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Youth Unemployment Challenges in Mining Areas of Ghana

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Summary

Ghana, like the rest of West Africa is experiencing tremendous human migration both internally and across international boundaries. Rural-urban migration has assumed uncontrollable dimensions in the sub-region and the social consequences have become major development challenge. In Ghana the mining communities have been at the receiving end for some time now. This study on the Obuasi Municipal Assembly (OMA) in the Ashanti region of Ghana explores the tremendous socioeconomic changes, especially demographic patterns as a result of the inflows of migrants into the Obuasi Township and its catchment area in search of non existing jobs especially in mining. A major outcome is the serious unemployment problem in the township with all the attendant social vices. A three-month socio-economic study of the municipality was carried out to determine the scope of unemployment. The study showed that there is acute unemployment situation in the municipality which is due to the fact that AngloGold Ashanti, a mining giant in Ghana, the major employer, has limited job openings especially for menial workers who flock to the company. Other income generating opportunities are few. Agriculture which has the capacity to employ majority of the unemployed youth does not appeal to them because it is considered not lucrative. The acute unemployment situation has contributed significantly to the high crime rate, prostitution and widespread illegal mining activities with their attendant problems. The study explores options that are feasible for a typical mining setting especially for the youth who are very vulnerable and susceptible to crime and other social vices. Job creation, through the development and implementation of sustainable programmes aimed at training the youth to acquire the necessary employable skills is one of the options considered by the municipal managers and their partners. The study also looks at broader policy implications for the Economic Community of West African States (ECOWAS).

Keywords: Illegal Mining, Unemployment, AngloGold Ashanti, Social Vices, Agriculture, Mining Communities, Migration

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YOUTH UNEMPLOYMENT CHALLENGES IN MINING AREAS OF GHANA

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Abstract

Ghana, like the rest of West Africa is experiencing tremendous human migration both internally and across international boundaries. Rural-urban migration has assumed uncontrollable dimensions in the sub-region and the social consequences have become major development challenge. In Ghana the mining communities have been at the receiving end for some time now. This study on the Obuasi Municipal Assembly (OMA) in the Ashanti region of Ghana explores the tremendous socioeconomic changes, especially demographic patterns as a result of the inflows of migrants into the Obuasi Township and its catchment area in search of non existing jobs especially in mining. A major outcome is the serious unemployment problem in the township with all the attendant social vices.

A three-month socio-economic study of the municipality was carried out to determine the scope of unemployment. The study showed that there is acute unemployment situation in the municipality which is due to the fact that AngloGold Ashanti, a mining giant in Ghana, the major employer, has limited job openings especially for menial workers who flock to the company. Other income generating opportunities are few. Agriculture which has the capacity to employ majority of the unemployed youth does not appeal to them because it is considered not lucrative. The acute unemployment situation has contributed significantly to the high crime rate, prostitution and widespread illegal mining activities with their attendant problems. The study explores options that are feasible for a typical mining setting especially for the youth who are very vulnerable and susceptible to crime and other social vices.

Job creation, through the development and implementation of sustainable programmes aimed at training the youth to acquire the necessary employable skills is one of the options considered by the municipal managers and their partners. The study also looks at broader policy implications for the Economic Community of West African States (ECOWAS).

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Agriculture, Mining communities, Migration

INTRODUCTION

Ghana like the rest of West African countries is experiencing tremendous human migration internally and across its international boundaries. Rural-urban migration has assumed uncontrollable dimensions in Ghana and the rest of the sub-region with accompanying social consequences that are becoming major development challenge to the governments. In Ghana the mining communities have been at the receiving end for some time now. One of these communities, Obuasi Municipality, the home to a mining company which has operated in the area for over 100 years, is an epitome of negative social settings that are characteristic of mining towns.

The Obuasi Municipality is located in the southern part of the Ashanti Region of Ghana and covers an area of 162.4 Km². The entire land area of the municipality is owned by the AngloGold Ashanti (AGA). The topography is an undulating terrain with hills and the soil type is predominantly forest ochrosols. With semi equatorial climate, the temperature is generally high (a night minimum of 25°C and a day maximum of 30°C) from January to April. The mean annual rainfall of the district is 125cm, and humidity between 75-80%. The vegetation is semi-deciduous forest.

Like many other mining communities in Ghana, the Obuasi Municipality Assembly (OMA) in the Ashanti region is experiencing tremendous socioeconomic changes, especially demographic patterns. The population of the Municipality was 195,000 with an annual growth rate of 4%, making the municipality one of the fastest growing districts in Ghana (Population and Housing Census, 2005). The inception of the Economic Recovery Programme in 1984 and subsequent expansion of mining activities and production at AGA led to the establishment of several subsidiary companies, service and commercial activities which are either directly or indirectly related to mining. There has therefore been a steady increase in the population since 1984. The population density of the Obuasi municipality was 148 persons per km², in 1960, 212 in 1970, 413 in 1984, 829 in 1994, and 1,204 in 2005. About 48% of the population are in dependent age group (i.e. between 0-14 years and 65 years and above), implying that about 52% constitute the potential labour force. This indicates that every person in the work age group takes care of him/herself and an additional person (dependency ratio of 1:1).

The inflow of migrants into Obuasi Township and its catchment areas in search of non existing jobs has over the years had negative social, economic, cultural and environmental impacts such as illegal mining, high prevalence of prostitution and HIV/AIDS in the municipality, and high crime rates amongst the youth. Some attempts have been made by the OMA, NGOs, Religious Bodies, Government Agencies and AngloGold-Ashanti to solve the unemployment problems in the area. These attempts, however, have achieved little success.

For a period of three months (February to April, 2006) a socio-economic baseline studies of the OM was undertaken. The overall objective was to contribute to solving the unemployment problem in the area through design and implementation of development interventions. With the intention to make policy recommendations based on data-driven

evidence, all key stakeholders were interviewed to help understand the complex and multi-faceted landscape of unemployment in the municipality.

METHODOLOGY

A combination of research methods all based on participatory rapid appraisal (PRA) was employed in the collection of data for the study. First, a quick reconnaissance survey was undertaken the objective of which was to obtain first-hand information about the area and be acquainted with relevant institutional establishments, opinion leaders and key informants. Following this, a semi structured questionnaire and an open ended checklist were prepared and used for the main field survey. The design of the data gathering instruments was based on the research team's major preliminary findings from the reconnaissance survey which showed that unemployment was a major social underlying force in the study area and affect majority of the people, with serious negative multiplying effect and linkages. To have a better understanding of the problem, the main survey focused on local peoples' perceptions on unemployment: causes and effects; past and current efforts being made to arrest the situation; development partners involved; successes made and their impact; and the way forward.

Respondents during the main field survey were staff of the Municipal Assembly, Anglogold Ashanti, selected decentralised government departments and agencies, traditional chiefs, opinion leaders and farmers of selected communities in the Obuasi municipality, local NGOs, CBO, teachers, unemployed youth, street children, illegal miners (*galamsey operators*), self employed (dressmakers, hairdressers, carpenters, and traders). The wide spread and meticulous selection of respondents was to ensure an understanding of the perceptions and development aspirations of the local people.

FINDINGS

Unemployment in Obuasi Municipality was interpreted variously by the different interest groups. The table below presents views obtained from cross-section of people interviewed in the municipality. The views centre on the causes, effects, attempted interventions and suggested interventions.

