

Acknowledgement

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MAY GOD BLESS YOU ALL

Dedication

This thesis and the work therein is dedicated to my beloved wife, Modester, my sons Abiud, Praise and Haggai who were understanding and fortitude during my physical and emotional absence. I am also dedicating this thesis to my mother, Laurentina for her continuous support and encouragements.

Abstract

This thesis explores the socio-economic dynamics and outcome of the influx of transnational corporations in mining sector, focusing on interactions between various actors at community level. It looks on dynamics within gold and tanzanite mining communities in Mererani area in Tanzania. The aim was to study the mining activities and the changing local social system among artisanal and small-scale miners and their communities; and the role played by transnational corporations. The shift in national policy frameworks and privatisation discourses has had effects on the community livelihoods in the case of study in Mererani. The entrance of new actors supported by current policies that aimed at leaving the growth and development of the Tanzanian mining industry in the hands of private investors has resulted into social and economic impacts on relevant communities. This study argues that, a higher expectation by the government to transform the industry to help robust economy has not been translated into tangible benefits. It also argues that, artisanal and small-scale miners as well as surrounding communities have encountered challenges, sometimes hard to cope with. Further, the study argues that generally there are various negative effects that endanger the livelihoods and threaten social and economic lives.

Different conceptual and theoretical frameworks are used in this thesis; firstly it gives more emphasis on locality study approach in particular Stacey's *modus operandi* is used to discuss the local social system in Mererani. The second theoretical framework is the corporate social responsibility with a focus on tri-sector and local drivers as determinants of reduced misconceptions among actors and increased gains accrued to stakeholders. The corporate social responsibility in this thesis uses Alyson Warhurst's tri-sector engagement. Various stakeholders exist at local level, some of them representing conflict of interest among groups. Despite this, within particular group like artisanal and small-scale miners, there are dynamics that make it heterogeneous and at times difficult to generalise. They all represent power and social relations, which must be bone in mind for greater participation and efficient and effective outcome in mining projects. Any strategy geared towards supporting this group, should incalculably invest in understanding dynamics within artisanal community least we generalised and further marginalise and impoverish the weak ones.

The empirical material collection and methods involved observation, key informants interviews, focused group discussions and review of various literatures. The study involved interviews with national level civil servants at relevant ministry, non-governmental organisations and discussions at local level where mining activities take place. At local level, apart from interviews with artisanal miners, material collections involved local and community leaders, representatives of the ministry of energy and minerals at zone level.

Although the aim was to examine the impact of transnational corporation on artisanal small-scale miners and their communities, it was evident through interviews that all gains and costs in mining areas can not be attributed to transnational corporation as cause-effect relationship. There are more factors to be considered. Nonetheless, the shift of government from owner and actor in mining industry to facilitator and regulator of the same industry has had negative effects. The regulatory and facilitator's roles that the government committed to undertake haven't been fully performed and there are various challenges to address on internal policies and practices. Due to limited employment opportunities in rural areas, community continue to influx in mining areas despite the fact that the guru small scale miners believe their lives are worse-off. Artisanal miners who are parents initially could afford to send their children to better schools offering good educational services¹. They cannot do this today. Their incomes have been drastically reduced, although they persist in business and succumb to global challenges. The small-scale miners cannot compete with investors, and policy provision does not give them enough room to engage in gainful enterprise; they end up using same crude tools, low investment and low profits.

Mining communities witness the exodus and influx of people as the old ones go out and new ones come in with false expectations. The livelihoods of mining communities are equally affected as few and few people have money, reducing money circulation in the area. Since many people in mining communities depend on secondary jobs reduced incomes of artisanal miners makes them vulnerable to shocks. Illiterate and semi-illiterate parents regretted that due to economic hardships they are pulling out their children from better school to public schools².

On the one hand, the artisanal miners believe they have rights as citizens to be mining the gemstone; also they believe investors should support locals to grow economically and socially. However there are difficulties in collecting³ revenue from artisanal miners and the government thinks investor is the best option for smooth proceeds gathering. The investor on the other hand, has legal rights to own and mine the gemstone, and support to artisanal miners and surrounding communities is not contractual; and therefore not legally binding. Out of this confusion, conflicts among artisanal miners, conflict with investors and resulting into killings and violations of human rights have been experienced. Lack of coordination and little participation of local leaders before the land is granted to investor contribute to further marginalisation and impoverishment of local communities where livelihood sources are already decimal due to drought and agricultural related challenges.

This thesis argues that, although the transnational corporations (TNC) are expected to increase employment, trigger economic growth, improve technology and put poor countries into world economy, these claims cannot be substantiated at grassroots' level. The communities have lost their livelihoods through loss of self-employment and weakened livelihood sources. To get a full picture on socio-economic impact of TNC, further researches are needed. For example, a research on employment creation (primary and secondary employment) in mining sector can be conducted to support some of these arguments.

Key words include artisanal small-scale miners, mining community, transnational corporation, corporate social responsibility and local social system. Others key words include facilitator and regulator.

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1. Background to the Study

1.1. Introduction

Mining activities is part of traditional economy for many communities living near and or in areas where minerals are discovered. Other individuals migrate and make settlements in these areas. There are pulling and pushing factors for migrants among them being the lucrative of the mining industry and dwindling substitute sources of livelihoods among rural population. Communities generate their livelihoods from the industry by engaging in direct mining activities and or by opening parallel auxiliary activities that benefit from the booming population in the area. Lately, mining industry that used to be governed by the state (owning, controlling, producing, regulating and marketing) is run and managed by the private sector, particularly transnational corporation and artisanal small-scale miners. The state retains the role of regulator and facilitator of the industry's activities.

The past few decades have witnessed remarkable changes in developing countries' macro policy frameworks. Since early 1980s, developing countries have been challenged by pressure from developed countries and financial institutions, the Bretton Woods fraternity in particular to liberalise their economies. The neo-liberal thinking promoted by the international institutions is for market led economies and continuous disengagement of states from providing social services. In the shadow of liberalisation, globalisation and bulging debts, developing countries have succumbed to these conditions. Ad infinitum the developing world witness macro-economic policy changes that aim at upholding foreign direct investment; availability and provision for social services are being left on the mercy and hegemony of private sector as an engine for economic growth.

Transnational Corporate are targeting mining industry in a changed macro economic policy environment. Natural resource, minerals in particular offers an unprecedented opportunity for micro and macroeconomic growth potentially capable of registering sustainable development. Influx of transnational corporation in extractive industry for developing countries has had social and economical effects; and there is mixed reactions in particular at community level.

Primary *stakeholders* in the industry, including corporate, mineral dealers and the state, have big influence in discourses leading to mining licensing, with other institutions like the World Bank having an upper hand on policies governing the industry. The wide spectra that benefit from mining activities include communities, the local merchants, artisanal and small-scale miners (ASM) and local government authorities (LGA) of particular localities. Conflicts of interests and power relations exist among stakeholders. Degree of effect of emerging conflicts in mining activities vary depending on the context of political economy, local social system and readiness for corporate to take proactive measures to engage; notwithstanding the macroeconomic level policies, which are more often than not globally influenced.

However, the neo-liberal paradigm shift emphasis on state disengagement from provision of social services and privatising state-owned entities, handing development agenda to private foreign capitals might not contribute to sustainable development in countries where availability and access to the social welfare is "everybody for himself" characterised by a high rate of unemployment. Despite that, the market-lead economic development, albeit mixed feeling among nationals of developing countries, promotes revenues through export-lead investments and creation of employment opportunities and technology transfer to the host country. While the private sector and foreign direct investments (FDIs) contribute to foreign capital, technology and skill transfer, encouragement is done by creating conducive environment for them to operationalise. Nevertheless, there are arguments that created conducive environment to invest mainly register economic gains at national level and urban in particular (WB 2004: 3, URT, 2005:27); consequently gains at micro-level might be meagre and there is need for more practical consideration on sustainable social and economic aspects at local level in policies and practices.

Although the advocates of private lead economic development anchor their arguments on trickle-down effect, enormous studies question the theory and practice bringing in factors like governance. Researchers (Chachage L.S.C in Gibbon *et. al* 1993: 77-104, Butler P 2004, Phillips *et. al* 2001, Kulindwa and others) have found that the Tanzania mining industry indicate influx of foreign investors and increased contribution of industry to Gross Domestic Product, (GDP) and revenues amid challenges at local level, affecting communities and artisanal small-scale miners, (ASM). For extractive industry in many African countries the emphasis is on the

increased role of the state in facilitating and regulating viable and sustainable economic ventures, (Akbzaa T and Darimani A, 2001, Bank of Ghana 2003). Critics of the trickle-down orthodox argue that based on evidence growth alone is not sufficient enough to guarantee poverty reduction and sustainable development (Campbell, B. *et. al* 2004). The issues of distribution and governance must be emphasised.

Apart from the gains at national level, foreign direct investments might register far reaching negative effects in terms of social, economic, cultural and environment (Campbell, et. al 2003:2-13). These effects provoke varying reactions and feeling depending on the nature of investment, sectors and community dynamics. There are factors that contribute to these reactions, which include the nature of sectors (agricultural, mining, tourism etc.), nature of settlement in case of mining and governance structures at national and local level. It is obvious that mining and farming communities are affected differently by such policies even if they live in the same location. Pragmatically in areas with alternative livelihood and economic opportunities, and settlement history, community's reactions are different.

One retrogressive reaction is the mounting tension and conflicts over resources among actors (Colin, N. Boocock, 2002:17, Kurt Hirschler 2004), particular small-scale miners and transnational corporation. Tension characterised with hostility and shooting result into halting mining activities fuels poor relations. The surround community is also directly affected socially and economically. This thesis partly attempts to respond to the general questions on whether the influx of TNC in mining can contribute to sustainable development; and how can the mining community and state benefit from short-lived mining activities without banking on fragile income generated by booming of mining activities. Two suggestions that shade light on these two questions is firstly call for participatory and stakeholder engagement in mining; and secondly is the increased role of corporate social responsibility and the need to reach-out beyond legally binding obligations. This demands a shift from rhetoric to practical and deliberate effort to involve the missing-out during the project life-span.

1.2. Tanzania's Macroeconomic Policy Changes

Tanzania since its independence has been designing and implementing social and economic policies, as country's development models. Much of the policies followed the economic and

political inclination of the time. Strategies such as National Economic Survival Programme (NESP) were formulated so as to promote external resource flows by some export milestones and agricultural sector strengthening through allocation of more resources. Persisting national economic predicament and other internal factors including debts caused the country to further reform macroeconomic policies as the condition for support by the World Bank (WB) and International Monetary Fund (IMF) in the 1980s. This marked the over fifteen years' era of Structural Adjustment Programmes (SAPs) in Tanzania and other places in the world. Among the objectives of SAPs included to offset the balance of payments and fight poverty and redressing the socio-economic crisis that had incubated since 1970s (Chachage, L.C, 1993:87). Tanzania adopted SAPs and the policies and economic strategies were made to resonate with principles as dictated by the WB and IMF. It is through these SAPs that regrettably Tanzania noticed that "the philosophy of working for country's development and that of its people started losing direction, thence country's long-term development objectives" (URT, 1998:9).

In the last decade, these reforms however have helped achieve some indications of promising economic growth. Due to promising economic trends, the macroeconomic policy framework in Tanzania estimated the GDP growth at 7.4% by 2007⁴ (URT, 2004). In the last decade, the GDP has been steadily growing while containing the inflation rate to single digit, holding down the wage-bill and poverty reduction strategies pursued. To attain the development vision and the 7.4% GDP target, different foci sectors have been prioritised as key in promoting economic growth in Tanzania. It goes without mentioning that promotion of private investment, support to Small and Medium Enterprises, (SMEs), tourism and mining are among the priorities. Needless to say, the agriculture sector in Tanzania remains the major employer and foreign currency earner. Some of the policies that have been enacted include investment, trade, mining, fiscal regulation, tax regime and many others; which aimed at combating poverty and improving people's livelihoods by trade liberalisation, regulating foreign exchange regime and sustaining macroeconomic stability. From these policies the state gradually became a regulator and facilitator. These have had impact on the mining industry and the subject of this thesis - artisanal miners and mining communities.

1.3. Transnational Corporations and Foreign Direct Investment

Mushrooming of TNC in Tanzania is the result of changed macroeconomic policies and favourable environment thereafter. Transnational corporation are transboundary companies investing in different countries. The activities by TNCs are characterised by the flow of capital and human resources into a host country for investment. FDIs can also mean an investment made to acquire a long-term benefit in a foreign country for search of low cost capital, market and improvement of efficiency. According to United Nations Conference on Trade and Development, UNCTAD, FDI is defined as an investment involving management control of resident entity in one economy by an enterprise entity in another economy and it involves long-term interest of an investor in a foreign interest. Debate on FDIs and their contributions to economic and human development has been reaching heights; as many developing countries turn towards them as a means of attracting capital inflows and promoting export.

The Organisation for Economic Committee on Development, (OECD) asserts that in Tanzania, "FDI flows were non-existent in the early 1990s, but changes in investment laws have led to an increase from US\$ 12 million in 1992 to US\$ 183,4 million in 1999" (OECD, 2002:20). Further FDIs are recognised to promote competitiveness and improve local capabilities through technology and advanced skills. Although the theory behind FDIs and TNCs is the urge to acquire technology, skills and access to international markets and entering a dynamic trade and production systems (Lall S, 2003. 484), this assumption might be elusive (RCA Minnitt 2001.16), in extractive industry, especially given the level of technologies and local capacities possessed by local actors in the industry. It is now evident that for the host country to harness the presence of FDIs and contribute to sustainable development, strong formal and informal policy instruments have to be in place.

1.4. Tanzanian Mining Policy Restructuring.

Tanzania is endowed with a lot of natural resources, whose presence and extraction activities can be traced since Germany colony (Parker, 1992:15), although there are evidences of mining activities taking place before that. Harris, 1961(cited in Parker, M 1992) estimated mineral worth £500,000 to have been exported during 34 years of Germany rule. Policy framework adopted by the government and the global economic and political situation at different times impacted the industry differently. Actors and production levels as well as revenues collected from the industry

were also affected by these policies in different ways. Chachage (1993:90-91) observes that although the first mining law was enacted in 1921, this was followed by another law in 1929, purposely designed to discourage small-scale enterprising individuals. The industry experienced decline in production of mineral between 1960 and 1980. Partly the decline was due to political ideology of the country (African socialism- *Ujamaa*), and policy that prohibited importation of cheap mining equipment and emphasis on local employment. It should be noted here that a large portion of companies which were doing prospective and mineral production activities were from South Africa; this was during the apartheid regime and South Africa had economic sanctions since 1961. This was part of the reason for collapse of mining activities and decline in production. The second and third reasons for the decline were exhausted reserves which were not economically viable anymore and state ownership (nationalisation) as part of the political ideology to control economy. However, the African Mining Strategy by the World Bank, (1992), related "current underdevelopment and stagnation of the mining industry in many of the region's countries can be directly linked to the lack of high-risk exploration investment", (WB, 1992:31).

Apart from the mining law of 1921, amended in 1929 and nationalisation as part of *Ujamaa*, another Mining Act was produced in 1979, which was repealed by the current Act, enacted on 23rd April 1998. The 1979 Mining Act ushered a turning point by offering comprehensive legal framework {Layers' Environmental Action Team, (LEAT), 2003}. Distinctions between the foreigner operator and ASM were made clear; this included eligibility and circumstances necessary for granting Mineral Rights (Large Company) and Mining rights (ASM). According to LEAT (*ibid*), under the 1979 Act, minister for energy and minerals was conferred powers to set aside designated areas countrywide for ASM operations; this marked a start of more recognition of ASM.

It is presupposed that the 1921 mining law put the natural resource under the Monarch, represented by the colonial government. This stole away the traditional local legal ownership and decision power over natural resources found in their localities, and consequently the government has inherited such laws, although it tried to regularly change them. In any case, ultimate decisions on minerals have been always vested to the state, (LEAT, 2003, Campbell *et. al.*), that has the final decision.

Apart from the ambitious target of 10%⁵ to GDP by the industry year by the year 2003 its contribution was about 3%. The 1997 Mineral Policy and subsequent 1998 Mining Act focus on other policy milestones that would contribute to realisation of Tanzania's vision, 2025 (URT, 1998). The 1998 *Mining Act* reviews (by LEAT, 2003 and Paula, Butler, Campbell, 2004, Kulindwa *et. al*) identify features that include:-

- ♦ Streamlined decision-making in granting Mineral Rights. However, the discretionary powers of the Minister, is significantly curtailed vis-à-vis the foreign investors. The latter have legal and entitlements, whereas the minister has obligatory responsibility.
- Reduced bureaucratic red-tape. However, it offers investors significant protection against bureaucratic red-tape by imposing limitation of the time within which the Minister is required to act on applications for mining concessions.
- Investor's protection. It shields foreign investors from local or national scrutiny by divesting local and national institution of powers to deal with disputes between the government and investors.
- ♦ Decentralised decisions. The Mineral Commissioner has the power to settle dispute between investors and local community; this mean investors operations cannot be challenged in courts of law, and also TNC can refer the matter to International Convention for Settlement of Investment Dispute.
- National welfare that was part of the 1979 Act is not included in the current 1998 Act. The 1979 Act stipulated issues related to performance requirement, such as local sourcing of inputs (goods and services including labour) and the state's right to acquire an interest in private mining venture.
- ♦ Taxes for both import and export are drastically reduced as well as the royalty retained at 3% for minerals and 5% for precious gemstones.

One need to note that, a comprehensive policy reform affected other ministries and sectors, such as Investment Act, immigration Act amendments, fiscal regulation; all of which helped the operationalization process. Despite these generous exemptions, the state offers ownership up to 100% for foreign companies, as well as guarantees Multilateral by Investment Guarantee Agency, (MIGA) and other International Financial Agencies. Corporate are ensured against

expropriation and political risks; and TNCs can repatriate and retain big share of their capital and profits in foreign reserves (Campbell, B, 2004). Due to these provisions, a few lapidary activities exist in the country, it is also clear that forward and backward linkages are weak. Availability of lapidary plants and link with other sectors of economy is still weak. While the WB assumes that local communities would benefit from employment and development projects designed by the government using the revenues generated, empirical evidence depict otherwise. Limited local community participation promotes TNC's operation on legally binding aspect, and addressing the socio-economic issues as extra-curricula components. Due to lack of forward and backward links, local movers and shakers feel the government has lost its legitimacy by handing over development agenda to private foreign hands (LEAT, 2003).

Kulindwa, et. al. (2003) note gaps in practices such as informality in employment agreement and lack of contract for employee as one of the causes for conflict. Encroachment and contract agreement between large-scale companies and claim holders as well as compensation procedures are among causes noted to further contribute for tension in the mining. Chachage (1995), LEAT (on different series) noted substantial conflict in several Tanzanian mining sites such as Ulanga, Mererani, Nyamongo, Bulyanhulu resulting from misunderstanding between miners, local communities and TNC. Conclusively, Kulindwa et al. (2003) argue that, the 1998 mining Act has not fully curbed the problems associated with tax evasion. Further Kulindwa (2003:29), argues that "incentives have been criticised for discriminating against old investors, against domestic investors (entry qualification) and concentration of capital (within the grace period)".

The Tanzanian Mining Act, 1998 aims at increasing national economy, foreign exchange earning, alleviate poverty through gainful and secure employment and provide alternative sources of income for rural population, (URT, 1998). The WB however estimates that "local labour costs may account for 20 to 30 percent of operation cost", (WB, 1992:43). There are arguments that the current remote role of the state as regulator and facilitator do incapacitate its role as key player in development process (Campbell, *et. al.* 2004). It might be difficult to ensure environmental protection and regularise the practices by TNCs and artisanal miners.

1.4.1. Old players and New Players

The traditional relationship among mining actors portrays different pictures, acuity and misconceived perceptions that culminate into either misinformed actions or closed door practices. While the roles of other actors, (TNC and ASM in particular) have not changed, the state's role in the industry has swing from owner, to facilitator, actor, to regulator and facilitator. Since colonial era, the major players in the industry changed based on domestic policies, external environment and availability of mineral in deposits. While ASM are instrumental in identifying mineral reserves ahead of TNCs, they usually occupy small plots compared to the latter. It is assumed that the 1929 Mining Law which aimed at discouraging ASM has its legacy to today's perception (by the state and TNCs) on artisanal miners. To TNCs and the then government, ASM were illegal, and needed to be uprooted from the industry.

