territory in the area where the exploitation activities take place. The funds are allocated exclusively to the building of basic infrastructure in the interest of the community.

The Forestry Code and Law were introduced in 2002 to govern the logging industry in DRC. The Code, has however, been dogged by controversy ever since over its misinterpretation and loop holes around logging concessions. The government is working with NGOs and others to find a solution. Relevance to the mining sector is in its treatment of communities, indigenous peoples and land rights. The Forestry Code and Law No. 011- 2002 of 29th August 2002 also cover environmental issues relevant to the mining industry.

The Directorate of Mines and the Directorate of Protection of the Mining Environment are responsible for administering these laws and supervising mining activities with regards to social and environmental impacts. Environmental, social and health and safety issues are covered within the Mining Code and Mining Regulation⁸. The Cellule Technique de Coordination et de Planification Minière (CTCPM), which sits within the Ministry of Mines, provides advice and coordination for mining activities in DRC. The CTCPM also plays a role in developing mining policies and strategies⁹.

4.3. International Standards

The International Finance Corporation's Performance Standards on Social and Environmental Sustainability (IFC PS) set out the responsibilities of companies in managing their projects and the requirements for those seeking IFC funding. These standards are generally recognised as the global benchmark for social and environmental performance and are the basis for the Equator Principles adopted by many other lending institutions. While Moto may not seek funding from the IFC, its policies, guidelines and standards will be adopted.

The Voluntary Principles on Security and Human Rights are also an important reference point for this study. The VPSHR were developed by a group of governments, extractive industry companies and NGOs to provide guidance for companies in protecting human rights in the context of their operations.

The OECD guidelines are recommendations addressed by governments to multinational enterprises operating in or from adhering countries. They provide voluntary principles and standards for responsible business conduct in a variety of areas including employment and industrial relations, human rights, environment, information disclosure, combating bribery, consumer interests, science and technology, competition, and taxation. Both Canada and the UK are adhering countries; however the DRC is not.

⁸ McGuire Woods, Getting the Deal Through, 2008.

⁹ Further information about mining regulation can be found on the CTCPM website: <http://www.miningcongo.cd>.

The Extractive Industries Transparency Initiative (EITI) aims to tackle a lack of transparency and systemic corruption through the full publication and verification of company payments and government revenues from oil gas and mining. Although a government led initiative, implementation of the EITI necessitates the engagement of other key stakeholders including civil society representatives, companies and international financial institutions and the independently validated fulfilment of 6 key criteria, based upon 12 fundamental EITI principles. The DRC was accepted as an EITI Candidate Country in 2008 and has until 9th March 2010 to undertake validation.

Table 14 presents articles of the Mining Code which are of particular relevance to the project and compares them with the IFC Performance Standards.

Table 14 - Relevant Sections of the Mining Code Compared with the IFC Performance Standards

Topic	Section	Summary of Content	IFC Performance Standards Requirements
Law No. 007/2002 of 11 th July 2002 relating to the Mining Code			
Tendering content	Article 33	In the case where the government issues an invitation to tender for mining rights, the evaluation of bids would include consideration of socio-economic advantages for the State, the province and the surrounding community.	Not mentioned.
Permitting requirements	Article 69	When applying for the exploration license the mining company must submit the following in addition to the EIS and EMPP: <ul style="list-style-type: none"> The report on the consultations with the authorities of the local administrative entities and with the representatives of the surrounding communities; The plan as to how the project will contribute to the development of the surrounding communities; 	Companies are required to undertake a consultation and disclosure process that allows affected communities to express their views on and allows the company to respond to them. This process should be documented. (PS1)
Cultural heritage	Article 205: Article 206:	The company must inform the local administrative authority and the authority in charge of Culture, Arts and Museums, of any archaeological discoveries revealed during mining activities. The mining company is prohibited from moving the objects which are contained in the updated national cultural heritage list, be they movables or other items. In this case, they must inform the local administrative authority and the authority in charge of Culture, Arts and Museums of this fact in writing, and without delay. The 'Holder' must remove, secure and keep these elements of national cultural heritage safe, as applicable, at the cost and on behalf the State if the local administrative authority and the authority	PS 8 sets out guidance for the protection of cultural heritage from adverse impacts of the project, for its preservation and for the sharing of benefits from cultural heritage.

		<p>in charge of Culture, Arts and Museums concerned do not remove them within a period of sixty days following notification of the discovery.</p>	
Infrastructure	212 - 213	<p>The company must submit a plan to the relevant authorities for any infrastructure they wish to build. They must consult with the local authority before submitting the plan.</p> <p>Infrastructure such as roads built inside or outside the perimeter of the site can be used by the public so long as fair compensation has been agreed on by the company and the local community or authority.</p>	Not mentioned.
Relations with local authorities	Article 215	<p>Before commencing his activities, the holder of a mining or quarry right has the obligation to appear before the local authorities in whose jurisdiction he will carry them out, and hand in, against the issuing of a receipt, a copy of his mining or quarry title.</p>	PS1 sets out guidance on consultation on and disclosure of the EIS and EMP as part of an ongoing engagement process.
Distribution of royalties	Article 242	<p>The Public Treasury is in charge of distributing the receipts of the mining royalties as follows:</p> <p>60% remain in the hands of the Central Government,</p> <p>25% is paid into an account designated by the Provincial Administration where the project is located and</p> <p>15% into an account designated by the Town or the administrative territory in the area where the exploitation activities take place.</p> <p>The funds resulting from the distribution referred to in the previous paragraph of this article, are allocated exclusively to the building of basic infrastructure in the interest of the community.</p> <p>The Mining Regulations determine the conditions of the collection and distribution of the mining royalties in accordance with the distribution mentioned above, as well as the Entity in charge thereof.</p>	Not mentioned.
Mining Regulations enacted by Decree No. 038/2003 of 26 March 2003			
Community engagement	<p>Relationship between permit holder and local communities</p> <p>Articles 477 – 480</p>	<p>Holders of mining exploration rights are obliged to develop a consultation and disclosure plan for engaging with local communities. This should include provisions for disclosing project information and the EIS; for disclosing mitigation and rehabilitation measures; for consulting and gathering feedback</p>	PS1 sets out guidance on consultation on and disclosure of the EIS and EMP as part of an ongoing engagement process.

		<p>from local communities; presenting the final EIS and making copies available to communities in the local language, through the local authorities.</p> <p>Requirements for the ways in which the public consultation and disclosure plan is implemented.</p> <p>The definition of communities affected by project activities.</p>	
Disclosure of mitigation plans	Mitigation and Rehabilitation Plan Article 444	<p>The approved mitigation plan must be given to and explained to relevant local authorities in the mining area so that they can disclose the information to local communities.</p>	<p>PS 1 Requires that the client company discloses its action plans to affected communities and provides regular updates on the progress of the plans.</p>
Public consultation as part of the EIS	Environmental Impact Statement and Environmental Management Plan Article 451	<p>Active participation by local communities must form part of the public consultation element of the EIS.</p> <p>The public consultation and disclosure process must include disclosure of project information and the identified impacts, and must allow for feedback and comments from affected communities.</p> <p>The community relations officer from the company must provide a written summary of the EIS in the local language to the Territorial Administration and to affected communities.</p> <p>Good relations should be established between the company and the local communities affected by the project. The project should ensure a good knowledge of the local socio-economic context. Keep the communities up to date on project activities and impacts; consult regularly to obtain community views and input; where necessary compensate those adversely impacted.</p>	<p>PS1 sets out guidance on consultation on and disclosure of the EIS and EMP as part of an ongoing engagement process.</p>

4.4. Land Tenure and Resettlement

Resettlement has been identified as an important issue for Moto and as with all resettlement projects, presents a significant risk to the project if not managed appropriately. The following outlines national and international requirements and guidance on resettlement.

4.4.1. The Constitution of the DRC

The Constitution of the DRC was approved by referendum on 19th December 2005, and promulgated by a decree of the Head of State on 18th February 2006. As far as protection of private property is concerned, it includes the following general principles in its Article 34.

- Private property is sacred;

- The State guarantees the right to individual or collective property, acquired within the framework of law or of custom;
- Nobody can be deprived of his/her property unless in the public interest and subject to fair and prior compensation paid in conditions determined by law.

4.4.2. Land Regime in Mining Concessions as per the 2002 Mining Code and 2003 Mining Regulation

The 2002 Mining Code and 2003 Mining Regulations speak directly to the issue of requirements for compensation resulting from land acquisition for mining operations. These are set out under TITLE XI: Relations between the Holders of Mining Rights and/or Quarry Rights Themselves and with the Occupants of the Land. The most important articles are summarised below.

Article 279: Restrictions on the occupation of the land

Unless there is consent from the owner or legal occupant, no person may occupy land situated less than:

- One hundred and eighty metres from occupied, unoccupied or temporarily unoccupied houses or buildings.
- Forty five metres from land hoed and ploughed for farm cultivation.
- Ninety metres from a farm breeding cattle, having a reservoir, a dam or private water reserve.

Article 280: Actual liability for the occupation of the land

The holder or lessee must compensate for the damages caused by the works he carries out in connection with his mining activities, even if they are authorized.

All damages caused to the assets of third parties shall be settled at their actual replacement value, plus 50%, unless the assets are returned to the condition they were in prior to the occurrence of said damage.

Article 281: Compensation for the occupants of the land

Any occupation of land depriving the rightful holders of enjoyment of the surface rights, any modification rendering the land unfit for cultivation, shall cause the holder or lessee of the mining and/or quarry rights, at the request of the rightful owners of surface rights, and at their convenience, to pay fair compensation, corresponding either to the rent or the value of the land at the time of its occupation, plus 50%.

Land, as referred to in the above paragraph, means the ground on which the individuals have always carried out or are effectively carrying out any activity. Amicable settlement of the dispute may be made by any legitimate method other than resorting to the courts, especially by compromise, settlement, arbitration or before an Officer of the Judiciary Police or an Officer of the Public Ministry.

In the absence of an amicable settlement between the parties within 3 months from the date on which the dispute arises, the compensation shall be determined by the competent court pursuant to the rules on judicial organisation and jurisdiction in force in the DRC.

However, the usual occupant of the land may, in agreement with the holder, continue to exercise his right to cultivate the land provided the work in the fields does not hinder the

mining activities. The owner of the surface rights shall than no longer continue to construct buildings on such land.

In summary, the main provisions of the 2002 Mining Code and 2003 Regulations make it clear that consultation over potential loss of assets and land with affected parties is required. Compensation should be at their actual replacement value plus 50% or the assets returned to their original condition. The legislation does not require the provision of alternative agricultural land but the option to pay a rental is applied.

4.5. International Requirements

World Bank Operational Policy 4.12 (World Bank, 2004) is seen as the standard set of resettlement guidelines internationally. The fundamental objective of resettlement planning, as encapsulated in O.P. 4.12 is to avoid resettlement whenever feasible, or, when resettlement is unavoidable, to minimize its extent and to explore all viable alternatives.

Where land acquisition and involuntary resettlement are unavoidable, resettlement and compensation activities are carried out in a manner that provides sufficient opportunity for the people affected to participate in the planning and implementation of the operation. Furthermore, if incomes are adversely affected, adequate investment is required to give the persons displaced by the project the opportunity to at least restore their income.

IFC Performance Standard 5: Land Acquisition and Involuntary Resettlement (IFC, 2006) was developed by the IFC (as part of the World Bank group) from OP 4.12. Moto will seek to undertake a resettlement and compensation process that adheres to international best practice.

IFC Performance Standard 5: Land Acquisition and Involuntary Resettlement (IFC, 2006) relates to resettlement directly. This document states:

“Where involuntary resettlement is unavoidable, the client will carry out a census with appropriate socio-economic baseline data to identify the persons who will be displaced by the project, to determine who will be eligible for compensation and assistance, and to discourage inflow of people who are ineligible for these benefits. In the absence of host government procedures, the client will establish a cut-off date for eligibility. Information regarding the cut-off date will be well documented and disseminated throughout the project area.”

This is a critical policy document for this Resettlement Action Plan (RAP), and states the following basic principles in terms of resettlement:

- To avoid or at least minimize involuntary resettlement wherever feasible by exploring alternative project designs.
- To mitigate adverse social and economic impacts from land acquisition or restrictions on affected persons' use of land by:
 - providing compensation for loss of assets at replacement cost; and
 - ensuring that resettlement activities are implemented with appropriate disclosure of information, consultation, and the informed participation of those affected

- To improve or at least restore the livelihoods and standards of living of displaced persons.
- To improve living conditions among displaced persons through provision of adequate housing with security of tenure at resettlement sites.

This policy document requires that a RAP be prepared and accepted by the relevant authorities prior to implementing resettlement activities. The IFC also requires that the provision of compensation and the restoration of livelihoods of those affected are ensured prior to any actual resettlement.

In particular, the policy requires that possession of land for project activities may take place only after compensation has been paid, or alternatively, if adequate guarantees of compensation have been made to the Project Affected People's (PAP) satisfaction. If the latter is chosen compensation payments must not be delayed once resettlement has taken place. Resettlement sites, new homes and related infrastructure, public services and moving allowances must be provided to the affected persons in accordance with the provisions of the RAP.

The policy further requires particular attention to be given to the needs of vulnerable groups. These are generally defined as those below the poverty line, the landless, the elderly, women and children, indigenous groups, ethnic minorities, orphans, and other disadvantaged persons.

Table 15 - Comparative DRC legal requirements with regard to Resettlement and IFC PS5

Topic	DRC Mining Code 2002	IFC Performance Standard 5
Eligibility	"Right holders"	All occupants, regardless of the legal status under which they occupy land, and including both "physically-displaced" and "economically-displaced"
Cut-Off Date	No specific provision	If not provided by host Government legislation, should be established by Project and widely disseminated
Resettlement	Not mentioned	Should be the option of choice wherever Project Affected Peoples' livelihoods are based on land
Cash and In-Kind Compensation	Direct developer to pay compensation in cash but doesn't preclude other compensation	Strongly favours in-kind compensation, including provision of replacement housing and replacement land
Calculation of Compensation	At "real replacement cost" + 50%,	At "full replacement cost"
Consultation with PAPs and Host Communities	No specific provision	Mandatory
Resettlement Assistance	No specific provision	Mandatory

With the notable exception of the calculation of compensation, IFC PS 5 is usually more favourable to Project-Affected People than the DRC legislation. Moto commits to apply whichever of the two sets of guidelines is most favourable to PAPs. Moto shall therefore apply IFC PS 5 Principles, but will also comply with DRC applicable legislation.

With respect to calculation of compensation value as being at least replacement plus 50%. Lost assets, particularly structures, will therefore be compensated with either a cash payout

(replacement plus 50%) or a replacement structure to the value of at least replacement plus 50%. Any cash compensation will be computed at real replacement cost plus 50%.

It should be noted that the term 'cash' is used to denote payments in currency. Experience elsewhere in sub-Saharan Africa indicates a high risk potential with large, lump-sum cash payments to parties who have little experience with money management. The situation in the DRC is further constrained by a weak banking system that is entirely absent in rural areas. While Moto shall provide compensation in cash consistent local law requirements, Moto will also include a number of additional benefits that are not represented in the cash compensation package. As indicated these additional, non-monetary benefits are intended to mitigate resettlement risks recognized under the IFC PS 5 Principles, but not DRC law. The principles and practise that Moto will bind itself to with respect to resettlement are set out in more detail in the following sections.

4.5.1. Summary

Moto is intending to conduct its activities in DRC according to international best practice while complying with national legal requirements of the DRC. The IFC as a major lending agency provides internationally accepted policies and guidelines for impact assessment and resettlement. While Moto may not seek funding from the IFC, its policies, guidelines and standards will be adopted.

5. Administration

5.1. National Administrative and Territorial Organisation

The DRC is divided into eleven provinces including:

- Kinshasa (political capital);
- Bas-Congo;
- Bandundu;
- Equateur;
- Kasaï Occidental;
- Kasaï Orientale;
- Katanga ;
- Maniema;
- Nord Kivu;
- Sud Kivu; and
- the Orientale Province.

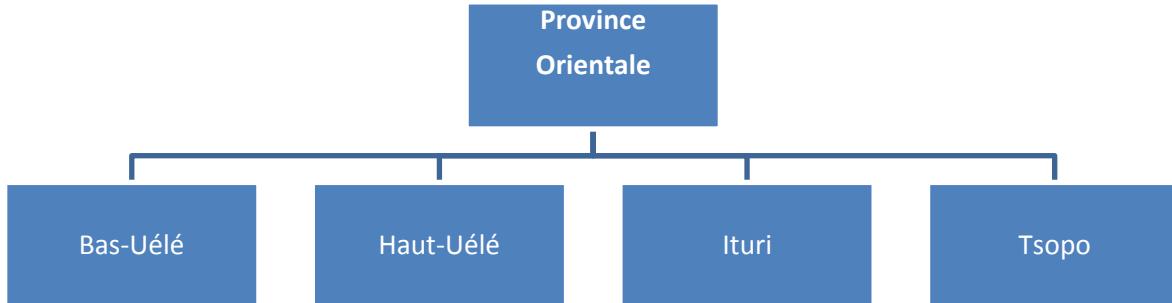
Administratively, the provinces are subdivided into districts and further into territories, sectors or chieftainships (*chefferies*), *groupements* and at last villages or *quartiers*.

Chieftainships are single tribal groups controlled by a chief as opposed to sectors, which are mixed tribe chiefdoms.

5.1.1. The Orientale Province

Situated in north eastern DRC, the Orientale Province is made up of the Districts of Bas-Uélé, Haut-Uélé, Ituri and Tsopo. Kisangani is the provincial administrative headquarters.