Local perception on Unemployment

Groups/Communities	Causes of unemployment	Effects	Suggested interventions	Attempted intervention
SELF-EMPLOYED (Carpenters, Dressmakers, Hairdressers, Traders)	<ul style="list-style-type: none"> • Lack of education and employable skills • Lack of job opportunity • Dependence on AGA • Lack of capital to start or expand business • Increased number of migrants 	<ul style="list-style-type: none"> • Poverty • Family breakdown • Increase in Social vices • Teenage Pregnancy • High dependency rate in Families 	<ul style="list-style-type: none"> • Assembly to provide work space to passed out apprentices • Vocational training Centres to be established • Provide enabling environment to investors • Legalise galamsey (illegal artisanal mining) • Provide capacity building in business management 	<ul style="list-style-type: none"> • 138 youth trained in hairdressing, dressmaking and carpentry over past 3 years. One hundred and two (102) of the trainees are self-employed. The rest are not working due to lack of capital to start business
CHILD LABOURERS/ STREET CHILDREN/ PROSTITUTES	<ul style="list-style-type: none"> • Initial capital is lacking • Lack of jobs • Lack of education and skills • Overdependence on AGA jobs 	<ul style="list-style-type: none"> • Bad habits/Crime • High Divorce Rate • Illegal mining activities 	<p>Very prepared to go back to school or learn a trade if OMA will sponsor us</p>	
UNEMPLOYED YOUTH	<ul style="list-style-type: none"> • AGA employs people from outside Obuasi and not indigenes • Most people only want to work at AGA • AGA requires skilled workers, but most indigenes are not skilled and well educated 	<ul style="list-style-type: none"> • Increase in illegal mining activities • Increase in crime rate 	<ul style="list-style-type: none"> • Train us in skills that will qualify us to get jobs at AGA • Provide us with jobs if jobs at AGA is not available. • Legalise illegal mining • AGA to be mandated to fill 50% of its workforce 	

COMMUNITIES	<ul style="list-style-type: none"> • AGA concession are not given out for farming • Poverty Alleviation funds are given to people who can easily raised capital somewhere for business • Lack of skills • Lack of good education AGA did not provide school after resettlement • Lack of farm lands • AGA not interested in employing the unskilled indigenes • Lack of job opportunities 	<ul style="list-style-type: none"> • Increase in crime • Increase in illegal mining activities • Youth migrate to big towns 	with indigenes.	
ILLEGAL MINERS	<ul style="list-style-type: none"> • AGA not employing local people • Limited farmlands 	* Increase in galamsey in mining	<ul style="list-style-type: none"> • Promote market gardening • Provide youth with employable skills • Assembly to increase poverty alleviation funds • AGA should employ more people and release more lands to farmers • Legalise galamsey • Mechanise agriculture 	-
RELIGIOUS BODIES (Catholic, Methodist , Presbyterian, Islam	<ul style="list-style-type: none"> • Limited farm lands to farm • Youth have limited or no employable skills • AGA is the only major employer • Youth are only interested 	<ul style="list-style-type: none"> • Low church attendance • Increase in crime rate • AGA employ skilled outsiders and there is always conflict between AGA workers and the unemployed in Obuasi 	<ul style="list-style-type: none"> • Ready for alternative business if supported • Preferred jobs are Auto mechanic, carpentry and driving • Establish manufacturing co to employ more people • Provide skill training to youth and help them establish themselves after training 	<ul style="list-style-type: none"> * Churches intend to open more school * Investment in income generating activities by churches

<p>NGOs (Social Support Foundation, Youth Care Africa)</p>	<p>in mining/working at AGA</p> <ul style="list-style-type: none"> • Poverty alleviation loans are not given to the poor • Inadequate job opportunities • Low level of education and skills • Overdependence on AGA 	<ul style="list-style-type: none"> • Increase in crime • High poverty level • High dependence in families • Premature death due to overburden • Inadequate accessibility to social amenities 	<ul style="list-style-type: none"> • Establish more vocational centres • Assembly to establish orange processing units to create more jobs • Assembly should have youth employment policy, and should assist NGOs to implement this policy • NGOs intend to establish Youth Rehabilitation Centres to train youth in employable skills 	<ul style="list-style-type: none"> • 15 commercial sex workers given skill training • 50 HIV/AIDS patients given skill training • 20 PLWHAs given skill training
<p>GOVERNMENT AGENCIES (Department of Social Welfare, National Youth Council) OMA</p>	<ul style="list-style-type: none"> • Low level of education and skills • Youth spend all the time at the labour office looking for job at AGA • Lack of craft centres • Lack of employable skills • Lack of good education • Dependency on AGA jobs • Laying off of some AGA workers 	<ul style="list-style-type: none"> • Increased poverty • High crime rate • Illegal mining activities • Increase in crime rate • High dependency ratio 	<p>Assembly to set up:</p> <ul style="list-style-type: none"> • Community-based vocational training centres. • Child welfare programmes <p>Promotion and expansion of traditional apprenticeship system by OMA in collaboration with Dept of Community Development is under way.</p>	<p>Organised advocacy and training programmes to:</p> <ul style="list-style-type: none"> • Make parents more responsible • Provide skills to the socially disadvantaged • OMA in collaboration with AGA organise training programmes on sustainable livelihood activities for the youth • OMA provides financial support to trained youth

RELIGIOUS BODIES

- Children's desire for quick money
- Poor parenting
- Poverty
- Low motivation of teachers leading to poor performance
- Places heavy burden on the church
- Streetism and high crime rate
- Training facilities and funding are needed to improve performance and train more people
- Local Council of churches help to organise vocational training for church members
- Women Training Centre established to train dropouts in income generating skills. About 80% of trainees are self employed
- About 15 women are trained every year during the past 3 years

NGOs

- Poverty
- Family breakdown
- Desire for quick money in illegal mining and driver's mate (commuter driver assistant)
- Teenage pregnancy
- Streetism
- Prostitution
- High crime rate
- Creates underdevelopment
- Map out all street children and rehabilitate them
- Re-enrolment of 100 dropouts in 2003/4 academic year
- Established resource centre to assist students in research and internship programmes
- Counselling of students against dropping out of school
- Public education programmes on child abuse and neglect are held by Save the children, Care International, other NGOs Civil Society Organisations
- Sensitisation programme

GOVERNMENT

- Redundancy of AGA staff
- Low level of education
- Assembly to setup

AGENCIES

- Desire for quick money in illegal mining
- Poverty
- Lack of interest on the part of some parents in their children's education

- High crime rate
- Indiscipline
- Child labour increases

- vocational centres for skill training of dropouts
- Assembly to institute scholarship schemes for needy pupils at the basic level

on essence of education for parents and children. Programme has reduced drop out rate

- Dept of Social Welfare has been registering an annual average of 400 broken homes since 1999

OMA

- Irresponsible parenting
- Poor performance of children
- Girls getting pregnant while at school
- Poor parents unable to look after their children
- Children going to movie theatres during school hours and in the nights
- Broken homes

- Streetism
- Child labour
- Illegal mining
- Sand winning
- Prostitution
- HIV/AIDS

- Assembly to provide more social workers
- Courts should fast-track cases of child neglect and abuses
- More vocational schools should be established
- Assembly to provide more qualified attendants to handle early childhood development programmes

- Banning of snooker games
- Banning of ghetto video shows
- Govt capitation programme
- Imposition of 8pm to 5am curfew on children under 18
- Sensitisation of parents on their responsibilities to their children education
- These measures are paying off and need to be sustained
- Public education programmes on child abuse and neglect are held

Causes of Youth unemployment

The unemployment problem in the municipality was generally attributed to the mining activities in the municipality, especially the operations of AGA. A lot of migrant youth with very little or no skills have found their way to Obuasi in search of non-existing jobs in the AGA. Lack of the needed skills that will qualify them to secure jobs with AGA makes them unemployable. Also, the present use of high technology by AGA has shifted its labour portfolio in favour of highly skilled manpower.