The latter bears negative implications to the sector and the ASM as a group of actors. First, because they were perceived as illegal, there was deliberate effort to throw them out of the system. This perception has persistent until most recent, as Cristina Echivarria (June 7, 2004) put it, "...ten or fifteen years ago when we were beginning to discuss corporate social responsibility, and taking the first steps in constructing a sustainable development paradigm for minerals development, it was very common to hear that ASM should *disappear*" Secondly, their illegality perception did not give room for consultations, and many policies developed did not involve them as stakeholders in the industry. The third implication was, because they were treated as illegal, most of their activities were done under cover, implying they also evaded tax, depriving the government revenues. The fourth negative implication was inability of formal lending institutions to support them with loans to improve their activities because they could not be trusted and could be removed from their plots anytime the government decides.

Although in the nationalisation process (1960s -1970s), private mining activities were expropriated, the 1979 Mining Act re-introduced sections that allowed for private investors in the industry or joint venture with the government. The state was supposed to do these under the State Mining Corporation (STAMICO). The 1998 Mining Act, has however made clear to cessation of the state from doing business (actor) to an observer, facilitator and regulator. The development opportunities offered within the mining Act of 1979 resulted into many ASM booming into the

industry during the subsequent years (LEAT 2003.17). Although relatively similar foundation and opportunities were availed to TNCs, the booming of corporate in mining was not automatic and until 1990s when the industry witnessed massive influx.

Of late, Tanzania invested in exploratory activities, by many companies streaming in for prospecting and exploration, and by 1997 the state was the second highest in exploration expenditure in Africa registering a total of US\$ 57.7m equivalent to 13.3% of the total (Gibbon, P 1999). Within the first ten years after the introduction of the regulation (fiscal, institutions), Tanzania registered a lot of mining companies, national and international in reconnaissance, prospecting and production activities. In Arusha the mining companies increased dramatically by 43% from 58 to 83 within three years between 1995 and 1998 (Kulindwa, *et. al* 2000). The OECD, 2002 report indicates 34 new petroleum and mining projects to have been granted licences between 1990 and 1998, among the 34 companies, 22 (about 65%), were foreign companies. By 2001 there were over 1,400 exploration and mining companies in Tanzania (Phillips *et. al* 2001:79). Most of TNC in Tanzanian mining industry are from Canada, Britain, South Africa and Ghana, (Royal Netherlands Embassy, 2002).

The rebirth of FDIs and TNCs in developing countries, (Tanzania in particular) especially in extractive industry is a result of macro-economic policy reforms and African mining strategy implementation by WB, (Campbell, 2004). TNCs that are perceived as catalysts for triggering-off the latent economy in minerals however have been given relatively large latitude and generous exemptions in these reforms. By encouraging TNCs the little savings in developing countries can be supplemented by corporations' filling the deficit and as an engine for economic growth; and developing countries need to create conducive environment by regulating and reforming the policies, (Yash, T. 2002). Yash T (*ibid*:1) argues that "... current neo-liberal theory assigns FDIs a central role in the development of developing countries".

Although Tanzania and other developing countries are obliged to include national treatment for FDIs, (Campbell, B, 2004:14), the counter-argument is that the now-developed countries systematically discriminated against foreign investors so as to build national industry. Such mechanisms included limits of ownership, performance requirements on exports, technology

transfer or local procurement; insistence on joint ventures with local firms; and barriers to "brownfield investment" through mergers and acquisitions, (Chang, 2003.1/687). Chang argues that in order to ensure FDIs did not lead to loss of national control in the key sectors of the economy, much federal and state legislation was enacted in the US since independence until when it became the world's top economic nation (ibid.691).

More examples from Britain and Finland indicate similar provisions where the foreign companies did not enjoy similar benefits and treatments compared to local. Chang further gives experience of Japanese companies in UK in that Japanese companies in Britain were required to make confidential assurance, about export ratios and local purchasing (Financial Times, 6 December, 1977, as reported in Young *et. al.*, 1988:223). Finland's economic performance has been built on the basis of a regime of draconian restrictions on foreign investment – arguably the most restrictive in the developed world (Chang, 2004, 697).

Under the neo-liberalism, emphasis is on the concept of state disengagement from influencing the market forces. It asserts the new world economic order, dynamics, actors characterised by wide spread and pervasive market integrated economy. The overarching principle is, get the state our of the market circles, reduce expenditure on social services and let demands and supply determine prices for goods and services while the state performs the role of regulator, facilitator creating a fair ground for different actors to engage. Neo-liberal errands multilateral politics and is promoted by international financial institutions that aim at integrating developing countries into global economy by influencing FDIs and entrusting the provision of social services on the hegemony of private capital investors. It therefore deemphasizes the state's intervention promoting free market and movement of goods and services across borders.

There are three major challenges linked to liberalisation that promotes FDI in extractive industry, mining in particular. The first challenge is dealing with sustainable development by ensuring the current resource extractions will not jeopardise the capital per capita for future generations. Secondly, FDIs operate globally and there are internationally accepted policies and practices that host country is expected to uphold. It is also imperative to have the national development agenda as top priority for these agreements. The state and private sector might not take all the necessary precautions and concerns from the civil society, which is an important group. In areas where the

civil society is still weak, decisions to extract minerals and terms of contract therein are likely to favour priorities of the corporate and national state. The third and most important challenge is linked to the second one, where potentially the liberalisation create tension between the local communities and their state, by accusing it for favouring investors on the expense of their (local investors, ASM, and communities) livelihoods. This group feel abandoned by the state as they have to fend themselves and still the state might not do much, being afraid of losing TNC. Depending on other factors, the last challenge can be tension-building resulting into hostile communities affecting the smooth running of investor's project. TNCs and state remain to be movers and shakers of the global and local economy system, and globalisation offers challenges for small-scale companies and artisanal miners and local communities in particular. However, the latitude with which the poor country (Tanzania) can influence local processes, especially on private investment is highly constrained by international policy frameworks.

1.4.2. Promising Future?

Economic contribution of mining industry on the GDP can be traced back as far as late 1950s before independence; the sector contributed 3% of GDP (Drechsler, 2001)⁶. Later, between 1960s and mid 1980s the industry's contribution experienced a downward trend. Pragmatically, the decline in official figures for diamond and gold production did not reflect the crash of mineral production, (Chachage, 1995). There is alarming difference between the mineral export from official figures and that comes from financial analysts. Even after the Bank of Tanzania (BoT) started buying gold from artisanal miners, illegal gold production by late 1980s, was estimated at 15 tonnes/year, providing employment to about 300,000 individuals (Parker, 1992). It is estimated that about 80% of gold production in the country was smuggled outside the country in 1980s. Notwithstanding the Mining Act 1998, Tanzania has not redressed the situation of smuggling, where by 2001 the government could not account for 90% of the gemstone (tanzanite) exported to USA (WB, 2003.45).

Apart from challenges of curbing smugglers of minerals and gemstone, since the introduction of new reforms, there are promising signs and increased contribution of the industry in GDP. Tables 2.5.3 show the steady increase in production of gold since 1989, and there are eight mega gold production sites as of December, 2005, (Ambali, 2005). Geita Gold Mine (Anglo Gold) is the leading producer, and according to the then Tanzanian president, it was "one of the early fruits of

a successful partnership ...with international community", Hon Benjamin Mkapa, August 2000. According to Ambali, (ibid), the sector as of December, 2005 was employing about 6,000 with increase in GDP contribution to about 3% far up compared to the 0.8% in the 1980s.

Table 3.5.3 Mineral Production 1994 - 2004

Mineral	Measure	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Diamond	Carats	25540	49538	126670	123090	97830	235000	354388	254271	213491	236582	303920
Gold	Kgs	2861	320	318	323	4270	4890	15060	30088	34065	45299	46219
Gemstones	Kgs	48507	111404	142160	509489	48518	95200	150800	96866	195842	1531547	1613848
Salt	Tonnes	84289	6686	86700	72511	75000	35893	70000	65000	71200	58976	57061
Phosphate	Tonnes	-	6686	717	2120	1431	7250	5100	4000	1182	3738	6570
Limestone	000Ton	1740	1062	1200	1262	1181	1241	1500	2269	2857	1206	1391
Tin Ore	Tonnes	9	3	_	-	-	-	-	-	-	-	-
Gypsum	Tonnes	53000	42000	55430	46320	59066	21195	60000	72000	73000	33232	22813
Coal	Tonnes	45027	43200	52000	28448	45073	75044	79164	77789	79210	54610	65041
Pozolana	Tonnes	-	-	-	-		2274	57014	41468	52000	105910	152679
Kaolin	Tonnes	541	595	1332	898	-	1	-	-	-	-	-
Silver Ore	Kgs	-	-	-	1	-	1	-	6681	7669	7986	12616
Copper	Pounds	-	-	-	-	-	-	-	5832158	9309812	8191053	9114167

Source: Tanzania's Economic Survey 2004 (cited from Mineral Department)

1 carat = 0.205 gms

The trends in the industry's contribution to the national economy can be traced in the Tables below for some selected minerals in the last twenty years. Generally production has been on increase, despite unregistered product and fluctuation for some years. Gold, diamond and gemstone production remain the most foreign income earners among the minerals in the country. Although almost all the minerals attracted investor, gold, diamond and gemstones are the most attractive to TNCs. The industry growing at a steady rate, has frog-jumped to the growth rate of 17% as of 2003 compared to other sectors such as agricultural, that grows at a rate between 4.2% and 6%. The future for the mining is very prosing amid challenges on contracts, tax holidays and conflict among different actors. The states reaffirms the highest growth rate of mining industry, and acknowledges the little contribution of the sector that "its share of GDP remains the lowest because it is growing from a very low base", (URT, 2005:26)

1.5. Some Concepts applied

1.5.1. Mining Community

Within a certain range of the mine project, the immediate neighbourhood is made up of community(s) that might or might not be involved in direct mining activities. Mining community is not homogenous. Different individuals and groups have varying interest in mining activities based on perceived and real effect the mining industry has. The mining community involves

⁻ not available

individuals and groups that seek to make livelihoods from a wider range of activities including outputs and or processing. They can be employed as workers or causal labourers or they can be undertaking mining activities as brokers or dealers - including people involved in secondary activities. It is worth to note that, in this context, mining community is interchangeably used to mean the community whose livelihoods largely depend on gains from small-scale miners and or transnational companies through supply of goods and services. This gives a distinction between the ASM and mining community in the context of this thesis; although in practice, it is difficult to distinguish the two due to political economy and the local social system, members of the household perform varying tasks related to mining activities. Depending on the nature of settlement, the mining community's interests cannot be ignored. Mining communities encounter challenges in case of negative effect, despite that for them banking on the income from the sector might be flimsy since any extractive industry has life-span.

1.5.2. Artisanal Small-scale Miners

Artisan mining is a unique group, due to its composition and diversity as well as the role played at local and national level. Artisanal and small-scale mining is labour intensive and provide employment and incomes to large numbers of people who are generally uneducated, poor and live in remote areas where there are limited opportunities for formal employment, (Mwalyosi, 2004). According to Gratz, (2003:3) due to economic crisis marked by decline in agricultural cash crop production, drought or soil fertility and other politically influenced tensions and community conflicts, individuals move from place to place as fortune seekers, usually young peasants, small entrepreneurs and businessmen; eventually ending up as artisanal miners. Different social groups are represented by artisanal miners ranging from women, children, poorly educated, illiterate, semi illiterate and educated populace acting as alternative employment opportunity. Artisanal mining is therefore a poverty driven activity, but at the same time it provides opportunities for rural poor, leading to economic and social emancipation

There are various definitions from different individuals, organisations and institutions; commonly, these definitions are continental specific, thus making it almost impossible to have a common global definition for artisanal miners. Due to lack of universally agreed parameters, most of stakeholders have defined the term to suit their specific requirements (Drechsler B, 2001, Mwaipopo *et. al*, 2004). The Intermediary Technical Development Group (ITDG) defines ASM

as poor people, individuals or small groups who depend on mining for a living, use rudimentary tools and techniques (e.g. picks, chisels, sluices and pans) to exploit their mineral deposits.

Rosemary M, et. al (2004) argues that lack of official definition for ASM in Tanzania implies little recognition of the sector, despite extensive coverage in the Mining Act and Mining Policy of 1998. A working definition for ASM would be those individuals operating informally or formally under legal framework and whose activities are labour intensive using relatively simple and unsophisticated technology with limited market knowledge; and depending on mining as a major livelihood. So the thesis interchangeably uses the term ASM to refer to labour, owner of the pit using simple rudimental technology and broker who partly works as a miner and as a middle-man selling the gemstone. Worthy to note that mostly ASM are either local people or immigrants from other areas in the country who migrate to make a fortune out of mining activities.

1.5.3. Socio-economic dimensions

The socio-economic impacts of mining activities go beyond the two main actors (ASM and TNC), with the state's regulatory and facilitative role. On one hand, the difference in terms of technological advancement, capital investment, skills, networks, infrastructure and volume of capital determine the magnitude of gains. On the other hand these differences are harnessed to bring collaborative relationship among actors whereas in other cases the differences intensify and culminate into conflicts and violence. This research aimed at understanding the socio-economic changes among ASM and mining community that have been influenced by relationship and activities by ASM and TNC in Mererani.

Socio-economic is defined as the interrelations of environment, social and economic dimensions that determine the patterns of development Huisinga, (1997:2). It involves the social systems where people interact through roles and relationships defined by gender, age, ethnicity, and other social variables and economic strata. It looks on the society as a complex entity where individuals interact freely. The thesis deploys the concept to study how ASM, mining community and the environment are affected by different institutions. It gives a wide context for analysis instead of cause-effect relationship. It also looks on the likelihood of power imbalances and their implication of the local system as a whole.

1.6. Problem Statement

Mining activities are associated with societal changes, leading to economic, and socio-cultural restructuring processes. The processes can be deliberate and or institutionally-led, but overwhelmingly in many cases the changes take place unnoticed. Whereas the miners produced the gemstone and minerals that is not locality consumed, the mining community identifies miners as their market niche, and therefore buyers of agricultural, livestock and industrial products as well as other goods and services. This forms of traditional political economy persisted regardless the presence of an investor (TNCs); meaning community and ASM have an informal but structured way of leading their lives.

However, it would be assumed that the TNC, community, state and ASM despite varying interests, they have indisputable legitimacy and voluntary dependence relationship. On one hand, the presence of TNC in remote local mining communities is assumed to contribute positively to socio-economic development and contribute to local processes. The TNC's practices and policies can result into realisation of legally binding obligations at the same time get its premier goal generating profit for shareholders while promoting sustainable development in the community. It follows that, despite the continuous dependence among community members and ASM, for instance, their socio-economic relationship can also be influenced by TNC's behaviour.

Some of consequences of multiple-actor presence is the throwing the weak out of the system and leaving the valiant; increased opportunities and dualistic economy especially among community members. The latter group spreads the risk to various interventions due to unpredictability of profit from mining; it is also the matter of making and sustaining livelihood for this group. The ASM and communities individually and or as community design different forms of strategies so as to attune with changed production and political economy. There are few who jointly work with TNC, as join venture investment, whereas others work on competitive bases and yet another portion of miners are competitive and hostile in their relationship with big companies. Gains or losses to mining community benefiting from secondary jobs depend on relationships between ASM and TNCs. The complexity on this relationship is marked with conflicts between the two actors; and changing modes of production to the wider community in the area. Conflict escalation might result into causalities' and killings among local actors. In such cases of hostility,

there is a great diversion from the perceived and normal role of TNC and the whole focus on FDIs, as established by national and international institutions⁷.

1.7. Research Questions

The study responded to questions related to the socio-economic issues among ASM and mining community resulting from interaction between TNCs and ASM. The main research question is:-

- How has the community responded and accommodated the ASM and TNC in Mererani? Are there economic and social gains and costs attributable to TNC's mining activities?
 Specific questions that the research tried to respond are:
 - ♦ What gains in terms of social services, economic and infrastructural are evident in the area? Are there changes in socio-economic relations and local social system?
 - ♦ How do the ASM, mining community and TNC relate to each other?
 - ♦ What costs can be attributed to ASM, TNCs and mining activities in general? Which are the social-ills, conflict in production, marketing and local politics?

1.8. Significance of the Study

There are about 13 million people in about 30 countries across the world working as small-scale/artisanal miners, and ILO, (1999:12) estimated between 80 and 100 million people globally depending on small-scale mining activities for their livelihoods. As of year 2000, in the southern African region (Tanzania inclusive) alone, this sub sector had up to ten million people employed or benefiting directly from small-scale and artisanal mining activities. Dreschler (2001:63), states that prior to independence, mining industry contributed to over 10% of GDP. Phillips *et. al*, (2001:8) estimated about 46% of the total middle income earners in Tanzania to be employed or engaged in artisanal mining activities. Over one million Tanzanians are currently working as ASM directly engaged in mining activities contributing to social, cultural, political and economic development. According to Lawyers' Environmental Action Team, (LEA, 2003:14), three jobs are created as secondary economic activities for every single job directly employed in the mining activities in Tanzania. It follows that over three million rural Tanzanians would be benefiting from mining activities.

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There is a growing concern on the corporate responsibility, and different actors try to understand the policies and practices followed by corporate within their countries and away in host countries. Promotion of investment need to take into consideration the environmental, economic and social concerns of the local population, as summarised by Gordon Brown, Chancellor of the Exchequer quoted Britain Minister for Energy, e-commerce and Postal Services:

"Today, corporate social responsibility goes far beyond the old philanthropy of the past – donating money to good causes at the end of financial year – and instead is an all year round *responsibility*⁸ that ...for their engagement in their local communities and their recognition that brand names depend not only on quality, price and uniqueness.... Now we need to move towards a challenging measure of corporate responsibility, where we judge results not just by the inputs but its outcomes: the difference we make to the world in which we live, and the contribution we make to poverty reduction". (Stephen Timms May 2004:2)

The Tanzanian mining industry has signs of improvement and steady growth on GDP contribution of 0.8% (in 1980s) to almost 3% in (2003). This remarkable increase is attributable to macroeconomic reforms and subsequent TNC influx in the country. However, ASM sector remains the highest employer, where by 2001 it accounted for 46% providing jobs for middle-income earners (Phillips, *et. al* 2001). Harnessing the potentiality within the ASM sub-sector would benefit the large segment of the rural population. Challenges such as droughts, encroachment for diverse use of land in areas surrounding Mererani are expected to continue pushing rural youths from agrarian farming and livestock keeping practices. Due to reduced opportunities for rural youths to engage in agricultural activities, mining activities provide a promising refuge.

Apart from the positive spill-over effect of the TNCs, there are negative effect and or unforeseen social, economical and cultural dynamics. Social responsibility of the corporate can be regulated as long as individuals who are social, culturally and economically affected are involved. Significantly, the research aimed at reflecting the socio-economic effect experienced by other stakeholder, especially in the rural settings. It embarks of identifying socio-economic gains and costs and the changing social local system resulting from mining activities, in particular the presence of TNCs and ASM in the same location.

2. Conceptual and Theoretical frameworks

2.1. Background of theoretical frameworks and Concepts

Several traditional and modern concepts and theories were revisited during the preparation and writing this thesis. Within the scope and lenses borrowed from these theoretical frameworks local issues, in the mining industry were looked upon in the context of their implications at macro level in terms of policies and practices. The theories and concepts relevant for this study have micro-macro linkages and also because of the transboundary nature of TNC and marketing activities, a brief link is made. Local issues are linked with macro level implications in terms of policies and practices. Few theoretical frameworks such as locality study, corporate social responsibility are used to help analyse empirical data. Although weakly linked, social capital theory is used to analyse social networks and capital mobilisation among ASM and brokers.

2.2. Locality Study

As part of rural social research, locality study involves understanding the local dynamics that are influenced by myriad changes that are engineered from different levels. A community can be looked at from different perspectives. Lee and Newby, 1983 (in Bradley and Lowe, 1984) uses three dimensions of *geographic area*, *social local system*; and *communion*. However, Bradley and Lowe based on fluxiness of community they embark on the "local social system" as the best-fit with which the rural community can be studied. The other two dimensions of geographical locality and communion are seen as passive and lacking sociological flavour (geographic area) and spatial (communion). Nonetheless, the local social system dimension delineates the community by incorporating the geographic area and communion facets.

This research uses the locality study approach to explore, observe and understand the local context in three major dimensions of *political economy, social structures and politics of land ownership as well as governance and planning system* for rural development (Bradley T and Lowe P 1984: 3-20). The three are demystified in Stacey's *modus operandi*, discussed in this section. Although orthodox discourses perceive political economy as production, buying and selling in the frameworks of laws and customs, locality study widens the scope into relationship with other fields. This provides greater understanding on the *market as being influenced by institutional framework* (policies) and political environment (interactions) among other factors.