Figure 7 Organisation Diagram



The Orientale Province is the most populated province in the DRC. Population figures are provided in Table 16. According to projections based on the 1984 census of the National Institute of Statistics and at an annual demographic growth rate of 3%, the population of the Orientale Province was estimated at 8,549,905 people in 2005. This sum must therefore be corrected taking into consideration the wars and rebellions that have caused significant local migration and mortality.

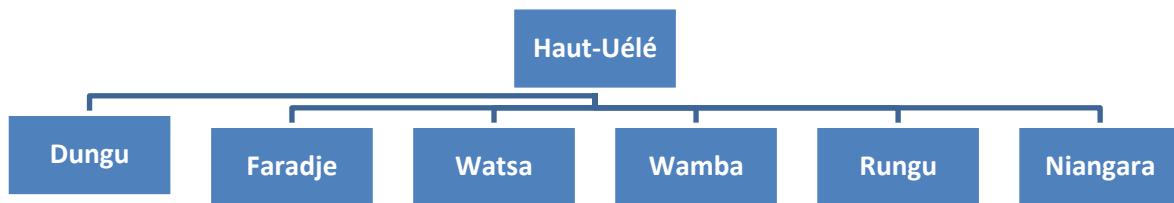
Table 16 - Population of the DRC by Province

Provinces	Population	% of Total
Bas Congo	2,193,640	3.8
Bandundu	5,935,340	10.2
Equateur	6,286,684	10.8
Kasaï Occidental	5,379,606	9.3
Kasaï Orientale	6,559,873	11.3
Katanga	8,120,035	14.0
Kinshasa	7,184,782	12.4
Maniema	1,465,088	2.5
North Kivu	4,004,721	6.9
Province Orientale	8,213,499	14.2
South Kivu	3,493,705	6.0
Total	58,000,000	100

5.1.2. The District of Haut-Uélé

Located in the northeast of the Orientale Province, the District of Haut-Uélé borders Uganda and Sudan to the north, the District of Tsopo to the south, the District of Ituri to the east and the District of Bas-Uélé to the west. The town of Isiro is the administrative headquarters of the district.

Haut-Uélé contains six territories: Dungu, Faradje, Watsa, Wamba, Rungu and Niangara, and has an overall population of 1,920,867.

Figure 8: District of Haut-Uélé

On the whole, Haut-Uélé is an agricultural region, with artisanal gold mining largely concentrated in the territory of Watsa, where the project is located. The territories of Niangara, Dungu and Faradje are big producers of maize, groundnuts, cotton and oil palm.

5.1.3. The Watsa Territory and Kibali Sector

The territory of Watsa was created in 1930, and is bordered by the territories of Faradje in the north, Djungu in the south, Dungu in the west, Aru in the north-east and Rungu in the south-west. The overall area of Watsa measures about 16,015 km² and it has an estimated population of 284,354 inhabitants. Territory headquarters are in the town of Watsa.

The Territory of Watsa is administratively divided up into the following:

- Three Sectors: Mangbutu, Gombari and Kibali;
- Six Chieftainships: Andikofa, Andobi, Ateru, Kebo, Mari-Minza, Walese; and
- The urban centre of Watsa

The Kibali sector is in turn administratively divided up into the following 7 *Groupements*:

- Mandra Mandra
- Tora
- Ngilinga-Maika
- Anguley
- Mangote
- Kengengo
- Doko- Durba

5.2. Decentralisation

The Constitution of the Third Republic (the New Constitution) of the DRC came into effect in 2006 to replace the transitional constitution adopted in South Africa in 2002. However the restructuring of territory and power prescribed by the New Constitution will not be practically put into place until 2009. The New Constitution outlines the key structures of government stipulating that the legislature remain bicameral, and that the executive be undertaken by both the President and government (the latter of which is appointed by both the party and a National Assembly majority).

Between 1966 and 2006 the DRC was divided into 11 provinces namely; Bandundu, Bas- Congo, Equateur, Kasai-Occidental, Kasai-Oriental, Katanga, Kinshasa, Maniema, Nord Kivu, Orientale and Sud- Kivu. Under this administrative structure the project area is located in the Orientale Province.

The 2006 Constitution of 2006 outlines plans to divide the DRC into 25 new provinces. This administrative reorganisation has resulted in the Orientale Province being divided into the following new Provinces: Ituri, Haut-Uélé, Tshopo and Bas-Uele. Under this new structure the project area will be located in the Haut-Uélé province, the capital city of which will be Isiro, the largest city in the area. The Province will be further subdivided into the territories of Dungu, Faradje, Ruengu, Wamba, and Watsa.

Article 202 of the New Constitution delineated a model for the decentralisation of power which proscribes the concession of some authority from central to provincial government while outlining the elements of authority to be retained at the national level. Article 202 of the New Constitution outlines the activities, which are retained exclusively under the competency of the Central Government (foreign affairs, defence, taxes and revenues, banking, etc), those which are to be divided between the Central Government and Provincial Government (promotion of human rights, interior security, court administration, establishment of tax on revenues, mining rights, and environmental management), and those which are to be ceded entirely to Provincial government (provincial management plan, development of mining projects and other project and implementation of these projects in accordance with national guideline plans).

The key objectives of decentralisation are to enhance the democratic process and efficiency in public service within the DRC. As indicated above the New Constitution places heavy emphasis on delegation of decision making and local autonomy. Under the New Constitution Provincial Government has greater autonomy over decisions concerning localised social development and allocation of revenues. In particular it cedes significant control over mining regulations and revenues to the provincial governments. Resource rich areas such as the Orientale Province potentially lack the level of efficiency and governmental oversight needed to avoid the spread of corrupt activity as a result of these increased levels of autonomy.

The provinces will be sub-divided into cities and territories. Within the provinces the sub-divisions will be divided as follows¹⁰:

1. City in communes;
2. Commune in districts and or incorporated groupings;
3. Territory in communes, sectors or chefferies;
4. Sector or chefferies in groupings;
5. Grouping in villages.

5.2.1. Decentralization Process and Revenues

Problems surrounding compliance to the Mining Code and the New Constitution through tax payments and the recording thereof will become much more difficult as the government implements the constitutionally mandated decentralization program. Under the terms of the New Constitution, the revenues generated within the provinces and territories will be retained at those levels both through the retrocession of mining royalties and the in situ generation of taxes. For example the government budget of 2008 estimated that FC 107 trillion will be generated by the provinces in 2008, but it didn't specify how this amount will be divided between the provinces.

This latter scenario is further complicated by the upcoming redefinition of the provinces whereby each area will be broken up into smaller administrative units.

¹⁰ Democratic Republic of Congo – National Assembly – Ordinary Session of September 2007 Under Article 5 – December 2007

The Oriental province, for example will be divided into the following provinces:

- Ituri situated north-east of the Ituri River and on the western side of Lake Albert. It has border with Uganda and Sudan. Its capital will be Bunia, with five administrative territories, which are: 1- Aru (6,740 km²); 2- Djugu (8,184 km²); 3- Irumu (8,730 km²); 4- Mahagi (5,221 km²) and 5- Mambasa (36,783 km²) with an estimated population of 4,241,236 people¹¹.
- Haut-Uélé will be one of the new provinces of the DRC. Its capital will be Isiro, the largest city in the area, with five administrative territories, which are : 1- Dungu; 2- Faradje , 3- Ruengu, 4- Wamba and 5- Watsa and estimated population of 1,920,867 people¹².
- Tshopo province will also be one the new provinces of the DRC. Its capital will be Kisangani, with an estimated population of 2,614,630 people¹³. It is situated in the north-east of the country on the Tshopo River, after which it is named. Tshopo will be divided into the following territories : 1- Bafwasende ; 2- Banalia; 3- Basoko ; 4- Isangi; 5- Opala : 6- Ubundu and 7- Yahuma
- Bas-Uélé province will be one of the new provinces of the DRC. Its capital will be Buta with an estimated population of 1,093,845¹⁴.

In practice, the broad architecture of intergovernmental relations needs to be appropriately settled before decentralization is initiated – including clear revenue and expenditure assignments and fiscal transfers, the timing and pace of the devolution of powers, and the administrative and institutional capacity necessarily at sub-national levels. The Congolese authorities need first to concentrate on improving implementation and monitoring capacity of the local governments.

5.2.2. Anticipated Problems during the Decentralization Process

The DRC's new constitution places heavy emphasis on local autonomy and, more significantly from the perspective of mining companies, cedes significant control over mining regulation and revenues to provincial governments. In this context, mining companies are caught in the middle of a political cold war between the central government and local officials seeking to secure a larger portion of mining revenues¹⁵. The propensity for conflict between those administrations and the central government increases as mining activity and mining revenues increase.

It is also anticipated that these conflicts will abate over the long term as the parameters of the new constitution are hammered out. Although the decentralization process is yet to occur, it is possible to predict that, in the interim, companies will face additional layers of regulation, such as opportunist multiple demands for royalty and tax payments. For example, OFIDA in Goma is currently eliciting an export tax of 5% of the value of goods being exported. However under current legislation only 1% is mandated under law.¹⁶

¹¹ http://en.wikipedia.org/wiki/Ituri_Province

¹² http://en.wikipedia.org/wiki/Haut-Uele_Province

¹³ http://en.wikipedia.org/wiki/Tshopo_Province

¹⁴ http://en.wikipedia.org/wiki/Bas-Uele_Province

¹⁵ The DRC : Key challenges and structures strategies for miners and Investors – By Stephen Bailley (06/03 /2006) Available at <http://www.resourceinvestor.com/pebble.asp?relid=17636>

¹⁶ Goma: bras de fer entre OFIDA et les opérateurs économiques sur le taxe a l'exportation available at <http://www.radiookapi.net/index.php?i=53&a=16891viewed> on 12th February 2008

6. Socio-economic Context in the Project Area

6.1. Overview of the Communities in the Project Area

The Project is situated in a rural setting that has a history of mining activities and where artisanal mining is currently the most significant economic activity for the local population.

The Project lies within the Kibali Sector of the Watsa Territory of the Haut-Uélé District near the towns of Doko and Durba. Settlements in the area are comprised of these two towns, and a number of villages and OKIMO camps. Altogether, these settlements support a relatively large population of approximately 30,000 people, a significant portion of which are migrant artisanal miners from other parts of the DRC. Apart from mining, other main forms of economic livelihood in the project area are subsistence agriculture and small-scale trade. Inhabitants comprise a number of groups, including agriculturalists, retired and existing OKIMO employees and their families, and a large number of migrant and local artisanal mine workers.

6.2. OKIMO Camps

Most of the present day OKIMO camps date from the 1950s. There are four categories of people living in these camps:

1. Active workers with families;
2. Disabled ex-workers injured as a result of mining with families;
3. Ex-workers (fired/redundant) with families;
4. Retired workers with families; and
5. Dead workers' families.

The last four categories of people are still waiting for their payments from OKIMO (compensation, redundancy and pension payments), some current employees have not been paid their salaries either.

Out of the active workers, there are:

- Miners (*orpailleurs*); and
- OKIMO bureaucrats who manage and collect taxes and rent from the miners.

Houses are generally owned by OKIMO, though people often build their own structure alongside the OKIMO houses as these are generally in a bad state of repair.

Figure 9 : Project Affected Communities

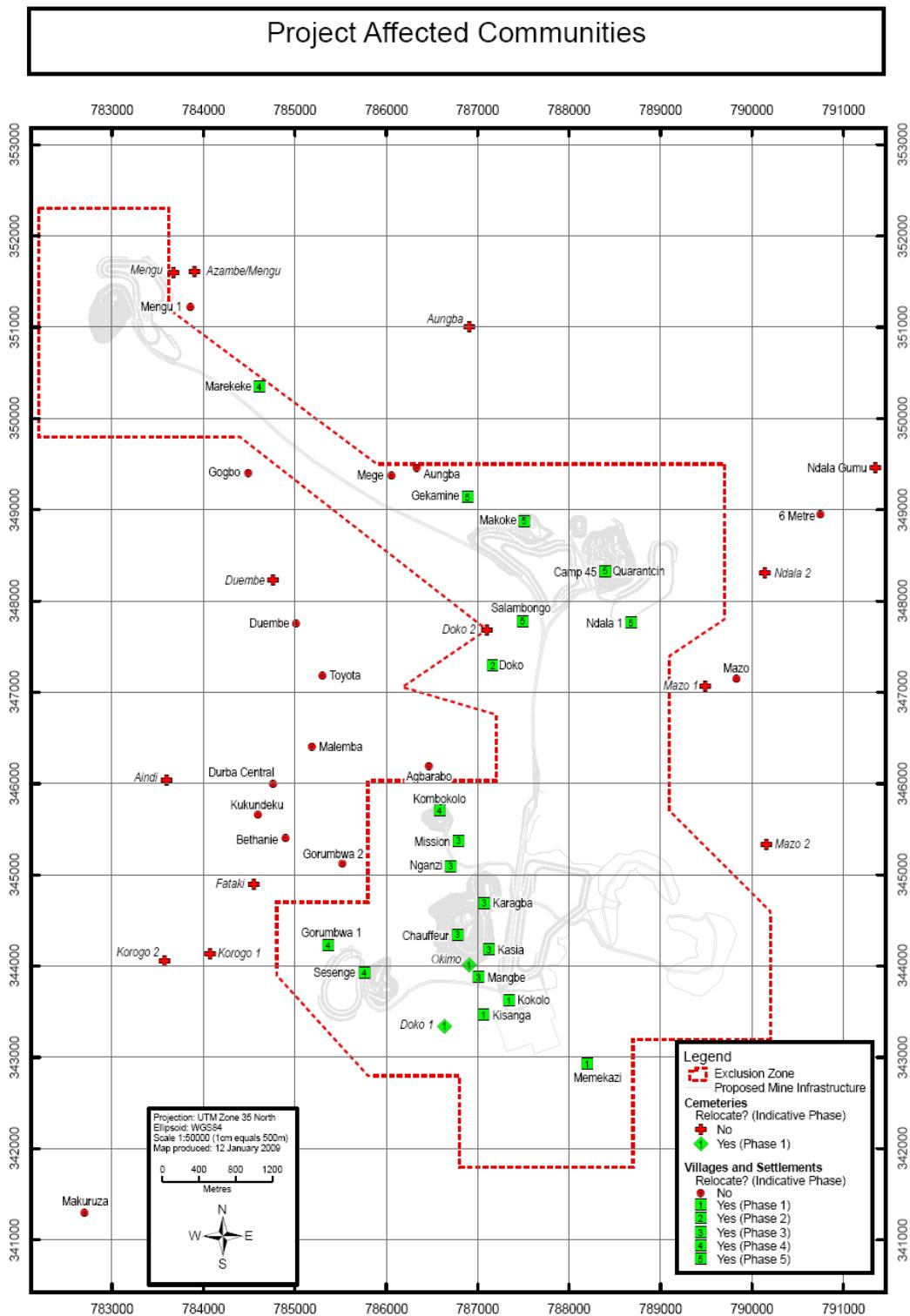


Table 17 : Settlements considered for the baseline survey

Table 17 below, provides an overview of the 23 settlements located in the immediate project area, the 2 potential host communities of Gatanga and Makuruza, and the administrative centre Watsa City. Note that the population or household figures are estimates, collected from key informants in each settlement. Some key informants did not know these figures.

Table 17 : Settlements considered for the baseline survey

Name	Type	Population	2008	Sector/ Groupment	Exclusion Zone	ASM
			Government census			
Agbarabo	Okimo camp	~ 534 people	786 people	Doko Durba	Yes	Okimo ASM quarries nearby
Aungba	Village	~ 557 people	557 people	Mandra-Mandra	No	Okimo ASM quarries nearby
Bakangwe	Village & Okimo camp	~ 96 households		Kibali	Yes	
Bethanie	Quartier of Duembe	~ 8660	Duembe has 1953 people	Mandra Mandra	Bethanie Yes Duembe No	
Chauffeur	Okimo Camp	1089 people (Community profile)	908 people	Doko Durba	Yes	
Doko	Okimo Camp	~ 737		Doko Durba	Yes	
Durba Centre	Town	~ 10,000		Mandra Mandra		
Gatanga	Village	~ 373	755	Mandra Mandra	No	
Gogbo	Village			Mandra Mandra	Yes	Okimo ASM quarries
Gorumbwa	Okimo Camp	~ 12,000	2281	Doko Durba	No	Okimo ASM quarries
Karagbwa	Village	748 people (community profile)	869	Doko Durba	Yes	
Kasia 1	Okimo Camp		769	Doko Durba	Yes	Okimo ASM quarries
Kasia 2	Okimo Camp		717	Doko Durba	Yes	Okimo ASM quarries
Kasia 3	Okimo Camp		1183	Doko Durba	Yes	Okimo ASM quarries
Kisanga	Okimo Camp	~ 710 people	244	Doko Durba	Yes	
Kokwa	Okimo Camp	~ 642	247	Doko Durba	No	Okimo ASM quarries
Kukundeku	Village	~ 3800	740	Mandra Mandra	No	
Makuruza	Village	~ 239		Mangbutu	No	Okimo ASM quarry nearby
Malemba	Camp	~ 2000 people	331	Doko Durba	No	

Mangbe	Okimo Camp	~ 7889 people	1337	Doko Durba	Yes	Okimo ASM quarries
Marekeke	Village				No	Okimo ASM quarry
Mengu	Village	~ 62 households	289	Mandra Mandra	Yes	
Q. Mission	Okimo Camp		182	Doko Durba	Yes	Okimo ASM quarry
Ndala	Village	~ 1500 people	643	Mandra Mandra	No	
Nganzi	Okimo Camp	~ 247 people	599	Doko Durba	Yes	Flooded quarry nearby
Sala Bongo	Village	~ 2000 people		Doko Durba	Yes	Okimo ASM quarries
Toyota	Village	~ 4000 people		Doko Durba	Yes	
Watsa City	Town	~ 111,107 people	111,107 people	Cite Watsa	No	

6.3. Historical Overview: Mining and Conflict¹⁷

6.3.1. History of the Immediate Project Area

The history of the immediate project area is intrinsically tied up with mining. Mining was originally conducted by the Belgian colonial government via the company they set up in 1926 called Société des Mines d'Or de Kilo-Moto. After independence, the company Kilomoto was nationalised and was renamed Offices des Mines d'Or de Kilo-Moto (OKIMO) in 1966. According to community informants interviewed, most of the present day OKIMO camps and some of the surrounding villages date from the 1950s.