Several people have also moved to the municipality and its environs with the hope of making a living from “galamsey” or illegal mining. Due to the increasing awareness of the local people about the negative environmental consequences of illegal mining and the efforts of the municipal authorities in campaigning against illegal miners, all resulting in uprooting several of them, many of prospective illegal miners are frustrated and are roaming about without any meaningful employment. Other general reasons assigned for the unemployment problem included inadequate job opportunities in the municipality; unwillingness of some youth to work in any other establishment apart from AGA.

Lack of financial support to set up businesses after apprenticeship was also identified as a major factor. For instance, it was stated that out of 138 youth who had apprenticeship training in carpentry, hair dressing and dressmaking, 102 representing 74 percent were able to establish thriving business with financial support from OMA and other supporting agencies. A possible result is that these people who have been able to set up their business will in turn train others thus contributing to the reduction in unemployment in the municipality. Another vulnerable group, child labourers, street children and prostitutes, in the municipality also contend that low level of education and lack of employable skills of the youth in the municipality has worsened the unemployment situation as they cannot compete on the job market.

Observations from the field also indicated that both indigenes and migrants are affected by the problem. Migrant workers of the AGA who have lost their jobs as result of retrenchment exercises undertaken by the mining conglomerate have been unable to support their dependants, especially children in school. These children have therefore dropped out of school, have become street children and are often found engaged in menial jobs (porters, driver’s mate and street vendors). Some respondents attributed the problem to the AGA’s non-commitment to employing local people although they admitted that several of the indigenes who seek employment from the mining company have low level of education and lack employable skills.

The refusal of most of the youth in the surrounding communities to go into farming was also mentioned as another contributory factor. The agricultural sector which should have provided the most viable alternative for the youth in the communities is considered not lucrative by the youth because of the perception that it does not give quick returns.. While some respondents in the rural communities complained about lack of land for farming activities, staff of AGA and OMA think otherwise because lands given from AGA concession have, in most cases, been used for illegal mining activities. This has often generated confrontations between the communities and AGA.

Effect of Youth Unemployment

The youth unemployment has created many socio-economic problems. While some of the unemployed youth have found themselves jobs in illegal mining activities (galamsay), a good

number of them have resorted to robbery, and other criminal acts. According to respondents the consequences of these vices have given the township a negative image. The high rate of robbery has engendered insecurity in the municipality and its environs. Associated with robbery is the use of hard drugs. Drug addiction was mentioned as having a strong linkage with robbery and indiscipline. These have created a situation where many people are afraid to establish businesses to generate employment for the youth.

The youth employment was noted to exert tremendous pressure on families. Limited family resources have given rise to child neglect as a result of broken homes, divorce, separation or estranged relationships. Children from such homes become vulnerable and suffer emotionally due to neglect in maintenance, education or medical care. Most of such children dropout of school, become street children, and engage in child labour, and crime.

Like many mining communities in Ghana, prostitution as a means of self employment is rife in the municipality. This has given rise to a high prevalence of HIV/AIDS. According to the 2002-2004 District Medium Term Development Plan, the number of new cases of HIV/AIDS in the municipality as at June 2004 was 173. The phenomenon has become more of a social problem rather than a health one as it affects the future manpower resources of the municipality.

Youth unemployment has also increased illegal mining activities in the municipality, and has caused serious disturbances to the peace of the municipality. As both unskilled migrants and indigenes fail in their attempts to get jobs at AGA, a good number of them resort to illegal mining activities on lands within AGA concessions. This has often resulted in confrontations, sometimes with loss of life, between security personnel of AGA and the illegal operators. Conflicts between AGA staff and unemployed indigenes, who feel peeved for not getting jobs at AGA, are a common occurrence.

Interventions by OMA and Development Partners

OMA, working in collaboration with its development partners (Anglogold, local NGOs, decentralised departments, Churches, etc) has embarked on a number of development programmes aimed at building the capacities of the youth to acquire employable skills that will empower them to compete in the job market. The programmes include t:

Promotion of Agricultural and sustainable livelihood Activities

Farmers in seven communities in the Obuasi Municipality have been supported to cultivate about 2000 acres of cassava plantation under the President's Special Initiative (PSI) project. Same support has been extended to farmers in the area for the cultivation of oil palm under the PSI project on oil palm. In 2002 and 2003 a total amount of GH¢23,150.00 from the Assembly's Poverty Alleviation Fund, was granted as loans to the farmers and Trade Associations and individuals who wanted to be self-employed, to establish their own income generating ventures.. Most of the respondents were, however not happy about the mode of disbursement. In their view the funds are given to the rich rather than the poor. Not many people have benefited from the fund because of the low recovery rate of loans which are supposed to be used as revolving funds. Only GH¢ 8,807.00 (i.e.38%) of the amount had so far been recovered. Farmers had also been encouraged to increase production of maize which is readily bought by Anglogold for its poultry project. This attempt has not been very successful as most farmers are more interested in acquisition of land from Anglogold concession for mining activities. Training programme for the youth in beekeeping, mushroom, snail and grasscutter farming was supported by Anglogold in collaboration with the Municipal Assembly, Ministry of Food and Agriculture and National Youth Council.

Capacity Building in Entrepreneurship Development and Vocational Skills

Informal vocational and technical workshops in such trades like dressmaking, hairdressing, welding, auto mechanics and metal fabrication abound in the municipality, and traditional apprenticeship training is already taking place in these workshops. For example, over the past 10 years, 138 youth were trained in hairdressing, dressmaking and carpentry skills. One hundred and two (102) of the trainees are now self-employed. The rest are not practising the trade in which they were trained due to lack of capital to set up their own workshops.

Under the STEP Programme, the Obuasi Municipal Assembly has trained a total of 250 youths, under the supervision of Municipal Youth Co-ordinator in various trades like Batik and Tie & Dye production, basketry, cosmetology, shoe making. They were trained over a period of 3-6 months. Most of them have established themselves whilst others due to financial constraints are yet to operate after the training.

The Assembly in collaboration with the Department of Community Development and respective trade associations has set up plans to promote and expand the traditional apprenticeship system. AngloGold Ashanti has also introduced apprenticeship training programme to students in technical schools. It has also initiated training programme at its workshops to upgrade the professional skills and orientation of master craftsmen in the municipality and provided support to the Association of People Living with HIV/AIDS by the District AIDS Support Committee with a seed capital of GH¢3,900.00 to train its members in tie & dye/batik making.