Weberian framework of interpretation forms a foundation for social scientists from which particular locales can be analysed in their uniqueness and mythology. Despite some limitations of the approach of studying the community as a local social system, Stacey (1969) demystify the approach by suggesting a *seven-theme-pack*. According to Stacey, the following proposed themes form "*modus operandi* for locality studies", (Bradley and Lowe, 1984:6)-:

- Temporal changes in the 'local' and 'newcomer' populations of the locality
- Convergence and overlapping of social status and elite roles of local institutions
- ♦ Presence and absence of specific social institutions
- Strength of 'belongingness' and shared belief system (communion)
- ♦ Articulation of local and national political structures
- ♦ Overlapping of local and national social systems
- Connection between geographical association and strength of social networks

Among the hick-ups associated with Stacey's *modus operandi* is the "social causation within local or non-local processes; and local structures ... and the complete neglect of the importance of local class formations... and of social stratification in general" (Bradley, Lowe, 1984). What seems important is eschewing generalisation and going beyond cause-effect type of relationship, despite the fact that some factors in a social local system can influence socio-economic changes more than others.

2.3. Corporate social responsibility in Mining

The mushrooming of TNCs in developing countries and increased investments in the last few decades has raised questions on responsibility beyond legal and contractual obligations. Although conventionally the corporate companies are responsible to shareholders, recently more pressure from outside and within is exerted to ensure operations are sustainable and demonstrate positive development contribution; by observing and taking into account social and environmental consequences emanating from their actions. More often corporate companies' policies (and business ethics) include clauses on how socially they respond and observe human rights, environmental standards and promoting sustainable development in their operations. Individuals and institutions affected by corporate decisions and actions at local, national and global level form a category of stakeholders (Wikipedia June 2006), who might represent conflicts of interest.

The CSR reinvigorate the importance of the community and local government especially in extractive industry to ensure their representation in decision-making process. It should be noted that many TNCs incorporate CSR by engaging in community development projects, such as rural roads, construction of health centres, recreations, education and many others as a continuous ad hoc *benevolent* (voluntary) contribution to local communities. Far from their benevolent contribution, the major concerns about corporate activities especially in extractive industry is on sustainability and the negative effects (social cultural, health, economic and environmental) their actions can cause on local communities. There is a dire need for TNCs "... to ensure that host communities, particularly those indirectly and negatively affected by their operations, receive direct and immediate benefit rather than wait for possible 'trickle-down' effect from governments from the receipts of taxes and royalties", Warhurst, A 2001:59).

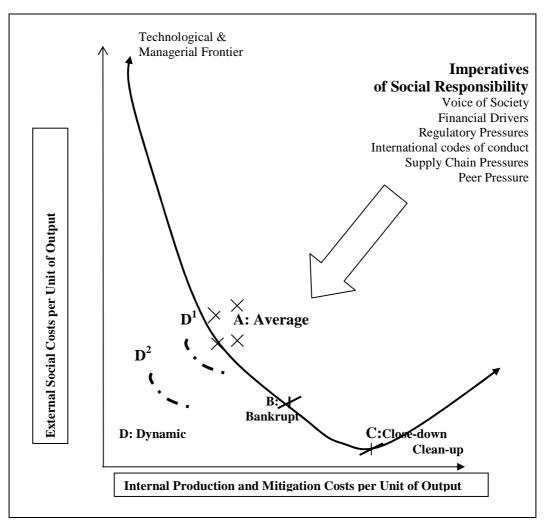
Warhurst, 1998 observes that, due to the 'growing voice of society' challenging TNCs to be proactive, corporate can forge measures in which stakeholders are represented. Opponents of such demands question on how far the TNCs should go in supporting social initiatives? Elaine Sternberg () argues that 'business are owned by their shareholders-any money they spend on so-called social responsibility is effectively theft from those shareholders'. The counter argument to Elaine's is based on the importance of corporate being proactive, socially and environmentally because there are stakeholders who have real influence for the business to cherish. According to Warhurst, (*ibid*) there are three spheres, which include economic, social and biophysical spheres where the private companies can be gauged in adhering to social responsible standards. Distinctive characterisation of the three spheres by Warhurst includes the following:

◆ Economic sphere: corporate can be judged on royalties and taxes as well as employments created by their activities. Because the taxes and royalties paid to the government are assumed to be fairly distributed between the central and local government while giving more priority to remote populations. Although this is gauged over time, the economic sphere assesses the effect of TNC on mining community in economic lens, in which communities can attribute their gains and costs to the presence of the private company.

- Social sphere: Warhurst identifies socio-political and socio-cultural effects as two major parameters associated with social sphere. The assumption is based on the mining activities and local context, and that TNCs are capable of influencing spiritual and cultural well-being, education among the local community. Actions by corporate are likely to affect the health of workers and community around thereby affecting ability to engage in other productive activities. The normative effects resulting from mining activities are easily perceived compared to abstract effect that go beyond the life-span of mine ore.
- ♦ Biophysical sphere. The continual existence of micro and macro organisms above, on and under the surface largely depends on practices of human being. Likewise, negative effect on ecosystem and failure to conserve the biodiversity compromises the livelihood, minerals and quality of farming land. A shift towards *sustainable development* covers related issues such as human rights, health and safety measures, labour protection, business ethics and many more.

Pragmatically CSR is about *reputation and access* (Hamann and Kapelus, 2004)¹⁰, reputation among stakeholders and the community as well as ability to attract and access resources including capital and land. Failure to adhere to social responsible principle has costs. These costs are payable by states, shareholders, other stakeholders and communities. The costs can be social, economic and environmental. Figure 1 below adapted from Warhurst A (1998), identifies two key business costs: *the internal production and external social costs* that a mining company would encounter. While the internal production involves non-monetary represented (externalities) and mitigation costs that result from use¹¹ of resource; according to Warhurst contribution for external cost are usually not "fully-costed".

Figure 1: Trajectories of Corporate Social Responsibility
Adapted from Alyson Warhurst, (1998)



To increase their profit and be more responsible, corporate are expect to address community concerns beyond complaisance contractual obligations so as to avoid and off-set potential differences that might arise from conflict of interest among stakeholders. Mitigation cost (time, credibility and social image) for conflict escalation and general non-observance of social responsibility when equated in monetary terms count to be higher cost. This calls for "... trade-off between production costs and environmental protection and social responsibility", (Warhurst, A 1998:8).

According to Warhurst trajectory along the A-B (refer to figure 1 above) would be dectated by flexibility of the company in investing in competing internal *vis-a-vis* external costs (i.e production costs and environmental and societal demand performance costs). A proactive and

innovative firm would like to stay at location A, avoiding anything that would push it to bankruptcy and closing of the mining activities. Corporate investing in socially and environmentally sound policies and practices, have the likelihood of pushing down both internal production and mitigation costs as well as external social cost per unit of output (area A-D).

2.4. Social Capital

Francis Fukuyama, (1999), defines social capital as an instantiated informal norm that enhances and promotes assistance between two or more individuals. According to Fukuyama, the key features of social capital can include reciprocity among the parties involved, resulting into a complex network. These network relationships demand *rights* and *obligation*; however this thesis in its discussion uses the social capital concept on a general scale level to help understand how owners of pits and claims as wells as brokers raise money to keep in business.

Social capital concept has been used to study economic growth among different countries, and communities. In the mining context especially in developing countries where support to ASM from formal financial institutions is limited, trust and networks around miners offers the services that would otherwise be obtained from banking system. Further, the nature of income from mining activities is erratic and uncertain, although life continues. For that matter, miners get support, in cash and in kind to keep their business running, meet house requirements such as food stuff and the like. It is one of the concepts that applies to Mererani also when it comes to conflict with TNCs, because miners build their own allies although at times they fight among themselves.

One of major concerns for ASM is access to credit, especially from formal banking system. In the absence of this important service, ASM have continued to operate, using the coping mechanism that can be easily explained by the social capital theory. Social capital is about networks, fit-in; it is about latitude and availability of alternatives and freedom of choices to access resource in the context of functioning's. The concept is used in micro socioeconomic locale, in the boundaries of trust, coordination and cooperation and cohesion among society members.

There are other concepts that constantly are used in this thesis, apart from ASM and mining community. These include; political ecology (that refers to policies, natural resource and community interaction), neo-liberal and liberation (referred especially on discussions of macroeconomic reforms and the influence of World Bank's fraternities as well as other international financial institutions and donors). According to Blaikie and Brookfield, 1987 (cited in Garry, 2000) political ecology is an attempt to understand the dynamics and complex interrelations between the local people, national and global political economies, and ecosystem. It is about people, politics, policies and the natural resource.

2.5. Operationalization of the Study Framework

The two main theoretical frameworks (locality study and CSR) are underpinned on community parameters that are related. Although on their own account, each of these frameworks can form separate analysis, the empirical study analysis uses key features of the two as lenses with which to understand the dynamics in the study area; thereby responding to research questions. Further the locality study analyses work based on *modus operandi* by Stacey, it helps in understanding how the political economy dictates the livelihood of local community and the social structure in the context of how the politics of landownership (political ecology) affect the community. On the one hand, the presence of TNC in local communities is perceived with mixed feeling, and more often high positive expectations. On the other hand, due to the complex dynamic relationship among actors, community expectation and fulfilment depends on various variables. The previous sections on challenges in locality study highlighted the difficulties and danger in relating events at community level in a cause-effect relationship. Unless there is strong evidence for such relationship, this thesis tries to avoid this type of analysis so as to give it the richness of connectedness of events in locales. It however looks on:-

♦ Local Social Systems and Corporate Social Responsibility.

This involves understanding the 'local' and 'newcomer' resettlement adjustment resulting from booming mining activities. Locals move voluntarily or involuntary to give space for the mining activities. Apart from TNC, there are ASM who either come from same location or far away to do mining. There are other projects and programmes that are/were supported by ASM and TNCs. These are discussed in this section as well as socio-economic relationship among local actors and community. Raising capital for mining activities is one of the challenges many ASM face. Social networks (social capital) is discussed in the veins of friendship and hedge necessary for keeping

on-course. Finally, this section will look on social-ills such as prostitution, HIV/AIDS, thievery and their cost to mining community.

♦ Biophysical sphere

The relationship among actors to gemstone is *interdependent* and *exploitative* depending on the level and kind of actors. Sound use of such relationships (through policies and practices) poses a better world for future generation and ability to make livelihoods out of mining activities. This part looks on mine ownership and tenancy as well as practices necessary for livelihood, human rights abuses and improved health and environmental standards.

♦ Economic Sphere – hostility and conflict

Mining activities usher precedent leverage for rural poverty reduction. Apart from mining there are auxiliary economic activities that emerge in mining communities and surrounding areas. The auxiliary activities employ more rural dwellers than actual mining. However, there are conflicts whose root cause might be in poor policy (absence and practice) resulting into poor relationship among actors. Although policies and practice might be the root cause for conflict, poor relationships in mining activities have their source on control and ownership in economic terms. This part discusses power relationship and ability to influence, local, national and global processes whose effects are beyond ASM and TNC.

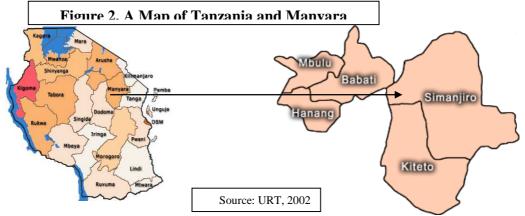
♦ Win-win and the cost of conflict

Apart from gains and cost, this thesis embarks on identifying possible ways that the social and economic gains can be promoted while mitigating the current cost in the study area. As part of CSR and the trajectories indicated on figure 1, the corporate might need to avoid internal conflict and minimise conflicts with ASM and mining community. The conflicts increases internal production and mitigation cost per unit of output, compared to external social cost. Flexibility on the way the corporate relates (policies and practices) with local stakeholders will determine the level of cost per unit of output. Although the thesis does not work on econometrics (monetary terms), it analyses the cost of poor relation to community, ASM, the state and TNC.

3. Study Area: Simanjiro District and Mererani Profile

3.1. Boundaries, Population settlement and Immigration

Manyara region is located the northern part of Tanzania bordering Kilimanjaro region to northeast, Arusha to north, Tanga to the east, Morogoro and Dodoma regions to the south and Singida and Shinyanga regions to the west. It is a newly formed administrative region, less than five years. Simanjiro is one of the districts in Manyara region, which until recently was part of Arusha region. Other districts in Manyara, apart from Simanjiro include Babati, Hanang, Kiteto and Mbulu. Most of the information based on socioeconomic data for Simanjiro is included in Arusha region before boundary redesigning. Districts like Kiteto have good arable land attracting small and large agricultural



activities, whereas Simanjiro is well known for mining and farming as well.

Simanjiro district lies south of Arusha municipality and is located in a semi-arid area with Maasai community occupying the big percent of the population. Other ethnic groups include Arusha, Ndorobo, Meru and Barbaig. While Maasai are pastoralists and hunters, Ndorobo are gatherers and hunters with other tribes conducting farming activities in a subsistence form. These are natives of the district and the region, although there are other immigrants in the area due to its importance in mining activities, tourism industry and agriculture. Agriculture is the mainstay of the economy in the region, amid challenges posed by climatic changes, depleted soil fertility and falling agricultural prices as well as land encroachment due to wildlife. Apart from contributing to employment and local economy in the district, mining and tourism are fast growing industries that contribute to the national economy. The traditional economy is therefore farming, livestock keeping

and hunting with exceptions of areas like Mererani where community depend on mining as primary and or secondary economic activity. For easy understanding, in some cases this thesis uses Mererani and Simanjiro areas interchangeably.

Mererani area is within Simanjiro district which is among the five districts in Manyara region. It is located 150 kilometres from Simanjiro district. It lies within Lelatema Mountains that is part of Maasai steppe, which covers wetland areas and national forest reserves as well as a number of national parks such as Tarangire and Lake Manyara. Mererani Tanzanite mining area is connected to Moshi and Arusha (70 kilometres) municipals by a stretch of dust and tarmac road via Kilimanjaro International Airport (KIA). The original inhabitants of the Mererani are Maasai and Meru who are pastoralists and subsistence farmers respectively, however due to immigration; immigrants are estimated to occupy a big proportion of the population.

According to 2002 National Census, the total population of Manyara region was 1,040461 and Simanjiro accounted for 141,676 (URT, 2002). Currently, the official figure for the population is about 48,027 (Table 3.1), although many estimates the population would be between 60,000 and 100,000. Compared to other wards in Simanjiro district, Mererani is the highest populated ward compared to over 141,000 total populations in the district. This is almost \(^{1}/_{3}\) of the total population with same proportion of households, over 12,000 compared to 32,000 households in the district. Mererani is one of the places that put Tanzania in the map of gemstone and minerals. Although Simanjiro is a newly established district, in the 1988 national Census, the population was 52,897 and almost ten years later the population has almost trebled. One reason for exponential population growth could be the contribution of the mine rush (*tanzanite rush*), meaning between 1988 and 2002 many people have migrated into the area, particularly Mererani. Administratively, Simanjiro district has twelve wards, of which Mererani ward has the highest population.

As a result of *tanzanite rush*, from 1960s when the gemstone was discovered a lot of people streamed into the area since 1960s. Individuals in Mererani are highly mobile and

despite the known household numbers those who spend day-time in the area or those who pay occasional visit might be equivalent to residents in figures. Population growth and movements in the area is one of the concerns, as increased population must be proportionate with availability of social services and other opportunities. Kulindwa (2003) noted that over 79% of respondents in Mererani were immigrants who have settled in the area between 1985 and 1995. The population surge pushed the original natives to some places with enough pasture and farming land, creating potential conflict over resources for grazing and farming land.

Different individuals came to Mererani on various reasons, but generally to make fortune. The is almost every tribe represented in the areas, with Chagga, Pare, Maasai and Meru people scoring high in large numbers, may be due to their vicinity. Apart from known tribes in Tanzania, there are individuals from neighbour countries as well as far away outside Africa, all making a living out of the mine. Among the interviewed individuals during this study, some have lived in the area over 30 years, with children who are attending schools. Although there were many reasons to migrate to Mererani, but most of them migrated to the area because of mining activities whereas other reasons include transferred to the area working as civil employees, doing business, marriage and other economic activities.

Big population is a normal phenomenon for mine rush. According to Reid, (1934;162-3), discovery of gold in Lupa area north of Mbeya Tanganyika summoned all sorts and conditions of men and women; where not only prospectors but also butchers, bakers, candlestick makers...women who had left their men folks planting up a shamba. Composition of Mererani population however does not follow the normal trend for gender for both men and women and average household individuals. The average number of people per household in Simanjiro district is 3.9; this is the least in the district and probably in Tanzania for mixed settlements like Mererani. This figure can be compared with Orkesumet, which is the district headquarters, with the average of 4.8 individuals in a household. Further, the proportion of men to women indicates *unnaturality* in this community, implying probably many men leave their families in other places to come

and work in the area. Mobility of this nature works as hide-out for wrong-doers and potentially moulds negative social behaviour such as marijuana smoking and glue sniffing, prostitution and gag-rape which are traditionally unaccepted. Although rape and criminal cases were common until mid 1990s, the presence of police post and increased industrial people in the areas has affected the way people relate to each other.

Table 3.1. Simanjiro District Population (2002 National Census)

No	Name of	Type	Male	Female	Total	Households	
	Ward				Number	Total	Average
	District		76,753	64,923	141,676	32,582	4.3
1	Orkesumet	Mixed	6,334	6,357	12,691	2,618	4.8
2	Naberera	Mixed	6,605	5,629	12,234	2,801	4.4
3	Loibor-Siret	Rural	3,587	3,525	7,112	1,442	4.9
4	Emboreet	Rural	3,216	3,227	6,443	1,260	5.1
5	Terrat	Rural	6,693	7,012	13,705	2,989	4.6
6	Oljoro No.5	Rural	4,734	4,902	9,636	2,128	4.5
7	Shambarai	Rural	3,945	3,679	7,624	1,636	4.7
8	Mererani	Mixed	29,156	18,871	48,027	12,277	3.9
9	MsituwaTembo	Rural	5,283	4,933	10,216	2,437	4.2
10	Ngorika	Rural	3,031	2,860	5,891	1,421	4.1
11	Loiborsoit	Rural	2,508	2,114	4,652	896	5.2
12	Ruvu-Remit	Rural	1,661	1,784	3,445	677	5.1

Source. URT 2002. Population and Housing Census

In Mererani, according to the Baseline Survey conducted by World Vision Tanzania (WVT 2001), there were about 5,000 sex workers in Mererani by 2001, whereas the number of children on street was very alarming. The number of sex workers in this location indicates this business is rewarding with high returns in Mererani. The HIV-AIDS status in Mererani and some neighbouring villages is very startling at a rate of over 20 percent. Compared to other places and the national statistics this rate is very high. Table 3.2 shows infection rate, where in some of the villages the rate is over 20%! Various reasons are given on HIV/AIDS infection rate, one being the mobility of people in the area. Although there are permanent settlers, the area has many people coming in and going out doing business. A lot of money that ASM get from mining activities also beguiles them to involve in extra marital sexual activities.

It should be noted here that Maasai people practice polygamy and form a big section of broker population. For that reason they form a big group of individuals who are at the risk of contracting the HIV/AIDS and infecting large population in their homes. Other practices such as traditional circumcision are also common among Maasai and might contribute to escalating HIV/AIDS in places where awareness is limited. Increased social interaction is claimed not only to affect the social and traditional cohesion among Maasai, but also exposing them to HIV/AIDS infection, death taking its toll in this community.

Table: 3.2 HIV/AIDS cases in Mererani Area

HIV/AIDS STATUS IN AREAS NEAR MERERANI							
Village	Tested	PLWHA	Percentage				
Mererani	4,293	859	20				
Shambarai	160	47	29				
Olbil	199	40	20				
Kilombero	66	16	24				
Naisinyai	93	16	17				
Lengasti	6	0	0				
Nomeliti	15	0	0				
Total	4,835	978	22.3				

Source: COMOCAH¹², 2005 Mererani

Despite divergences from normal local population (men: women ratio), settlement in Mererani is well established settlement, with almost 30% of population directly depending on mining activities whereas another 45% are engaged in secondary activities that benefit from tanzanite production. Due to granting of mineral rights and mining licences, the population in Mererani was affected by both voluntary and involuntary displacement, mainly resulting into subsequent displacement of natives. Some families left the place because their livestock and farming activities could not be supported in an area, despite this there were families and individuals who left the place when mining area was privatised and during rationalisation process. There are also few who left after being compensated for displacement based on property development on the land; and Mererani represent few mining sites with long life-span, it has existed over decades.