From the late 1960s onwards, mining gradually declined due to a lack of investment and very limited exploration, whilst unofficial production from clandestine artisanal activity (artisanal mining was classed as illegal under national law) increased throughout the Orientale Province. Mining activity was gradually taken over by artisanal workers (*orpailleur*) and small-scale alluvial operations, with OKIMO nonetheless still officially owner of the concession area. Eventually the Mobutu government passed a decree in 1978 to allow artisanal exploitation of gold. This decree led to a further influx of migrants who soon outnumbered the indigenous ethnic groups of the area. The illegal mining of gold intensified throughout the 1990s and onwards, and in particular during the periods of wars and unrest as various rebel groups and foreign forces fought to control the mineral resources of the region.

When questioned about their memories of key events from the last few decades that have affected the area, community informants' responses all concerned either periods of war or civil unrest, or the various epidemics that the area has experienced. The 'Lubumbist Rebellion' in 1964, the *Bataillon Speciale 412* when apparently Kilomoto complained to the government in Kinshasa about the miners working for them and the government sent in the army's 412 Battalion who carried out massacres in

¹⁷ Publicly available sources used for this section: Human Rights Watch (2005), 'The Curse of Gold', <http://hrw.org/reports/2005/drc0505/drc0505.pdf>; Koen Vlassenroot and Chris Huggins, 'Land, Migration and Conflict in Eastern D.R. Congo', published by the African Centre for Technology Studies (ACTS) and the Institute for Security Studies (ISS), [http://www.reliefweb.int/rw/RWFiles2004.nsf/FilesByRWDocUNIDFileName/EVIU-65PHTK-acts-drc-12oct.pdf/\\$File/acts-drc-12oct.pdf](http://www.reliefweb.int/rw/RWFiles2004.nsf/FilesByRWDocUNIDFileName/EVIU-65PHTK-acts-drc-12oct.pdf/$File/acts-drc-12oct.pdf).

the villages of the area, the 'Liberation War of Kabila' in 1996 and 1997, and the Ugandan occupation of 1998 to 2003, were all periods of violence and conflict that were mentioned by local community members. Other key events to have affected the area that were mentioned by local informants, were Marburg and Ebola epidemics, a recent swine fever epidemic that wiped out most of their pigs and the collapse of the Gorumbwa mine under the Ugandan occupation. One local community member reported: "We hold bad memories of the war [1998-2002] because it is here where the military and the militias place their camps. Girls and women were raped, our possessions were confiscated and the children of the village were forcibly recruited to the militias."

6.3.2. The Ugandan Occupation – 1998 to 2003 – and the Aftermath

From 1998 to 2002, both Mongbwalu in the Ituri District and Durba in the Kibali sector of Haut-Uélé District were occupied by Uganda People's Defence Force (UPDF). According to the 2005 Human Rights Watch report, *The Curse of Gold*, most believe that the Ugandan troops were solely there to take advantage of the gold. Finding it too difficult and costly to operate the mines on an industrial scale, the Ugandan troops started using artisanal miners to work the various quarries. The troops are reported to have used violence and extreme means to exploit the mineral deposits, including beatings and enforced labour. Eager to extract as much gold as possible, the Ugandan troops also carried out extensive explosions in the mines, including blasting supporting pillars, and this is believed to have led to collapses in the Gorumbwa mine in late 1999, killing over 100 miners trapped inside.

In December 1998, an epidemic of Marburg hemorrhagic fever killed more than 100 people in Durba, the majority of them miners. The outbreak was believed to have begun in Gorumbwa mine. According to a team of medical experts sent to the area by the U.N. several months later, the unhealthy conditions in the Gorumbwa mine increased the risk of workers contracting this fever.

The Ugandan occupation gave rise to military and commercial collaboration between Ugandan army officers and certain local elites, to create an open war economy. Illegal timber extraction in Mahagi and Djugu, the control of the cattle market and the gold mines provide vivid illustrations of the transformation of the political and economic environment. It is important to note that from 1998 onwards, the exploitation of Congolese resources became much more systematic. With the involvement of UDPPF soldiers, militias and later Congolese soldiers, businesses were set up to channel profits, taxation systems were developed and control mechanisms at important commercial junctions and border areas were imposed.

The Ugandan army eventually withdrew from the DRC in 2003, following Rwanda, who had also been occupying areas of the country further south in the Kivus.

Throughout the duration of the conflict, a network of traders funneled gold mined by artisanal miners and forced labour out of the Congo to Uganda. These traders sold the gold to exporters based in Uganda who then sold to the global gold market, a practice that continues today.

The instability of the DRC has led to the emergence of new patterns of economic and political relations in the region. New types of military and civilian strongmen, local elites, Congolese army commanders and militias, have profited from the existing insecurity, general state of impunity and lack of central authority to develop links with regional markets. As a result, commercial networks and circuits are re-oriented towards Uganda, to the detriment of intra-district and inter-provincial economic activities. Comparative disadvantages, such as the lack of infrastructure and the prohibitive cost of transport within the district increasingly favour the establishment of cross-border trading networks, not only to support illegal practices, but also as market centres for rural populations.

6.3.3. Ituri District

The war in Ituri, sprang from the larger DRC war, and became a complex web of local, national, and regional conflicts. The Ituri conflict has always had a complex ethnic aspect to it, most obviously in the stoking up by local warlords as well as Rwandan and Ugandan forces of mutual hatred between Hema and Lendu tribes from 1999 onwards. However, like other such regional conflicts in DRC in the past decade, the violence has not merely been about ethnicity but most importantly about the control of resources. The availability of political and military support from external actors, notably Uganda and Rwanda, plus growing extremists' sentiments, encouraged local leaders in Ituri to form more structured movements. Armed groups were born, generally based on ethnic loyalties and each vied from control over the regions resources and in particular the gold fields around Mongbwalu.

When the Ugandan and Rwandan armies withdrew in 2002/2003, each army and more specifically individuals within them left behind local proxies in the Ituri District. These were the Lendu Nationalist and Integrationist Front (Front des Nationalistes et Intégrationnistes, FNI) linked to Uganda, and the Hema Union of Congolese Patriots (Union des Patriotes Congolais, UPC), supported by Rwanda. With continued assistance from their external backers, these local armed groups in turn fought for the control of gold-mining areas and trade routes in Ituri. The FNI and the UPC fought five battles in a struggle to control Mongbwalu, each resulting in widespread human rights abuses. Human Rights Watch researchers documented the slaughter of at least two thousand civilians in the Mongbwalu area alone between June 2002 and September 2004. Tens of thousands of civilians were forced to flee from their homes into the forests to escape their attackers.

Over the next few years and until 2007, a low level conflict continued in Ituri, with more than six ethnically based armed groups fighting intermittently, leaving more than 50,000 people dead and another 400,000 displaced.

In 2003, MONUC set up what has become their largest operational base in Bunia. Over the next few years there were various clashes between MONUC and the militias in Ituri. Since 2005, the DRC government with the help of MONUC and the support of the United Nations Development Programme (UNDP) have been attempting to demobilise former members of various armed groups in Ituri district. Between 2005 and 2007, leaders of the various militias were either arrested and indicted, or integrated into the Congolese army. Former FNI leader Mathieu Ngudjolo, former FRPI official Germain Katanga and former UPC head Thomas Lubanga are now imprisoned awaiting trial for war crimes and other charges in The Hague by the International Criminal Court (ICC). The ICC has also unsealed an indictment against the UPC's Bosco Ntaganda, current the military chief of staff for the Congrès National pour la Défense du Peuple rebel group in Congo's North Kivu province. A fourth militia leader, the FNI's Floribert Njabu, is currently in detention in Kinshasa.

6.3.4. Current Conflict Update in Orientale Province: Haut-Uélé and Ituri Districts

In 2008, conflict erupted again in Orientale Province. In the north of Haut-Uélé near the border with Sudan, the Ugandan rebel group the Lord's Resistance Army (LRA) have been attacking and raiding villages, and in Ituri near the town of Bunia, a new militia calling itself *Front Populaire pour la Justice au Congo* (FPJC), attacked in October both MONUC and the FARDC, around the towns of Tchei and Quinz, south-west of Bunia. There have also been border related tensions between the DRC and Uganda.

6.3.5. The LRA in Haut-Uélé¹⁸

Since mid-September 2008, the LRA has been attacking villages near the Garamba National Park, in the north of Haut-Uélé District, looting, killing and raping, and kidnapping children to turn them into soldiers, sex slaves and porters. It is estimated that around 70,000 people have been displaced as a result, as people have fled the area to seek protection and shelter. Over 5,000 people have fled north to the city of Yambio in South Sudan, while tens of thousands have gone south to the town of Dungu, Haut-Uélé's capital, or west to the village of Bangadi. On 1st November 2008, LRA forces attacked Dungu, the capital of Haut-Uélé district.

In mid December, Uganda, the DRC and southern Sudan launched a joint military offensive against the LRA rebels in the Garamba National Park. Forces from Uganda, the Democratic Republic of Congo and South Sudan launched a joint assault on LRA leader Joseph Kony's base in eastern Congo on December 14th after he repeatedly failed to sign a 2006 peace accord.

6.3.6. Attacks near Bunia, Ituri

In September 2008, fighting broke out between the DRC Armed Forces (FARDC) and a newly formed militia *Front Populaire pour la Justice au Congo* (FPJC) southwest of Bunia in Ituri District. As of the end of 2008, the FARDC with the support of MONUC were said to have the situation under control, though the security situation remains volatile.

6.3.7. Lake Albert and Tensions between the DRC and Uganda

In March 2007, Uganda People's Defence Force (UPDF) army boats entered Congolese waters and opened fire at a *Forces armées de la République démocratique du Congo* (FARDC) naval unit on Lake Albert. In early April 2008, violent clashes between UPDF and ADF-NALU elements in Uganda spilled over into DRC territory. Congolese troops were placed on high alert and sent reinforcements along the border to prevent further incursions.

In order to avert an escalating crisis, the Ituri District authorities were invited to a meeting in Uganda in June 2008 to discuss fishing rights in Lake Albert and other issues concerning border security. Similarly, a planned meeting between the Governor of Orientale Province, and Ugandan and Sudanese representatives, originally scheduled for July, was postponed due to the failure of the latter to attend. Tensions have been steadily rising with regard to the disputed island of Rukwanzi, and UPDF boats are still patrolling the waters surrounding the island.

The above incidents prompted a number of high level, bilateral meetings between the Foreign Ministers of the two countries and, more recently, between President Kabila and President Museveni. It was agreed to organize a Heads of State Summit in Arusha in September, followed by a Tripartite Plus meeting in Kampala. Three main issues will most likely feature prominently on the agenda: The presence of foreign armed groups in the DRC, namely ADF-NALU, FDLR and to a decreasing extent the LRA, and their continued threat to the security of Uganda, the exploitation of oil reserves on Lake Albert and the disputed island of Rukwanzi, as well as the delineation of the common border along the Simliki River, which, some claim, has changed its course over the years.

¹⁸ References for this section include: 'LRA on the Rampage', by Katy Glassborow in The Hague (AR No. 191, 28-Oct-08), Institute for War & Peace Reporting;

6.4. Overview of the Local Population

6.4.1. Demographics

Table 18 - Watsa Territory Demographic Figures, 2007

Administrative Unit	Population
City Watsa	111,115
Sector Kibali	37,573
Sector Gambari	17,999
Sector Mangbutu	82,844
Chefferie Andikofa	39,278
Chefferie Abdobi	7,039
Chefferie Ateru	11,171
Chefferie Kebo	12,622
Chefferie Mari- Minza	24,333
Chefferie Walese	14,760
TOTAL	358,734

Source: *Rapport Annuel de l'Interieur, Watsa, 2007*

6.4.2. Age Profile

Generally speaking the young (under 25) heavily outnumber older generations in the area. One reason given is that young men have come from other areas to mine. Another possible reason is low life expectancy in the area, which is estimated at around 40 years old.

6.4.3. Marital Status

The majority of the marriages in the project area are reported to be monogamous and polygamy is rare. Interviewed stakeholders reported that a number of households were also made up of cohabiting couples. No statistical information was available on marital status within the population.

6.4.4. Gender Balance

In most communities, women heavily outnumber men. One reason given for this by one chief was that women tend to settle in one place and raise families there. Men on the other hand tend to migrate for economic reasons (for example, when a quarry closes down they will move on to another area) and will often abandon their families. Another reason given is higher mortality rates amongst men during the various recent conflicts and wars, as well as the result of precarious mining activities.

6.4.5. Migration

As a result of the various conflicts and wars that have affected the area, there has been a large amount of in and out migration. Furthermore, mining in the area has also attracted large numbers of people moving to the area in search of the economic benefits associated with gold. There are thus large numbers of internally displaced war refugees (particularly from Ituri District) and artisanal miners who have come from other parts of the DRC in the settlements in the project area.

6.4.6. Ethnicity and Language

The Mangbetu and Bari ethnic group are considered indigenous to the area of Kibali, however they are now a minority in the area. The majority ethnic group in the area is the Logo, who came from Faradja.

As a result of heavy in-migration there are also a number of other ethnic groups present in the area and most ethnic groups in the DRC are represented in the project area. These include: Lendu, Nande, Rega, Lubarra, Boa, Mushi, Mubira, Mbisa, Ndo, Dongo, Yogo, Bari, Topoke, Mosoko, Bankongo, Manvu, Bombi, Bangba, Mangbele, Mabadi, Pygmy and Luba.

There are no reports of any major ethnic tensions in the immediate project area. However, ethnic allegiances are present and can create some low lying tensions amongst people. This needs to be investigated further.

Kiswahili is the most commonly spoken national language in the project area.

6.4.7. Indigenous People¹⁹

There are reports of pygmy indigenous people living in the project area. It would seem on a first assessment that these indigenous people are living in settlements with other ethnic groups rather than forming their own communities. However, this needs to be investigated further.

6.4.8. Vulnerable Groups

The general socio-economic situation in the area (e.g. rural location and ASM, limited access to education and health services, limited employment opportunities, widespread health issues, etc) make the majority of the population vulnerable to potential negative impacts from the project. Furthermore, as a result of the various wars and conflicts in the region, and of the precarious and dangerous nature of ASM, there are a high number of widows and orphans in the project area. Handicapped people are also likely to be present in communities and it is not known at present whether these would be looked after by social and kinship support groups.

6.5. Governance and Institutions

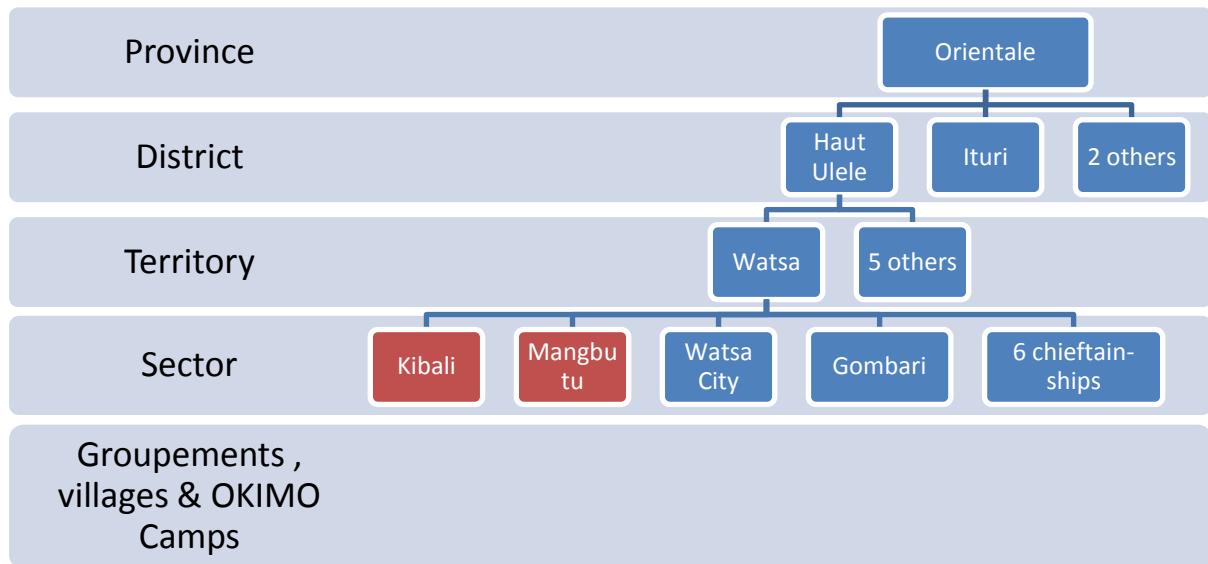
Governance in the project area revolves around chiefs and local administrative authorities that sit at each administrative level (from the village level, through to *Groupement*, Sector, Territory, District and Provincial level) (see Figure 10 below).