DISCUSSIONS

The study confirms the assertion that the mining sector which attracts the most Foreign Direct Investment (FDI), does not generate directly significant employment (Aryeetey, *unpublished*). For example, despite the over US\$2 billion FDI attracted in mineral exploration and mine development during the last decade representing over 56% of total FDI flows to the country, (with the attendant increase in mineral export) the sector is yet to make any impact on the country's overall economy (Boateng, 2000). The massive investment has not been translated into significant increase in employment. Mining companies offer about 20,000 direct jobs (Awudi, 2002). Figures on direct employment in all the gold, diamond, manganese and bauxite mines show that employment in the mining sector decreased considerably, despite the substantial FDI inflows and the increase in minerals production (GSS, 2000). An estimated 25% of the total land area of Ghana (some 58,167 km²) is currently under concession to gold mining firms but it has had no impact on employment especially for the youth. The National Executive Council (NEC) of the Mine Workers Union has recently expressed concern about the high levels of unemployment in mining communities mainly due to the use of high capacity machines and the lack of employable skills within mining communities (Daily Graphic, 2007).

Other factors leading to unemployment in the mining sector of Ghana are massive lay offs at some mines (Akbazaa, 2001), trade liberalization (Lee, 1996), migration and the growing numbers of small scale mining (Akbazaa, 2000). For example, between 1992 and 1998, there was a net loss of more than 1,000 mine jobs in the area. (Akbazaa, 2001). Liberalization of the mining sector in Ghana, has generally led to a decrease in employment partly as a result of the new technologies and the labour rationalization introduced into the sector and partly because of the weak linkages of mining with other sectors of the economy (Boughzala, 1997; ILO, 1998; Lee, 1996).

Migration into mining communities and the reduction in agricultural activities largely attributable to surface mining, has resulted in high food price and rent for the local Inhabitants (Aryeetey, *unpublished*), and this tend to accentuate the already deplorable conditions in the mining areas. In Ghana, an estimated 300,000 men, women and children are engaged in artisanal activities in gold, diamond, sand and salt mining. As in other countries, artisanal mining (galamsey) is a poverty-driven activity which is taken up in the absence of other employment opportunities. The contention for land by artisanal small scale miners therefore may be the result of frustrations that go with unemployment. Unfortunately, surface mining, also employs relatively few people (FIAN, 2008).

The observations made in the study largely reflect the prevailing conditions in all mining areas in West Africa, and elsewhere. Migration, a basic survival strategy adopted by individuals and families to enable them cope with difficult economic conditions in their place of origin (Anarfi *et al.*, 2003). This is a common phenomenon among West African countries (Adepoju, 2005) This is endorsed by one of the objectives of the ECOWAS to facilitate freedom of movement, residence and employment within the economic community (Abudulai, 1999). Cross-country migration is therefore witnessed by member countries, for example, as Ghanaians are found in Nigeria, Cote d'Ivoire, and Liberia, Burkinabes, Nigerians, and Malians also flock into the country. Cross-country and rural-urban migration in the country has been largely induced by the expectation of higher wages in the destination region or community and is entirely consistent with the principle of comparative advantage (Anarfi *et al.*2003). The mining areas exemplify this trend.

CONCLUSIONS AND POLICY IMPLICATIONS

Although some significant work has been done by the OMA and their development partners in areas of employment creation, much still needs to be done. From the respondents' perceptions, the need for advocacy and the intensification of awareness creation (public education) programmes must be given serious attention by OMA. Job creation, through the establishment of strong and sustainable programmes aimed at training the youth to acquire the necessary employable skills must also be paramount on OMA's agenda for solving the unemployment problem in the municipality.

Much effort must be targeted at street children, prostitutes, illegal operators and the youth who are either unemployed or would drop out of school and enter into the seemingly lucrative illegal mining and prostitution. The success rate of any intervention aimed at solving the problems is contingent upon improved perceptions, knowledge and attitudes/practices of major stakeholders about the negative effects of the problems. The general society must be made aware of the causes and effects of the problems, and options available for their resolution.

Advocacy on the above will also be important in order to link the communities to potential donors, philanthropists and micro credit institutions. The objective in advocacy must not only centre on achieving just one-off intervention but must be sustained and centre on continuous assessment of changes in the potentials, opportunities and challenges that the local people face.

In an exercise like this, sustainability of initiatives will be partly dependent on the active involvement of key stakeholders including community leaders, public officials and cooperating NGO community. The active involvement of key stakeholders in the design and

execution of the project is therefore paramount. The role of OMA as a key partner in this effort will be given prominence through intensive consultation and reporting at all stages of implementation of the project.

Appropriate mechanisms are to be established to ensure effective collaboration with relevant local institutions and civil society, in the implementation of the project. Active participation of institutions such as OMA, National Youth Council, NCCE, Department of Community Development, and NGOs, the print and electronic media, and CBOs which have experiences and capacity in sensitisation programmes will be sought to ensure sustainability of project interventions. These institutions have experience and capacity in undertaking the awareness creation programmes.

The specific methods to be employed will include public forums, person-to-person contacts, group discussions and workshops, seminars, publication and distribution of handouts/posters portraying the harsh conditions among the jobless in the cities, radio discussions, drama, jingles and other forms of interpersonal and traditional communication systems.

Non-governmental organisation (NGOs), CBOs, religious bodies that are already operating in the municipality can take up advocacy roles on behalf of the people. Individual citizens with international and national links must also be targeted and encouraged by the assembly to solicit for assistance for the area. The OMA must also play a leading role in lobbying donor agencies to support community initiatives and general development of the area. The advocacy and lobbying must not only be establishing personal contacts but also involve proposal writing to solicit for funding and other support. The assembly must also ensure proper coordination of the advocacy activities for the area, and that the programmes are diversified.

Notwithstanding the efforts made by OMA in providing skill training for the youth as a means of addressing the unemployment problem the strategy has not been sustainable. OMA's role has been very minimal, relying mostly on the efforts of few NGOs, AGA and the Government's STEP programme. This has often resulted in a situation where training programmes are not coordinated and activities of trained youth not monitored. There is the need for future skill training programmes to review the methodology for skill development and technology transfer to make them more sustainable.

There is lack of policy framework for ensuring optimal utilisation of labour especially regarding the youth in Ghana and countries in the West African sub-region. There is absolutely no harmonised policy instrument to guard the region in treating internal and cross border labour issues. For example, there is massive movement of labour from northern part of Ghana to the southern region to look for non existence jobs which is creating a lot social problems. Similarly, there is influx of young men and women from Burkina to Ghana to work under very difficult and unethical conditions and vice-versa.

Again, the abysmal performance of local economies of richly endowed localities such as OMA in Ghana appears to confirm the growing notion that in most developing countries especially in Africa, natural resource instead of becoming a blessing rather has brought curse upon the people. A classical situation of global proportion is what is seen in oil rich states of the South Eastern Nigeria, and there are several parallels across West Africa such as in Liberia and Sierra Leone. In this direction, it suggested that policy framework if any exist in the ECOWAS zone should be reviewed to ensure enforcement and compliance in member communities by all stakeholders to ensure that town and cities which are likely to receive massive influx of migrants are given the necessary resources by both the state and investors

who are utilising such resources to adequately enable such settlements become true growth poles to other neighbouring settlements but not exude negative impacts to society.

