

***Migration dynamics and small scale gold mining in north-eastern Ghana: implications  
for sustainable rural livelihoods***

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## **Introduction**

Traditionally, north eastern Ghana has experienced high rates of net out migration especially of males, but increasingly of females in recent times (Nabila, 1975, 1986, Whitehead, 1996). Although the historical roots of out migration lie in British colonial policy, which promoted the north largely as a labour reserve for the south, out migration has continued as a dominant experience for many households in the region with many moving from the north to the south largely to work on the cocoa growing areas as well as the mining areas of the south. The 1990s however saw some form of a reverse migration largely of small scale miners moving from all over Ghana as well as from neighbouring countries but especially from the mining areas of the south to engage in small scale gold mining in the Nangodi and Tallensi-Nabdam areas. This was as a result of the discovery of gold deposits in the early 1990s in the Upper East Region which led to an influx of an estimated more than 20,000 men and women into the region and thereby increasing its importance in the local economy. The liberalization of the mining legislation and the resultant liberal mining investment as part of Ghana's structural adjustment policies of the mid 1980's to 1990s further helped to open up the climate of the mining sector to an estimated 50,000 small scale miners extracting gold and diamonds from alluvial and primary deposits (Hinson, 2001).

In North-Eastern Ghana, this brought an influx of small scale surface gold miners, as well as men and women providing support services resulting in the acquisition of tracts of land for mining and a new value for land. This has brought about changes at the community and household levels and a redefinition of the terms under which migrants, stranger farmers and miners can gain access to land and other resources.

Using a livelihoods framework, this paper examines how the migration of small scale gold miners, as well as men and women providing support services, has led to a restructuring of livelihoods around gold mining, which was hitherto marginal to livelihoods and thereby increasing its importance in the local economy. It also examines sustainability issues with regard to the impact of mining on the local economy, social and gender relations and on health and the environment and raises long term implications for land and resource tenure for livelihoods.

## **Theoretical framework**

The study adopted mainly a livelihoods framework that takes into consideration all of the elements that feed into resource use including land utilization for meeting the livelihood needs of people and the relationships between these elements. Taking a livelihoods approach enabled us broaden our analysis of the resources available to the study communities from tangible physical and financial resources to include social, political, human and natural resources as well as the role the external environment can have on the livelihoods of the poor. They also allowed the consideration of the social relations which govern these activities and affect their outcomes and also the institutions and the broader political economy within which they are organised (See for example Bebbington, 1997;

Murray, 1999; Ellis, 1998; 2001; Whitehead and Kabeer, 2001). Using a livelihoods framework therefore enabled us examine the various livelihood systems and portfolios organised at different levels of the local economies of the two study areas and their interlinkages with the national and global economy.

### **Data Collection and Methods**

The study was undertaken in the Talensi-Nabdam District of the Upper East Region, located in north eastern Ghana. It employed a 3 stage approach using a combination of qualitative and quantitative data collection methods. First, there was pilot survey using mainly PRA techniques- transect walks, resource mapping and in-depth interviews. This was followed by the main survey, which entailed structured questionnaires administered to one hundred and twenty (120) respondents made up of an sixty males and sixty females in the gold mining area. In addition, there were fifteen (15) key informant interviews in the District capital of Bolgatanga and in the research community and twenty (20) life history interviews with men and women involved in mining and farming activities.

### **Background and Context for the study**

The study area in north eastern Ghana is located within the Tallensi - Nabdam district in the Upper East Region. Environmental resources are characterised by a dry savanna climate and vegetation, poor soils, and irregular rainfall patterns leading to poor crop yields and inadequate levels of food production. Compared to the rest of the country, northeastern Ghana experiences shortages of food with greater intensity because of the single rainfall season and the frequency of drought. Main livelihoods are made up of agriculture, hunting, fuel wood extraction, small-scale mining and quarrying. Agricultural production is mainly rain-fed and largely non mechanised and is a mixture of cash-cropping and subsistence food crops.