Chiefs are elected either by local dominant tribes or clans or by their communities. Sector chiefs are elected for five years, *Groupement* Chiefs and village chiefs for one year. In Chieftainships, the Chief is chosen from the original dominant tribe of the area. Higher up the administrative echelons, figureheads such as the Watsa Territory Administrator, Commissaire of the District or Governor of the Province are appointed by their superiors.

At the village level, village chiefs and the councils of elders usually deal with community issues and represent the community. If somebody from the village has a problem they will go to the chief who will convene the council of elders and the village secretary. Village chiefs reported that the issues that they usually deal with relate to small conflicts and disputes. However, more serious issues around crime are usually reported to the local administration at the *Groupement* or Sector level, or the police of Durba Centre.

¹⁹ This term refers to an international legal category as defined by the UN Declaration on the Rights of Indigenous Peoples. In the DRC, the only ethnic group that would be classified under this terminology are the Pygmy.

Figure 10 : Administrative Structure



Community stakeholders reported that local government has little influence and presence in the communities on a day to day basis due to a lack of capacity and means. Furthermore, many community stakeholders said that they had little faith in the local administration due largely to issues around corruption. Community stakeholders interviewed expressed that they usually preferred to take local matters directly to the village chief.

OKIMO's administration also play a significant governance role in the project area and OKIMO's governance structure somewhat confusingly sit alongside local government administrative governance structures. In OKIMO camps, a camp chief is appointed by the OKIMO administration and this chief will report both to the OKIMO administration and to local government at the groupement and sector levels.

6.5.1. Crime, Security and Justice

Settlements in the immediate project area depend on the police in Durba Centre, who themselves might refer cases to the police of Watsa City. Community stakeholders reported that the police in Durba did not function very well and made allegations of corruption, harassment and arbitrary arrests. The police in Durba are reported to be badly paid, which is likely to be a contributing factor.

At the village level, differences are mediated without fines by the chief and the council of elders. If appropriate the chief refers the issue to the *Groupement*. The chief of the village will usually have four young men that function as the chief's personal police

OKIMO has its own security called the *garde industrielle*.

Judicial issues are treated by the *tribunaux de paix* (Peace tribunals) at the Groupement level, and the police in Durba Centre also have justice officers (*officiers de justice*).

Civil society plays a big part in justice. For example, *L'Association Feminine pour la Defense des Droits de la Femme et de l'Enfant (ADEFEN)* defends the rights of women and children and the *Groupe de Reflexion pour le Developpement et l'Assistance de la Population de Watsa - Durba (GRDAP ASBL)* assists the community of Watsa - Durba in many ways including social justice.

6.6. Household and Community Dynamics

Households in the community vary between traditional family units consisting of parents, children and extended family, female headed households, miner households, prostitute households, and child headed households.

6.6.1. Gender

Both men and women work in agriculture. ASM is usually carried out by men and boys, though women take on 'lighter' tasks in the quarries. Women tend to be small traders as well.

As described in section 6.4.4 Gender Balance, there are more women than men in most of the settlements in the project area.

There are a number of women groups in the project area who carry out a number of social support and network functions.

According to community stakeholders interviewed, traditional customs dictates that wives wives are not allowed to do anything without permission of their husband and that the traditional role of the women lies in housework. However, due to the difficult economic situation women will usually run their little commerce to support the needs of the family. It was reported that women were respected in the community because they contribute to the survival of the family.

Little is known of the incidence of gender violence, however, as described in the section on Human Rights, the DRC now has the highest incidence of rape in the world and rape and sexual violence has been carried out by all armed groups including the Congolese army. Though there are no militias in the immediate project area at present, it is likely that rape and sexual violence occurred in the project area during the various wars and conflicts, and this is likely to have created some legacy issues (e.g. incidences of HIV/AIDS, a legacy of violence, etc). Rape is reported to be highly stigmatised in the DRC.

There is a lot of prostitution in the project area related to the high numbers of miners, and community informants reported that young girls go into prostitutions as a means of economic survival.

6.6.2. Social Conflict and Pathologies

Community informants complained of high levels of alcohol and a local form of marijuana consumption amongst miners.

6.6.3. Crime

Few incidents of crime were reported by community informants except for theft of electricity cables and murder.

6.6.4. Religion and Spiritual Beliefs

The majority religion in the area is Catholicism. Other religions in the area are Christian evangelical, Anglican and the Congolese religious sect Kimbanguiste, as well a minority of Muslims. There were no reports of religious tensions in the area. Some settlements have cemeteries nearby. Other smaller and more isolated settlements tend to bury their dead behind their houses.

The Catholic Church, and in particular the Communauté Ecclésiaste Vivante de Base (CEVB) is reported to play a significant role in the communities.

6.7. Health²⁰

The health system in the Haut-Uélé district is divided into an eastern and western zone. Watsa's health system is located in the western zone. There is a reported 128,000 people in the Watsa health zone. 20% of this population is under 5 and 65% under the age of 15. This age structure is typical of a developing country with high fertility rates and reduced life expectancy.

The baseline health status of the communities showed significant challenges. The health challenges in the area reflect similar conditions that prevail in poverty stricken and underdeveloped communities throughout Sub-Saharan Africa. In many ways, the conditions in the area are on average worse than most other areas. Communicable diseases are the main challenges as in much of sub-tropical Africa. Malaria was raised as the main health concern in the area by both the health care workers and the broader community, with 40-60% of all cases in the larger health facilities ascribed to Malaria. Access to clean water and sanitation is a major challenge. There is with limited access to latrines and flooding of the shallow latrines that are available has the potential to pollute water sources. Diarrhoeal diseases are common. The potential exists for Yellow Fever outbreaks in the area. Trypanosomiasis is a theoretical risk in the area but no recent cases have been reported.

6.7.1. Infrastructure

Health care services in the health zone are extremely limited and do not meet the health needs of the 128,000 strong population of Watsa. Primary health services are the main delivery platform with minimal secondary level support although there are pharmacies in the area.

Key health services in Watsa Territory are listed in Table 19 below:

Table 19 - Key health services in Watsa Territory

Public health infrastructure in the Watsa health zone:	
General Hospital of Reference	1 (Watsa)
Health Centre of Reference (HCR)	2 (Watsa and Durba)
Health Centres (HC)	19
Health Centre Integrated (HCI)	7
Number of doctors:	3
Christian affiliated facilities	
Catholic	7 HC
Protestant (CECA 20)	4 HC
OKIMO Mine facilities	
General Hospital	1
Health Centres	3 (2 only active: Durba and Maba)
Private and Schools health facilities	
Borgakim medical centre (Moto)	1
Dispensaries	33
Pharmacies	75
I.T.M (Institut Technique Médical)	2 (Watsa)
Institut Superior Médical	1
Centre de formation de la Croix rouge	1

Source : "Rapport Annuel de l'intérieur Décentralisation et Sécurité- Exercice 2007"page 37, 38.

Preventive health care services are very limited as are maternal and child health services. The supply of essential medications and consumables is erratic and these are often unavailable. The hospitals

²⁰ This section is based on the Newfields Rapid Health Impact Assessment, August 2008.

rely on the generation of internal funds to sustain their services and many of the local community simply cannot afford these fees. Even those that can access these facilities choose not to due to the limited services. Hardly any functional equipment exists, and what is available is outdated and not properly maintained.

There are no additional health actors present in the project area and to date only two NGOs were identified. The first, Malteser International, is focused on the distribution of essential drugs to health facilities, training and administrative support. The second is Findacio Damien, a Belgium NGO that provides free drugs for the treatment of TB and leprosy to the health facilities. Buildings are in a severe state of disrepair although MGL in partnership with the Malteser International is supporting the refurbishment of the Watsa reference hospital.

6.7.2. Illnesses

The key identified environmental health areas (EHA) of concern in Watsa are as follows; housing and respiratory issues, vector related disease, sexually transmitted infections, soil and water borne diseases, food and nutrition related issues, accidents/injuries, exposure to potentially hazardous material, non-communicable diseases, and veterinary medicine/ zoonotic issues.

6.7.3. Housing and Respiratory Issues

Housing is a major challenge in the area in general and poor structures are exacerbating health risks. Tuberculosis (TB) is not reported commonly in the area but this is likely to be due to poor diagnostic and reporting services. With the reported high incidence of HIV/AIDS, the rate of TB will be expected to rise. Plague is reported as endemic in the area with recent outbreaks in the region and in Uganda. Leprosy is still reported in the area although to a lesser degree. Meningitis outbreaks are common but probably linked more to crowded living conditions than seasonality.

6.7.4. Vector Related Disease

Malaria has been highlighted as the most significant health concern in the area. It is the biggest cause for mortality and morbidity in the project impacted area and within the DRC more generally. As such Malaria causes a significant burden on the very limited health care services in the area. Other significant vector related diseases in the area include Arboviruses, Schistosomiasis, African Trypanosomiasis, Leishmaniasis and Filariasis.

6.7.5. Sexually Transmitted Infections

HIV/AIDS and sexually transmitted infections are a major concern in the area. The Borgakim medical facility reports a monthly average HIV prevalence rate of over 20% which is high even when considering a slightly biased sample. There is a high degree of stigma and discrimination in the area related to HIV. Transactional sex work is already widely practised in the area and appears to be an accepted vocation. Migration and an increased disposable income have the potential to increase the incidence of commercial sex work, unless alternative livelihoods can be created.

6.7.6. Soil and Water Borne Diseases

Water and sanitation services in the area are extremely limited and there is no formalised water supply, treatment or distribution system. Waste management of household as well as human waste is very basic. Water is accessible and available in most communities through the numerous groundwater and natural springs in the area and in some areas the quality was acceptable. However there is no water testing facility in the area and quality assessments are often unsubstantiated.

6.7.7. Food and Nutrition Related Issues

Anaemia is reported as a health concern especially amongst children. There were mixed reports about the nutritional status of the communities but in the main there are reports of malnutrition.

6.7.8. Accidents/ Injuries

Traffic and related accidents are not reported commonly at present. The former is more than likely due to the poor state of the roads.

6.7.9. Non- Communicable diseases

Non-communicable diseases such as hypertension and diabetes are poorly recognised in the area. Life expectancy is relatively low at present and thus the effects of these diseases are not manifested as much. With improved circumstances the increase prevalence of these diseases can have significant health challenges in the communities.

6.7.10. Veterinary Medicine/ Zoonotic Issues

Closed workings of the old mine were subject to a very large and prolonged Marburg haemorrhagic fever outbreak. This outbreak was linked directly to the mine workers as the primary source of the infection. They worked under extremely poor hygienic and safety conditions often spending more than a week at a time underground. Largely uncontrolled mining techniques caused collapses in near surface stopes which created caverns that were ideal roosting sites for Egyptian fruit bats. These bats are believed to be reservoirs for the Marburg virus. The combination of the bats, the poor hygienic conditions and the poor safety measures lead to the outbreak. The outbreak ceased when the mine flooded in September 2000.

6.8. Education

The state of education in the project area is characterised by high dropout rates, a lack of resources and adequate infrastructure, and extremely high illiteracy levels. Community stakeholders interviewed reported that many have never attended school and out of those who had, most leave before completing primary education. Reasons for non attendance or early dropout rates have been given as poverty, a lack of resources, early pregnancy and in some case the distance to the school.

In general there are more girls than boys in primary education. Families tend to send boys to the mining quarries as soon as they are old enough (between 6 and 10 years old). At secondary school however, there are more boys than girls. Primary schools tend to be within 1 km of most settlements, though the journey is often inhibited by rain.

6.8.1. Nursery / Primary Education

The majority of primary schools are located in areas with large populations including Watsa, Durba and Gombari, Mumgbere. There are also two primary schools in Bethanie (but no secondary school or university); the EP Drati and complexe Scolaire les Hirondelles (approximately 450 students) and another one in Toyota village called the Mogedi school. The cost of attending primary school is between 1000 – 2500 Congolese Francs (CDF) per student per month (equivalent to \$3-\$4). Nursery school costs 900 (CDF) per trimester.

6.8.2. Secondary Education

There are ten secondary schools in Watsa, four in Durba, four in Mungbere, one in Maitulu, one in Gombari, one in Wanga, one in Moku, one in Arombi and one in Tora. The cost of secondary education is 4,750 CDF per trimester. There are more boys than girls in attendance at secondary school. Girls may have to leave at this stage as a result of pregnancy.

6.8.3. Higher Education

The Teaching Higher Institute (THI) at Watsa is the only higher education institute within the territory and has four key departments; African linguistics, Mathematics and Physics, History and Social Sciences, and Biochemistry.

6.9. Infrastructure and Public Services

6.9.1. Water

Generally speaking villagers get water for household from the rivers and for drinking they go to springs. Some villagers have to walk long distances to get to springs. Water drinking quality is generally considered to be poor, although in some areas it was reported to be adequate.

Borkakim has built a number of wells in the area.

6.9.2. Energy

An intermittent power supply to Durba centre is provided by a local grid system from the aging Nzoro Hydroelectric Dam, approximately 35 kilometres to the north of Doko. All the electricity not generated by personal generators comes from the station in Nzoro

Most local stakeholders do not have access to electricity in their huts. Local stakeholders use wood from nearby forests and charcoal either bought in the market or made by themselves for cooking. A bundle of wood costs 2.000 FC and a sack of coal (50kg) is 8.000 FC.

6.9.3. Waste and Sanitation

Waste and sanitation facilities are nonexistent. Waste is thrown out anywhere. Some people have constructed their own latrines, however the majority of people relieve themselves in the bush.

6.9.4. Roads and Transport

The transport infrastructure in the DRC is either dilapidated or nonexistent. In the ten years after independence, practically no maintenance was carried out and the entire network created for colonial exploitation collapsed. In the 1970s, in collaboration with the main donors, steps were taken to rehabilitate it but were rapidly abandoned because of political instability and war. Lack of maintenance and destruction has left an infrastructure system which exists only on maps.

Roads in the area are in a very bad state of repair. The two main roads connecting the area are to Watsa and one going to Arua.

Most common means of transport for villagers is on foot or on bicycle or motorcycle. There is no public transport other than motorbikes. "Taxi" motorbikes are most commonly owned by miners or ex-miners, who have used the proceeds of their mining to buy these. Transport on these generally costs around CDF 1000 to CDF 1500 (approx \$1.5 to \$2.5) for a short trip.

There is an airstrip in Doko refurbished by Moto adjacent to the Project camp, and a small airstrip in Watsa

6.9.5. Housing

Most houses in the project area are huts built out of bamboo and mud, with straw roofs.

In OKIMO camps, housing was generally inherited from the old Belgium colonial mining ventures. These houses, made out of brick with a tin roof, have fallen into disrepair and in most cases are practically inhabitable. The miner households who live in them have usually built a mud and straw hut next to the crumbling old houses, and may use parts of the latter.

Table 20 Social Infrastructure

Toilet System	Percentage of Households	Water Source	Percentage of Households
Communal Toilet	41	Rain water tank	0
Pit Latrine	38	Lake	0
No System	13	Purchased water	1
Bush/Forest	7	Water provided by OKIMO infrastructure	1
Septic Tank	1	Stream or River	2
River/Lake	0	Communal Pump	5
Bucket System	0	Well	15
Toilet connected to main sewerage system	0	Piped Water from Municipality/Rural Water Scheme	77
Total	100	Total	100
Energy Source	Percentage of Households	Waste Disposal	Percentage of Households
Wood	16	Waste depot	62
Charcoal	67	Dump waste in the street	16
Petrol	7	Burn waste	9
Battery	0	Bury waste	3
Generator	3	Compost waste	5
Solar Panel	0	Feed waste to animals	0
Self-constructed electricity connection	1	Dump waste in the forest/bushes	4
Electricity Connection	5	Recycle	0
No energy	1	Dump waste in the lake	0
Total	100	No System	1
		Total	100

Source: Data collected as preparation for the Resettlement Policy Framework

6.9.6. Community and Recreational Facilities

The only recreational facilities mentioned in interviews were the odd football field, some satellite TVs and some private video cinema venues ('videothèque').

6.9.7. Communication

Information usually travels by word of mouth. Some people own battery powered radios, however batteries are considered expensive by local standards. Radio Kibali and Radio Bomoko are the two stations most listened to. Mobile phones are considered a luxury and are usually only used by miners, businessmen, prostitutes, OKIMO workers or local government employees. Vodacom and Celtel (now known as Zain) are the two available networks, and there is a Celtel antenna situated on the hill near Doko.

6.10. Economy and Livelihoods

Employment in the Project area is limited. Key formal sources of employment include OKIMO, Borgakim, local government (teachers, doctors, etc), while informal sources of employment include artisanal mining, prostitution, and gold trading, and count as the major livelihood activity in the area.

6.10.1. Artisanal and Small-Scale Mining (ASM)²¹

Artisanal mining is a historic practice in the DRC, traditionally undertaken on a small scale and clandestine basis. Widespread unemployment, and civil conflict has led to a dramatic growth in artisanal mining and mining sites are increasingly targeted by low skilled individuals seeking artisanal opportunities.

Artisanal mining in the DRC is usually a product of high levels of unemployment attracting predominantly young men (including ex-combatants) keen to take advantage of the high price of gold. Ongoing instability and violence in many cases forced people to abandon pastoral activities and turn to alternative livelihood sources, artisanal mining being often the most attractive or the only alternative to subsistence farming. Artisanal mining in the DRC is characterised by abject poverty and governed by insufficient legislation. It is labour intensive (and therefore usually exploitative), seasonal and attracts extremely large numbers of migratory workers. Health and safety standards are usually extremely low exacerbating the vulnerability of marginalised worker groups including children and women. Rural health and education standards in artisanal mining communities are usually in decline.