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REFERENCES

- Abdulai, A. 1999. 'International Migration and Agricultural Development in Ghana.' *Scandinavian Journal of Development Alternatives* 18(1): 61-74.
- MLGRD (2002). *Adansi West District Medium Term Development Plan (2002-2004)*. Ministry of Local Government and Rural Development (MLGRD), Government of Ghana, Accra.
- Adepoju, A, (2005). *Migration in West Africa: An overview of key migration trends in West Africa*. Global Commission on International Migration).
- Akabzaa, T. (2000). "Boom and Dislocation: Environmental Impacts of Mining in Wassa West District of Ghana", Mimeo., Third World Network, Accra
- Akabzaa, T., and Darimani, A (2001). *Impact of mining sector investment in Ghana: A study of the Tarkwa mining region*.
- Anarfi, J., Kwankye, S, Ababio, O and Tiemoko, R (2003). *Migration from and to Ghana: A Background Paper Issued by the Development Research Centre on Migration, Globalisation and Poverty*.

YOUTH UNEMPLOYMENT CHALLENGES IN MINING AREAS OF GHANA

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Abstract

Ghana, like the rest of West Africa is experiencing tremendous human migration both internally and across international boundaries. Rural-urban migration has assumed uncontrollable dimensions in the sub-region and the social consequences have become major development challenge. In Ghana the mining communities have been at the receiving end for some time now. This study on the Obuasi Municipal Assembly (OMA) in the Ashanti region of Ghana explores the tremendous socioeconomic changes, especially demographic patterns as a result of the inflows of migrants into the Obuasi Township and its catchment area in search of non existing jobs especially in mining. A major outcome is the serious unemployment problem in the township with all the attendant social vices.

A three-month socio-economic study of the municipality was carried out to determine the scope of unemployment. The study showed that there is acute unemployment situation in the municipality which is due to the fact that AngloGold Ashanti, a mining giant in Ghana, the major employer, has limited job openings especially for menial workers who flock to the company. Other income generating opportunities are few. Agriculture which has the capacity to employ majority of the unemployed youth does not appeal to them because it is considered not lucrative. The acute unemployment situation has contributed significantly to the high crime rate, prostitution and widespread illegal mining activities with their attendant problems. The study explores options that are feasible for a typical mining setting especially for the youth who are very vulnerable and susceptible to crime and other social vices.

Job creation, through the development and implementation of sustainable programmes aimed at training the youth to acquire the necessary employable skills is one of the options considered by the municipal managers and their partners. The study also looks at broader policy implications for the Economic Community of West African States (ECOWAS).

Keywords: Illegal Mining, Unemployment, AngloGold Ashanti, Social vices
Agriculture, Mining communities, Migration

INTRODUCTION

Ghana like the rest of West African countries is experiencing tremendous human migration internally and across its international boundaries. Rural-urban migration has assumed uncontrollable dimensions in Ghana and the rest of the sub-region with accompanying social consequences that are becoming major development challenge to the governments. In Ghana the mining communities have been at the receiving end for some time now. One of these communities, Obuasi Municipality, the home to a mining company which has operated in the area for over 100 years, is an epitome of negative social settings that are characteristic of mining towns.

The Obuasi Municipality is located in the southern part of the Ashanti Region of Ghana and covers an area of 162.4 Km². The entire land area of the municipality is owned by the AngloGold Ashanti (AGA). The topography is an undulating terrain with hills and the soil type is predominantly forest ochrosols. With semi equatorial climate, the temperature is generally high (a night minimum of 25°C and a day maximum of 30°C) from January to April. The mean annual rainfall of the district is 125cm, and humidity between 75-80%. The vegetation is semi-deciduous forest.

Like many other mining communities in Ghana, the Obuasi Municipality Assembly (OMA) in the Ashanti region is experiencing tremendous socioeconomic changes, especially demographic patterns. The population of the Municipality was 195,000 with an annual growth rate of 4%, making the municipality one of the fastest growing districts in Ghana (Population and Housing Census, 2005). The inception of the Economic Recovery Programme in 1984 and subsequent expansion of mining activities and production at AGA led to the establishment of several subsidiary companies, service and commercial activities which are either directly or indirectly related to mining. There has therefore been a steady increase in the population since 1984. The population density of the Obuasi municipality was 148 persons per km², in 1960, 212 in 1970, 413 in 1984, 829 in 1994, and 1,204 in 2005. About 48% of the population are in dependent age group (i.e. between 0-14 years and 65 years and above), implying that about 52% constitute the potential labour force. This indicates that every person in the work age group takes care of him/herself and an additional person (dependency ratio of 1:1).

The inflow of migrants into Obuasi Township and its catchment areas in search of non existing jobs has over the years had negative social, economic, cultural and environmental impacts such as illegal mining, high prevalence of prostitution and HIV/AIDS in the municipality, and high crime rates amongst the youth. Some attempts have been made by the OMA, NGOs, Religious Bodies, Government Agencies and AngloGold-Ashanti to solve the unemployment problems in the area. These attempts, however, have achieved little success.

For a period of three months (February to April, 2006) a socio-economic baseline studies of the OM was undertaken. The overall objective was to contribute to solving the unemployment problem in the area through design and implementation of development interventions. With the intention to make policy recommendations based on data-driven

evidence, all key stakeholders were interviewed to help understand the complex and multi-faceted landscape of unemployment in the municipality.

METHODOLOGY

A combination of research methods all based on participatory rapid appraisal (PRA) was employed in the collection of data for the study. First, a quick reconnaissance survey was undertaken the objective of which was to obtain first-hand information about the area and be acquainted with relevant institutional establishments, opinion leaders and key informants. Following this, a semi structured questionnaire and an open ended checklist were prepared and used for the main field survey. The design of the data gathering instruments was based on the research team's major preliminary findings from the reconnaissance survey which showed that unemployment was a major social underlying force in the study area and affect majority of the people, with serious negative multiplying effect and linkages. To have a better understanding of the problem, the main survey focused on local peoples' perceptions on unemployment: causes and effects; past and current efforts being made to arrest the situation; development partners involved; successes made and their impact; and the way forward.

Respondents during the main field survey were staff of the Municipal Assembly, Anglogold Ashanti, selected decentralised government departments and agencies, traditional chiefs, opinion leaders and farmers of selected communities in the Obuasi municipality, local NGOs, CBO, teachers, unemployed youth, street children, illegal miners (*galamsey operators*), self employed (dressmakers, hairdressers, carpenters, and traders). The wide spread and meticulous selection of respondents was to ensure an understanding of the perceptions and development aspirations of the local people.

FINDINGS

Unemployment in Obuasi Municipality was interpreted variously by the different interest groups. The table below presents views obtained from cross-section of people interviewed in the municipality. The views centre on the causes, effects, attempted interventions and suggested interventions.