3.2. Traditional livelihoods and Industrial Development

Simanjiro district depends on different industries to generate income and support livelihoods of the population. Traditional economies in this locality are naturally differentiated with tribes, with Maasai being pastoralist, Meru, Arusha and Barbaig

traditional farmers and Ndorobo hunters and gatherers. Mining activities are basically conducted by *strangers* and a few natives. To the rest of the population, livestock keeping forms the traditional model of production, thus sustainable livelihood and security (social and economic) providing social, financial and natural capital for the Maasai population. Pastoralism in this semi-arid area is manifested by seasonal migration, the practice lately challenged by increased demand for land due to mining, farming, grazing and game reserves for wildlife. The pastoralists provide livestock products to miners and mining community, although they live some kilometres away from Mererani settlement.

According to research data collected in November 2005 and July 2006, about 50 cows and 100 goats are slaughtered in this small town of Mererani on daily base. A great part of Maasai diet comprises of livestock stuff especially meant. Other products such as milk are on increased demand because the population increases too. Further, due to lack of hard-cash and limited social security, livestock provide the social capital as a form of identity, wealth and prestige commanding respect from community members. Despite this, the Maasai people, traditionally livestock keepers, practice a dual-economy because of their wealth they engage in gemstone deals as brokers. Like wise, Meru who are agriculturalist, small-scale farmers work on farm to supply food stuff to the miners; a few Meru also engage in brokering activities. However, increasing threat to traditional form of livelihoods forces Maasai community to seek alternative forms of employment such as trade, farming and wage with few educated working in public sector as civil servants, (Bee et. al 2002:2-17).

The second form of livelihood and traditional economy is farming activities, which is highly affected by climatic changes and fertility depletion forcing young people to abandon it. Although the community produces agricultural products primarily to be self-sufficient in food supply, the surplus finds its market in mining community. Individuals involved in farming sells their produce to either miners or *local capitalists* area who in provide food to claim holders on cash or loan-bases under agreed terms. This system though very formal, it is highly characterised with trust, with no direct interest rates. The mining community depend on local food suppliers who reside some kilometres away

from Mererani area, although *local capitalists* might own farms and live in this small *but big town* with all necessary things one would expect in a local town of developing country. These include stationeries, chemist shops, guest and restaurants, markets and other businesses, usually sold at hiked prices. Pastoralists and subsistence farmers who practice shifting cultivate experience frequent conflicts based on grazing land vis a vis farming area and wildlife, (URT, 2002: 22-27).

The third mode of production and livelihood economy is mining activities. There are several other places in Simanjiro bearing minerals and gemstone, but due to lack of knowledge on geology and quantity they remain un-mined and or mined by artisans in small quantities. Among the mineral and gemstone dealers world wide, Tanzania is well known for its tanzanite gemstone, which is a zoisite mineral variety with a deep blue colour. Mererani is known for its production, since mid 1960s when it was discovered by a Tanzanian prospector Manyanya/Mayaya. In some literatures the person who discovered tanzanite is known as Manyanya a herdsman and in other literature is Mayaya, the prospector (see Chachage in Gibbon, 1995 and Kulindwa *et. al* 2003). There are other literatures referring to the discoverer as Jumanne Ngoma, (Phillips 2002.11). Jummanne Ngoma is however officially recognised by the government as the person, who discovered the gemstone, (Tanzanite: Mystery of the Stone. The East African, Monday, March 21 2005). There are unsubstantiated stories about the deep colour, women engagement in mining activities as well as kin sacrifices to get rich. These are stories around, but the evidences are hard to establish.

Albeit such stories, tanzanite and associated activities and livelihoods has existed over the last four decades, although the scale of production was limited due to limited technology. Until mid 1980s artisanal and small-scale mining remained the mode of gemstone production for tanzanite, despite the government's involvement represented by Tanzania Gemstone Industry (TGI). Over the last two decades, however since the privatisation of mining activities that was marked by high support of neo-liberal policies, Mererani community has experienced many changes in economical, cultural and social realms

The presence of minerals and gemstones in Arusha and Manyara regions makes the places to be major destinations of immigrants from other regions in Tanzania and outside the country. Immigrants to Mererani benefit either as service providers, miners or dealers and brokers. Also the region is well connected to neighbouring country like Kenya which can best explain easy influx of foreigners and smuggling of the gemstone in case the market and other regulatory frameworks are not working in favour of artisanal miners (Chachage, *ibid*). There are several mineral and gemstone deposits in most part of Arusha and Manyara regions. One reason could be economic viability of other mineral deposits and their vicinity to Arusha or Moshi for easy market access. Tanzanite is the most valuable gemstone providing higher returns to miners, dealers and brokers as well as surrounding community. Green garnet, tourmaline, sapphire and emerald are among other gemstones high market value that are found in Arusha and Manyara regions.

Disengagement of state from mining activities resulted into changing relationship and actors in mining industry. Previously the State Mining Corporation, (STAMICO), had different functions, among them being to conduct the mining activities, either as a single entity or in collaboration with other companies as a joint venture investment. Although under state controlled mining era, supervised by STAMICO the level of gemstone was drastically reduced, the ASM continued in Mererani and by 1989 there were about 30,000 ASM engaged in mining activities (Chachage, in Gibbon P, 1995).

Most of the above gemstones mentioned above found in Mererani and other places in Arusha (Manyara) were mined by artisanal small-scale miners before the rationalisation process - that saw eviction and most of the ASM losing their properties. The time-lag between state closure of mining activities by TGI and formalised private companies created *vacuum*; the latter according to ASM was assumed to be total closure and failure to continue with mining activities by STAMICO. Interviews with ASM indicated most of them came during this temporary vacuum and occupied mine plots *illegally*. Inhabitants of Mererani believe a lot of gemstone was produced during this time because ASM continued with mining activities. So by the time the government had announced to reopen

the mines, ASM had already pegged claims without waiting for procedures. So this prompted the government to conduct rationalisation exercise.

Although ASM were previously working on tanzanite before rationalisation, this was contrary to the regulations, because the pegging of claims was made soon as the government had announced the intention to open it for it did not follow the procedure. After the rationalisation exercise, different groups emerged, that were working on mining. To a great extent, these legacies inculcate eruptive conflicts at different time. Mehler 2002:38 sited by Herschler, (2004:5), argues that "illegitimacy of existing distributive mechanisms, inequality in access and control as well as evident affluence and perceived illegal enrichment result in tension". The rationalisation involved allocating and relocating four major blocks. For example, according to Chachage (1995), Kilimanjaro Mines, Building Utilities, J.S Magezi & Sons and Mfahamiko Mining Co., that were earmarked for occupying the mines failed to meet the tender requirement and their leases were withheld in 1989. In this arrangement ASM remained literary with nothing, and in 1991 blocks A,B&C were of approximately one square mile were given to Kilimanjaro Mines, Building Utilities and Graphtan Ltd respectively. The later was jointly owned by Tanzania Gemstone Industries (TGI), SAMAX ltd and Graphtan ltd. On the other hand block D was given to ASM (AREMA), with approximately 1,000 members (ibid). However, there were some complaints on how the whole exercise was done, because in the process, some lost their properties and that the poor ASM were given area which was less productive and that demanded sophisticated equipment for deep digging, and they had no economic power to purchase them. It is estimated that over 80% of small-scale miners lost their plots during the process that aimed at privatising and rationalising the mining activities in the area. It is obvious that the promotion of foreign capital lead investment in the industry resulted in retrenchments of self-employed individuals.

Apart from block D, some ASM also were granted part of block B, whereas those who had missed invaded block C, which was under SAMAX/Graphtan, the first TNC in the area, which never took off from ground and was liquidated in 1998 (Phillips, 2002).

Further discussions on conflicts with ASM indicate dissatisfaction on the whole process how the rationalisation was done. To an extent the ASM fills they owned the place, because they discovered the place, and they should have been given the priority to first choose during rationalisation; but this was given to investor.

The liquidation of SAMAX ltd (UK based company), resulted into African Gem Resources Mining limited (AFGEM¹³ - a South Africa based company) buying block C. Despite a new actor in the place, AFGEM the relation and tension between ASM and large miners have sustained and at times intensifying from mere words to heated hostility. On the other hand, the company has trained and employed local people in mining activities including sorting and cutting. Apart from AFGEM, as a TNC, there are local companies that include Kilimanjaro Mine, Building Utilities ltd and IPP Consortium. Following a serious scuffle between the Government and ASM, in 1998-1999, the present profile is as follows; block A-remained under Kilimanjaro Mine, Building Utilities ltd retained block B-after letting go ¾ of the block to MINASCO – the breakaway group of AREMA and other individual ASM, AFGEM maintained block C. Within AREMA internal conflicts led to sub-divisions for block D into individual holdings, whereas an extension of block D was granted to Tanzanite Africa, which is an IPP consortium.

This arrangement as explained elsewhere in this thesis, has created competition and classes of winners and losers among society members (Herschler Kurt,2004:2) ".... unavoidable reforms have helped the country out of its economic and political misery, but not the price of increasing violent conflict" (*Ibid*). Conflicts have sustained in Mererani, in gem production, marketing and policy platforms affecting all the actors in varying magnitudes.

3.3. Principal Local stakeholders

Different groups are differently affected by mining activities in Simanjiro. Stakeholder group is composed by individuals, groups, association and institutions and companies. The magnitude and scale of effect depends the *heaviness* of the stakeholder to influence

the oscillation of policy and practice pendulum at different levels. Figure 3 indicates various actors and interactions at different levels. The fact that there are different interest groups, calls for greater harmonisation of interests by the regulatory and facilitative role of the state. Despite the indispensable role of the state, within groups there are also differences that makes the whole system complicated. For example, in the same way that community is not homogenous, likewise the ASM is not a homogeneous group. It is worth noting that, although Figure 3 represents the actors in a horizontal structure, the hierarchical and power relationship is mainly vested to the state (government policies) and the TNCs are the major decision-makers in the mining industry, with practically low capacity for local government authorities to influence decisions. Further, although the actors are local, their national and international links make them to be global-local actors, whose effect can be traced at the micro-macro and global spectrum.

The local government

Administratively local government structure starts from the sub-village level. Availability of enough revenues enables the smooth running of development activities and provision of quality social services to its constituency. It is the overseer of all development activities, controls and maintains the environment for sustainable use by different interest groups. Usually each ward has a representative who sits in full-council meeting, which is the topic decision-making organ, where community interests are represented. Technical staff in various departments represents the council on a range of matters including natural resources, tax and revenue. Two sets of policies govern the local government, the national and locally adopted policies. In cases where the local by-laws are in conflict with national level policies, the latter supersede in many cases.

Artisanal miners

This group is big. It comprises mine workers constantly referred to as *nyoka* or *wana-Apollo* in Mererani area. Nyoka are mineworkers employed by TNC, local companies or small-scale miners, with verbal contracts. They trail the gemstone following veins in a shaft as deep as 450 metres (Kondo, H 2005). Usually *nyoka* mug the challenges and hassle underneath such as under grounding and itching water, and by the help of pulley they remove sand/soil using plastic bags or small sacks. This is one of the activities that attract young and un-learned individuals, because it requires masculinity and

perseverance. An advanced set of ASM involves technical people like *jiolojisti* (Swahili version for geologist), Nobel or explosive expert and macho ya tajiri (claim holder or pit owner representative) and manager. The two subsets toils day and night, and for the mine shaft that is near to produce, there are day and night shifts, usually using normal lighting system of small torches. The allowable number of miners in one shaft is 25 to 30 individuals, but increased depth forces pit owners to have between 80 and 120, a practice that has attracted *survival tactics* such as *Bingo*. Kondo, (2005) says that "...when the mine owner reaches the vein he contracts a number of wana-Apollo".

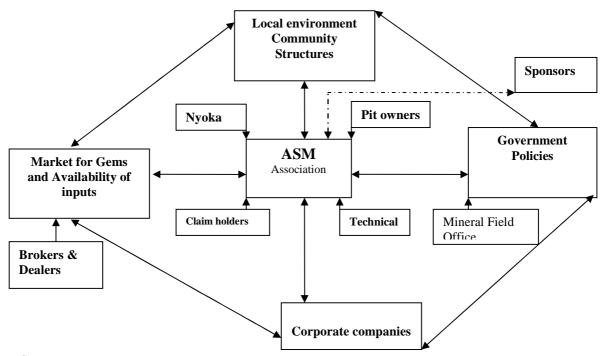


Figure 3. A sketch of Main Actors Interaction

Source: Drafted by author as Model with reference to empirical data

Pit owners and claim holders form the third category of ASM. Depending on the economic status they either stay in community engaged in other economic activities and setting deals while visiting the mine site once in while. The representative of claim and pit owner will always give feedback on regular bases. "...pit owners are poor...they can hardly feed their workers", Chachage in Gibbon, 1995. Lack of trust and uncertainty of ASM activities renders it almost impossible for pit owners to get loans from formal banking system. For that reason, they depend on *local sponsors* who share the cake from deep on the ground. Pit owners and claim holders used to be local *capitalists* until the big

investors came in Mererani. Recently their activities and earnings are highly affected by increased depth and number of workers they have to support to remove the tailings (sand) from under ground. The share of gem value is computed on different factors, depending on the owner. Of 580 claims in Mererani, only 60% are operational due to various reasons including the cost of maintaining big group of *nyoka* (*ibid*,)

This group apart from lack of access to loan from formal sector, their claims and pits hardly bears enough information sufficient to guarantee a loan. Dependency on local experts, *jiolojists*, referred to as bare-footed mine explorers, has limitation on the reliability of the information. Limited capital investment forces pit owners to use labour intensive mine production and crude and rudimental equipment, sometimes endangering *nyoka*'s physical health and lives. A few ASM are however rich with other investments in neighbouring towns such as Arusha and Moshi. This group of stakeholders, ASM is accused of evading compulsory tax, and local leaders believe ASM should be coerced to pay tax and contribute to community development projects. Arusha Regional Miners' Association, AREMA is an organisation that assumes the role of representing ASM on issues related to policy, market and conflict resolution.

Corporate Private companies

Private formal operations are under four major companies of Kilimanjaro Mine, Building Utilities Co. Itd, Africa One (IPP consortium) and Tanzania One. The latter is the only Transnational Corporation operating in Mererani in tanzanite production. Although all of these companies came in Mererani during and after the period coinciding with World Bank's African Mining code strategy, Africa One is the most recent. Each company has its own strategy, in production, marketing and lobbying for tax relief and other benefits. ASM ascertain they get enough support from local companies compared to big one, Tanzania One, despite this one can deduce on legacy that persisted on negative relationship fuelled by suspicion, mistrust and rivalry to win in production, market and other benefits.

Brokers and gem dealers

This is an interest group, as it distances itself from regular presence in the mine, but always rained with information on which shaft is near to produce and the status of the shaft or pit owner. They have very effective intelligence system and usually very liquid. Although brokering activity requires registration, it was hard to establish the number of individuals who work as brokers. Maasai people are errands in brokering skill, and with their motorbikes they commute between Mererani centre, Arusha and mining sites. With increased use of mobile in areas remote like Mererani, doing business is easy. The method by brokers, however category resembles a relay game, where the gemstone exchanges several hands before getting to master dealers, who are based in Arusha or Dar Es Salaam and neighbouring country, Kenya in particular. Depending on the primary source, pit owner, causal labour, *see and pick* or sponsor brokers buys from any of those and rush to master dealer. Brokers are also at risk, compared to master dealers, because with an increase in fake (*zandu*)¹⁴, gemstone it is simple to be corned.

Another set of brokers and dealers is made of women associations that raise the profile of women in entrepreneurships. Simanjiro Entrepreneurs and Women Miners, SEWOMI, is a membership women organisation that supports women miners. Although the nature of mining is not conducive for women working in shafts, a good number of them own pits, and some play the role of sponsors giving money to men pit owners who are economically weak. Members of SEWOMI work as brokers, maximising the profit and at times re-buying gemstone from the share given to their causal workers to go and sell it to master dealers in Arusha or Dar Es Salaam. Another group of business women is the Tanzania Women Miners Association, TAWOMI, Mererani chapter. This is national-wide group with branches in mining places.

Mineral and energy Field Office

The national level Mineral department has designated mineral zone offices. In Mererani, due to increased conflicts, suggestions from different commissions appointed by the government suggested to have a field office. The mineral field office supports extension services to ASM and backstopping by intervening and confirming the stuff before exported. It has other roles such as:-

 Educating ASM and community on revenue collections by the government and how it is spent.

- Promoting harmony among ASM, communities and TNC
- Advising on relationship between pit and claim owners and their labours regarding wages. Because contracts are made based on mutual understanding, labour face difficulties if it takes long time before they get gemstone.
- Watch-dog and track the business of mine, so as to ensure due payments are submitted to government authorities. According to the Zone field Coordinator in Mererani, it is highly difficult to trace income and expenditure for mining activities compared to other sectors like agriculture. Within the sector, the field officials believe collection of tax from ASM is an expensive and difficult activity to undertake, because they do not keep records compared to the companies.
- ◆ Carrying forward ASM and communities grievances to respective authorities. Therefore it works as a bridge between different parties involved, and building trust among the actors. ASM, TNC and government, both local and central level do not trust each other. Lack of trust is espoused with high level of suspicions, on which ASM are less trusted compared to others, especially on tax and observing contractual obligations. On the other hand, communities trust ASM more than the TNC or their own government. This could be because of the nature of settlement as discussed in other sections
 - The field office in collaboration with Zone office and tax office also support ASM and TNC in processing tax exemption for inputs imported, although very few ASM orders equipment directly from foreign countries.
 - ◆ Supporting ASM where to get assistance in case of need for inputs, loan (credit facilities) and marketing issues. Both Land and Mining Acts offer provisions for the owner of pits to use it in getting loans from formal financial institutions. Despite this, very few people access credit facilities from formal banking system because the flow of revenues from ASM mining activities is not predictable; rendering it difficult to set get loans based on nicely drawn cash-flows. It should be noted once more that loans are offered by formal institutions based on *proved* and estimated reserves.

Service Providers

The group represents a big population in Mererani and international figures reinforce the argument on the importance of ASM. According to the Bank, about one million artisanal miners and their families get their living from mining activities, in over thirty countries; and large-scale mining accounts for over one-half of total export, one-third tax receipt and one-tenth of economic activities, (WB 1992.8). Individuals depend on income from mining activities and they provide services directly or indirectly linked to mining. Weakened pit owners depend on supplies from this group to feed their mineworkers; usually the support takes the form of cash or in kind. Identified shops, for example would provide food and all stuff including beverages and alcohol to mineworkers with the promise, "I pay when I harvest". Of course there are other service providers who demand immediate pay after services, like sex workers because of their mobility cannot give service on loan bases.

3.4. Social Services and Rural Planning System

Lack of essential social essential services is a constant challenge in many rural Tanzania, and Simanjiro and Mererani areas are not different. State disengagement and increased poverty affected the provision, quality and access to essential services. For instance, in Simanjiro district access to health facilities in some of communities remains a challenge as people trek tens of kilometres before getting to the nearest health facility. The district designated hospital is at completion stage, and about 30 dispensaries scattered in the district some of these playing the role of health centre. As of 2002, a total of 13 dispensaries were owned by government and the rest by privately owned, (URT 2002. 12). Much health related cases include malaria, pneumonia, measles, diarrhoea and respiratory infection for children. Women and children are vulnerable, women being primary and second victims during pregnancy complications and children illness respectively. Other health problems are linked with sexually transmitted infections (STIs) and opportunistic complications such as TB resulting from HIV/AIDS infection.

Availability of water in Mererani is another challenge, although there are shallow wells, the water is neither safe nor clean. The community relies on water delivered by tankers from Arusha or Moshi towns; and the water is expensive sold at 300 Tshs per 20 litres

container. There are allegations that the efforts to supply water in the area were sabotaged by private water suppliers to ensure there is constant shortage of water. Education infrastructures are dilapidated with signs of improvement in recent years. However, there were 54 primary schools with only 294 teachers expected to teach in these schools from class one to seven. Provision of social services is hampered by many factors, apart from poverty shifting cultivation and migration for search of grazing land renders it difficult for the government to provide durable and meaningful support. Initiatives such as mobile schools and residential study for primary school children are offered in different locations. However 65% of adults are illiterate (Nyamaume, 2003). Another challenge with many mining sites including Mererani is the population percent engaged in mining activities as small-scale miners. Most of these are either school drop-outs or primary school leavers with few who attained tertiary education levels. Because of limited economic opportunities in Mererani and Simanjiro due to encroachment of farming land, drought and decreasing pasture the only viable activity is mining. Availability of essential service in the area is the key in supporting the increasing population. Also, whatever gains the community has have since 1960s, are built on a fragile and flamboyant foundation due to weak capacities in terms of institution and skills to harness benefits at local government level.