The area experiences high net out migration especially of males, but increasingly of females in recent times to the south of Ghana as a result of historical and spatial factors. Historically as a result of British colonial policy, the north was promoted largely as a labour reserve for the south. Consequently little investment in infrastructure or services was made in the north, while conscious efforts were made to develop the forest and coastal belts of the south for the production of minerals, cash crops and timber products for export facilitated by the creation of ports and harbours on the coast. The result has been high rates of migration from the north to the large towns and the cocoa growing areas of the south (Nabila, 1986, Songsore and Denkabe, 1995). More recently environmental deterioration coupled with liberalisation and structural adjustment programmes have seriously affected northern development and particularly agriculture, primarily through the removal of fertiliser subsidies and subsidies on health care and other social services (Awumbila, 1996, 1997). The consequence of this uneven development has been that the north has constituted a major source of labour supply for the industries

and agriculture in the south, reflecting the impoverishment in the north and the relative buoyant urban economy in the south. These factors have contributed to the north having the highest concentrations of the poor in Ghana. Recent studies estimate that eighty percent of the population in the three northern regions is now poor, while almost seventy percent is extremely poor. Other indicators such as child under-nutrition and adult literacy rates are the highest in Ghana and point to the degree of under-development and poverty in the area (Ghana Statistical Service, 2007, Norton et al, 1995).

### **Migration dynamics and mining: a historical perspective**

Ghana has had a long history and tradition of population mobility and high rates of migration. Internally, movement to towns has been an important part of livelihood strategies for many years and for many Ghanaians it provided new possibilities and opportunities for modernity. Studies on north–south migration in Ghana have centred on theories of overpopulation, land shortage, taxation, lack of resources, and ‘bright lights syndrome’, which compelled northerners to migrate to the south in search of wage labour (Nabila, 1974; Abdul-Korah, 2006). However, recent studies have emphasised the internal dynamics of Ghanaian societies in shaping the migration phenomenon and that the reasons why people migrated and continue to migrate are not static but change over time and space. Therefore studies on migration must include the experiences of ordinary men and women migrants in shaping these processes (Whitehead and Hashim, 2005, Abdul-Korah, 2006).

The history of migration in the mining sector in Ghana dates back over a century when many ethnic communities which existed mainly as tribes and/or kingdoms used gold not only as a medium of exchange to trade in various goods and services but also an embodiment of the power, wealth, and influence of various tribal groups or states. Historically, significant labour migration from within the West African Sub-region played a major role in Ghana’s mining industry. Available records suggest that the development of gold mines among other factors in the southern region of the Gold Coast in the late 19th and early 20th centuries attracted mostly male migrants from the other British colonies of Gambia, Sierra Leone, and Nigeria as well as the French colonies of Upper Volta (now Burkina Faso), Togo, Côte d’Ivoire, Mali, and Benin (Ababio 1999). Immigrants from Guinea, Mali, Burkina Faso, Liberia, Sierra Leone, Nigeria, Togo, and other West African countries congregated in the mining areas and constituted a workforce that often far outnumbered the indigenous people (Anarfi et al, 2003).

Internally, many Ghanaians also moved to mining centres lured, in part, by employment and other economic opportunities, and services that the industry offered. Migrants both skilled and semi-skilled to non-skilled – gradually settled in various mining centres or sectors such as railways, health, agriculture, civil and public service – all of which mainly serviced the industry. A subsequent period of stagnation and decline in the industry due to a myriad of factors – such as lack of expansion, modernization, diversification, capital investment etc – up to the early 1980s led to significant out-migration of people from the mining areas but, not necessarily, from the country.

In 1983 Ghana initiated a World Bank/ International Monetary Fund sponsored Economic Recovery Programme (ERP) and Structural Adjustment Programme (SAP), to reverse the general economic decline. The mining sector was one of the areas, which received significant attention under the reforms due to its contribution to the economy and its enormous potential. In 1986, the mining sector reform programme was initiated with the main aim of increasing production by streamlining policies and rehabilitating the infrastructural base to attract new investors. In line with this objective, the Minerals and Mining Law was promulgated in 1986, the Minerals Commission (MC) was constituted to provide a flexible minerals right and mining lease licensing for potential and existing investors, formulate policies for the sector and in general, provide a one-stop service for investors in the sector. Almost all state-owned mines were divested or privatized. In a gist, policies were put in place to increase openness in the sector (Akabzaa, 2000)