Local perception on Unemployment

Groups/Communities	Causes of unemployment	Effects	Suggested interventions	Attempted intervention
SELF-EMPLOYED (Carpenters, Dressmakers, Hairdressers, Traders)	<ul style="list-style-type: none"> • Lack of education and employable skills • Lack of job opportunity • Dependence on AGA • Lack of capital to start or expand business • Increased number of migrants 	<ul style="list-style-type: none"> • Poverty • Family breakdown • Increase in Social vices • Teenage Pregnancy • High dependency rate in Families 	<ul style="list-style-type: none"> • Assembly to provide work space to passed out apprentices • Vocational training Centres to be established • Provide enabling environment to investors • Legalise galamsey (illegal artisanal mining) • Provide capacity building in business management 	<ul style="list-style-type: none"> • 138 youth trained in hairdressing, dressmaking and carpentry over past 3 years. One hundred and two (102) of the trainees are self-employed. The rest are not working due to lack of capital to start business
CHILD LABOURERS/ STREET CHILDREN/ PROSTITUTES	<ul style="list-style-type: none"> • Initial capital is lacking • Lack of jobs • Lack of education and skills • Overdependence on AGA jobs 	<ul style="list-style-type: none"> • Bad habits/Crime • High Divorce Rate • Illegal mining activities 	<p>Very prepared to go back to school or learn a trade if OMA will sponsor us</p>	
UNEMPLOYED YOUTH	<ul style="list-style-type: none"> • AGA employs people from outside Obuasi and not indigenes • Most people only want to work at AGA • AGA requires skilled workers, but most indigenes are not skilled and well educated 	<ul style="list-style-type: none"> • Increase in illegal mining activities • Increase in crime rate 	<ul style="list-style-type: none"> • Train us in skills that will qualify us to get jobs at AGA • Provide us with jobs if jobs at AGA is not available. • Legalise illegal mining • AGA to be mandated to fill 50% of its workforce 	

COMMUNITIES	<ul style="list-style-type: none"> • AGA concession are not given out for farming • Poverty Alleviation funds are given to people who can easily raised capital somewhere for business • Lack of skills • Lack of good education AGA did not provide school after resettlement • Lack of farm lands • AGA not interested in employing the unskilled indigenes • Lack of job opportunities 	<ul style="list-style-type: none"> • Increase in crime • Increase in illegal mining activities • Youth migrate to big towns 	<p>with indigenes.</p> <ul style="list-style-type: none"> • Promote market gardening • Provide youth with employable skills • Assembly to increase poverty alleviation funds • AGA should employ more people and release more lands to farmers • Legalise galamsey • Mechanise agriculture 	
ILLEGAL MINERS	<ul style="list-style-type: none"> • AGA not employing local people • Limited farmlands 	<ul style="list-style-type: none"> * Increase in galamsey in mining 	<ul style="list-style-type: none"> • Ready for alternative business if supported • Preferred jobs are Auto mechanic, carpentry and driving 	-
RELIGIOUS BODIES (Catholic, Methodist , Presbyterian, Islam	<ul style="list-style-type: none"> • Limited farm lands to farm • Youth have limited or no employable skills • AGA is the only major employer • Youth are only interested 	<ul style="list-style-type: none"> • Low church attendance • Increase in crime rate • AGA employ skilled outsiders and there is always conflict between AGA workers and the unemployed in Obuasi 	<ul style="list-style-type: none"> • Establish manufacturing co to employ more people • Provide skill training to youth and help them establish themselves after training 	<ul style="list-style-type: none"> * Churches intend to open more school * Investment in income generating activities by churches

<p>NGOs (Social Support Foundation, Youth Care Africa)</p>	<p>in mining/working at AGA</p> <ul style="list-style-type: none"> • Poverty alleviation loans are not given to the poor • Inadequate job opportunities • Low level of education and skills • Overdependence on AGA 	<ul style="list-style-type: none"> • Increase in crime • High poverty level • High dependence in families • Premature death due to overburden • Inadequate accessibility to social amenities 	<ul style="list-style-type: none"> • Establish more vocational centres • Assembly to establish orange processing units to create more jobs • Assembly should have youth employment policy, and should assist NGOs to implement this policy • NGOs intend to establish Youth Rehabilitation Centres to train youth in employable skills 	<ul style="list-style-type: none"> • 15 commercial sex workers given skill training • 50 HIV/AIDS patients given skill training • 20 PLWHAs given skill training
<p>GOVERNMENT AGENCIES (Department of Social Welfare, National Youth Council)</p>	<ul style="list-style-type: none"> • Low level of education and skills • Youth spend all the time at the labour office looking for job at AGA • Lack of craft centres 	<ul style="list-style-type: none"> • Increased poverty • High crime rate 	<p>Assembly to set up:</p> <ul style="list-style-type: none"> • Community-based vocational training centres. • Child welfare programmes 	<p>Organised advocacy and training programmes to:</p> <ul style="list-style-type: none"> • Make parents more responsible • Provide skills to the socially disadvantaged
<p>OMA</p>	<ul style="list-style-type: none"> • Lack of employable skills • Lack of good education • Dependency on AGA jobs • Laying off of some AGA workers 	<ul style="list-style-type: none"> • Illegal mining activities • Increase in crime rate • High dependency ratio 	<p>Promotion and expansion of traditional apprenticeship system by OMA in collaboration with Dept of Community Development is under way.</p>	<ul style="list-style-type: none"> • OMA in collaboration with AGA organise training programmes on sustainable livelihood activities for the youth • OMA provides financial support to trained youth

RELIGIOUS BODIES

- Children's desire for quick money
- Poor parenting
- Poverty
- Low motivation of teachers leading to poor performance
- Places heavy burden on the church
- Streetism and high crime rate
- Training facilities and funding are needed to improve performance and train more people
- Local Council of churches help to organise vocational training for church members
- Women Training Centre established to train dropouts in income generating skills. About 80% of trainees are self employed
- About 15 women are trained every year during the past 3 years

NGOs

- Poverty
- Family breakdown
- Desire for quick money in illegal mining and driver's mate (commuter driver assistant)
- Teenage pregnancy
- Streetism
- Prostitution
- High crime rate
- Creates underdevelopment
- Map out all street children and rehabilitate them
- Re-enrolment of 100 dropouts in 2003/4 academic year
- Established resource centre to assist students in research and internship programmes
- Counselling of students against dropping out of school
- Public education programmes on child abuse and neglect are held by Save the children, Care International, other NGOs Civil Society Organisations
- Sensitisation programme

GOVERNMENT

- Redundancy of AGA staff
- Low level of education
- Assembly to setup

AGENCIES

- Desire for quick money in illegal mining
- Poverty
- Lack of interest on the part of some parents in their children's education

- High crime rate
- Indiscipline
- Child labour increases

- vocational centres for skill training of dropouts
- Assembly to institute scholarship schemes for needy pupils at the basic level

- on essence of education for parents and children. Programme has reduced drop out rate
- Dept of Social Welfare has been registering an annual average of 400 broken homes since 1999

OMA

- Irresponsible parenting
- Poor performance of children
- Girls getting pregnant while at school
- Poor parents unable to look after their children
- Children going to movie theatres during school hours and in the nights
- Broken homes

- Streetism
- Child labour
- Illegal mining
- Sand winning
- Prostitution
- HIV/AIDS

- Assembly to provide more social workers
- Courts should fast-track cases of child neglect and abuses
- More vocational schools should be established
- Assembly to provide more qualified attendants to handle early childhood development programmes

- Banning of snooker games
- Banning of ghetto video shows
- Govt capitation programme
- Imposition of 8pm to 5am curfew on children under 18
- Sensitisation of parents on their responsibilities to their children education
- These measures are paying off and need to be sustained
- Public education programmes on child abuse and neglect are held

Causes of Youth unemployment

The unemployment problem in the municipality was generally attributed to the mining activities in the municipality, especially the operations of AGA. A lot of migrant youth with very little or no skills have found their way to Obuasi in search of non-existing jobs in the AGA. Lack of the needed skills that will qualify them to secure jobs with AGA makes them unemployable. Also, the present use of high technology by AGA has shifted its labour portfolio in favour of highly skilled manpower.

Several people have also moved to the municipality and its environs with the hope of making a living from “galamsey” or illegal mining. Due to the increasing awareness of the local people about the negative environmental consequences of illegal mining and the efforts of the municipal authorities in campaigning against illegal miners, all resulting in uprooting several of them, many of prospective illegal miners are frustrated and are roaming about without any meaningful employment. Other general reasons assigned for the unemployment problem included inadequate job opportunities in the municipality; unwillingness of some youth to work in any other establishment apart from AGA.