Rural Planning system

Tanzania practices a decentralised governance system for decision-making processes. Under this system, local governments are supposed to come up with development plans that emanate from village and ward levels. Devolution of power aims at improving efficiency and the quality of services offered to the public, through enhanced and localised decision-making process. Further local government councils in frameworks of the national policies can design laws and by-laws governing revenue system and land policies; which involve village and ward representatives in forging plans on a bottom-up system. Fiscally, LGAs' recurrent expenditures are transferred funds from the central government. Of late the national government has adopted the National Strategy for Growth and Reduction of Poverty (NSGRP) popularly known in Kiswahili as Mkakati wa Kukuza na Kupambana na Umaskini Tanzania (MKUKUTA). All LGA's plans are presumed to fit into national processes broadly addressing poverty issues.

Despite the decentralised governance system, some industries are *exceptionally* different; the mining industry is one of the few exceptions. It must be noted that in Tanzanian land policies the final decision on land use and ownership is vested in president's mandate and under normal circumstances people owing land the have control over the surface not minerals and whatsoever under the ground. In practice minerals and land belong to the central government and decisions on land use in case of mineral bearing are vested to the Minister of Mineral and Energy first; few individuals who own lease can use it to apply for loan and mortgage it. Despite the availability of Village Land Act of 1998, it is only the central government that can allocate mining rights and mineral licences for exploration, developing and prospecting and mineral production. The companies apply for the licences at national level and consultation *might* be done to local level to ensure there is agreement. According to the International Labour Organisation, (ILO, 1999. 26), usually the artisans have a lease of at most three years (in some cases up to five years), renewable in case there is no big company investing. In case a new company wants to invest, artisans cannot renew their lease, but priority is given to the TNC.

Normally TNC and ASM pay taxes and other statutory requirements at national level, whereas locally these actors decide when and how much to support social services. The government remits the revenues generated from mining activities to support development projects and improve social services at the local level. Remittances are not aimed at compensating the negative effect resulting from involuntary displacement, but cushioning the effect while promoting sustainable development. For that reason, remittances from central government are usually part of the general budget.

The local government authority (LGA) has the responsibility of directing development programmes in mining bearing communities equally important like any other village regardless of the contribution the mining activities make to local and national economy. Government budgeting and remittance systems to LGAs do not necessary base on revenues collected from these areas; LGAs mainly direct development programme based on locally raised revenues and remittances released from the central government. The

sectoral activities at the local government level are allocated with budgets during general budgeting process in the frameworks of the MKUKUTA and Medium-Term Expenditure Framework, (MTEF). These provide guidelines on budget reflection on sectoral bases. On such distribution, there is no exact standardised formula for all the sectors and districts' contribution into national coffers might not necessarily be equivalent to remittances. LGAs are obliged to identify local revenue sources and collect as much revenue as possible enough to run local development activities. Simanjiro district collects revenues mainly from secondary or auxiliary activities, and the central government supplement.

Since the 4th government came into power has reemphasized the transparency in mining contracts. It is now evident that a lot of roles supposed to be performed by TNCs were not done due to secrecy under which agreements are made. The president formed a commission to review mining contract and before the report is out already mining companies have already started to announce the money they were to pay to LGAs and local communities for development purposes. The money was part of the contracts, but since there was little consultation with local communities this agreement wasn't known to beneficiaries.

4. Research Method and Data Collection

4.1. Why Mererani, Settlements and Composition

Tanzania has several mineral deposits scattered in different regions. In those places, mining activities are conducted by miners in groups and individually. Apart from this informal arrangement, there are national and international formal companies that engage in mineral production. Activities in these places differ due to the history and duration and life-span of mineral deposits. In places like Geita, artisans were reported to collaborate with national big companies and TNC, through contract procedure (Mwaipopo R, et. al. 2004, Gibbon, 1993). During field visits to Geita it was also evident that the context was different from Mererani and it would not be possible to analyse the two scenarios unless it was aimed at contrasting. However in Mererani and Geita areas the relationship between ASM, mining communities and TNCs are unpredictable. Mererani is a typical case portraying the impact of little participation of local communities in major decisions. Further Mererani was chosen for its continual featuring in local and international newspapers for fracas and chaotic relationships, mine accidents but also convenience on my part as a researcher - to remain focused. Based on the conceptual and theoretical frameworks described in previous chapter, I embarked to conducting the research as part of my thesis.

The Maasai community living near Mererani depend on livestock as physical, financial and social capital and for livelihood, however continuous land encroachment for wild-life, mining and agricultural activities reduced the grazing land; on one hand, this has affected their latitude on pastures and on the other hand changed mode of production economy for Maasai community. Another weak reason was the nature of settlement arrangement, although it is an old mining town, many immigrants have settled and hardly do they consider migrating to other places. The place has permanent structure, houses and infrastructure, which makes it as any other community settlement.

A big portion of the population, works in mining as primary and or secondary economic activity. Due to lack of exact information, there is confusion on total number of claims that are operational despite the 580 licences officially known to have been offered. Based

on 580 licences for ASM, each claim can have a maximum of 30 individuals in a shaft, meaning there would be 17400 people working in the mine in a population of about 48,000. This is over 30% of the population, and probably more than 60% of adults work in mines. However, Kondo, (July 2005) estimated the number of operational mine to be 250. If one, was to work with this figure of 250 as operational plot, under the government's directives (between 25 and 30 people per pit), there would be 12,500 individuals working directly in the mine. This is equivalent to 26% of the total population in Mererani that is directly involved in mining. On the highest side, if one was to work on the figure of 80-120 individuals¹⁵ in a shaft, this would be over 30,000 people representing 62.5% of the total population. Some deductions can be made of the last figure that either the total population is not known, and it can be up to 100,000 or these figures are exaggerated. However, both scenarios depict the importance of the sector in creating alternative employment for Maasai community and other ethnic groups who live in the place. It is assumed that, the picture painted by the figures, can be inferred on resistance for relocation and rigidity in accepting other actors in the industry.

Mererani settlement Composition

With an official ¹⁶ population of 48,000, Mererani is made of five villages which include Zaire Kati, Songambele (A &B), Kazamoyo and Endiyamutu. These villages have different features that depict type of people living in those areas and the time the settlement started. For example, in areas which inhabitants moved most recently, their houses are big, modern and well furnished compared to the centre, (Zaire Kati) which acts as a pivot for all businesses (shops, guesthouses, restaurants, mineral *deals*, transport centre, primary court, market and play grounds). Although previously Mererani area included villages in Naisinyai, recent boundaries resulted into to wards, Naisinyai gaining ward status. It was part of Mererani ward before recent changes.

Among the important stakeholders include the business people in Mererani centre (brokers and master dealers), the ASM, AFGEM, local private companies (Kilimanjaro Mine, Building Utilities ltd and Africa One), the field office for the ministry of energy

and minerals and NGOs (such as TMWD and WVT). Other main actors include associations such as Simanjiro Entrepreneurs and Women Miners (SEWOMI), Tanzania Women Miners Association, (TAWOMA) Arusha Regional Miners Association, (AREMA) and Tanzania Mineral Dealers Association, (TAMIDA) all of which are operational in the area directly and or through members. There are also Zonal Mining offices in Arusha, AREMA and Zonal Mining Office although based in Arusha; they are widely represented at field level. There is a field mineral office providing extension services and most of ASM, pit owners are member of AREMA. The local government structure at local level is the ward executive officer, who is supported by village leaders and ward councillors. These were among the organisations, individuals targeted as key informants for this research, although not all were reached throughout the study. Despite this, the reach has benefited from other similar studies conducted in different areas within the country.

4.2. Research Design and Process

The study approach for the socio-economic research was participatory, seeking to involve all stakeholders; community and service providers. Different tools were used that included checklists for the review of key documents, and analysis of key statistics, which were important for quantitative data. In the same vein, question guides were developed for focus group guides, key informant interview, which were all useful for qualitative data. Some pictures were taken in mining sites as hard evidence for the hardships and tools used by miners in making their living. Participatory methods were applied to ensure different groups representing different interests at the grassroots level were included. A household questionnaire and review of key documents were approaches used to generate quantitative data; for qualitative information, the researcher used focus group discussions, key informant interviews and participatory observation. Cross-sectional walks (transect) and observation was done in Mererani settlement and visit to mining sites helped to inform the researcher on environment and housing and availability of other social services.

Lawyers' Environmental Action Team is a nongovernmental organisation, NGO that aims at ensuring sound management and environmental protection. As a local NGO,

LEAT carried research and advocacy on issues related to public interest litigation. With their headquarters in Dar Es Salaam, and field offices in some regions, LEAT works with local organisations to support associations and local people in addressing their concerns. This, organisation was my target as the first stop in for the process of data collection.

Within LEAT I was able to get many documents on some of legal issues and commission reports on different enquiries that were commissioned by the government to improve the relationship between miners, mining communities and TNCs. A brief discussion with the officials resulted into getting a key contact person in Mererani who also works with a local NGO aiming at supporting mine workers. Tanzania Mineworkers Development Organisation, TMWD, is a local based NGO that was officially registered in 2001, although it was operational informally since 1999. TMWD main objective was to support ASM who lost their plots after the rationalisation that followed the 1998 mining Act. TMWD, which is a member based organisation, is in the process of acquiring a corporate status.

A week before I arrived in Mererani, I had communicated with Simanjiro District Executive Director's office on the research. In Mererani my host, TMWD introduced me to the ward official, as part of the protocol before collecting data. My poor understanding was Mererani to be near to Simanjiro, but it was not the case. Ward officials were to inform community leaders to give support during data collection. During data collection, I was supported with TMWD volunteers (three) and officials who assisted in organising and arranging venues for meeting. Likewise TMWD officials accompanied me in a few household surveys that I personally conducted, whereas the volunteers were not accompanied. Also, the staff knew who is the labour, the pit owner and dealer/broker and facilitated visits to mining site, (about 5 kilometres from Mererani settlement), offices and homes of the key informant interviewees including some associations such as TAMIDA

SEWOMI.

4.3. Approaches and Instruments for Empirical Material collection

A mixture of random selection and purposeful random selection was done to collect data. The process adopted a random approach for household survey was adopted; in which twenty households were identified per village with exception of Zaire Kati which thirty households were interviewed. Zaire Kati is centrally located with business houses, and many ASM live in this place. In total, the research collected 110 household interview cases.

Household survey was instrumental to generate information (quantitative and qualitative). The household interview were done in Mererani settlement, whereas in Naisinyai only local government and community leaders were interviewed. Information on migration history and ethnicity as well as housing characteristics was generated using household survey. It also gave the information on relationship among ASM, TNC and the community as well as different economic activities conducted by household members. Information on plot and pit ownership and members of family engaged in mining activities was also generated using household survey. Other information from the survey on household was on general perception on the changing lives of community members in the last two decades in terms of social services and institutions.

Despite the survey, key informants interviewees (KIIs) were identified in collaboration with host organisation, Tanzania Mineworkers Development Organisation, TMD. Semi-structured interviews aimed at involving key informants that included the field mine officers (a branch of zone mine office), NGO officials, miners (workers and owners), association members and other key service providers as well as community leaders in the areas. A total of 17 different individuals were interviewed, including ward and ministry officials, NGO leaders and workers, pit and claim holders, workers (labourers), brokers, as well as association (SEWOMI and TAMIDA) leaders in the area. Information generated from these sources included the mining activities and relationship between different actors (service providers, brokers, dealers, TNCs, community and the government - both local and national). Other information included attributed gains and

cost of ASM and TNCs in mining activities, relationship and collaboration, practices by ASM and TNCs and the social networks among ASM and mining community.

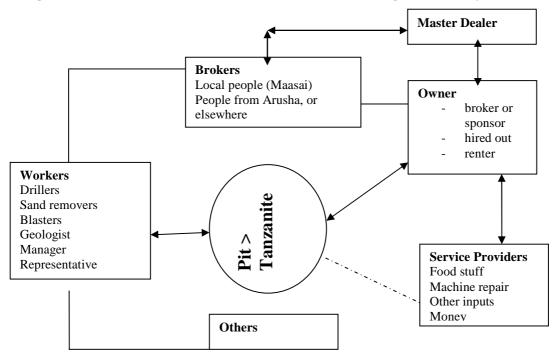


Figure 4. A sketch of socio-economic Relations in Mining Community

Source: Drafted by author as Model with reference to empirical data

As part of crosschecking the information of previous sources, three focus group discussions (FGDs) each with 4 people were conducted to generate perceptions from community members, miners and service providers on socio-economic gains and cost attributable to TNCs, ASM and mining activities in the area in general. This was done to triangulate information from other sources and get more qualitative information. FGDs were instrumental in putting views on how best can actors harness the potential within the industry. Visit to the mining site, around the village and COMOCAH (a Voluntary Counselling and Testing Centre), were made to first get the understanding on the mining site, different from mining community settlement, social services and other resources found in the community as well as type of organisations and institutions around in Mererani. The researcher had one volunteer and one research assistant to help conduct household interview and assist at national level respectively. The volunteer was identified

from a local organisation that works to support ASM and later coaching was done to help him conversant with the method and use of questionnaire.

A sketch was established, (see figure 4 above) to ensure representation and links among different actors are established. This is relatively similar with stakeholder, although there are slight differences. The main difference is the absence of national and international actors although implicitly represented through links with administrative structures and dealers at local level. A research diary journal was maintained to ensure everyday events were recorded with some few insights that needed more follow-ups or further enquiry to establish the understanding.

Data analysis and Thesis Writing

Data analysis of the quantitative information was done using Epi Info (statistical programmes) and excel while for the qualitative data analysis was done by categorization and coding against the set parameters of the research objectives. The data analysis, which is involves discussion in the conceptual framework focuses on two main frameworks of locality study and corporate social responsibility. Quantitative data generated using household survey are represented in mainly in graphs whereas a descriptive approach as well as direct quotes are used to discuss qualitative data.

4.4. Limitation, Validity, Reliability and Ethical issues

One limitation of the research was inability to meet all the stakeholders of different cadre at local government and national level. The time of field data collection during the first visit in Mererani coincided with general election campaign. To minimise biasness in analysis, information from one source was cross-checked with another source during interviews, survey and transect walk in the area. During the second visit some months after general elections I was able to establish confidence on the data collected. Another challenge was the preconceived idea on the location of Mererani that it was near to Simanjiro, which turned to be different and somehow difficult to have discussion with high cadre officials within the local government in Orkesumet. I had to arrange for a date when officials visit Mererani ward so as to conduct the interviews. At national level,

officials were very optimistic in the kind of information they should provide, because the research period also coincided with mining contract reviews that were commanded by the current government. Further, there are some statements that cannot be generalised in case studies. Although some practices might apply to other places in Tanzania and elsewhere, it is hard to generalise.

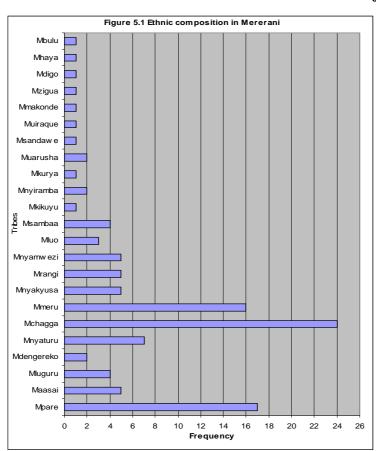
The validity of the data is based on the empirical information collected from Mererani, and other sources especially for secondary data from government, NGOs and institution literature work. The information at national level is based interviews and documents - and it wasn't possible to access any mining contract. There are some differences on what is written in some of the documents. For example, while other documents have the mining contribution figure to GDP as 5% before independence other literature indicates the figure to be 10%. Another difference has been on the name of the person who discovered the tanzanite gemstone. However, these do not form the foundation of the thesis, so they can not affect the validity, because of triangulation approach that was used to test the data from different sources. High cadre officials from the government and the non-representation of TNC officials can also be questioned on validity of the thesis. This means, we might not generalise the whole case for Tanzanian mining industry especially on the relationship among actors; despite this the thesis discusses the issues in an objective way based on the information that was generated from possible accessible informants and sources.

Although it is basically difficult to perform feedback with most of interviewees and informants, but the findings could be used by the NGOs and institutions that work in place. The three FGDs with community leaders, NGO officials and miners served the purpose of preliminary feedback, so as to observe the ethics of research. During key informant interviews with national level government officials, I used the opportunity to provide feedback on community and ASM perception on the way mining activities are conducted. A typical informal relationship based on mining community emancipation was established with key informants in the area, and it can be maintained based on the same interest.

5. Local Social Systems and Corporate Social Responsibility

5.1. Local Social System and Social Sphere

5.1.1. 'Local' and 'Newcomer' Resettlement Adjustment



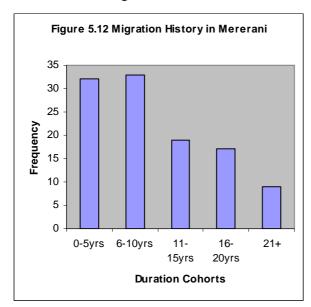
Based on the immigration Mererani history, inhabited by over 48,000 people, but having ethnic representation of one-sixth the Tanzanian 120 ethnic groups, there were about 23 ethnic representations and some tribes from Kenya¹⁷. The picture represented figure 5.1 on the indicates different ethnic with marked groups, difference in representation. is also obvious that Chagga, Meru and Pare

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tribes are highly represented in this population due to obvious reasons. First is the vicinity from Mererani, these two tribes are very close compared to others, however, the Maasai, who are original inhabitants, lags behind. One reason could be their strategic settlement away from congested area where they can graze their livestock and visit the mine once in a while during brokering or supplying livestock products such as milk and meat. The Maasai community moved to peripherals on the Mererani leaving the upcoming and growing town to immigrants. Many Maasai inhabit Naisinyai area.

People in Mererani came at different time and with different reasons, but the major being mining activities. Although it was not directly related between the immigrants and the

Massai, it is thought that Massai moved out of the place as more mining activities and



more people made settlement in the area. Today newcomers occupy a lot of business, and conduct the mining activities. The research made four year cohorts, depending on the duration the respondent of the household had stayed in Mererani, (Years 0-5, 6-10, 11-15, 16-20 and 20+). Figure 5.12 above indicates the cohorts 0-5 and 6-10 years to have a lot of people coming in the area. Basically this period coincides

with the major macro-economic reform period that is relatively same period TNCs streamed in the country. This trend contradicts with perception of the TNCs pushing away ASM and possibly mining communities. On the same time, explanations can be made based on assumption that increased land degradation (drought, fertility depletion, and low agricultural productivity in rural Tanzania) and encroachment for other use of land (game reserves for case of Simanjiro) have left little opportunities for rural dwellers to engage. Some of households have been in Mererani for over 30 years and seems to be the gurus of mining politics in Mererani.

It also follows that most of the youth are increasingly looking at mining as feasible economic activity. One respondent during semi-structured interviews said it is almost impossible for him to go home, because he has not accumulated the wealth he came for, "…I came to look for wealth, and I cannot leave the place until I am rich". This seems to be the perception among youth and all immigrants, although signs of leaving the place are slimy due to establishment of permanent structures and businesses.

5.1.2. Social Services and Social Institutions

Mererani has mixed indication on access to social services. Mining activities and presence of different actors contributed to availability and access to essential services and opening up of important public and private institutions. Such services include health care

centres, primary and secondary schools, roads, water, improved housing and recreational areas. The type of social institutions, public and private in Mererani can only be attributed to mining activities, because under normal circumstances it is only the regional or district towns where these institutions are found. Peculiar to this group is the immigration office and primary court, and interaction of both ASM and TNC in the community has positively affected social services.

Education facilities

The involvement of both ASM and TNC corporation is supporting availability of social services have contributed to the current National-wide programmes of Primary Education Development Programme (PEDP) and Secondary Education Development Programme, (SEDP). Both programmes aim at improving the quality of basic and secondary education through improvement of teaching and learning environment. Contribution has mainly been in case and kind. Naisinyai community has benefited from primary school construction where the TNC collaborates with communities to increase the number of classrooms, and Mererani benefited from contribution by ASM and NGOs in construction of secondary and secondary schools.