Artisanal mining sites usually have security forces on site to prevent theft rather than protect the workers or the communities. Some sites are protected by militia troops. Although artisanal mining has the potential to generate wealth and job creation many artisanal miners remain in poverty predominantly because of the illegal taxes levied against production, varying forms of debt bondage and the prevalence of drugs and prostitution.

6.10.2. Overview of ASM in the Project Area

OKIMO controls 83,000 km² of mining concession land in Haut-Uélé and Ituri districts divided into three concession areas (38, 39 and 40) and an exclusive research zone. The Moto Gold Project is located in concession 38. OKIMO's licence for concession 38 covers the entire territory of Watsa and extends to the neighbouring territories of Dungu and Faradje. The concession is subdivided into North, South and periphery sectors through which the company sets up structures of control. It is clear however that OKIMO does not control all the quarries on its concessions.

²¹ Secondary source used for this section includes, 'Orpaillage Activity in the Orientale Province, Democratic Republic of Congo: SITUATIONAL ANALYSIS REPORT' a report prepared by Wardell Armstrong and PACT for Anglo Gold Ashanti LTD and OKIMO, May 2006.

OKIMO maintains 400 tonnes of gold have been extracted from their concessions to date. Estimating the scale of artisanal mining is impossible due to its informal nature. However it is presumed to be the largest single source of employment in the area and experts believe that the number of people seeking to work in the artisanal sector in the DRC and therefore within the OKIMO concession will grow over the next few years. Following the decline in OKIMO's production in the 1970s, the sharp drop in employment opportunities and increased migrant labour within the concession led to an increase in artisanal mining, which quickly became the primary means of livelihood in the area. It is estimated by OKIMO that ASM is now practiced by an estimated 75% of the active population that is males between the ages of 12 and 50 years old.

The Kibali sector has an estimated 34 quarries and there 13 quarries in the immediate Project area (12 in the exclusion zone and one just outside it) (see Figure 11 below).

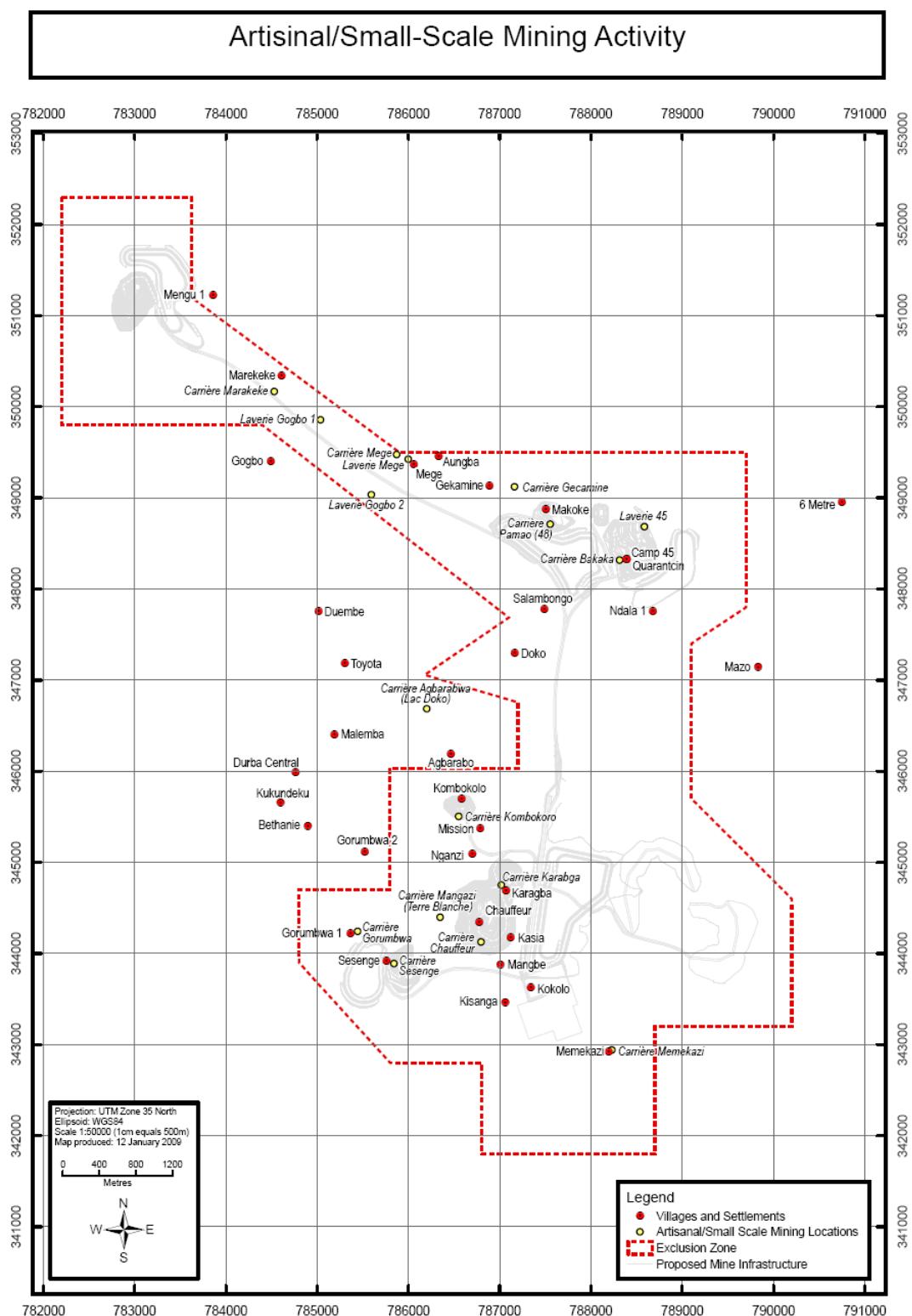
6.10.3. Organisation of ASM: Roles, Relationships and Numbers

Under the Mining Code of the DRC the practice of artisanal mining remains illegal on concessions once a commercial mining title has been granted. Despite this OKIMO is still permitting and benefitting from artisanal mining on its concessions. In 1999, OKIMO created a system which permitted artisanal mining on its concession in return for a 30% royalty. Under this system individual artisanal miners had the option to subcontract and manage 500m² portions of the concession for artisanal exploration. This has ensured that levels of production at OKIMO are maintained while at the same time ensuring that livelihoods are not undermined.

A specific OKIMO department oversees the subcontract, manages the artisanal activity and organises the election of the head of each site within the artisanal communities (annual). The department works under the supervision of the Director for Exploitations (DEX), who is the OKIMO on site based general manager, and is staffed by 18 OKIMO representatives and six members of the artisanal mining community.

The internal rules imposed by OKIMO also delineate policies relating to discipline in the mine, the environment and health and safety. However information regarding the legal structures regulating the artisanal sector has never been disseminated in the district and therefore many OKIMO employees in charge of the subcontracts are not literate in these regulations. Furthermore, apart from the subcontractor contract, there are no contracts formalising the relationship between OKIMO and the artisanal miners. As a result OKIMO has limited control over the artisanal mining industry, and the relationship between the artisanal community and OKIMO is reported to be fragile, uncertain and characterised by a lack of trust.

Figure 11 : ASM Quarries around the Moto Gold Project



Many artisanal miners work casually, seasonally or are migrant workers from other parts of the DRC or Eastern Africa. In addition, the number of artisanal miners and helpers working at any given moment is determined by the 'success' of a particular quarry. Often word will get out if a lot of gold is being found in one quarry, and people will come to that quarry to offer their services. As a result, the number of people working at any particular quarry can increase from 50 to 500 overnight. People working in the quarries carry out a number of different roles (see Table 9 below) ranging from the miners themselves, to people who wash or carry the ore. Though artisanal mining is a predominantly masculine affair, women can be found working in a quarry carrying out such tasks as the washing of ore, cooking for miners or trading. Male children as young as six years old will come to work in the quarries, and they will be given 'lighter' tasks such as working in the sluicing ponds until they are considered to be able and strong (usually between the ages of 10 and 12).

The initial extraction teams are extremely large and well organised. Revenue accrued from initial extraction is used for the payment of incurred debts. The second round of extraction is then prioritised for the team of gangs that opened up the pit.

The methods of exploitation are either in galleries or bedrock on different types of rocks. Sites are characterised by a lack of appropriate tools and specialised technical assistance to guide miners in identifying ore bodies. Pits of up to 20 metres in depth are created using rudimentary tools to dig such as spades, mine bars, or hammers. In every site several pits are abandoned because miners failed to hit rich ore bodies or due to landslides burying the pit. Landslides are a very frequent phenomenon in the rainy season and render null all the hard labour carried out over months to open up pits, thus leading to a big loss of financial investment.

Table 21 : ASM workers: Roles and Responsibilities

Roles and Responsibilities
<p>The Subcontractor – "PDG" (Président Directeur Générale) :</p> <ul style="list-style-type: none"> • Elected from the mining community and given 500m² to exploit. • Charged: 3 <i>kichele</i>²² per day by OKIMO, which equates to the 30% royalty (this increases to 15 <i>kichele</i> on average, which is equivalent to 18.45g if production booms). • Manages the allocation of pits, washing bays, monitors the production and responsible for all issues on the perimeter. • Responsible for discipline, environment, health and safety on the mine. • The only miner to retain contact with OKIMO staff. • Sets up a committee of 7 people, including: <ul style="list-style-type: none"> ○ Vice-PDG: Deputy and direct assistant to the PDG. Together they provide the financial inputs necessary to start production; ○ Technical director: Distributes the pits to the miners, assures security and safety in the pits, controls the density and grade of the gold and advises the PDG or Vice-PDG if a presented danger necessitates pit closure; ○ 3 Counsellors: Manage daily tasks and trading; and ○ 2 Secretary: Keep records of daily production, and other administrative tasks.

²² *Kichele* is a Congolese term used in artisanal mining, referring to a measure of roughly 1.2g.

Pit Overseers

These are the main actors in the exploration and extraction of the ore body. They are responsible for recruiting gangs of between 4 to 18 miners to undertake the digging and extraction. They are charged 5 *kichele* (6.15g) to access and open the pit, which is payable to the committee as soon as production starts.

The miners the Pit Overseer recruits pay an access fee of 1000 Congolese francs (US\$1.7), 50% of which goes to the local state administration and the rest to the committee.

Carriers

Independent teams of 4 to 8 people per pit organised to carry the ore to the washing bay. They earn US\$ 0.5 per bag (a bag usually contains 10 spades/30kg).

Sluicers

Sluicing is a gravity concentration method whereby water is used to separate the gold particles from the rest of the ore. Sluicers usually work in independent teams that range from 3 to 5 people.

Traders

These people buy and sell the gold and lend money to artisanal miners. They often act as the middlemen between the miners and exporters trading gold out of the territory. Traders in the Project area are generally either from North Kivu or from Aru.

As a result of the informal nature of artisanal mining it is impossible to determine the full scale of artisanal mining on the OKIMO concession. OKIMO carried out a census of the artisanal miners on their concession 38 in May 2008 and came up with a figure of 3,056. However, this figure does not take into account those temporary miners who work on and off in the quarries or who will come to work in a quarry when word gets out that a deposit has been found. Furthermore, that figure does not include all the other peripheral roles such as the washers or transporters. As a result it is more than likely that a more realistic assessment for the number of miners could be double that initial figure of 3,056, and if one was to take into consideration all the other peripheral roles, the number of people involved in artisanal mining on concession 38 could run into the tens of thousands. A report on artisanal mining in Orientale Province by the consultancies Wardell Armstrong and PACT put forward in 2006 a potential figure of approximately 25,000 artisanal miners around Durba.

6.10.4. Key Issues Associated with ASM in the Project Area

Diverse ethnicities work and co-habit peacefully on the OKIMO concession. Eligibility to enter the mine is based on physical aptitude and experience. Site managers often discriminate against ex-combatants and demobilized soldiers. Many artisanal miners enter into debt bondage and working on the concession presents an opportunity to repay occurred debts. This dependency can create long term negative impacts particularly if exploitation is cancelled or postponed.

The lack of assistance (including technical and administrative assistance) or formal structures governing artisanal activity has created conditions for state administrative services and the army and police to elicit bribes and illegal taxes from individual artisanal miners.

The land used for artisanal mining on the OKIMO concession is never reclaimed after use, rendering it unusable for other purposes for example agriculture. The open pits are never covered, or sign posted making the area extremely hazardous for human and animal movement. Furthermore, none of the artisanal mining sites in the OKIMO concession have proper sanitary facilities and poor water management has led to pollution and the spread of infectious disease.

As in many artisanal mining sites throughout the DRC, there are high levels of child labour on the OKIMO concession. OKIMO is responsible for artisanal mining on its concession and therefore the use of child labour puts it in breach of Congolese law and many international conventions.

The average daily revenue per household is \$1. The cost of living remains high as many products need to be imported from areas like Aru and Ariwan from where transport costs are extremely high. On average a household has an income of CDF 10,000 (\$16) per month. For a household with 6 members this equals CDF 56 (\$ 0.1) per person per day

Agriculture and artisanal mining are the most significant sources of local revenue and livelihoods in the project area. Agriculture is predominantly carried out on a subsistence basis and surplus is sold in small local markets or in the main markets of Durba. The 'papa' does the preliminary work and the mother tends the field at harvest. Reports indicate that soil fertility is decreasing which could inhibit the yield of crops from subsistence farming. There are also many problems with parasites and livestock epidemics.

Key agricultural produce is as follows:

- Sorghum
- Manioc
- Groundnut
- Maize
- Sweet potatoes
- Green bananas
- Rice
- Haricots
- Palm nuts (gathered for palm oil)
- Coffee
- Others include: tomatoes, sugar cane, cabbage, aubergine, coconuts

Livestock rearing is also a key source of livelihood and animals reared include

- Goats
- Chickens
- Rabbits
- Ducks
- Pigs (significantly affected by an outbreak of swine fever in 2007)

Land is available from the chiefs, and no land lays fallow. However there is no use of fertilizers and annual grass burning does little to help fertilise the soil. Villagers resort to slash and burning new forest areas to seek more fertile land.

Communities engage in fishing, hunting and gathering. There is no fishing on Lake Boma which is reported to be too polluted. Smoked fish is either imported or caught locally in the large rivers nearby including the Kibali which flows into the Nzoro. Hunting is carried out predominantly using traps, dogs and guns. High numbers of community members maintain that they eat bush meat which must be a product of hunting or purchased from commercial hunters. Community members gather ants, termites, honey, and plants (for the production of herbal medicine) from the local area. In addition women often produce the local alcoholic beer 'lotoko'.

Meat sold in the market includes cane rats, monkey, wild pig, snake, buffalo and small antelope, almost all of which is cold and smoked. Cow meat is imported by walking cattle from the south. Local goats and chicken are very expensive, for example a US\$ 4.00 chicken in Uganda will cost US\$ 12.00 in Doko.

6.10.5. The Local Economy of ASM

Following the decline in OKIMO's production in the 1970s, the sharp drop in employment opportunities and increased migrant labour within the concession led to an increase in artisanal mining which quickly became the primary means of livelihood. It is now practiced by 75% of the active population. Trade stands as the secondary economic activity and agriculture as the tertiary. Communities, trade and agriculture in the area are therefore crucially dependent on artisanal mining. The territory of Watsa is inaccessible as road conditions to the major cities of Bunia (400km) and Isiro (300km) are extremely poor. As a result inflation is high and agricultural production is declining from a lack of access to markets and the attraction of earning cash in ASM.

Gold trade routes have been established in the Great Lakes region for hundreds of years. As a result gold plays a crucial role in the economic fabric of the Orientale Province, and is often used as a bartering device for goods imported from Uganda. The majority of gold vendors in the Orientale Province sell their gold to traders, and the gold usually ends up in Uganda, transported through the border towns of Aru and Butembo. Despite the inaccessibility of the area, traders take gold out of the area via the road to the city of Aru using motorbikes at a cost of US\$ 80/ trip or by vehicle at a cost of US\$ 50. Alternatively the Nandes business network will organise a SETRACA air charter flight, which flies regularly from Doko to Butembo. Key transit points for traders are Aru City and Butembo for export to Asia and Kampala. Very little gold is traded through Isiro as the way is inaccessible by road and there are limited flights.

The average gold concentration in producing mine sites is reported to be 3 match heads (equal to 0.3g) per 10 spades (30kg) of ore. Using OKIMO data regarding their 30% share of gold production in concession 38, it is possible to come up with some tentative figures on annual gold production in the last few years. Below is the minimum estimated production on concession 38. These figures do not include the production performed by the small scale structures managed by the Director for Exploitations. Furthermore, the OKIMO division for subcontracts believes that ASM miners on their concessions are not always declaring the total amount of gold they are finding.

Table 22 Value in GB£

Year	Peripheral Sites		North and South Sites	
	Production in kg	Value in GB£ Rate £18,275/kg	Production in kg	Value in GBP£ Rate £18,275/kg
2004	20.163	£368,478	0.286	£5,226
2005	22.62	£4133,380	1.305	£23,848
2006	24.117	£440,738	1.501	£27,430
2007	22.41	£409,542	2.136	£39,035
Till Sept 2008	15.579	£284,706		£

Table 23 Value in US\$

Year	Peripheral Sites		North and South Sites	
	Production in kg	Value in US\$ Rate US \$ 26,066.61/kg	Production in kg	Value in \$USD Rate \$ 26,066.61/kg
2004	20.163	\$ 525,001.79	0.286	\$ 7,448.60
2005	22.62	\$ 5,890,868.24	1.305	\$ 33,999.70
2006	24.117	\$ 628,139.26	1.501	\$ 39,111.36
2007	22.41	\$ 583,613.61	2.136	\$ 55,681.56
Till Sept 2008	15.579	\$ 405,744.51		\$

(Today rate: 1 GBP= 1, 42645\$) Date 02/02/2009

The total production is shared as follows: 30% goes to Okimo and the 70% go to Orpailleurs . The tables below provides the figures.