Small-scale mining of gold and diamonds which has traditionally played an important role in the economy of Ghana until 1905 when the colonial authorities through legislation made their operations illegal also received attention under this new liberalized mining environment. Under the minerals sector restructuring reforms, the government legalized small-scale mining activities through the enactment of PNDC Law 218; the Small Scale Gold Mining Law in 1989. Under this law, the Minerals Commission was responsible for registering and supervising small-scale miners in the country. The government also established the Precious Minerals Marketing Corporation (PMMC) which was initially the sole governmental agency for the purchase of the produce of small-scale miners, but the market was later opened up to private licensed buyers. The liberalization of the mining legislation and the resultant liberal mining investment climate opened up the mining sector to an estimated 50,000 small scale miners extracting gold and diamonds from alluvial and primary deposits (Hinson, 2001). However despite the legalisation of their operations, many of them still operate illegally and in the south work very often on concessions of large mining companies. The small-scale mining law requires miners to register with the Minerals Commission who would assign them specific areas to operate. But because of the several frustrations they meet in the process, many of them opt to operate illegally. This has given rise to two groups of small scale miners in Ghana, those registered and licensed, who are in the minority, and those operating illegally (*galamseys*), who form the majority. Currently small-scale mining is estimated to provide direct and indirect employment to over one million people, and earning the government \$63 million between 1989 and 1994. The small-scale mining sector as a whole is an important player in the country's mining sector and is the largest producer of diamonds and fifth largest producer of gold (Akabzaa and Dramani, 2001). In the Upper East Region, the discovery of gold deposits in the mid 1990s led to an influx of people into the region and thereby increasing its importance in the local economy.

Nyame and Grant (2007) note that unlike other economic activities such as agriculture, mining of a commodity in any particular location is based on the availability of a raw material or resource that is finite, often with life span that is dependent upon several factors. They identify roughly three distinct phases or stages in any mining operation; that is, growth, stagnation or decline, and closure, which are intimately linked with migration dynamics. At the growth stage of mining usually beginning with exploration or the search for mineral deposits on a given defined and legally acquired terrain, and actual mine development, this is

associated initially with a high demand for all forms of labour from skilled to unskilled. This phase, therefore, attracts maximum labour of all kinds also because the array of skills required would ordinarily be impossible to be satisfied by the local communities. As a result many migrate both internal and international to seek their livelihoods. The other two phases are associated with stagnating or declining mining activity when especially the low skilled migrate to other mining centres in search of jobs, triggering a wave of migration of people in other support and spin-off businesses that depended heavily on the presence and activities of the mine (Nyame and Grant, 2007).

## Research Findings

The study found that resources and livelihoods in the north east were structured around farming, sheanut picking, other economic trees, and fuelwood gathering. The Influx of small-scale gold miners led to a re-structuring of livelihoods, around gold mining which were hitherto marginal to livelihoods thus increasing its importance in the local economy. Men came into the area and got involved in all stages of mining as sponsors, buyers, pit owners, different categories of mine workers, and as processors of ground ore. Women came in mainly as sievers of gold chippings and powder and as support service providers. The major livelihood activities for women in the area are farming (40%) gold processing and service provision to miners (37%), and trading (23%) in that order. However there were spatial differences between the mining and the farming communities, with women's main source of income being from mining related activities in the mining communities. Men's livelihoods are centred around farming (50%), mining (47%) and as artisans.

Traditionally, the Upper East Region experiences high net out migration especially of males, but increasingly of females in recent times (Nabila, 1975, 1986, Whitehead, 1996). Although the historical roots of migration lie in colonial policy, out migration has continued as a dominant experience for many households in the region in contemporary times. The dominant form of migration in the area was seasonal and circulatory in form with migrants returning to the area to farm at the beginning of the wet season and returning to the south at the beginning of the dry season after the harvests.

With the discovery of gold however, migration flows appear to have changed as miners came from all over Ghana as well as from neighbouring countries, such as Burkina Faso and Togo, and settled in small temporary settlements in the Talensi- Nabdam District around Datoko and Sheaga. Table 1 shows the transient nature of the population in the mining communities. Whereas 42% of the sample in the study area belong to a household elsewhere, in the mining communities almost three quarters (72%) of residents belong to a household elsewhere (Table 1). Mining became the major pull factor in attracting people back to the area thus reducing migration flows especially of the youth out of the area in the 1990s.

**Table 1: Do You belong to a household elsewhere by sex and current residence of respondents**

Do you belong to a Household elsewhere?	Mining Communities	Farming Communities	Total
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	<b>M</b>	<b>F</b>	<b>T</b>	<b>M</b>	<b>F</b>	<b>T</b>	<b>N</b>	<b>%</b>
Yes	63.3	79.3	71.2	14.3	12.5	13.3	50	41.7
No	36.7	20.7	28.8	85.7	87.5	86.7	69	57.5
<b>Total</b>	<b>(30)</b> <b>100.0</b>	<b>(29)</b> <b>100.0</b>	<b>(59)</b> <b>100.0</b>	<b>(28)</b> <b>100.0</b>	<b>(32)</b> <b>100.0</b>	<b>(60)</b> <b>100.0</b>	<b>120</b>	<b>100.0</b>

Source: Field work, 2003, 2004

Mining settlements were named after either large towns in the south or mining communities in the south, or rich institutions. Thus settlements were given names such as Accra (the national capital), Kejetia, Bantama (large communities in Kumasi, Ashanti Region), Obuasi, Tarkwa (well known large gold mining towns in the south), Gold Coast (former name of Ghana), World Bank, Croatia etc. Each of the settlements appears to convey the size and population of each new mining area which opens. Each name also tries to outdo the one before it. There was therefore a lot of rivalry among settlements as to which started first, which is larger in population and which is richest.