One of challenge is the high number of children per class, with an average of 100 pupils in one class. The area has three primary schools, and one secondary school with an enrolment of about 2000 pupils. The secondary school Mererani is only five years old, first graduation was marked in December 2005. Despite this, some literature identify some Maasai parents and guardians to "to enrol children aged between four and six years for school and use those aged seven and above to graze cattle, goats and sheep", (Nyamaume, S. Arusha Times, July 18 -18 2003).

Water and health facilities

Access to clean and safe water in Mererani continue to be one of the challenges, despite recent effort by different development actors such as World Vision Tanzania and AFGEM. Naisinyai, which is Maasai community inhabited area has benefited from "special fund by TanzaniteOne Foundation". Through this fund, projects such as livestock watering points, sunken wells, community centre and health/clinic centre, primary and secondary school were constructed by the corporate.

There is a dire need of water in Mererani, and community members pay about 300 Tanzanian shillings (Tshs) for a 20 litre container. This is an average of 600 Tshs per person per day; and for an average household of four people (refers to the population averages) it spends about 2,400 Tshs in a day and 72,000 Tshs on water only. This might be a very expensive important service for rural dwellers. Access to water faces disruption from 'anti-development sentiments' among community members in Mererani. For example, it was claimed that although people had initially contributed to get tap water some water vendors who are currently benefiting bribed the people who were supposed to fix the pipes. The water has not started flowing, although all facilities were fixed. To this group, getting pipe water would end their earning and endanger their livelihood; which can imply the suffering of one person might be a grace to others.

Although the health centre in Naisinyai is not furnished well, it provides basic medical services. Mererani area, health services are provided by private, religious and NGOs institutions. Community members from surrounding villages of Shambarai, Olbil, Kilombero, Lengasti, Nomeliti and Naisinyai itself come to Mererani to get medical services. Some of these communities live as far as over ten kilometres Mererani health centre, which was fully supported by an NGO, WVT, has among other services, VTC as part of HIV/AIDS awareness and mitigation. A looming situation is caused by HIV/AIDS with increased Orphans and vulnerable children, (OVCs). There are about 280 children orphaned by HIV/AIDS among 2000 pupils registered in Mererani. The catholic youth centre and COMOCAH (a World Vision health centre run by community) offer education on HIV/AIDS and counselling. COMOCAH provides (VCT) services and supports orphans and PLWHA in the community.

Infrastructure and Utilities – road network and electricity

Mererani connects to Orkesumet (district headquarters) and Arusha and Moshi municipalities by different roads. While the road to district headquarters is dusty and poorly maintained, the road to Arusha and Moshi has a stretch that is dusty and the rest is tarmac. The tarmac stretch, (which connects to the Arusha –Moshi main road) ends at Kilimanjaro international airport (KIA) and the dusty proceeds to Mererani area. This dusty stretch that serves as feeder road is regularly maintained by TNC to its main office.

The centre in Mererani uses electricity for mining activities, domestic and small enterprises in the area. Compared to the district headquarters where recently effort to install electricity, Mererani gained from presence of miners (ASM and TNC). However one major question is "who brought the electricity in Mererani'? Community members are proud of being able to make contribution enough to bring electric poles (high tension) in the area, whereas some community members think it was the TNC. To ASM, they boast of contributing on various community projects, such as schools, health centres and electricity. There are concerns on the way the corporate support community project, particularly in Mererani. "...everything ends at the investors office, be it road... even electricity all ended at the investor's place, until when we (ASM) mobilised ourselves (contributed resources) to bring the service here in our community"¹⁸.

Even if this claim could be true and carries weight in its own rightness, based on the experience in rural Tanzania installation of electricity in remote places is a big investment. It is assumed that, although there was no consultation and collaboration between ASM and TNC, installation of electricity was a cost-sharing undertaking. Nonetheless, ASM and mining community in Mererani do not support road renovation and for that matter, the stretch of road from TNC area to Mererani is pathetic with big potholes.

Social institutions

Several social (public and private) institutions are associated with mining activities and few are particularly linked to TNC. Apart from the field mineral office, there are police posts, immigration office, primary court and dispute settlement committee. All these help to bring order and law enforcement in this area, which is highly fragile, (culturally, socially and economically). People come and go. Investments are opened and closed. There are native, (locals), citizens and non-citizens; all these demand protection from the state so that are able to conduct activities in a peaceful way.

"...Mererani used to be like hell...., there was no government and everybody did what was right in his/her own way. Events of rape, killings and thievery associated with bhang smoking were very common here. Nowadays we have law-enforcement instruments and at least there is peace" 19. However, one respondent asked question indicating doubt on the role of police by saying "...law enforcement instruments safeguard the interests of the state and the investor. Events of atrocities done by investor warranted for repealing the mineral licence. Why is the corporate still operational"? Despite such comments, one would also understand from the previous respondent that, not only the investor and the state benefiting from these law-enforcement instrument, but the whole population in Mererani. For instance, to reduce the conflict among ASM, the local leaders and miners appointed the dispute settlement committee, (DSC) to help resolve the conflict. These conflicts are mine related, although they escalate into the community. Normally border related conflicts (ugomvi wa kutobozana) are solved by the DSC, reducing danger of people taking severe actions to each other.

Elite Role of local Institutions

Among major components in Stacey's *modus operandi* in locality study is the "convergence and overlapping of social status and elite role of local institution actors", Bradley, Lowe (1984:6). The formation of some institutions bears weak link with mining activities, because social and community problems addressed by these organizations can be found elsewhere in Tanzania. However, the roles played by these institutions range from advisory services, to networks enhancement as well as provision of health services. TMWD organisation, which was established out of need for support to artisans, has since worker to include legal issues and advocate for good governance and sound policies and measures by TNC. Other community members targeted as beneficiaries are women and children, who were affected during rationalisation in late 1990s. "Women and children were highly affected because husbands were forced to leave the mine for the investor. Husbands could not bring money home for over 2-3 years and children were forced out of school because parents were not paying fees"²¹.

TMWD support women to access credit and engage in mining activities either as service providers or claim holders. The organisation trains para-legal individuals to monitor and take actions on human rights violations done by the TNC. "...we are (TMWD) whistle blowers, collaborating with other non-governmental organisation on issues related to human rights violation", (ibid). A few legal issues that the organisation is involved with include killings, fire arms and other abuses like use of dogs to bite miners. "...because of dog bite, those bitten some were infected by rabies" (ibid. The organisation collaborates with national-based NGOs such as legal human rights centre, (LHRC) and Lawyers' Environmental Action Team (LEAT).

TMWD in Mererani has filed 24 court cases as civil suits "... if we win, we will file criminal charges against them. We will also continue monitoring to conduct public litigation"²². Among the 24 cases, seven are people who were shot-dead by TNC employees, whereas the rest are those who were severely wounded by bullets and or bitten by dogs. According to Paul, J. and Garred, J. (2000), legal actions against corporate result from outrageous practices acts company malfeasance. Legal measures in Mererani aim at instituting accountability for actions that do harm to the environment, human health and violation of human basic rights. One key respondent involved in legal issues against the corporate in Mererani pointed out that without the compromise there would be cost implication, if they win the cases filed against the company. 'We would like to hit the corporate where it hurts most. That is in their purse".²³

5.1.3. Socio-economic relationship among miners

Relationship among miners is very complex and unpredictable. It is complex, because of multicultural, ethnicity and social classes based on economic status. It is unpredictable because sometimes they work together and at times they fight each other. Although some sections of the thesis refer to ASM as homogeneous group, in reality ASM represent a heterogeneous group. Depending on the need, the group of ASM presents both features of heterogeneity and homogeneity making it difficult to represent them as a "communion", in modus operandi by Stacey.

The key actors presented in figure 4 identify the complexity of the ASM representation. However, according to Chachage, (1995) the view of ASM as homogeneous group "...ignores the historical evolution of socio-economic relations in the sector and it tends to conceal the actual relationships which exist in the mining communities and between these and wide social, economic and political forces and institutions". This view, apart from the empirical findings, is also supported by the Tanzanian Mineral Commission Report on tanzanite mining and marketing:

"...there is misconception on artisanal miners. The truth of the matter is, wana-Apollo are not artisans. Likewise 'takeaways' are not artisans in Mererani mining area. Wana-Apollo are employee in mining and 'takeaways' are loiterers who hang around in Mererani. The truth is that the 'so-called artisans' are claim and pit owners, rich people living in Arusha, Moshi, Dar Nairobi and elsewhere. These rich individuals are supported by foreign rich people living in United State of America, India, Europe and Kenya; the places where tanzanite is sold", (Mang'enya, 2001)²⁴

Claim holders, pit owners and sponsors form the first class of local capitalist, although within the same group, there is diversity. Claim holders who usually reside in Arusha and other municipalities comprise of middle-class and rich people in Tanzania. Their presence in Mererani is ad hoc depending on the flow of "mine produce". However claimholders' presence is maintained through representatives, usually relatives. Sponsors most of whom are not miners, in real since but they maintain 'side-track' relationship with pit owners and claim holders. This sub-group is also diverse, ranging from civil workers, local businessmen and women who might work as brokers to maximise the profit from the mine.

Group of labours include local technicians, (*jiolojistis*), drillers (*wasomoaji*), explosives specialists (*nobeli*), and sand removers (*nyoka*). This is the largest group whose survival depends on continuous presence in the shaft(s). It is worth to note that, the rest of the population that depend on the secondary economic activities depend on this group. Whatever is earned from the mine reaches service and goods providers, in Mererani and

surrounding communities. Nonetheless, their income is not certain, always dictated by ability and "luck" to strike a gemstone bearing rock, *chungu*.

To minimise the cost of production, pit owners and claim holders hardly offer contracts with their workers. For this case, casual labour keep hopping from one shaft to another. This arrangement is supported by miners and pit owners as well. Due to limited information on the quantity and exact site for the gemstone, pit owners spend weeks, months and sometimes year without getting producing the gem. Under contract arrangement, the claim holders and pit owners would feed, cloth and take care of social, health and other needs of their workers. "...it is difficult to feed all the workers in the shaft" ²⁵. The hopping strategy seems to work, as miners would work in big numbers as long as the prospects of reaping are so high and very close. Kondo, (2005), refers this as bingo strategy among miners; in which temporary arrangement is made. This means at any time, operations in mining shaft will continue with few individuals until "when it is reap for harvest". This kind of arrangement might question the deductions made in previous sections on the total number of people directly involved in the mine. Nonetheless, the percentage of people directly involved compared to the total population is very significant.

Pit owners, sponsor and claim holders have invested in Mererani as well as Arusha and Moshi municipalities including other places in the country. It is assumed that, apart from being a tourist centre, Arusha's fast growth can be attributed to the strategic location of Mererani. Businesses in Arusha, especially hotels, transportation and goods supply are benefiting from claim holders in Mererani.

The market arrangement for gemstone sell, on one hand is simple because there are stipulated procedures one would follow. On the other hand, it is complex because people involved in mining are capable of possessing the gemstone at a particular time. It is very complex with loopholes for smuggling and chances of "all" the people involved to possess and sell the gemstone are high. Nyokas, jiolojisti, nobel, pit owners and claim

holder as well as sponsors can find their way to the local market, normally the brokers. Very few get into business agreement with master dealers. For brokers to operate must have valid licence. This group of brokers, although requirement is made to register, so as for the government to collect tax, very few are said registered. Even those registered, renewal of their licence is not as regular as required by the law. Elsewhere in this thesis it is reported at a time, Tanzania could not account for its 90% of gemstone production due to smuggling.

This claim is also supported by the Tanzania Mineral advisory Committee Report, 2001, unofficially translated as "...due to massive smuggling and under-declaration (undervaluation) being done by fellow Tanzanians in collaboration with foreigners, it is true that tanzanite sold by countries of Kenya and India more than what Tanzania sells". ... it is obvious that employment and revenues generated from these activities (outside Tanzania), do not benefit the Tanzanians". Community member, however blame ASM that they get a lot of money but their contribution to social projects is little. "...although ASM get money regularly, statutory contributions and levies are not forthcoming from them. Each time they will tell you we the shaft has not yet produced. Yet, work continues under the ground and often you will see they buy this item or that item, some start construction of houses. They fail to pay local government annual levy of 50,000Tshs^{3,26}. A respondent from mining sector zone office said "...collection of levies from mining activities has ambiguities. It is different compared to sectors like agriculture, where it is easy to predict harvesting season and increase supervising and monitoring. Here (in mining) would lie they have not gotten, or under-declare the value and quantity of gemstone. They do not trust each other, and even the government does not trust them"²⁷.

These arguments are highly disproved by ASM, who boast to have paid for installation of electricity in the town. Artisanal miners claim they contribute more than TNC that takes all the profit outside the country. ASM think they get limited and ad hoc support from the state, compared to the TNC, and according to them 'they are ready to pay for all required

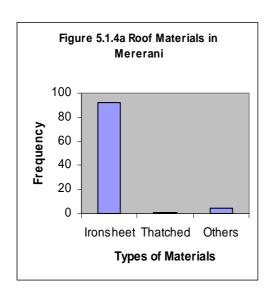
taxes as long as there is enough support from the government'. According to them, their investment is localised and other people benefit from their activities. The argument on emerging benefits due to ASM, is however partly wrong because gains can be a contribution of different actors including TNC and local companies in the area. Phillips et, al (2001:59) say that "mining activities in any area puts money into circulation and spawns secondary economic activities". Nonetheless, ASM provide a big market for service and goods suppliers; and subsequent stop of flow of money to ASM, automatically means end of service providers' survival.

5.1.4. Socio-economic relationship with community

Although discussions on relationship between ASM and TNC seem to be direct, on the surface, there are underlying connections that can influence the interactions between the two and the community. Relationships are also influenced by domicile, (places of origin), production and marketing approaches used by actors. Actions by one actor affect positively and or negatively the rest in the community, including TNC, national state and local government authorities.

Grouping and relationship in Mererani are based on different dynamics, such as ethnicity, social class (economic status) and work-based. Almost 80% of immigrants came to Mererani because someone they knew lived there, so it is a nephew, brother, sister or even a family relationship. However, the sex structure in table 2.1, indicate men are almost $^2/_3$ of the total population; social problems such as crimes, squatter camps, diseases (Hamann, R and Kapelus, 2004), might be on the rise. This was the case, before reestablishment in Mererani and due to the presence of law and order enforcement institutions such as police and primary court the degree of criminal cases is checked. Likewise, although for some mine settlement, the disease and squatter camps are features characterising mine sites, in Mererani houses are relatively furnished with basic structures, offering optimum comfortability to tenants and owners.

The housing characteristics in Mererani offer opportunities to live as families and friends. Figures 5.1.4a, 5.1.4b, 5.1.4c represents the housing characteristics in the area.



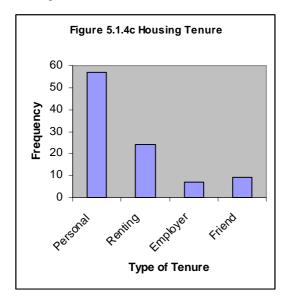
95% of the houses in Mererani are roofed with corrugated iron sheet materials, whereas, about 1&'% of the houses had thatched grass roofs. Only 4% were roofed with other materials, such as plastic sheets. Youth without work represented the big percent of people living in houses roofed with plastic sheets. Likewise, the houses are relatively better compared to rural settlement, albeit poor planning in the centre of the area, which comprises of business ranging from markets, stationary shops, food stuff and

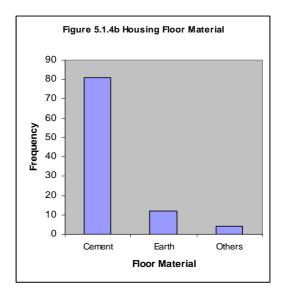
other services such as bus stop and many garages.

Mererani is an established settlement with most of the people owning houses, which seems to be permanent. Of the 110 household interviews, 57% were living in their own houses, whereas about 27% rent houses. A small percent of the population live with friends, (9%) and in houses rented by their employers (9%). However, this picture contradicts to the fluidity of many mining settlements, and under normal circumstances, the picture would have been reverse. This can be explained partly by looking on the number of guesthouses (official) and "guest bubu" (which is un-official guesthouses) in the area. Guesthouses are usually occupied by temporary²⁸ dwellers some of whom stay for a considerable number of months before they either move or resettle in the place.

Community members, most of whom are either service or good providers perceive ASM as the market niche for their products and services. "...it is difficult to do business nowadays because mine shafts have gone very deep. I hear the gemstone market is also hard to find, especially this month of November. Normally master dealers during the month of November go for holidays" ²⁹. This indicate the way community members take

interest on what happens in the mining industry even if they are not directly involved in mining activities.





In this area where the population estimate is between 60,000 and 100,000, local leaders estimated about 50 cows and 100 goats to be slaughtered on daily bases to provide beef. Maasai community who are cattle keepers have been able to benefit from this abnormal market; which provide the far reaching effect of the mining activities to a wider radius. Apart from livestock sales, livestock products, especially milk finds greater market in this place; neighbouring villages benefit also by supplying agricultural products.

5.1.5. Social Networks

Despite the importance of social capital, access to formal loans can not be overlooked in this community. With the recent streaming-in of the youth in the area, (figure 5.12) economic opportunities might not be enough for them to get employed in direct mining activities; therefore credit schemes could be one of the areas that NGOs, TNCs and other formal financial institutions could support. Efforts by TMWD organisation focus on women, in particular who are either miners (owners of claims and pits) or providers of goods and services to mining community and ASM. These efforts supplement the social capital and can be encouraged.

Activities by miners and community largely depend on networks formed around individuals. In this community relationship and networks is not a matter of choice, but of

urgency, based on the fact that economic and social power of an individual depends on social class of the networking people. In Mererani within one household, members perform duties which contribute to the wellbeing of the family. About 37% of interviewed households had one or two individuals directly engaged in mining activities whereas other members can be conducting secondary activities. It is difficult to dissociate ASM from community surrounding the mining area. This is because Mererani is an established settlement, where people have either married to each other or live with their kin.

However, to run mining activities and provide services and goods in Mererani, an initial capital is highly needed. Whereas for ASM the formal banking system does not work on their favour likewise for petty traders and farmers who provide services and food stuff they all depend on networks around them. Trust first. The case explained in box 2 below indicates how the social capital works in this small community of Mererani. This is a real case, despite the anonymity of names.

"... it takes several days to get the gemstone bearing rock. Regardless of the days it takes, be it a month, months and even one year, the owner of the pit or claim has to feed the workers. This is not simple thing. You must have sponsor (s), who give us money, and we repay back the money plus an interest³¹ when we get gemstone".

Box 1: Case Story: Borrowing and Receiving "informal interest"

Abdullah (not the true name) is a 25 years old young man. He owns a claim inherited from his dead father. He owns a fancy and expensive vehicle, Lincoln Land Cruiser fully loaded with all the fancy things a man of his age would require his car to have. He has got two projects on going, one storey house and a petrol station establishment. None of the two projects are at completion stage. He started the two projects after getting a deep-blue gem that earned *a lot of money*. Most of this money is gone, and literary Abdullah barely has food to provide for his workers, in the shaft. This is a team of about 78 people working on shift bases. To earn more money he has to feed his people and cannot mortgage his car because that makes his mobility easy.

Abdullah has friends among them is a spare parts dealer, motorbike and machine repair workshop and shopkeeper in Mererani. He approaches his friend, Tito (not the true name) and asks for a 100 US\$ equivalent to 100,000 Tshs. As a new comer in the areas I am surprised how does this work, because looking on the attire and the vehicle the young man is driving it is unconceivable that he does not have this little amount of money. After Abdullah is gone, when I asked Tito he responded "that is how we live

brother". According to Tito, Abdullah will not bring back the 100 US\$, but at times this amount can be as high as 4,000 US\$, depending what Abdullah got from the mine.

Due to uncertainty in getting the gemstone, usually there is no time limit or fixed time to repay the money; however as soon as someone gets the proceeds from gemstone sales payments are made to all creditors. Many of these agreements are verbal and many transactions do not involve documentations and signing, although parties involved might have separate documentation, but there is no signature requirement. This case was also attested during household interviews, very few people, about 17% of businessmen and women do actually keep records for their business. Hitherto, formal financial lending institutions might find it hard to provide loans to businesses run without records.

Despite this there is a big shift of change among miners and increasingly reinvesting revenues to other lucrative businesses such as petroleum selling stations, transport systems and hotels. Although it is not well established but as for the case of Mererani the assumption is; as long as you have established settlements, ASM tend to look on alternative businesses outside extractive industry and outside Mererani community so as to diversify their income sources.