Table 24 Okimo

Year	Peripheral Sites		North and South Sites	
	Production in kg	Value in \$ USD Rate \$ 26,066.61/kg	Production in kg	Value in \$USD Rate \$ 26,066.61/kg
2004	6.0489	\$ 157,500.537	0.0858	\$ 2,234.58
2005	6.786	\$ 1,767,260.472	0.3915	\$ 10,199.91
2006	7.2351	\$ 188,441.778	1.501	\$ 11,733.408
2007	6.7235	\$ 175,084.083	0.6408	\$ 16,704.468
Till Sept 2008	4.6737	\$ 121,723.353		\$

Table 25 Artisanal miners

Year	Peripheral Sites		North and South Sites	
	Production in kg	Value in \$ USD Rate \$ 26,066.61/kg	Production in kg	Value in \$USD Rate \$ 26,066.61/kg
2004	14.1141	\$ 367,501.253	0.2002	\$ 5,214.02
2005	15.834	\$ 4,123,607.768	0.9135	\$ 23,799.91
2006	16.8819	\$ 439,697.482	1.0507	\$ 27,377.952
2007	15.687	\$ 408,529.527	1.4952	\$ 38,977.092
Till Sept 2008	10.9053	\$ 284,021.157		\$

The organisation of the gold trade is highly complex and there are many vested interested in the sustained activity of the gold trade. The gold production from the pits in the immediate project area are likely to represent a high proportion of the total gold activity in Haut-Uélé District.

6.10.6. Markets

The main market within the project area is located in Durba centre. Most products sold here come from Uganda, however gold is also traded. Most villages or groups of villages will have a market day once a week at their local market and this is generally where local food is bought and sold. Trade is generally hampered by poor and inaccessible transport routes.

Business activity in this area, especially within Durba center, is limited to the sale of general items in boutiques including manufactured products like foot wear, clothing, house apparatus, Ugandan beers and soft drinks. Other activities include money transfers, the transport of goods from Aru or Bunia to Watsa, the sale and fitting of spare parts for motorbikes, “comptoirs” for gold trade, and the sale of fuel. The key supply routes are the Watsa-Aru road for products being exported to Uganda and beyond to Asia.

6.10.7. Taxes

Corporate contributions to the government, both national and local, are calculated according to industry sector. In addition, income tax is levied on salaries, and owners of bicycles or motorbikes also pay taxes for them.

6.10.8. Banks and Credit

There is one bank/ credit centre in Durba Centre.

6.10.9. Cost of Living

The cost of living in the project area is high. The area is an artisanal mining area where a major section of the population is involved in artisanal mining and therefore not engaged or interested in farming. Most essential and luxury products are imported. The cost of transport, as a result of poor road conditions is between \$0.27 and \$0.50 per kg depending on the road. The result is an increase in the cost of goods, for example a beer in Uganda is \$0.85 and in Durba it is \$3.00. Local vendors also increase the price of local produce to take advantage of a captive mining market that has no alternative. The lack of competition therefore sustains high prices. This is exacerbated by weak governance in the area which has reportedly led to much price fixing of goods.

6.11. Land

Legally, national law declares that all land belongs to the state and that local arrangements of ownership are not legally binding. However, local customary land tenure in the project area is widely and historically acknowledged by all. This has led to tensions between customary land holders and OKIMO.

Famille “Regnate” are considered to be the customary owners of the land in the Kibali Sector. OKIMO has formal ownership of the land provided for by the State. In order for a person to settle in the area they will need to apply for permission from OKIMO, and this is done through the chief of the camp (where OKIMO workers are living) or from the chief of the village (non OKIMO settlement). It was reported that some people seek permission from Famille “Regnate” directly or are introduced to them by the chief of the village. Although this does not seem to be an issue this could be a problem in the future.

6.12. Summary of Key Baseline Issues

The key baseline issues in the project area and which define the social context in which Moto will be operating are as follows:

Table 26 Summary of Key Baseline Issues

Summary of Key Socio-Economic Characteristics

Key Livelihoods

- Limited employment opportunities
- Local population dependent on subsistence agriculture and/or ASM
- Large percentage of the population dependent on the ASM

Basic Public Services

- Limited access to education
- Limited access to health services
- Widespread health problems (malaria, HIV/AIDS, gastro-intestinal problems, etc)
- Poor or nonexistent infrastructure (water, electricity, housing, sanitation, etc)
- Deteriorated routes and lack of access to transport leading to isolation
- Corruption and a lack of capacity in local administrative bodies (police, local government)

Community Dynamics

- Tensions around land, particularly between the customary owners and the legal owner OKIMO
- High levels of social pathologies (alcoholism, drug use, prostitution)
- Tensions between youths and elders related to ASM
- High numbers of young people
- OKIMO legacy issues around non-payment of wages, death duties, pensions and accident compensations

Post Conflict Environment

- Potential legacy issues from the various wars and conflicts that have affected the area (traumatised local population, gender violence, high levels of HIV/AIDS)

7. Stakeholder Engagement

7.1. Overview

Stakeholder engagement is an activity that should be ongoing throughout the life of the project, and is a vital component of any impact assessment. It is also a requirement of most impact assessment guidance including the IFC Performance Standards.

Well managed stakeholder engagement can be effective in reducing financial risk, reducing direct costs, increasing market share and enhancing social benefits for local communities.

In preparing this report, a number of stakeholder workshops/meetings were conducted with different stakeholders, including provincial, district and local stakeholders (see list and dates below) during three weeks of fieldwork in October 2008. The key issues raised by stakeholders are highlighted below (detailed notes of the meetings are in Appendix 1).

The purpose of engaging stakeholders was to inform the stakeholders of the progress of Moto Gold Project, to gather stakeholder views, questions and inputs to the project, and to gather new or corroborate existing socio-economic baseline data.

Meetings conducted as part of the consultation and engagement process: (see Appendix 1 for detailed lists of participants)

- 10 - 11 October 2008 Kisangani workshop with provincial authorities
- 18 October 2008 Authorities of the Haut-Uele District and the Territory of Watsa
- 19 October 2008 OKIMO's subcontractors and Artisanal miners
- 20 October 2008 Chiefs of Groups of villages and sages of MANGBUTU and KIBALI Sectors.
- 21 October 2008 Managing staff, staff and Trade Union delegation of Okimo
- 22 October 2008 Delegates from the communities of Watsa – not included in Appendix 1

7.2. Key Issues Raised During Stakeholder Meetings

As highlighted below, stakeholders raised a number of issues during the consultation sessions, key among those are:

- Communication between the Project and the stakeholders
- ASM
- The resolution of existing issues
- Resettlement and compensation
- Recruitment and economic opportunities

These views were fed into the assessment of impacts and have influenced the development of mitigation measures.

Provincial Authorities

- Adherence to legislation/codes that govern mining activities in the DRC (Including international best practice guidelines of the World Bank and IFC)
- Importance of communication and accessibility of information (translation of documents into local languages and use of radio to disseminate information)
- Recruitment of local labour is imperative

- Skill development and training (including Artisanal Miners) imperative

Local government (District and Territory Authorities)

- Benefit sharing / income (How will local communities benefit from the project?)
- Non representation of the company in Isiro (district capital)
- Company's future policy on Artisanal Miners

Subcontractors and Artisanal Miners

- Relocation and compensation
- Inadequate information dissemination and communication
- Future of Artisanal Miners
- Infrastructure (Durba – Watsa road)

Chief of groupments and Sages of Mangbutu and Kibali Sectors

- Permitting and licensing of the mine
- Benefit sharing /shareholding
- Economic prospects of the region post mine closure
- Employment opportunities for local population
- Business opportunities for local population

Okimo Management Staff, Staff Members and Trade Union

- Promotion of dialogue is important
- Okimo not informed of studies and relocation
- Retired workers replacement (they would like to be replaced by their children)
- Artisanal Miners removal from the camps

Community representatives of Watsa

- Future of the Artisanal Miners
- Relocation and compensation
- Community representation in the relocation process

Communication and stakeholder engagement activities are essential to demonstrate and ensure not only that the Project is adhering to DRC legislation and codes, and international best practice, codes and standards on mining and management of social and environmental issues, but also that the Project continues to operate smoothly.

It should be noted that disclosure of and engagement on ESIA documents is strongly recommended by the IFC. The Project should continue to engage with its stakeholders on social and community development issues as set out in the Stakeholder Engagement Strategy (see Appendix 4).

8. Social Impact and Mitigation

8.1. Introduction

This section of the report considers the potential socio-economic impact associated with mine. The section is “issues based” in terms of headings but also examines the categories of impact and potential mitigation strategies associated with the issues. Issues were generated both via the interaction that took place during the fieldwork period and from the documentation available. It is worth emphasising that, in reality, aspects of many of the impact overlaps a number of issue categories. However, these have been artificially separated for the sake of clarity in the impact assessment section. The complexity of the issues should be clear in the baseline discussions.

These issues impacts are discussed in the following manner:

1. Issues discussion
2. Impact state states where the impact is perceived to exist. The impact table categorises the impact in a standard format
3. Mitigates measures are provided and considerations as to how they influence the impacts in put forward. Note these are preliminary recommendations for mitigation.
4. The impact table considers the significant of the impact post mitigation.

From site visits undertaken, analysis of the mine plan, examination of available documentation and from the quantitative interviews with residents, artisanal miners, local authority administrators, and other key stakeholders. The key issues that immerge are the follows:

- Issue 1: Employment
- Issue 2: Economic Opportunities
- Issue 3: Loss of Economic Activities
- Issue 4: Land and Natural Resources
- Issue 5: Involuntary Resettlement
- Issue 6: Population Influx
- Issue 7: Local Government and Decentralisation
- Issue 8: Community Health and Safety
- Issue 9: Upgrading Infrastructure
- Issue 10: Conflicts

8.2. Cumulative impact

An important consideration of consideration of impact assessment is the cumulative impact of the proposed development. In this case, it means to what extent the mine is impacting on an environment that is already experiencing problems. The themes expresses throughout the baseline study is that of socio-economic environment has been much degraded over the past 20 years. The results of the war, weak governance, internally displaced people, break down of social infrastructures, high levels of diseases has contributed to a highly vulnerable community. The need to resettle communities in such an environment will pose significant challenges to the company, the community and the authorities. However it is evident despite the communities being highly

vulnerable to social changes created by resettlement, there are opportunities for resettlement to be a constructive developmental.

Each impact has been described according to extent, duration, probability and confidence, as described in the table below.

Table 27 Impact Parameters

Extent		
Household		Households within the Exclusion Zone / Project Area
Local		Kibali Sector / Watsa Territory
Regional		Haut-Uele District / Oriental Province
National		Democratic Republic of Congo
International		
Duration		
Short		Less than 5 years
Medium		Between 5 and 15 years (the life of the mine)
Long		More than 15 years
Probability		
Level	Description	Criteria
5	Certain	The event will occur / The event occurs daily
4	Likely	The event is expected to occur / The event occurs weekly/monthly
3	Possible	The event will occur under some circumstances / The event occurs annually
2	Unlikely	The event has occurred elsewhere / The event occurs every 10 years
1	Rare	The event may occur in exceptional circumstances / The event has rarely occurred in the industry or area
Significance		
Very High	<ul style="list-style-type: none"> A significant amount of negative or positive change over the long term that could lead to wider social transformation that has permanent consequences. 	
High	<ul style="list-style-type: none"> A significant amount of negative or positive change that has long term consequences on directly affected groups. 	
Medium	<ul style="list-style-type: none"> Significant positive or negative changes in the medium term on directly affected groups. 	
Low	<ul style="list-style-type: none"> Minor positive or negative changes that are short term or temporary on households or groups.. 	

Note: Many of the impacts are based on an exclusion zone as defined by Moto. These are in flux and are being changed. This will have an impact on the impacts and associated risks to the company and will need to be updated.

Confidence

Confidence is based on engagement with internal and external stakeholders, available information, baseline data, comparative information from mine sites, historical information from projects elsewhere in the region.

The Lycopodium Matrix (Figure 12) has been used to categorise the impacts. Those impacts in the red shaded boxes are the highest risk and require senior management attention. The matrix ranking is based on pre-mitigation impacts. There is the potential for many of the negative impacts to be managed and mitigated so as to produce a positive impact or benefit for both the community and the Project.

The impacts are discussed in detail below with the pre and post mitigation impact ranking indicated in each case.

Figure 12 Project Impacts (Pre Mitigation)

Likelihood	Consequences				
	1 Insufficient	2 Minor	3 Moderate	4 Major	5 Catastrophic
Certain (A)	10.1	7.2	7.1	5.2	5.1
Likely (B)	6.1	4.3	4.2	4.1	3.1
Possible (C)	1.1	6.2	8.1	9.1	3.2
Unlikely (D)	2.1			5.5	5.3
Rare (E)	2.3	2.2	5.4	1.2	

Risk Level	Priority	Example Action
Positive		Positive impact expected – action required to enhance effects
High	1	Senior management attention; immediate corrective and preventive action required
Medium	2	Management responsibility assigned; corrective and preventive action plan developed
Low	3	Manage by routine procedures; accept risk

8.3. Issues

8.3.1. Issue 1: Employment

- Impact 1.1: The construction of the mine will increase job opportunities.
- Impact 1.2: The operation of the mine will increase job opportunities.

Pre	Post
Low +	Med +
Med +	High +

The issue that many people raised was whether the proposed mine would mean create jobs for people living in the local area. Okimo workers are well as non Okimo artisanal miners are keen to get a job with Borgakim. The plans are to employ approximately 700 people on average during construction and approximately 500 people during operation. Out of the number of jobs available, it is expected that during construction 10% of the people can be recruited in the DRC as many contractors will come from outside the region. It is highly likely that the 10% will come from the immediate area. During operation it is predicted that approximately 70% of the workers will be

recruited from the DRC, and of this it likely that 10% will be recruited from the Oriental Province. The table below provides an indication of the type jobs available.

Table 28: Types of Job

Type of Job	Construction	Operation
Skilled Positions	280	200
Semi Skilled	350	250
Unskilled	70	50
Total	700	500

Table 29: Locations

Recruitment	Construction	Operation
DRC (Excluding provincial)	0	315
Provincial	70	35
Expatriate	630	150
Total	700	500

A significant challenge facing Borkakim will be to decide on a fair mechanism for allocating jobs to local people in order to reduce the potential for conflict over unemployment. Defining who is “legal” will be a complex task and will need the full support of the traditional and government authorities. There is currently a lot tension about who gets employed at the exploitation site, with Borgakim being accused of not employing people who are traditionally from the area.

Mitigation Measures for Jobs Creation: The following mitigations measures are designed to optimise the positive impact of the mine with regards to Job creation at local level during construction and operational phases of the mine. These measures are:

- Determine how to increase the number of people that can be employed at local level, whilst maintaining the productivity standard required.
- Negotiate the best possible arrangement with local trade unions that increases the number of jobs (for example 24 hours 7 days a week operations).
- Provide guidelines for contractors that enhance labour requirements.
- Implement a social investment initiative that provides technical bursaries for local children and education programmes for schools children developing an awareness of the local employment opportunities in the mining industry and enhances future potential for local employment through appropriate skills development.
- Design an appropriate recruitment strategy (see issue below) that focuses on local communities but avoiding any patronage with selected groups that cause conflict.

Mitigation Measure over conflict over Jobs. These measures are designed to reduce the potential for conflict over accessibility of jobs at the local level. The following are measures are:

- Development a localisation policy which will ensure that local resident are prioritise with regards to employment opportunities.
- Develop training mechanisms that will focus on increasing and improving local capacity.
- Develop systems to ensure that local residents are able to access certain categories of jobs.

- Establish a system for local procurement that has a suitable definition of “local” that all stakeholders agree to. The system must be transparent and not open to abuse. The manner in which people are selected must be fair and trusted.
- Develop a dispute resolution mechanism needs to cater for dispute of employment.
- Develop mechanism that aligns human resource policies to community development needs.
- Ensure that recruitment prevents, rather than promotes an influx of job seekers by having clear policies, guidelines and communication strategies which prevent confusion and reduces expectations. It should be noted that this type of mitigation is difficult to successfully achieve particularly against the background of South Africa’s unemployment levels.
- Recognise and understand how political dynamics might create conflict over a scarce resource such as skilled labour.
- Avoid creating long term patronage with one group at the expense of other groups.
- Training of local people to be able to secure on the mine.

Impact Statements

The construction mining operation on the site will have some major impacts in the area in terms of job creation. The construction of the mine will increase job opportunity at local level as well as regional and national levels in the short run. Furthermore the operation will create opportunity for local business and entrepreneur to grow and become more competitive economically. However the potential of conflict developing over access to jobs cannot be ignore in the area.

8.3.2. Issue 2: Economic Opportunities

	Pre	Post
• Impact 2.1: The mine will provide taxes and royalties to the DRC government during construction.	Low +	High +
• Impact 2.2. Employment at the mine during construction will strengthened the economy.	Low -	Med +
• Impact 2.3: The mine will increase the opportunities for regional business during construction and operation.	Low +	High +

The mine will demand capital expenditure of approximately US\$ 400 million. It is safe to assume that approximately US\$ 5 million per annum will be spent on DRC contractors and in addition the DRC could secure US\$ 40 million in taxes. The regional economy (other parts of Africa) could secure approximately US\$ 100 million. The operational procurement bill is estimated to be US\$ 1.4 million. As with construction it is unlikely that beside aside from some goods and services valued at approximately US\$ 5 million per annum there will be supplies coming into the DRC. The Mining Code provides for a depreciation loading of 60% in the first year as well as the opportunity to carry forward any losses made in one financial year to the next.