Lack of financial support to set up businesses after apprenticeship was also identified as a major factor. For instance, it was stated that out of 138 youth who had apprenticeship training in carpentry, hair dressing and dressmaking, 102 representing 74 percent were able to establish thriving business with financial support from OMA and other supporting agencies. A possible result is that these people who have been able to set up their business will in turn train others thus contributing to the reduction in unemployment in the municipality. Another vulnerable group, child labourers, street children and prostitutes, in the municipality also contend that low level of education and lack of employable skills of the youth in the municipality has worsened the unemployment situation as they cannot compete on the job market.

Observations from the field also indicated that both indigenes and migrants are affected by the problem. Migrant workers of the AGA who have lost their jobs as result of retrenchment exercises undertaken by the mining conglomerate have been unable to support their dependants, especially children in school. These children have therefore dropped out of school, have become street children and are often found engaged in menial jobs (porters, driver’s mate and street vendors). Some respondents attributed the problem to the AGA’s non-commitment to employing local people although they admitted that several of the indigenes who seek employment from the mining company have low level of education and lack employable skills.

The refusal of most of the youth in the surrounding communities to go into farming was also mentioned as another contributory factor. The agricultural sector which should have provided the most viable alternative for the youth in the communities is considered not lucrative by the youth because of the perception that it does not give quick returns.. While some respondents in the rural communities complained about lack of land for farming activities, staff of AGA and OMA think otherwise because lands given from AGA concession have, in most cases, been used for illegal mining activities. This has often generated confrontations between the communities and AGA.

Effect of Youth Unemployment

The youth unemployment has created many socio-economic problems. While some of the unemployed youth have found themselves jobs in illegal mining activities (galamsay), a good

number of them have resorted to robbery, and other criminal acts. According to respondents the consequences of these vices have given the township a negative image. The high rate of robbery has engendered insecurity in the municipality and its environs. Associated with robbery is the use of hard drugs. Drug addiction was mentioned as having a strong linkage with robbery and indiscipline. These have created a situation where many people are afraid to establish businesses to generate employment for the youth.

The youth employment was noted to exert tremendous pressure on families. Limited family resources have given rise to child neglect as a result of broken homes, divorce, separation or estranged relationships. Children from such homes become vulnerable and suffer emotionally due to neglect in maintenance, education or medical care. Most of such children dropout of school, become street children, and engage in child labour, and crime.

Like many mining communities in Ghana, prostitution as a means of self employment is rife in the municipality. This has given rise to a high prevalence of HIV/AIDS. According to the 2002-2004 District Medium Term Development Plan, the number of new cases of HIV/AIDS in the municipality as at June 2004 was 173. The phenomenon has become more of a social problem rather than a health one as it affects the future manpower resources of the municipality.

Youth unemployment has also increased illegal mining activities in the municipality, and has caused serious disturbances to the peace of the municipality. As both unskilled migrants and indigenes fail in their attempts to get jobs at AGA, a good number of them resort to illegal mining activities on lands within AGA concessions. This has often resulted in confrontations, sometimes with loss of life, between security personnel of AGA and the illegal operators. Conflicts between AGA staff and unemployed indigenes, who feel peeved for not getting jobs at AGA, are a common occurrence.

Interventions by OMA and Development Partners

OMA, working in collaboration with its development partners (Anglogold, local NGOs, decentralised departments, Churches, etc) has embarked on a number of development programmes aimed at building the capacities of the youth to acquire employable skills that will empower them to compete in the job market. The programmes include t:

Promotion of Agricultural and sustainable livelihood Activities

Farmers in seven communities in the Obuasi Municipality have been supported to cultivate about 2000 acres of cassava plantation under the President's Special Initiative (PSI) project. Same support has been extended to farmers in the area for the cultivation of oil palm under the PSI project on oil palm. In 2002 and 2003 a total amount of GH¢23,150.00 from the Assembly's Poverty Alleviation Fund, was granted as loans to the farmers and Trade Associations and individuals who wanted to be self-employed, to establish their own income generating ventures.. Most of the respondents were, however not happy about the mode of disbursement. In their view the funds are given to the rich rather than the poor. Not many people have benefited from the fund because of the low recovery rate of loans which are supposed to be used as revolving funds. Only GH¢ 8,807.00 (i.e.38%) of the amount had so far been recovered. Farmers had also been encouraged to increase production of maize which is readily bought by Anglogold for its poultry project. This attempt has not been very successful as most farmers are more interested in acquisition of land from Anglogold concession for mining activities. Training programme for the youth in beekeeping, mushroom, snail and grasscutter farming was supported by Anglogold in collaboration with the Municipal Assembly, Ministry of Food and Agriculture and National Youth Council.

Capacity Building in Entrepreneurship Development and Vocational Skills

Informal vocational and technical workshops in such trades like dressmaking, hairdressing, welding, auto mechanics and metal fabrication abound in the municipality, and traditional apprenticeship training is already taking place in these workshops. For example, over the past 10 years, 138 youth were trained in hairdressing, dressmaking and carpentry skills. One hundred and two (102) of the trainees are now self-employed. The rest are not practising the trade in which they were trained due to lack of capital to set up their own workshops.

Under the STEP Programme, the Obuasi Municipal Assembly has trained a total of 250 youths, under the supervision of Municipal Youth Co-ordinator in various trades like Batik and Tie & Dye production, basketry, cosmetology, shoe making. They were trained over a period of 3-6 months. Most of them have established themselves whilst others due to financial constraints are yet to operate after the training.

The Assembly in collaboration with the Department of Community Development and respective trade associations has set up plans to promote and expand the traditional apprenticeship system. AngloGold Ashanti has also introduced apprenticeship training programme to students in technical schools. It has also initiated training programme at its workshops to upgrade the professional skills and orientation of master craftsmen in the municipality and provided support to the Association of People Living with HIV/AIDS by the District AIDS Support Committee with a seed capital of GH¢3,900.00 to train its members in tie & dye/batik making.

DISCUSSIONS

The study confirms the assertion that the mining sector which attracts the most Foreign Direct Investment (FDI), does not generate directly significant employment (Aryeetey, *unpublished*). For example, despite the over US\$2 billion FDI attracted in mineral exploration and mine development during the last decade representing over 56% of total FDI flows to the country, (with the attendant increase in mineral export) the sector is yet to make any impact on the country's overall economy (Boateng, 2000). The massive investment has not been translated into significant increase in employment. Mining companies offer about 20,000 direct jobs (Awudi, 2002). Figures on direct employment in all the gold, diamond, manganese and bauxite mines show that employment in the mining sector decreased considerably, despite the substantial FDI inflows and the increase in minerals production (GSS, 2000). An estimated 25% of the total land area of Ghana (some 58,167 km²) is currently under concession to gold mining firms but it has had no impact on employment especially for the youth. The National Executive Council (NEC) of the Mine Workers Union has recently expressed concern about the high levels of unemployment in mining communities mainly due to the use of high capacity machines and the lack of employable skills within mining communities (Daily Graphic, 2007).