One would argue, depending on the trust made by Abdullah to Tito (in box 2), the relationship could continue, and definitely Tito could be providing similar services to other community members on different arrangement. Although looked at from the theory of rights and obligations, Alexadre B and Nicolas S (:8-9) citing Mahieu 1989 perceive "social capital as an endowment people can transform in social resources via their community – the social network". It follows that to keep in business, one should be able to adhere to his obligation of paying back the loan, and likewise the capability of the loaner will be curtailed if the loanee is not able to provide trust in reciprocal manner, (Sen, 1985 cited by Alexandre B and Nicolas, S). According to the latter, "the more curtailed the *capability extent* is, the poorer an individual will be in terms of life of choices" (*ibid*).

5.1.6. Staying Alive? – Social cost - Artisans and Community

Discussions with different stakeholders identified some strategies used by different actors to stay in business. The communities, ASM, brokers, owners of pits and even TNC use different approaches. Similarly community consider ASM as important part of the population, and support their actions. ASM, however consider the TNC as a threat to their livelihood, health and life in general. Despite the presence of other local companies, conducting mining, poor relationship seems to be with the TNC. This was partly explained by the one of respondents that "...Kilimanjaro Mine and other local mining

companies in the area have never used brutal force against ASM. They use dialogue and even work using local skills, labour and consult local authorities"³².

ASM think the area given to TNC is extremely large, (about 8km² in total), and due to eviction legacy of the 1980s, they maintain grudge. "...the problem in our relationship is one person getting big plot of land in the name of rationalisation, at the same time others remain with nothing. For use, it was like evicting a farmer from the farm s/he toiled during hard and dry season and just before harvesting forced to leave" ³³

There are two wards (communities), Mererani and Naisinyai. Part of villages in Naisinyai before the recent demarcations used to be in Mererani ward, including block C where TNC's mines. The recent demarcation of villages in the area resulted into new ward being formed, Naisinyai. This re-demarcation ended up relocating plot C, which is owned by TNC, from Mererani to Naisinyai. Mererani is inhabited by non-native miners (people from other places in Tanzania). Naisinyai community consist mostly the Maasai community, who are mainly pastoralists and few farmers. Mererani community has relatively hostile relations with TNC compared to Naisinyai. Decision to make Naisinyai a ward according to empirical findings, was politically influenced by TNC, who wanted to benefit from little knowledge and involvement of Maasai in mining activities. "...the investor separates people here. If you apply for job you must not disclose your home, if you happen to come from Mererani you will not be employed. The supports to community projects are meant to silence people from asking the wealth the investor harvest in our community" 34.

Both local authorities in Mererani and Naisinyai seem to understand the differences, which are mainly material support to community than mere relationship. The Mineral Advisory Commission report in 2001 identified similar situation in the area by saying, "Naisinyai Village chairman claimed to have good relationship between the village government and the TNC (i.e. AFGEM). ...Mererani village government leaders claimed

there is poor relationship with, between the village government and the corporate. ... ASM in Mererani shared similar explanations with village government on poor relationship with AFGEM".

Although the empirical findings did not substantiate other claims such as segregation in employment, where respondents in Mererani believe the investor cannot give them employment simply because they know how they gemstone look like and they can steal it. It is also hard to substantiate the involvement of corporate in setting demarcations. However, on the one hand Naisinyai is a typical case of TNC contributing to social services. On the other hand, it could mean, the separatist approach claimed to be used by the TNC put a wedge among community members, potentially creating social gaps. Naisinyai village and community leaders might be affected by poor relationship between the actors, as one local newspaper reported, (Mwananchi, Saturday 27, December 2003). In this newspaper the author said artisans from Mererani were accused of stealing the village chairman's cattle. Although the event might be seen as the rudeness and lawlessness of miners, but another possible solution could be the poor relationship that miners have with TNC, despite collaboration with Naisinyai community and dissatisfaction in Mererani.

It could be argued that, survival of some actors, depend on the capability to manoeuvre and live within a conflict-prone area. Ironically this involves community leaders as they share sides with competing and conflicting parties. Incidentally, these relationships can also be explained based on livelihood stance, between the two communities. Naisinyai villages have few individuals involved in the mining activities, many of them being Maasai who preferred to live as herdsmen, some engaged in farming. Recently and work as brokers. On the other hand, Mererani had many people who are immigrants, who entirely depended on mining activities, with very few engaged in farming. While Naisinyai community might have alternative mean of livelihood, Mererani seems to depend on mining. Most people who lost their plots during rationalisation in Mererani maintain grudge and poor perception of the TNC.

In any case, the kind of support to community by ASM and TNC entirely depend on good will, as opposed to ploughing back the money generated from the industry to benefit other segment of the population. Apart from fulfilling contractual obligation (financial and social-cultural) and observing environmental standards and avoiding child labour, there is limited knowledge on to what extent can the two support socio-economic undertakings in communities. The mud-slinging strategy by both actors, in particular TNC and ASM seem to benefit and cost the community at the same time. While ASM would be accused of not observing international standards and use of child labour, in turn they would accuse the TNC on violation of human rights and other maltreatment to employees including racial segregation.

5.2. Biophysical sphere - Corporate Social Responsibility

Political ecology, according to wikipedia, is an attempt to understand animals, plants, societies and state in a larger system. It recognises the struggle for natural resource control and biotic diversity intended to inform the public and the power dynamics therein. While arguments can be made, that previous sections also include political ecology, this section is purposely meant to bring in discussion on the dependence over same natural resources by different interest groups. It is an attempt to highlight the dependence (parasitic) and interdependence (symbiotic) relationship actors have over resource, bringing in the question of mine ownership and tenancy as well as practices by actors whose impacts can accelerate and or decelerate sustainable development.

It is worth-noting that, there is limited information among miners, on criteria, regulations and procedures by the central government to offer concessions of mining to TNCs and local companies. Involvement of local level actors is limited; and low participation contributes to suspicion and conflicts. The local authorities and other community members lack understanding on criteria and procedure used to grant licences to both ASM and TNC. This results into misconceptions and uninformed actions that can harm mining activities.

5.2.1. Interdependence and Dependence relationship

Kanbur Ravi, (1992), identifies natural resource management regimes as falling under four major categories. According to Kanbur, under 'no management regime', there is 'open access' whose outcome is inefficiency non-cooperation equilibrium. Kanbur refers this scenario as 'tragedy' because it can lead to a rush for maximisation of output, lawlessness and unregulated exploitation. This can lead to destruction and complete extinction of resources that existed, (ibid). The second and third natural resource management regimes are "private property and state control". The two control regime it means the decision to use and exploit are vested in the mandates of private and state respectively. However, the fourth resource management regime according to Kanbur is 'the common property' which demands for collective administration of laws and exploitation measures. One setback on the fourth management regime according to Kanbur is the collapse, "for reasons that have nothing to do with wanton or misguided state control, (Kanbur, 1992:6). The conclusion by Kanbur is "the more heterogeneous agents are along relevant dimensions, the less likely cooperative agreements are to come about. And existing agreements are likely to break down as a group becomes more heterogeneous" (ibid).

Interdependence relationship

The key actors in mining live a symbiotic relationship, depending on each other by extracting a particular resource. For the state, revenue collection through royalties and other statutory requirements generate income necessary to inject into other development activities, not in Simanjiro district alone, but in the country at large. In this course, an interest on behaviours of other actors leads to intervene, regulate and facilitate the process that creates conducive environment, not for the TNC alone but for the community and ASM to be able to apprehend the gains. Likewise, for the TNC to operate smoothly, depends on various factors, including favourable climate. The latter cannot be created by the state alone, the TNC's policies and practices can enhance or obstruct its own work; consequently affecting the profit and dividend on the one hand; and on the other hand, its image, among peers, society and financial institutions as well as states. Activities by ASM would nourish based on favourable polices and practices by the state and the TNC on the one hand, however, capability based on skills, technology and enough funds are necessary for them to operate. The last group is the community, whose gains entirely

depend on practices and policies by the state, TNC and ASM. For communities whose livelihoods depend on mining, mining employment, inject money and support access to essential social services. Mining community (local people) who have limited livelihood sources can be vulnerable in this symbiotic relationship because of power struggle among interest group.

Dependence Relationship

A parasite is an organism that spends a significant portion of its life in or on the living tissues of a host organism and which causes harm to the host without immediately killing it (wikipedia, March, 20th 2006). Under this form of living, the state, TNC, community, ASM and TNC are major characters living a parasitic (dependence) life on the gemstone, and the environment in general. Used as metaphoric representatives of the relationship among actors, the depletion of the resource has life-span depending on deposit underground. However, sustained gains from this parasitic relationship entirely depend on ability to practice sound measures that guarantee modest life beyond the life of mining activities. What should be emphasised is that, 'exploitation of resource by one agent has a negative effect on other agents', (Kanbur, 1992:5) and while it cannot be prevented proactive strategies need to be developed to mitigate and minimise unnecessary costs.

The death of 'host' might translate into the subsequent deaths of parasites living on and or in it. However, some parasites are more adaptive than others and can easily switch between the 'hosts'. This is not the case with local communities, whose livelihood sources are confined into small space. What could be important is the rest of actors to understand the fate communities face in the absence mining. It is worthy to note that even when the 'business is over', mining communities continues facing the brunt of negative socio-cultural, economic, environmental and health hazards that might arise due to poor practices and lack of policy and sound practices.

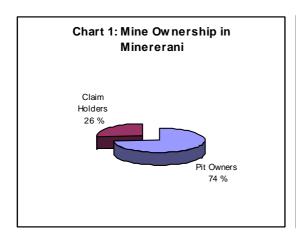
To minimise mitigation costs, (Ostrom 1990) quoted by Kanbur (1992) proposes design principle which include 'clear group boundaries and memberships, effective monitoring and conflict resolution mechanisms'. Further, Kanbur argue that, there exists an assignment of actions to each agent...if all (agents) adhere to the agreements, the group

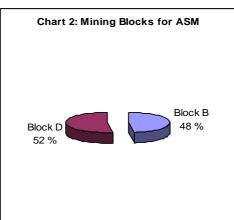
as a whole will be better off – the sum of individual payoffs will be greater be greater than the corresponding sum in the non-cooperative setting", (*ibid* 1992:7). This brings us to the point of proactive role of the corporate and participatory resource exploitation.

5.2.2. Mine ownership, Tenancy and Mine production

Discussions on ownership of mines were extensively made in previous sections on study area. However, this section attempts to conclude some aspects related to tenancy and mine production. It is worthy revisiting the allocations. The area has four major blocks named alphabetically, A, B, C and D. Blocks A and C are mainly occupied by formalised companies, (AFGEM, Kilimanjaro Mine and Africa One) and Building Utilities ltd occupies ¹/₃ of block B. The rest of block B and whole of block D are controlled by ASM in form of claims and pits. Charts 1, 2 and 3 contain information on mining blocks allocation, ownership and business licence among ASM. There were 43 households that owned mining land, among them 26% owned claims whereas 74% owned pits, (Chart 1). The latter group are basically tenants, although they have to acquire mining business. The blocks B and D are set aside for mining activities by ASM. 53% of interviewed mine owners had their activities in block D, whereas block B accommodate 48% of the miners.

Despite this arrangement, ASM complained that the areas are not as productive as blocks A and C. "...these areas - referring to blocks B and D, are very bad. Compared to blocks A and C, blocks B and D have hard rocks and gemstones can be obtained at a very deep depth"³⁵.



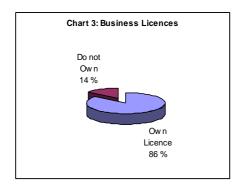


ASM, TNC and other local companies, use different measures to protect their blocks, pit and claims. Conflicts over the boundaries are common among miners themselves especially in block

82

D. "You can only see the boundaries on surface, not under the ground. It is hard to know if you have intruded into your colleague's area. The direction of shaft is dictated by the veins, so you follow it where you expect to get the gemstone. If you 'get into your colleague's area – *kutobozana*, fight erupts under the ground, although often we have the committee, that resolves the conflict". The DSC has some criteria for settling *mitobozano* among ASM, and usually who was the first to go (pass the area), has the right and whoever found guilty is punished by pushing back about 15 metres. This system seems to work and many ASM are happy about that.

However, TNC used dogs and guns to ensure the area underground is not trespassed. Trespassers are gunned down or wounded, like what was reported in local newspaper, Daily News of 2nd "trespassing miner shot, wounded at Mererani". On a number of occasions community members and ASM have been wounded by live bullets and sometimes killed by trespassing AFGEM's compound and several charges for trespassing were filed by the company, (Daily News Saturday October 11, 2003). Very often the mitobozano has involved miners from block B. It was also claimed the company dug big trenches under the grounds and poured chemical water to ensure ASM are not crossing over to the other side. Some ASM claimed to have developed sours with skin itches by getting into contact with chemical water. The government commissioned a taskforce to enquire on these allegations and the root cause of the poor relationship and intrusion was identified as lack of transparency in mine allocation. The report by "Tume ya Ukiukwaji wa Haki za Binadamu (unofficial translation - the Mererani Human Rights Violation Commission by Mboma et. al 2001:27), discovered that "designation of boundaries to investor AFGEM did not involve the presence of ASM. When the boundaries were shown, ASM were excluded similarly when tendering for block C was done, ASM were not informed". It can be argued that, some of these conflicts emanate from non-inclusive practices that culminate into suspicion and hostility. Nonetheless, TNC blames ASM as



being xenophobia which hinders rationality in many decisions they make, (Guardian, Saturday November, 29 2003).

However, some ASM who owned pits did not have renewed licenses (business licenses). "...it is difficult to renew the license, we spend several months without harvesting. Mine production is blurred – no guarantee" ³⁷. This claim is opposed by local leaders and officials from the mining office. According to them ASM will either understate or claim they have not gotten gemstone. Whatever seems to be true, it is obvious there is a need to come up with strategies on how to track mine production among miners and be able to collect enough revenues.

5.2.3. Health challenges and environmental issues

Mining activities are associated with huge environmental destruction, whose consequences are felt between months and centuries. Unless, good measures are wrought by actors being proactive in policies and practices, local communities in particular suffer the most. Practice in Mererani have been said to be environmental friendly, in which ASM and corporate strive to manage the environment. What could be the risk of the chemical(s), put into the trenches to scare away ASM from intruding into the corporate area might not be known for now, unless laboratory work is done. "We are unsure about our health in future. You can witness young men who were affected by water contaminated with chemicals in the mine" ³⁸.

There are two angles one can look on the matter, one is mine bearing rocks might have some chemicals that have sick irritating effect. You can also tell this just by looking on appendices of pictures attached. So, this can have nothing to do with the chemicals put by the corporate. Another argument could be, if really chemicals were poured with water in underground trenches, their immediate effect to the ASM, potential dangers to the wider community are not known when the chemical soaks into water drunk by animals and human beings. Likewise trees and other organisms might be affected.

6. Economic - Sphere characterised by Conflict and hostility

Although conflicts seem to be in production, marketing and at times in social life, from empirical research it can be argued that the immediate sources of conflict are economic and livelihood. Despite this, root causes can be traced in policy processes and mine allocation among actors. The economy in Mererani is linked to the circulation of money in the market as sign of a *healthy* economy. Money circulation in Mererani as it is for many mining sites in Tanzania is very high, signalling many people to invest in simple businesses. There are inherent socio-economic gains from mining activities, albeit the disadvantages in mining community brought about by ASM and TNC. However, as long as conflicts persist the benefits might be superseded by the losses in terms of lives and properties and psychological torture.

6.1. Emerging Economic activities

The Mererani community maintains high expectations on socio-economic gains from mining activities by both ASM and TNC. Despite mining itself, a lot of auxiliary economic activities were said to be goaded by the presence of the mine. Making money can be easy, because of inflation in the area due to a lot of money in circulation. For example, although a 1.5 litre mineral water bottle is sold at 300Tshs in Arusha and Moshi municipalities, in Mererani it costs up to 1200Tshs, four fold. Likewise food prices in local restaurants are high. Miners, particularly ASM sustain the auxiliary economic activities in Mererani and surrounding communities. Among the people who are directly employed in mining activities in Mererani, only 620 is the total manpower for Tanzanite One. The number includes local personnel, 600 and the foreign personnel who are a mere 3%. Previous estimated had over 30,000 of the population directly involved in mining activities, making ASM the highest employer and contributor to the local economy in Mererani.

Removal or any disruption of ASM activities affects livelihoods for a big percentage of the population. This was evident in the case of Bulyanhulu, in Shinyanga, where between 30,000 and 400,000 people were forcedly evicted in late 1990s. (LEAT, 17-18), reports that, "...it is believed that before the closure of small-scale mines, the average income

in...was the highest in Shinyanga region. ...these have fallen since the closure of small-scale mining" Dynamics within the community are skewed in such a way that an economic hardship hits first the women, children, physically challenged and uneducated sections of the population. Because one of salient features of ASM is low education, the thesis is arguing that the entire mining community is affected if disruption occurs.

6.2. Marketing and Monopoly Strategies?

Practices at national and international level in search for market between ASM and TNC are characterised with hostility and competition that negatively affect collaboration at the local level. Conflicts over market control spreads to mining sites and it is not restricted to the 'business arena' where the gemstone is sold. Cases of shooting, trespassing and killing³⁹ so far reported⁴⁰ bear firm link with production and market shares by the two rivals. Reference is made on one incidence:

"The investor decided to brand the gemstone before it was sold. Promotion that aimed at portraying the branded gemstone as genuine and that does not use child labour were made. Efforts were made to link un-branded gemstone with Al-Qaeda especially after September 11 2001 when terrorists bombed United States. Some people were arrested and shafts owners abandoned their businesses. As ASM we were at loss, because we could not compete and counter argue such allegations. This affected communities, we as ASM and the government because we could hardly sell the stuff to international dealers and whoever bought it gave a lowest possible deal. Latter agreements were reached and gemstone tracking-strategy was developed between dealers in USA, Tanzania, governments of USA and Tanzania as well as the miners." Branding of the gemstone can be termed as anti-competition strategy, by the TNC as it later expressed by the taskforce Report on Human Rights Violations in Mererani (Mboma. R, 2001). Quoting the Fair Competition Act of 1994 which, amended in 2001, the taskforce report says "the

Act forbids an individual or a company to monopolize trade and economy regarding production of particular good/service including gemstone", (Mboma, R 2001:34).

On his executive summary, Phillips L, C (May 24 2002) argues that 'the strikingly beautiful blue/purple zoisite gem known as tanzanite recently experienced a market crisis provoked by unsubstantiated allegations terrorist involvement in the trade'. According to Phillips, (2002), the confidence of gemstone dealers and jewellers was reinstated after being assured on Certificate of Origin by a Tucson Protocol and lack of concrete evidence. Nonetheless, anti-competitive practices are costly in terms of money and time because both states had to part with money and time in setting-up taskforces, travelling and meetings. Recommendation by Mboma (2001) offered option on branding, however the government issued directives that branding should cease forthwith and any similar practices must be desisted in the future.

Tucson Protocol include several measure, apart from demanding certificate of origin, Mererani was earmarked as a 'controlled area', where entrance and exit can be monitored and controlled. This is one of the contentious issues, as ASM miners are arguing it is an expensive undertaking for them. The need to possess different identity cards as miner and inhabitants of Mererani is costing money, which is badly needed by ASM. The thesis argue that, although conclusively there was no evidence on Al-Qaeda and tanzanite, but weak control of gemstone production and market can result into wrong hands which support criminal actions including, money laundering and terrorism (Chachage, (1995) Phillips (2002), Phillips *et. al* 2001).

6.3. Local Politics, Policy and lobbying

This thesis argues that, in countries where livelihoods sources are limited, mines form both political and economic platforms. Similar observations were made by Chachage, (1995). In the multi-party political system the ability to influence would-be constituency members (voters) must be exemplified in words on platforms with strategies targeting the vulnerable and disadvantaged group. Mererani seems to be the battle-field for politicians, and actors on the ground forge coping mechanism so that are not wiped-away from the industry. One the one hand because of their social capital (big number and networks),

ASM are registered and pay entrance fee for the prospective party potentially capable of wining the general elections. ASM would promise to vote for the candidate as long as the latter promises to defend their interests. On the other hand, the TNC would support political rallies for the party candidate potentially able to win. Both rivals can be supporting same political party, although with contradicting interests.