Royalties paid to the DRC government over the 14 years lifespan of the mine will amount US\$ 84 million. This estimate is based on 2.5% of gold sold at a price of US\$ 750 ounce, with the total production being approximately US\$4.5 million ounces. According to the royalty bill 40% (US\$34 million) of this will be channelled to the Orientale Province and this 15% (US\$5 million) to the District over the lifespan of the mine. The direct economic benefit of the mine in the Orientale Province is considered to be low. This is as a result of a very leakage of service and material cost internationally.

It is envisaged that non-core business activities could be sub-contracted to local supplies if they are available. This refers to cleaning contracts, security services, canteen catering services, and maintenance of equipment.

Mitigation measures designed to enhance the opportunities for development as a result of the royalties and taxes paid to the DRC government. This includes:

- Capacity building of the District Authority to utilise the royalties efficiently.
- To promote transparency of the loyalty payments to the Central Government and how these flow to the Province and District Government.
- Develop systems to enhance the potential of DRC business to supply quality goods and services to the mine, in so doing improve the positive impacts of the mine development.
- Establish business linkage and programmes that can strengthen networks and relationships between the private sectors, government, education institutions and firms of suppliers.

Impact Statement

The loyalties paid in the form of taxes during construction, will increase revenue for the DRC government. This revenue, if manage transparently, will flow to the provincial and district levels and promote socio-economic economic growth and infrastructural development in these areas. The mine will equally increase the opportunities for national businesses during construction and operational phase. Local procurement opportunities will be initiated for local businesses and equally thus creating the entrepreneur and other small business to flourish.

8.3.3. Issue 3: Loss of Economic Activities

	Pre	Post
• Impact 3.1: The mine will permanently displace income generating activities	High -	Low +
• Impact 3.2: The Project will lead to loss of economic livelihoods	High -	Low +

The settlement within the concession have range economic activities, mostly driven by the artisanal mining activities managed by Okimo. These activities, especially Durby Center, comprise selling items such as foot wear, clothing, house apparatus, Ugandan beer, micro leading, transporting goods from Aru or Buinia to Watsa, spare parts for motorbikes, “comptoires” for gold trade, petrol and charcoal. The supply routes are the Watsa Aru road for products from Uganda and Asia. Within the concession there are markets located in Durba Center and at Camp Mission. Smaller settlements have rotating markets.

The most critical impact resulting from the development of the mine will be the displacement of miners from their place of work. It will also reduce the amount of gold being traded from this area into the gold market. From the research, miners claim the KCD concessions are by far the most profitable, compared with others in the vicinity. The organisation of the gold is highly complex and are many vested interested in the sustained activities of the gold trade. The gold production from these pits represents a high proportion of the gold activities in the area. The network of gold traders will have a reduced supply of gold. Unconfirmed statements suggest that business sponsors are Ugandans who have a vested interest in sustaining the gold trade. The networks of individuals and groups who are highly successful in business, such as the Nande, Logo and Lubara who trade gold with Ugandans also have vested interests in the gold trade and could undermine attempts for the resettlement of the orpaillage activity using strategies that could include protests, organised criminal activity and the use of militia.

The concession falling in the Exclusion Zone accounts for 92% of the gold produced in the larger geographical area. The table below indicates the location of the site its production capacity and values.

Table 30: location and their Values

Peripheral site (located in the exclusion)			North and South far located sites	
Year	Production in Kg	Value in US\$ Rate US\$ 18, 18,275	Production in Kg	Value in US\$ Rate US\$ 18, 2275
2004	20,163	368,478	0.286	5,226
2005	22,62	4,133,380	1.305	23,848
2006	24,117	440,738	1.501	27,430
2007	22,41	409,542	2.136	39,035
Till September	15,579	284,706		
2008				

Mitigation measure designed to ensure that those people who have lost their economic livelihoods are able to restore them. The measures include:

- Identifying and developing alternative livelihood options for the artisanal miners. This activities needs to deliver the same quality of life to artisanal miners, if not more.
- Okimo to undertake negotiations with all workers and contractors on the opportunities for exploiting alternative livelihood activities.
- Develop a Resettlement Action Plan (RAP) to address the loss of natural resources for all effected households.
- Borgakim will be required to replace or compensate affected households for the loss of natural resources in line with the outcomes of the RAP.
- Ensure due process, a RAP and an Environmental and Social Impact Assessment for the host site must be developed to address the increase pressure on surrounding land and resources. This process will be required to determine the extent and nature of lost land and natural resources and to identify potential replacement land. Such replacement land should not be utilised by other communities or households.
- Particular focus should be given to the increase pressure on water resources. This is considered a critical issues and a likely point of tension in communities.
- The provision of sufficient reliable water in the host communities will ensure that this impact is mitigated to the level of low (+) significance as a result of the benefits it will have to the lost communities.

Impact Statement: Loss of Natural Resources and Increased Pressure on surrounding Land and Resources

Local community in and around the concession are reliant on natural resources (wood for fuel, building materials, medicinal plants, fruits, etc.) as a supplement to the subsistence agriculture and informal trading. The loss of land to the project would certainly result in the loss of natural resources found in the land. Water from the lake Durba located within the Exclusion Zone is currently utilised by the community for activities such as washing (but not drinking). Access to this water source will be lost source will be lost through the loss of land to the project.

Also construction and operational phase will increase pressure on the surrounding land and resources. The loss of land and natural resources is likely to result in increase pressure on surrounding resources. This may include increase competition for limited available land natural resources that would likely impact both those conserved above (impact 1.1 and 1.2) and the “host” communities. The “host” communities are those communities on which the households losing land and natural resources will become dependent.

8.3.4. Issue 4: Loss of Land and Natural Resources

- Impact 4.1: The construction and operation of the mine will lead to increased pressure on surrounding land and resources.
- Impact 4.2: The construction and operation of the mine will lead to loss of land.
- Impact 4.3: The construction and operation of the mine will lead to loss of natural resources

Pre	Post
High -	Low +
High -	Low +
High -	Low -

The Exclusion Zone for the Project comprises approximately 3.150ha. Most of this land will be turned over to the Project for the mine and associated infrastructure. The land is currently utilised primarily for residential sites, agricultural activities and ASM mining activities. As a consequence there will be a loss of land and associated resources for those communities currently residing on the land and/or making use of the resources found on it. The loss of this area of land will also place greater demand and pressure on other agricultural land and resources.

In addition, the mine will require water and will draw water from underground water sources. This is highly localised and communities living within 500m from the operating pits should not experience loss of supply.

To mitigate these impacts the Project should ensure proper systems for replacement and compensation for land are put in place. This is provided for in the Project’s Resettlement Policy Framework and the Resettlement Action Plan that will be developed.

8.3.5. Issue 5: Involuntary Resettlement

- Impact 5.1: Resettlement and relocation of households
- Impact 5.2: Loss of social infrastructure.
- Impact 5.3: Propensity for conflict to arise during relocation.
- Impact 5.4: Relocation of cemeteries and graves.
- Impact 5.5: Relocation of community facilities.

Pre	Post
High -	Med +
High -	Med +
High -	Med +
Low -	Low +
High -	Med +

The Project will potentially displace 11,523 people in 2,315 households. These are households and people currently residing within the Project’s Exclusion Zone. These populations stand to lose their physical, social and economic assets as a result of the Project operations. It is important to understand what these assets are in order to ensure that these populations are not made worse off by the resettlement process. This is provided for in the Resettlement Policy Framework and the Resettlement Action Plan that will be developed.

The settlements within the Exclusion Zone incorporate a host of social infrastructure. These include:

- Education facilities – There are 2 pre-schools, 9 primary schools and 3 higher schools plus 3 centres of higher education centres.

- Health centres there are 18 health centres servicing communities that are located within and outside exclusion zone. There are also 38 dispensaries servicing the communities. Within the exclusion zone there are 4 health centres and 6 dispensaries
- Water- the majority of households in the exclusion zone utilise wells and pipe water the municipalities.
- Electricity- Household use charcoal, wood and generators. Electricity connections in the OKIMO camps are utilised by very few households (approximately 6%).
- Grave and cemeteries – There 4 cemeteries in the exclusion zone as well as graves located within the household stand.
- Markets - There are 6 markets.
- Waste management
- Sanitation facilities include pit latrines

Table 31 Total Population to be Relocated

Total Population to be Relocated	11,523
Total Number of Households to be Relocated	2,315
Total Number of Graves to be Relocated	1,642
Total Villages to be Relocated	20
Total Cemeteries to be Relocated	4

Table 32 Estimated numbers of people and households from the villages and settlements within the Project's Exclusion Zone who will be displaced by the Project

Name	Surveyed	Estimated Population	Number of Structures	Number of Households
CAMP 45		126	49	25
CHAUFFEUR	✓	1,701	663	342
DOKO		257	100	52
GEKAMINE		67	26	13
GORUMBWA 1		10	4	2
KARAGBA	✓	1,293	504	260
KASIA	✓	Combined with Chauffeur	Combined with Chauffeur	Combined with Chauffeur
KISANGA	✓	931	363	187
KOKOLO	✓	346	135	70
KOMBOKOLO		31	12	6
MAKOKE		682	266	137
MANGBE	✓	977	381	196
MAREKEKE		95	37	19
MEMEKAZI		603	235	121
MISSION		675	263	136
NDALA 1	✓	1,637	842	329
NGANZI		146	57	29

QUARANTCIN	Combined with Camp 44	Combined with Camp 45	Combined with Camp 45
SALAMBONG O	1,867	728	375
SESENGE	80	31	16
TOTAL	11,523	4,696	2,315

Table 33 Reported cemeteries and graves within the Project's Exclusion Zone

Cemetery	Reported Number of Graves
Azmabe / Mengu	45
Doko 1	425
Mengu	59
OKIMO Cemetery	1,113
TOTAL	1,642

Table 34 Physical Infrastructure to be Relocated

Physical Infrastructure	Existing Number
Churches	7
Market Places	6
Nursery Schools	2
Primary Schools	9
Secondary Schools	2
Higher Institutes	3
Health Centres	4
Dispensaries	6
Water Supply	30
Electricity Supply	2
Landfills/Rubbish dumps	1
Public toilets	0
Meeting halls	1
Soccer and recreation fields	3

In addition to the individual households residing inside the exclusion zone that will need to be resettled, non-resident farmers, artisanal miners and tradesmen working within the zone will also be affected. Various community infrastructure including schools, health centres, markets, churches, and water infrastructure, as well as sacred sites will need to be considered. Land for resettlement purposes has already been identified and a resettlement committee will be established.

Table 35 Total Population to be Relocated by Trigger Event

Total Population to be Relocated by Trigger Event
Site Mobilisation

Gold Plant Construction	257
KCD Pit	4,791
Mengu Hill Pit	95
Sessenge Pit	90
Pakaka Pit	3,630
Pamao Pit	749
Kombokolo Pit	31

Table 36 Total Population to be Relocated by Phase Number

Total Population to be Relocated by Phase Number	
1. Site mobilisation (Q1 Year -2)	1,880
2. Plant Construction (Q1 Year -2)	257
3. KCD Pit Mining and Tails Dam Bulk Earthworks (Q2 Year -1)	4,791
6. Mengu Hill / Sessenge / Kombokolo (Q1 Year 3)	215
7. Pakaka / Pamao (Q1 Year 6)	4,379

Mitigation measures designed to manage the impact of resettlement are as follows:

- A Resettlement Policy Framework has been developed for the Project. This document outlines the principles governing how Borgakim will undertake to replace and compensate households that require relocation through the project's resettlement and compensation process.
- A Resettlement Action Plan (RAP) must be developed to address the involuntary relocation of all affected households.
- Borgakim will be required to resettled households and ensure that such resettlement will not result to undue negative impacts and, if possible benefits to such households. This will ensure that this negative can be successful mitigated and result in a beneficial impact of High (+) significance.

Mitigation measures design to improve awareness and understanding of legal rights includes:

- To improve due process, the Resettlement Compensation Process will be required to provide awareness training and education in terms of legal rights to households that require resettlement.
- The Resettlement Compensation Process RAP will ensure the resettlement process is undertaken in a corporative environment where affected households may voice concerns and actively engage in all negotiation and decision-making.

Impact Statement: Relocation of Individual households and Loss of Social Infrastructures

Approximately 2200 households certainly need be relocated. This will be an involuntary resettlement process and as such need to be treated carefully and transparently to ensure that conflict does not arise. If not currently managed it has the potential to result in homeless and destitute individuals and families. Furthermore, awareness and understanding of one's legal rights in terms of land tenure and compensation requirements is a critical issue in resettlement. The households that require resettlement need to understand their legal rights prior to any of resettlement.

Also community infrastructures within the affected areas of the Exclusion Zone will certainly need to be relocated. This will result in impacts both on the function of such facilities and its users, those residing in the Exclusion that will be resettled and those from surrounding areas that utilises the facilities.

8.3.6. Issue 6: Population Influx

	Pre	Post
• Impact 6.1: The Project will increase the influx of people into the local area.	Med -	Low -
• Impact 6.2: The Project will lead to increases of social pathologies.	Med -	Low -

As with all mines it can be expected that there will be an influx of people into the area seeking employment or take advantage of the economic growth during construction and operations. Currently, people living the area are from different parts of the Orientale Province as well as other parts of the country such as Ituri. The war has created a large internally displaced population. The communities are not homogenous and reflect the diversity of the cultures, languages and religions and therefore will most likely absorb newcomers into the area. The current economic crisis and its impact on commodity prices are having significant impact on the artisanal miners Katanga Province where copper is being mined. As they continue to lose their jobs mines and associated livelihoods, it is plausible that might venture north to the gold field in the north east DRC.

Over the next six months, the number of people living in and around the Okimo concessions might increase. This will, depending on when construction begins, provide a greater risk to the projects than what already.

When this happens, the following impacts might occur;

- Conflicts over jobs.
- Conflicts over access to resources – social infrastructure, housing, etc.
- Increase pressures on housing on social facilities.
- Overcrowding and associated health impacts (see health impact).
- Inflation.
- Increase in community health risks (see health impact).
- Increase in social pathologies such as crime, prostitution, drugs abuse and alcoholism.
- Increase in the market for business people.

Mitigation measures design to reduce the number of people into the area and the impact of population influx includes:

- Develop a local procure procurement programme which gives opportunities to local population.
- The development of an influx management plan together with relevant authorities and traditional authorities. This could include the following
 - A recruitment strategy that reduces the number into the area to seek job;
 - A settlement management plan for existing housing and market place;
 - Sponsor community crime prevention programmes;
 - A health management plan;
 - A grievance mechanism for people who might have complaints about not having access to jobs and other economic benefits; and

- An audit of available social infrastructure and the need to increase capacity based on influx.

Impact Statement

The project will increase the influx of people in to the local area within shorter timeframe. This tendency will a strain on socio-economic infrastructures and erode some community values.

8.3.7. Issue 7: Local and Traditional Government

	Pre	Post
• Impact 7.1: The Project will disrupt the relationships with and between traditional authorities.	High -	Low +
• Impact 7.2: The construction of the mine will place significant pressure on the current Watsa Administration.	High -	Low +

The DRC government is in the process of implementing the new Decentralisation Act 2007. The timelines for the implementation are to start in early 2009. However there is little optimism that this will take place. Haut-Uele will be one of the new provinces in the DRC. Its capital will be Isori, the largest city in the area, with five administrative territories, which are: Dangu, Faradje, Ruengu, Wamba and Watsa.

Currently there is little administrative capacity at Watsa, and becoming an administrative territory should strengthened capacity. The challenge however, is the local administration needs to manage the impact since the construction and operational of the mine is high. With little capacity in place the tendency is for a mine to take over the responsibility of the local authority, resulting in a governance vacuum. Depending on the timing of the project and the implantation of the decentralisation of the programme there could be massive pressure place on the Watsa administration without any capacity to manage the expectations.

Mitigation measure designed to increase the capacity of the Waste Administration.

- Engage the DRC Government on assessing the opportunities for providing support to the decentralisation process, and in particular the capacity of the Wasta Administration.
- Assess opportunities for providing capacity of the Watsa Administration which is required to enable the planning for the construction and construction of the mine to take place.
- Develop training programmes which are aimed at reducing the knowledge gaps in Watsa Administration.

Impact Statements

The construction of the mine will place significant pressure on the current local Isiro and Watsa Administration in the long run. The local administration need to work with Okima to determine to ensure compliance to mining legislative requirement. Also the local administration needs to ensure that the relocated community are properly settled to avoid conflicts over job and scarce resources.

8.3.8. Issue 8: Community Health and Safety

	Pre	Post
• Impact 8.1: The construction and operation impact on the health and safety	High -	Med +

of the community.



Reference: Rapid Health Impact Assessment Report, New Fields, 2008.