The capital costs of mining had implications for the nature of local participation in mining. There were differences between locals and migrants with regard to the place of mining within their livelihood portfolios. The small scale character of mining and its occurrence mainly in the dry season, made it possible to integrate mining with other income generating activities such as farming for men and women, and sheanut picking for women. For locals, mining was a dry season supplement to farming activities in the wet season as illustrated by case study one. However, for the large group of migrants, it was the only activity they were engaged in and therefore more intensively pursued. There were therefore differences between locals and migrants with regard to the place of mining within their livelihood portfolios.

Small scale mining is highly segmented with a hierarchy of participants with different labour relations based on a combination of ethnicity, gender, migrant status and access to capital. These included sponsors (financiers), buyers of gold (who were also often sponsors) ghetto owners (pit owners), and the different classes of workers- dynamiters, moya men or chisellers, “loco boys” (who transport the blasted rock ore from the pit to the surface), “kaimen” (who pound the ore in the metal mortars with metal pestles), and “shanking ladies” (who sift the pounded rock with a scarf to separate powder from chippings). Whereas sponsors, buyers, and to some extent ghetto owners tend to be migrants from outside the region and in the case of sponsors and buyers could include other nationals such as Lebanese and Burkinabes, the workers at the lower scale, (loco boys, kaimen and shanking ladies) tend to be locals. Even among the mine workers, the dynamiters and chisellers who required some expertise in mining tend to be southerners, while the loco boys, kaimen and shanking ladies, requiring no specific training and earning the lowest returns, tend to be mainly locals. Migration had therefore resulted in technology transfer but also reproduced certain patterns of labour relations which were disadvantageous to locals. Miners with requisite training and skills could move between various mining roles, as illustrated by a migrant miner in Obuasi:

*“In Tarkwa I was a loco boy while in the pit at Obuasi I am currently a moya man (driller). I learnt it here and not in school. Apart from this I can play almost any role in mining including a blastman (dynamiter), locoboy, chiseller and kaiman . I can also operate a compressor and pump. When one arrives in the mining area at first as a new worker most people become loco boys or kaimen because that is the easiest job one can do”.*

Among these categories of mine workers, the shanking ladies, who were women, were the lowest in the hierarchy of labour relations with the lowest returns. Thus labour relations were linked to ethnic, migrant status and gender identities. Labour relations were unregulated and not predictable across the different mines. Thus struggles over resources and the emerging labour relations have brought about new social identities in mining areas which reveals an intersection of several social relations around gender, migrant status, and ethnicity and access to capital with implications for the nature of local participation in mining. These have had gendered implications with women largely at the lower scale of activities and largely in support roles, with low returns.

The study found that health problems and risks were gendered as the technologies and organisation of small scale mining had gendered health implications. While women had mainly respiratory problems as a result of inhaling fine dust from pounding and sieving the rock ore, men had chest and body pains linked to underground mining. Both women and men also use mercury without protection for refining gold. Health related mining diseases as identified by the community included, malaria, diarrhoea and other diseases linked to lack of potable water, coughing, chest pains and respiratory problems, and skin diseases.

A major environmental impact of small-scale gold mining in the district is land degradation, more specifically the clearing of vast expanses of savannah vegetation, digging pits and the upturning of vegetation which in turn leaves land bare and exposed to agents of erosion. Where deep underground mining pits were left uncovered and abandoned, posing a hazard for people especially children, and livestock. Many of these pits have filled with water and serve as breeding grounds for mosquitoes.

## **Conclusions**

The various challenges and opportunities presented by migration patterns in the Talensi-Nabdam area have important implications on policy. These findings indicate that while migration dynamics into the district for gold mining opened up opportunities for participation in the local economy, and has potential to reduce the north-south migration trends, access to and benefits from gold mining is clearly gendered with labour relations constructed around a combination of social categories including migrant status, ethnicity, gender and access to capital. These have had a differential impact on the livelihoods and welfare of men and women in the communities, raises sustainability issues and also have implications for migration policy. Yet current attempts being made to develop a migration policy tend to focus on international migration and often migration from Ghana to the developed world. It is important that a holistic approach to migration is taken to ensure maximum benefit to all.



## ACKNOWLEDGEMENTS

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