The Tanzania Mineral Advisory Committee's report on tanzanite production and marketing summed political situation in Mererani by saying "Before general election and during general election campaigns, Mererani is used by politicians vying different positions to get into power." (Mang'enya G, August 2001). The pressure on political candidates to favour one part over the other is high especially for local candidates; similarly presidential candidates face the same pressure. Commenting on the 2005 general elections, 2005 the period coincided with first visit in field for data collection. One of the respondents in FGD said that prominent candidate promised employment and the ASM's response was '...honourable we have no education, the only employment for people of our class is mining". Except for Naisinyai, mining community seems to support claims by ASM, in advocacy processes. Based on empirical findings, it can be argued that in 'competition to win', ASM and TNC take different routes when advocating for policy change.

7. Discussions and Conclusion

The thesis discusses empirical data in three theoretical frameworks of locality study, corporate social responsibility and social capital. There are other concepts being referred by this thesis, which are mining community, political ecology, artisanal and small-scale miners and neo-liberal. In discussing locality study, this thesis uses local social system by Stacey's *modus operandi*. Stacey's model uses seven distinct themes that include (1) temporal changes in the 'local' and 'newcomer' populations of the locality, (2) convergence and overlapping of social status and elite roles of local institutions, (3) presence and absence of specific social institutions, (4) strength of 'belongingness' and shared belief (communion) system, (5) articulation of local and national political structures, (6) overlapping of local and national social systems and (7) connection between geographical association and strength of social networks.

7.1. Local Livelihoods

The thesis argues that the mining activities have changed the political economy in Mererani. 'Locals' changed their mode of production and moved to surrounding communities where they can have enough land for grazing and farming activities. The 'newcomers' occupy the mining industry, although the 'locals' control the brokering activities. The division of roles (market chain) seem to be automatic, although strategically Maasai community are capable working as brokers compared to 'newcomers'. This is due to the fact that, availability of gemstone depends on how liquid the broker is. Maasai, although are not liquid, they utilise the social capital to mobilise resources for an overnight and quick business.

Further livestock can be converted easily into financial capital. Maasai who own cattle and work as brokers can either mortgage or sell the cattle to raise money necessary for buying the gemstone. Buying gemstone and selling it, the money obtained is used to buy more livestock, which might be sold again in case money is needed. In this case, Maasai community continuously change physical capital into financial capital and into physical capital. The 'newcomers', either uses their energy or funds to work on the mine and or

conduct auxiliary economic activities to get money, which can be converted into other forms of investments or strengthen their current business. Newcomers and miners in particular provide a big market for local, who sell goods such as food stuff and other services.

There is a high level of trust and mutual support among miners. Although socio-economic relationship are primarily based on ethnicity, social class and work related, the trust is transboundary. One reason to this can be the risk associated with mining activities. It is hard to entirely depend on mining, especially as ASM and local communities. Business can also be done on mutual basis and people pay-back as soon as they get money. There is therefore a strong belief of togetherness and belongingness. The quantity of money and or goods and services an individual access without cash depends on the networks around hi/her and their 'social and economic status'. Within ASM and mining community there are classes, however there interested converge because of gemstone activities that form their livelihood.

7.2. Tri-sector Partnership and local Drivers

Warhurst, (1998) uses three spheres of economic, social and biophysical to explain the corporate social responsibility. According to Warhurst (*ibid*), trajectories of technological and managerial frontier are determined by imperatives of social responsibility at international level. The imperatives by Warhurst include ten variables, which are-: (1) globalisation, (2) voice of society, (3) voluntary codes of conduct, (4) action groups, (5) regulations, (6) conditions of finance, (7) supply chain pressure, (8) industry peer pressure, (9) internal pressure and, (10) environmental change.

However, at the local level, Warhurst (2001) discusses the tri-sector partnerships by identifying local drivers within the three sectors of government (local and national), communities and Civil Society and Business (local and corporate). Criteria for fully participation and collaboration at the local project level in mining can be grouped into three areas of policy process, contraction process and management and benefit accrual process. All of the three areas demand consultation, dialogue and participation and proactive from all involved parties; without ignoring the local communities.

Policy process and policy dialogue leading to introduction of changes need not be perceived as benevolent when other actors apart from business and state are involved. Involvement of communities in particular can avoid bottle-necks that impede the project progress, costing a huge sum of money in case communities resist displacement or are evicted by force. The dialogue can involve different factors which are contextualised and localised to give the policy local dimensions. Communities who are normally considered ignorant of international requirement can get chance to question regulatory frameworks and permitting extraction and conditions of multilateral/bilateral finance imposed on TNC and the host country.

Contraction process is done exclusively between the state and the TNC. Although consultations are done, the need to redefined stakeholders beyond the corporate and business is laudable in this thesis. According to Warhurst (2001), the 'voice of society' needs to be laud enough and Stacey (1969) emphasis that the local social system can be understood if, among others the 'convergence and overlapping of social status and elite roles of local institutions' is taken aboard. The roles and responsibilities of all actors have to be defined in policy and contraction processes; and threats and opportunities for all parties to engage in mining project can be analysed before provision of Licence to operate. Among others they can include pressure on the environment and threats on community security, in particular livelihoods and inequalities, as well as overall impact of the mine, (Warhurst 2001). The challenges are inherently brought about by the Land Acts (1999) that for some reasons vest a lot of power on granting land to investor by the land commissioner. In this case, involvement of LGA and local leaders is basically consultative, but decisions are made at the national level, where interests of local people might receive due weight.

Limited mining community participation in policy processes and mining permit licensing, results into higher expectations, misconception, suspicion and lack of confidence in the state and business. Unfulfilled expectations to mining communities and local government are the result of misconception on the role of TNC in mining areas. High expectations on community also result from limited alternative for livelihood sources. Actions by TNC

and ASM in mining activities apart from positive gains portray negative and far reaching effect to surrounding communities and beyond. Participatory and tri-sector *Management and benefit accrual process* for the mining activities is instrumental to reduce potential conflicts. However, corporate, state, civil society and community can come up with mitigation strategies after itemising direct and immediate benefits.

Smuggling and under declaration of gemstone amount and value is economically and socially very expensive. Economically it deprives the state of revenues and set poor competitive ground and distorts the market price. Socially because it fuels conflicts and tension on the one hand, however on the other hand, the state deprived of resources cannot direct enough funds to social development projects such as health, education and water. The corporate and local companies can invigorate and demonstrate their commitment and create reputation through proactive measures by containing risks.

7.3. A turbulent community?

The thesis argues that, Mererani is a turbulent community. Turbulence is about power dynamics and power imbalances in social and economic spheres. However, turbulence in Mererani mostly affected individuals who are known to be weak economically. For example, most of people injured and or killed in mining are either workers or pit owners. TNC's picture might be bad at local, national and international level. Gordon N (2003:9) argues that TNC should avoid getting into politics of power, because according to him, "... no one charged with protecting shareholders values, wants to see their next project the subject of an intent/NGO campaign".

Tension mounts as ASM deem their livelihoods are under threat and they accuse the government for favouring the investors in policies and actions. Phillipe and Billon (2001:564) argue that the magnitudes and importance of the resource determines the level of conflict. Suspicious relationship and mistrust gets the first-footing, and culminate into mud-slinging such as xenophobia and use of child labour and environmentally unfriendly practices. Contemptuous situation of tension is accepted by neither of the actors, local community, and even the government. Gordon also argues that communities are rational in their actions, "...communities do not expect us to be all things to all people. ..., they know we

have to make money, they do not want us to go broke", (Kruger Logan, CEO of Hudson Bay Mining and Smelting, 2002. in Gordon, N, P, 2003).

7.4. The cost of conflict - A win-win?

The socio-economic lives and livelihood of mining communities and ASM depend on mining activities. The government depends on revenues from mining (and other sectors) in terms of royalties and other statutory taxes to provide for social services. The business community, apart from dividend, requires a 'good image' to win support by adhering to internationally defined standards. In case of Mererani what brings these stakeholders together is gemstone. Living as parasites they have to exercise a symbiotic relationship they need to ensure one's activities and conducts do not affect the rest. This is rather a naïve ideal situation given the power dynamics and power imbalances. For that matter, the state, TNC, community and ASM should be prepared to pay economic and social costs. Socially disruptive business have potential risks and elsewhere have been known to "to contribute to highest injury and death rates in mines" (South African Commission of Enquiry into Safety and Health in the Mining Industry, 1995 cited from Hamann, R and Kapelus P, 2004:88).

Competition among actors should lead to improved services and products by actors. Doing business for community, ASM and TNC within the frameworks of judicial rules and being proactive in both policies and practices guarantee harmony, trust, more business and more benefits and sustainable development. Actors need to aim at win-win with room for flexibility and compromise.

7.5. Redressing local crisis: New Reform?

Community members in Mererani related the period before the investor and after, and for them, life is more difficult than before. Despite this, there might be a weak link between the presence of TNC and increased hardship. For example, while the ASM used to get gemstone few metres under the ground, many shafts follow gemstone veins as deep as 450 metres. According to them, there is a danger of going back to bad experience when Mererani was full of thieves, robbers and marijuana smokers because increasingly youth are not getting jobs and they stay idle. Within the time of vacuum the time the government was not involved and there was no formal company mining, ASM made their settlements. Between that period 1985 and 1988 when the first companies came in the areas, farms were emerging, houses built and town emerged. This period had experienced

low rates of thievery incidences and there was increased cohesion among miners. The second phase of rationalisation that gave them part of block D enabled some ASM who were evicted from their previous pits to own new sites, and according to interviewees, this was relief to community as criminal and petty thievery was drastically reduced.

It is obvious there a range of benefits resulting from the presence of the TNC in the area, although at the same time, it could be hard for the community to associate all of these benefits to the company; despite this it is obvious presence of mines has benefited the cross-section of the population and neighbouring villages. There are also risks and costs associated with presence of the mining and in particular TNC's relationship with ASM will continue to pose a danger to Mererani community. There are other views such as "Bora pori lifungwe kuliko mwekezaji aendelee kuchimba hapa", translated in English as "would be better if all of us including the TNC are forbidden from mining here than the investor continuing mining". Definitely Naisinyai leaders can comment differently. Campbell B, 2004 cites Hatcher P (2004) that the new mining operators, TNCs have infringed on the sites and revenues of traditional small-scale miners. Imperatively, miners in Mererani perceive their economy is collapsing because the TNC.

Communities keep demanding for more benefits, unless the benefits are established, agreed and documented; continuous and ad hoc demands will disrupt project progress. There are also questions on how much should the investor contribute and whether these are included agreements. Should these contributions be listed at local level or at national level, and how do communities hold accountable the corporate in case it fails? Legally binding agreements can be isolated from voluntary support. However the manners in which benefits are delivered depend on fraud levels and proximity of local government authorities in contraction and monitoring the impact.

Limited participation of the local government in the process of licence permit, sharing of benefits and allocation of claims/plots for mining, makes it difficult for them to intervene when there are some problems emerging. Under the present arrangement, the role of

local government and community leadership is overshadowed by national policies. Communities and ASM claimed that the government is manipulated to favour the investors in policy because of non-representation of local authorities and ASM. Effects of limited participation could be recognised during discussions; local communities and ASM lacked the understanding of specific policy issues that affected their activities. Awareness creation can involve the Zonal mine field office, dispute settlement committee, representatives of gemstone dealers and AREMA in Mererani.

The ability to negotiate for better gains is influenced literacy level of community leaders and involvement of civil society. However, involvement of civil society is limited to few organisations that focus on legal issues, advocacy and policy influencing. Other non-governmental organisations focus on mitigating the social and economic impact from mining activities whereas few more support communities with entrepreneurial skills required to utilise economic opportunities emerged from mining. Nonetheless, the elite role of local institutions can help increase the voice of the society. The project coordinator for TMWD commented, '... I wish NGOs working in legal matters and advocacy for miners and community were as many as those working on HIV/AIDS"⁴³

By 2002, Mererani mining activities were estimated to last for 15 years, which means community expectations are built on extractive industry for the decade and half. The community will continue to exist beyond the life-span of mining project. It will encounter the brunt of effects (social, health, environmental, economic and cultural) emerging from mining activities during and after the next fifteen years. To make their dreams and expectations real, actors need to put in place a firm foundation necessary for sustainable economic development. Ellis (_:160) argues that "macro policies provide the environment for rural livelihoods... and prove either encouraging or inimical to the sustainability and development of livelihoods. They influence such factors as: inflation rates, exchange rates, interest rates and credit conditions, rates of return on labour, land and other assets, employment opportunities and human capital - education, health, and nutrition". Nonetheless, the empirical findings suggest that, although the macro reforms

are made, there are other important factors that should be bone in mind. The underpinning principles for reform should inform the public on how rural segment and people in informal sector could benefit. The foundation need to be informed by policies and actions through participation of *all* stakeholders. "...fraternity is the heart of sustainable development. It calls for not imposing solutions determined by one's own agenda, rather than regards for the needs as experienced and perceived by recipients. Where there is no fraternity impulse in development endeavour, there is no true understanding and commitments to the problems of those in need", (Gonthea C justice of Canada's Supreme Court, cited in Gordon, R P 2003:14). The latter suggestion depicts the hub of mining activities.

There are few concluding remarks the thesis makes

- 1. The mining activities in Mererani has contribute to rearrangement of locals to accommodate the newcomers
- 2. While the mining codes by the World Bank might seem relevant, considerations must be made in understanding and contextualise the diversities across countries. In the country there also diversities and history of mining communities, firm/area to be privatised should take into consideration needs of other stakeholders.
- 3. There are both gains and costs attributed to mining. It is had to explicitly explain who had contributed more gain or cost to the community than the other. Other factors to must be considered in assessing impact it is not cause-effect relationship. Lack of understanding of contractual obligation of TNC and ASM to communities makes them at the mercy of the two actors. The kind of services offered entirely depend on perceived good will as opposed to being proactive socially and environmentally by ploughing back the money generated from the industry. The brunt effect of lack of commonly defined roles results into blames to the government as more ASM and community members reduce their expenditure in areas like children's education.
- 4. Although competition is assumed to promote to better services and products, conflicts and hostility in mines both in production and marketing results into costs. Social and economic cost resulting from poor relationship involves the state, mining community, corporate and other stakeholders. The TNC does not go away with it. There are costs related to legal matters, settlement and public relations, (Paul, & Garred 2000).

- 5. Tanzanite One's support that focus only on one community in the same setting is potentially furthering social division by isolating one community. It promotes separatism as Mererani is constantly drawing away from Naisinyai. In the canon of voluntary support to community, corporate can polarise other communities and cause socio-economic inequalities. Explicit corporate social responsibility need to be made, including the circumference coverage of services.
- 6. Community interests can be heard when there is strong voice of society. Ignoring community voices and interest brews tension and conflict whose effect can be seen in tarnished corporate imagine, little confidence in government and increased criminality as people take law in their own hands.
- 7. Government failure to perform its duties as facilitator and regulator increases vulnerability of poor people to corporate tactics and cartels. It can create more dependants as more people lose self and informal employments.
- 8. Further researches can be made on specific relationship between ASM and TNC. One, there is claims that TNCs increases revenues, employement, technology, one should research on the Tanzanian context to define prerequsites for those things to happen. Second, there is employment and unemployment, in Tanzanian mining industry, a research on gains and how many have lost livelihoods and how many gained can be done for better policy processes. Third there are TNCs contracting ASM to do the mining on their behalf, whereas others inter into joint-venture mining agreement with local companies. The fourth area for further research could focus on the link between TNC and investments in home country for a specific mineral, say gold. One should be able to analyse how TNCs earn, and relate the level of investments in their home country compared to host country.

Notes

- Better schools and better education in many people's mind are those which use English as medium of communication. The quality might be poor, but the parents pay a lot of money to send their children to these schools. In areas like Mererani, ability to send your child to such schools or across the border to Uganda or Kenya is an indication that you are well-off.
- For some reasons public schools are challenged with de-motivated teachers, over-clouding and few teaching and learning materials. In some cases in Mererani, there are over 100 children in a single classroom.
- According to government officials, artisanal miners under-declare the quantity and quality of mined gemstone rendering it difficult to collect revenues. Nonetheless the artisanal miners believe they don't have to evade tax as long as the government supports them to miner.
- ⁴ The looming drought over the last two years might distract the country from reaching the target.
- Tanzania Development Vision, 2025 sets some milestones, among them, the mining industry is expected to grow and contribute 10% of the GDP. The target seems too ambitious and given the generous provision, it might be too blurred target to hit.
- Drechsler, 2001, uses a higher figure of 10% GDP.
 - The World Summit on Sustainable Development identified business to contribute to poverty reduction and sustainable development. In other words it is assumed community and ASM lives should not be worse-off because of TNCs activities in host country. Other international institutions such as Organisation for Economic Committee for Development (OECD), United Nations emphasis on sustainable development, which is an-all-encompassing. British Government has an ambitious Vision for Corporate Social Responsibility; "to see UK businesses taking account of their economic, social and environmental impacts, and acting to address they key sustainable development challenges based on their core competences wherever they operate locally, regionally and internationally", Stephen, T, May 2004.
- My own emphasis
 - Sustainable development is usually defined as development that meets the needs of the present without compromising the ability of the future generations to meet their own needs. However, (Serageldin, I 1996a) quoted by Warhurst (1998) defining sustainable development and a process easily understood in the capital context, in which the future generation receive as much capital per capita as or more than the current generation has available. So it is about the present and future generations on accessing and exploiting resources in an accountable and responsible manner that does not endanger future generations.
- Ralph Hamann and Paul Kapelus (2004:85-92), argue that good corporate policies and practices in a host country flag the barner of the corporate, and therefore earning credibility and good reputation among actors. Potentially good reputation is one of the criteria in wining mining contract, accessing land and even attracting financial capital.
- "Use" here is meant to refer to either sustainable or unsustainable exploitation. A resource (natural capital) whenever used, the society has to pay cost, directly or indirectly, short or long-term costs.
- 12 COMOCAH is a voluntary Counseling and Testing Centre, (VCT) for HIV/AID, located in Mererani area.
- This company has been changing names, although it is claimed the management literary remain the same. Some literatures refer it to as Mererani (Merelani) Mining Limited (MML), then AFGEM and the recent name is TanzaniteOne. In May 2004 AFGEM shares were sold to TanzaniteOne. The thesis uses AFGEM because it is the widely used name.
- Zandu is a local name given to fake gemstones; which are usually sold to strangers in business. Because of high level of smuggling, brokers take risk of being conned by canning individuals in the area.
- Hamza, Kondo 2005 and field data for this research estimates between 80 -120 individuals working in some deep mine shafts. This makes the official figure of 48,000 doubtful but also makes this settlement peculiar because of a big percent of the population working in the mines.
- Other estimates the population to be between 60,000 100,000 people

- Kikuyu tribe is known to be a Kenyan ethnic group. On the other hand, some tribes are transboundary especially for communities living near the borders. For Mererani these could be Maasai and Luo tribes that are found in both east African countries, Tanzania and Kenya.
- FGD, comment from individual respondent
- Respondents in semi-structured interviews
- This is an official translation for the report commissioned by government of Tanzania as 'fact finding mission' on issues related to problems in tanzanite production and marketing as well as hostility among actors at local level in Mererani.
- Semi-structured interview respondent. Pit owner
- Note. The conversion rate of US\$ to Tshs is 1 to 1,000. Although this was the figure given by the respondent, some literatures including the Mineral Committee Report (August 2001) indicate the Municipal (LGA) Trade Licence to be between 300,000 500,000 Tshs.
- 27 Respondent semi-structured interview
- Temporary could mean an overnight stay and three to six months stay in a guest house, depending on the "nature" of *business* conducted by an individual.
- 29 Respondent semi-structured interview
- Within one household, youths and adults engage in different economic activities. While one household can own a claim or hire a pit (usually the owner is the father), the rest of individuals work as supervisors and supply services to their own mine and depending on economic status they can also provide to other miners.
- Talking about interest in mining, is very tricky, because of trust and business around. For many ASM and broker, you are given money with a commitment to sell the gemstone to the same person (sponsor), or you commit yourself to buy most of stuff (food and services) from the same person and payback without interest. Whatever this mean, lack of geological information and uncertainty in production levels makes the whole thing a risk taking; which is proportion to the profit obtained when the gemstone is produced.
- Respondents semi-structured interviews
- FGD, comments from the groups
- Respondent semi-structured interview
- Field data sources, November 2005 and August, 2006
- Respondent semi-structured interview community leader
- 43 Respondent semi-structured interview

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Appendices Photos by Millinga Mwanzo and Audax Rukonge







These pictures were taken by the Author and Mr Mwanzo Millinga at different times. They depict the drudgery of gemstone (Tanzanite) seeking. The tunnels (veins) on the far left are dug as deep as 400 metres down the earth, using blasters, shovels, chissels and simple lighting materials (touch). Body skins of artisanal miners are tainted with soil and sometimes they spend two weeks without taking bath.