According to the Rapid Health Impact Assessment, the finding of the research undertaken for the community profiles and the asset survey of KCD, there are extremely high levels of health related risks facing the community. The following are the health impact of the mine could have on the social environment:

- Increase the level of respiratory ailments such as tuberculosis as a result of influx of people into the area, overcrowding in settlements and poor ventilated houses.
- Increase in vector related ailments such as malaria and yellow fever.
- Increase in sexually transmitted infections such as HIV.
- Increase in soil and water borne diseases such as diarrhoea, typhoid and bilharzias.
- Increase in communicable disease such as hypertension and diabetes.
- Exposures to potential hazardous material and substance abuse such as dust, mercury, cyanide, arsenic, acid mine drainage.
- Increase in lifestyle risk such as alcoholism, drugs, gender and domestic violence.
- Increase in ambient noise
- Expose to blasting and seismic vibration (crakes in house, fly rocks)
- Increased pressure on health services infrastructure

Mitigation measures are designed to reduce the impact on community health and safety, and potentially improve the health standard of the communities. These measures are:

- Specific medical related mitigation measures are contained within the Rapid Health Impact Assessment.
- Education and awareness programmes throughout the lifespan of the mine.
- Environmental Management measures.
- Strict protocols for increase traffic safety.
- Secure buffer zone from open pit activities.
- Increase capacity for health infrastructure.
- Develop an influx management plan.

Impact Statement

The construction and operation of the mine will impact on the health and safety of the communities surrounding the mine. There will be some high level health and safety related risk over the duration of mining. Health related issues like pollution (water and dust), vector related ailments and sexually transmitted diseases, will be on the rise especially amongst, in the communities in and around the mine and also those along the transport route.

8.3.9. Issue 9: Basic Services and Social Infrastructure

- Impact 9.1: The Project will improve the social Infrastructures in the local area for community benefits.

Pre	Post
High -	Med +

Borgakim will upgrade social infrastructures in the local area. The construction and operation of the mine will require the following infrastructures:

- **Road infrastructures:** Borgakim will upgrade the road to Aru prior to executing significant site works. Borgakim will manage to pay these activities, whilst this ideally the government responsibility, there is an agreement about the project absorbing the cost.
- **Energy infrastructure:** With regards to energy infrastructure, the Hydro Electricity Power plant situated on the Nzoro River is a 20MW design, initially putting out 13.3 MW, with expansion when the harder ores are milled after a couple of years. The scheme has ultimate potential capacity for 30MW, although the project will not demand this capacity. 1.4MW has been assigned for community use.
- **Water infrastructure:** Borgakim will have to work with national, provincial and local administration as part of the social responsibility and out-reach programmes to assist with the upgrading of water infrastructures in Watsa. This will be in partnership with Redideso (DRC Government Department of Water Affairs).

Other community infrastructures development and mechanism could form part of the community assistance programme, Health Centres, education facilities, waste management infrastructures, sports facilities, churches and roads could be improved.

Mitigation measures designed to optimise the infrastructural development opportunities includes the following:

- Ensuring that the government is part of the planning and implantation process.
- Design the infrastructural to minimise the opportunities of community benefits.
- Establish partnership with government and other development agencies to increase the impact from infrastructural development and to ensure sustainability of the infrastructures.
- Maximise the employment opportunities derived from the infrastructural development
- A RAP needs to be developmental and therefore the social infrastructure it providers must have long term benefits for the affected communities.

Impact Statements

The project will have a long term beneficial impact on the communities around the mine in terms of social infrastructural. Infrastructures such road, water and electricity will enhance socio-economic development in the area, through job creation and increase in commercial activities.

8.3.10. Issue 10: Conflict

- Impact 10.1: The construction and operation of the mine could trigger conflict due to a variety of reasons.

Pre	Post
High -	Med +

The north east region of the DRC is heavily prone to conflicts, as describe in section XX. Despite the local environment being relatively free of armed conflicts armed conflicts over the past 5 years it is credible to suggest that the prevailing environment has demonstrated high levels of conflicts and the immediate local environment has a high propensity to conflict. The trigger points for conflicts around the project site are the followings:

- Lose of land and livelihoods resources
- Resettlement and compensation

- Removal of grave
- Loss of access to artisanal and small scale mining ore bodies
- Access to jobs and other economic opportunities
- Ethnics tensions
- Weak government and inability of local authorities to maintain control
- Lack of royalty flow to the local administration
- Inflation and food security
- Influx of people
- Increase rebel activities
- Lack of community development
- Safety and health hazard
- Poor treatment of community by mines security personnel.

According to the International Alert Conflict Sensitivity Business Practice Toolkit²³ there are three key indicators for assessing whether conflicts could be a 'shower stopper' at a project level. These are:

- If there is no opportunity to form a "share space" between stakeholders for analysis for of issues.
- If the company cannot operate in the area in accordance with international law and its own business principles
- If security payments might be demanded from staff or the Projects, unless the company feels it can overcome demands through alternative means such as developing productive relationships with local communities. (Check this)

Mitigation measures are design to reduce the potential for conflict around the site and enhance the opportunities for peace building. These measures are:

- To address all business impact
- Established a multi stakeholders forum to discuss community impacts and mitigation strategies
- Design a process of that can actively contribute to peace building. International Alert provides the following area for peace building:
 - *Socio-economic foundations:*
 - *physical reconstruction*
 - *economic infrastructure/jobs creation*
 - *infrastructure of health and education*
 - *repatriation and return of refugee and Internally Displaced Peoples*
 - *food security*
 - *Reconciliation and justice*
 - *dialogues between leaders of antagonistic groups*
 - *grass root dialogue*
 - *other bridge-building activities*
 - *truth and reconciliation commissions*
 - *trauma therapy and hearing*

²³ International Alert, 2005, Conflict-Sensitivity Business Practice: Guidelines for Extractive Industries.

- *Security*
 - *Humanitarian mine action*
 - *Disarmament, demobilisation and reintegration of combatants*
 - *Security sector reform*
 - *Small arms and light weapons*
- *Political framework*
 - *democratisation(parties, media, NGO, democratic culture)*
 - *good governance (accountability, rule of law, justice systems)*
 - *Institutional building*
 - *Human rights(monitoring law, justice system)*

Impact Statement

The construction and operation of the mine could trigger conflict in a fragile environments such are the north east DRC in the long run. These conflicts may arise due to a variety of reasons some of which as a result of loss of income, land for substances, tribal and ethnics tensions, etc.

Table 37: Summary of impacts

Issues/Impacts	Extent	Duration	Probability	Confidence	Significance		
					Baseline	Before Mitigation	After Mitigation
Issue 1: Employment							
Impact 1.1: The construction of the mine will increase job opportunities.	Local	Short	Certain	High	None	Low (+)	Medium (+)
Impact 1.2: The operation of the mine will increase job opportunities.	Local	Medium	Certain	High	Low (+)	Medium (+)	High (+)
Issues 2: Economic Opportunities							
Impact 2.1: The mine will provide taxes and royalties to the DRC government during construction.	National	Medium	Likely	High	Low (-)	Low (+)	High (+)
Impact 2.2. The employment at the mine during construction will strengthened the economy.	Local	Short	Certain	Medium	None	Low (-)	Medium (+)
Impact 2.3: The mine will increase the opportunities for Regional business during construction and operation.	Regional	Medium	Likely	Medium	None	Low (+)	High (+)
Issue 3: Loss of Economic Activities							
Impact 3.1: The mine will permanently displace economic activities.	Local	Long	Certain	High	None	High (-)	Low (+)
Impact 3.2: The Project will lead to loss of economic livelihoods	Local	Long	Certain	High	None	High (-)	Medium (+)
Issue 4: Land and Natural Resource							
Impact 4.1: The construction and operation of the mine will lead to increase pressure on surrounding land and resources.	Local	Long	Likely	Medium	None	High (-)	Low (-)
Impact 4.2: The construction and operation of the mine will lead to loss of land.	Local	Long	Medium	Consistently	None	High (-)	Low (+)
Impact 4.3: The construction and operation of the mine							

will lead to loss of natural resources	Local	Long	Medium	Consistently	None	High (-)	Low (-)
Issue 5: Involuntary Relocation							
Impact 5.1: Resettlement and relocation of households.	Local	Long	Certain	High	None	High (-)	Medium (+)
Impact 5.2: Loss of social infrastructures.	Local	Short	Certain	High	None	High (-)	Medium (+)
Impact 5.3: Propensity for conflict to arise during relocation.	Local	Long	Likely	High	None	High (-)	Medium (+)
Impact 5.4: Relocation of cemeteries and graves.	Local	Medium	Certain	High	None	Low (-)	Low (+)
Impact 5.5: Relocation of community facilities.	Local	Short	Certain	High	None	High (-)	Medium(+)
Issue 6: Population Influx							
Impact 6.1: The Project will increase the influx of people local area.	Local	Medium	Likely	High	Low (-)	Medium (-)	Low (-)
Impact 6.2: The Project will lead Increase social pathologies.	Local	Long	Certain	High	Low (-)	Medium (-)	Low (-)
Issue 7: Local Government and Decentralisation							
Impact 7.1: The Project will disrupt the relationships with and between traditional authorities.	Local	Long	Likely	Medium	Low	High (-)	Low (+)
Impact 7.2: The construction of the mine will place significant pressure on current Watsa Administration.	Local	Medium	Likely	High	Medium (-)	High (-)	Low (+)
Issue 8: Community Health and Safety.							
Impact 8.1: The construction and operation impact on the mine and safety of the community.	Local	Medium	Likely	High	Low (-)	High (-)	Medium (+)
Issues 9: Upgrading Infrastructure.							
Impact 9.1: The Project will improve the social Infrastructures in the local area for community benefits.	Local	Medium	Certain	High	Medium (-)	High (-)	Medium (+)
Issue 10: Conflicts							
Impact 10.1: The construction and operation of the mine could trigger conflict due to a variety of reasons	Local	Medium	Likely	Medium	None	High (-)	Medium (+)

9. Conclusions

The Project represents the first large scale investment opportunity in this remote corner of the north eastern DRC. The plan to construct a modern mine to exploit a significant reserve of gold in this socio-economic context poses significant risks to the Project as well as impacting on the community. However it also represents an opportunity for Moto to contribute to the improvement of local peoples' lives and the development of the country in a number of ways. The social environment is highly degraded as a result of ongoing conflict and a brutal war, poor infrastructure, weak government, very low levels of access to basic services (health, education, welfare, housing, energy, roads, water and sanitation) and poor economic opportunities (subsistence agriculture, artisanal, small scale mining and trading) for the majority of the population. A successful investment in a mine will require a significant focus on the social environment to ensure that the risks posed to the Project are successfully mitigated; and the positive and negative impacts generated through the Project on the communities are successfully mitigated.

The highest risks facing the Project as well as the community relate to the resettlement of communities and loss of economic livelihoods from inside the exclusion zone. These will include loss of dwellings and physical structures, and also loss of land, loss of agricultural assets and natural resources, and a loss of access for artisanal miners working inside the exclusion zone. The immediate area around the Project accounts for the vast majority of the gold trade into Uganda. Any disruption to this economic activity could exacerbate conflict further. The development and implementation of a Resettlement Action Plan should seek to ensure impacted communities consent to the plans based on a participatory and well informed process; provide opportunities for impacted communities to improve their living conditions; ensures host communities are in agreement with new settlements; handle potential conflicts and grievances in a way that does not lead to violence; and is well governed. Without achieving this, the risks to the Project remain very high.

If successfully managed, however, there is the real opportunity for the enhancement of the communities from their current dire social conditions. The creation of jobs and the procurement of goods and services locally, where possible, have the potential to revitalise the ailing local economy. If managed appropriately, royalties and taxes from the Project will benefit the whole country. The living conditions for those communities being resettled should be an improvement to their current situation. The Project has identified possible upgrading of local infrastructure as well as community investments which will bring benefits to the society.

The Project will also put a strain on local resources as migrant workers move into the area and the traditional balance of power and authority is disrupted. The expectations on the Project are high and need to be managed. In planning and managing the construction, operation and closure of the mine, the Project needs to take special care to ensure that all relevant stakeholders are involved in the decision making process. In such a fragmented and complex web of loyalties and allegiances, it would be easy to exclude a key representative and provoke new tensions. It will be necessary to work closely with the government and encourage Kinshasa to dedicate greater resources to the decentralisation process, ensuring greater capacity building for the Watsa Administration.

Some social issues may appear to be beyond the control of the Project. Nevertheless the Project's ability to influence the local socio-economic, political, human rights and security context should not be underestimated. Similarly the Project should understand that it may be held accountable or perceived as being complicit in issues or events over which it has no control.

The social issues and impacts associated with operating in DRC are complex and represent significant risks to the Project. A significant benefit to the Project and the associated investment is that the immediate local area has been free of conflict. The current management of community relationships has resulted in the exploration site being free of conflict and serious crime. This status needs to be maintained to ensure the success of the Project. Recent events with regards to the violence of the LRA highlights the critical need for the Project to have a well managed security plan in place and to ensure that the best form of security is through excellent community relationships. Attention to community and worker health, safety and welfare will be an important issue.

Despite the current environment being difficult to operate in, it also represents an important opportunity for the society to move itself out of conflict, war and under development to a state of greater human and economic potential. In these very conditions the greatest human rights risks are presented to companies. The north eastern DRC is a volatile region and gaining stability will not only be good for the immediate area, but the region (DRC, Uganda, Rwanda and Sudan) as a whole.

If the Project is managed in such a manner so as to ensure that the recommended mitigation measures are implemented, the Project has the potential to make a significant positive contribution to the region. The mitigation measures aim to reduce the significance of negative impacts and to optimise positive impacts.

Bibliography

Altria, Engagement plan toolkit, 2004,PDF

BBC Country profile http://news.bbc.co.uk/1/hi/world/africa/country_profiles/1076399.stm viewed

Bailley, Stephen, (June 2006) 'The DRC : Key challenges and structures strategies for miners and Investors' available at <http://www.resourceinvestor.com/pebble.asp?relid=17636>

Doctors Without Borders (2005) "News from the Democratic Republic of Congo", <http://www.doctorswithoutborders.org/publications/ar/12005/drc.cfm>. Accessed 19 November 2008

Economist Intelligence Unit December 2008, Country Report: Democratic Republic of Congo; Final report of the Panel of Experts on the Illegal Exploitation of Natural Resources and Other Forms of Wealth of the Democratic Republic of the Congo, (2002), <http://www.natural-resources.org/minerals/CD/docs/other/N0262179.pdf>

FCO Country profile <http://www.fco.gov.uk/en/about-the-fco/country-profiles/sub-saharan-africa/congo-democratic-republic/>

Glassborow, Katy, LRA on the Rampage, in The Hague (AR No. 191, 28-Oct-08), Institute for War & Peace Reporting;

Goma: bras de fer entre OFIDA et les operateurs economiques sur le taxe a l'exportation available at <http://www.radiookapi.net/index.php?i=53&a=16891> viewed on 12th February 2008

Human Development Report DRC (2007/2008)
http://hdrstats.undp.org/countries/data_sheets/cty_ds_COD.html

Human Rights Watch reports

- 'We Will Crush You', November (2008): <http://www.hrw.org/en/reports/2008/11/25/we-will-crush-you-0>
- 'The Curse of Gold', (2005) <http://hrw.org/reports/2005/drc0505/drc0505.pdf>;

International Finance Corporation (IFC), Performance Standards on Social and Environmental Sustainability, 2006

IIED, Stakeholder mapping influence, Power tools, March 2005, PDF document.

International Alert, (2005), Conflict-Sensitivity Business Practice: Guidelines for Extractive Industries.

International Rescue Committee <http://www.theirc.org/special-report/congo-forgotten-crisis.html>

Maltser International (2008): www.malteser-international.org Accessed 19 November 2008

Moto Goldmines Limited (2008) 'Environmental Impact Assessment'

PACT Congo (2005) Lubumbashi: débat autour de la réconciliation médecine traditionnelle-moderne http://www.pactworld.org/programs/country/congo/congo_news2.htm accessed 19 November 2008, Rapid Health Impact Assessment (p7)

<http://www.reliefweb.int/library/profiles/DRCongo-05-2002.pdf>

SANRU III (2008) www.interchurch.org; www.sanru.org. Accessed 19 November 2008

Scottish Catholic International Aid Fund
http://www.sciaf.org.uk/get_involved/campaigning/ending_mass_rape_in_the_drc.

Successfully Managing MLO and NGO Relationships available at http://www.fsg-impact.org/ideas/pdf/472_ANewChallengeforGlobalCompanies_SuccessfullyManagingMotoGoldMinesMotoGoldMinesOandNGORelationships.pdf accessed 19 November 2008

The executive fast track – Stakeholder analysis - <http://www.fastrack.com> accessed 20 October 2008

United Nations Environmental Programme available at
www.unep.org/drc/documents/ROLAC.pdf accessed 17 November 2008

Vlassenroot, Koen and Huggins, Chris, 'Land, Migration and Conflict in Eastern D.R. Congo', published by the African Centre for Technology Studies (ACTS) and the Institute for Security Studies (ISS):
[http://www.reliefweb.int/rw/RWFiles2004.nsf/FilesByRWDocUNIDFileName/EVIU-65PHTK-acts-drc-12oct.pdf/\\$File/acts-drc-12oct.pdf](http://www.reliefweb.int/rw/RWFiles2004.nsf/FilesByRWDocUNIDFileName/EVIU-65PHTK-acts-drc-12oct.pdf/$File/acts-drc-12oct.pdf)

Wardell Armstrong and PACT for Anglo Gold Ashanti LTD and OKIMO (May 2005) 'Orpaillage Activity in the Orientale Province, Democratic Republic of Congo: SITUATIONAL ANALYSIS REPORT' May 2006.

Wikipedia references:

- http://en.wikipedia.org/wiki/Ituri_Province;
- http://en.wikipedia.org/wiki/Haut-Uele_Province
- http://en.wikipedia.org/wiki/Tshopo_Province
- http://en.wikipedia.org/wiki/Bas-Uele_Province

Appendix 1: Stakeholder Engagement Report**Appendix 2: Resettlement Policy Framework****Appendix 3: Artisanal and Small Scale Mining Study****Appendix 4: Stakeholder Engagement Strategy****Appendix 5: Maps**