Other factors leading to unemployment in the mining sector of Ghana are massive lay offs at some mines (Akbazaa, 2001), trade liberalization (Lee, 1996), migration and the growing numbers of small scale mining (Akbazaa, 2000). For example, between 1992 and 1998, there was a net loss of more than 1,000 mine jobs in the area. (Akbazaa, 2001). Liberalization of the mining sector in Ghana, has generally led to a decrease in employment partly as a result of the new technologies and the labour rationalization introduced into the sector and partly because of the weak linkages of mining with other sectors of the economy (Boughzala, 1997; ILO, 1998; Lee, 1996).

Migration into mining communities and the reduction in agricultural activities largely attributable to surface mining, has resulted in high food price and rent for the local Inhabitants (Aryeetey, *unpublished*), and this tend to accentuate the already deplorable conditions in the mining areas. In Ghana, an estimated 300,000 men, women and children are engaged in artisanal activities in gold, diamond, sand and salt mining. As in other countries, artisanal mining (galamsey) is a poverty-driven activity which is taken up in the absence of other employment opportunities. The contention for land by artisanal small scale miners therefore may be the result of frustrations that go with unemployment. Unfortunately, surface mining, also employs relatively few people (FIAN, 2008).

The observations made in the study largely reflect the prevailing conditions in all mining areas in West Africa, and elsewhere. Migration, a basic survival strategy adopted by individuals and families to enable them cope with difficult economic conditions in their place of origin (Anarfi *et al.*, 2003). This is a common phenomenon among West African countries (Adepoju, 2005) This is endorsed by one of the objectives of the ECOWAS to facilitate freedom of movement, residence and employment within the economic community (Abudulai, 1999). Cross-country migration is therefore witnessed by member countries, for example, as Ghanaians are found in Nigeria, Cote d'Ivoire, and Liberia, Burkinabes, Nigerians, and Malians also flock into the country. Cross-country and rural-urban migration in the country has been largely induced by the expectation of higher wages in the destination region or community and is entirely consistent with the principle of comparative advantage (Anarfi *et al.*2003). The mining areas exemplify this trend.

CONCLUSIONS AND POLICY IMPLICATIONS

Although some significant work has been done by the OMA and their development partners in areas of employment creation, much still needs to be done. From the respondents' perceptions, the need for advocacy and the intensification of awareness creation (public education) programmes must be given serious attention by OMA. Job creation, through the establishment of strong and sustainable programmes aimed at training the youth to acquire the necessary employable skills must also be paramount on OMA's agenda for solving the unemployment problem in the municipality.

Much effort must be targeted at street children, prostitutes, illegal operators and the youth who are either unemployed or would drop out of school and enter into the seemingly lucrative illegal mining and prostitution. The success rate of any intervention aimed at solving the problems is contingent upon improved perceptions, knowledge and attitudes/practices of major stakeholders about the negative effects of the problems. The general society must be made aware of the causes and effects of the problems, and options available for their resolution.

Advocacy on the above will also be important in order to link the communities to potential donors, philanthropists and micro credit institutions. The objective in advocacy must not only centre on achieving just one-off intervention but must be sustained and centre on continuous assessment of changes in the potentials, opportunities and challenges that the local people face.

In an exercise like this, sustainability of initiatives will be partly dependent on the active involvement of key stakeholders including community leaders, public officials and cooperating NGO community. The active involvement of key stakeholders in the design and

execution of the project is therefore paramount. The role of OMA as a key partner in this effort will be given prominence through intensive consultation and reporting at all stages of implementation of the project.

Appropriate mechanisms are to be established to ensure effective collaboration with relevant local institutions and civil society, in the implementation of the project. Active participation of institutions such as OMA, National Youth Council, NCCE, Department of Community Development, and NGOs, the print and electronic media, and CBOs which have experiences and capacity in sensitisation programmes will be sought to ensure sustainability of project interventions. These institutions have experience and capacity in undertaking the awareness creation programmes.

The specific methods to be employed will include public forums, person-to-person contacts, group discussions and workshops, seminars, publication and distribution of handouts/posters portraying the harsh conditions among the jobless in the cities, radio discussions, drama, jingles and other forms of interpersonal and traditional communication systems.

Non-governmental organisation (NGOs), CBOs, religious bodies that are already operating in the municipality can take up advocacy roles on behalf of the people. Individual citizens with international and national links must also be targeted and encouraged by the assembly to solicit for assistance for the area. The OMA must also play a leading role in lobbying donor agencies to support community initiatives and general development of the area. The advocacy and lobbying must not only be establishing personal contacts but also involve proposal writing to solicit for funding and other support. The assembly must also ensure proper coordination of the advocacy activities for the area, and that the programmes are diversified.

Notwithstanding the efforts made by OMA in providing skill training for the youth as a means of addressing the unemployment problem the strategy has not been sustainable. OMA's role has been very minimal, relying mostly on the efforts of few NGOs, AGA and the Government's STEP programme. This has often resulted in a situation where training programmes are not coordinated and activities of trained youth not monitored. There is the need for future skill training programmes to review the methodology for skill development and technology transfer to make them more sustainable.

There is lack of policy framework for ensuring optimal utilisation of labour especially regarding the youth in Ghana and countries in the West African sub-region. There is absolutely no harmonised policy instrument to guard the region in treating internal and cross border labour issues. For example, there is massive movement of labour from northern part of Ghana to the southern region to look for non existence jobs which is creating a lot social problems. Similarly, there is influx of young men and women from Burkina to Ghana to work under very difficult and unethical conditions and vice-versa.

Again, the abysmal performance of local economies of richly endowed localities such as OMA in Ghana appears to confirm the growing notion that in most developing countries especially in Africa, natural resource instead of becoming a blessing rather has brought curse upon the people. A classical situation of global proportion is what is seen in oil rich states of the South Eastern Nigeria, and there are several parallels across West Africa such as in Liberia and Sierra Leone. In this direction, it suggested that policy framework if any exist in the ECOWAS zone should be reviewed to ensure enforcement and compliance in member communities by all stakeholders to ensure that town and cities which are likely to receive massive influx of migrants are given the necessary resources by both the state and investors

who are utilising such resources to adequately enable such settlements become true growth poles to other neighbouring settlements but not exude negative impacts to society.

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REFERENCES

- Abdulai, A. 1999. 'International Migration and Agricultural Development in Ghana.' *Scandinavian Journal of Development Alternatives* 18(1): 61-74.
- MLGRD (2002). *Adansi West District Medium Term Development Plan (2002-2004)*. Ministry of Local Government and Rural Development (MLGRD), Government of Ghana, Accra.
- Adepoju, A, (2005). *Migration in West Africa: An overview of key migration trends in West Africa*. Global Commission on International Migration).
- Akabzaa, T. (2000). "Boom and Dislocation: Environmental Impacts of Mining in Wassa West District of Ghana", Mimeo., Third World Network, Accra
- Akabzaa, T., and Darimani, A (2001). *Impact of mining sector investment in Ghana: A study of the Tarkwa mining region*.
- Anarfi, J., Kwankye, S, Ababio, O and Tiemoko, R (2003). *Migration from and to Ghana: A Background Paper Issued by the Development Research Centre on Migration, Globalisation and Poverty*.

Aryeetey, E (*unpublished*). Globalisation, Employment and Poverty in Ghana. Institute of Statistical, Social and Economic Research, University of Ghana. *Report* presented to the ILO.

Boateng, K (2000). *Economics of the Labour Market and the Ghanaian Experience*, Accra: Ghana University Press.

Boughzala, M. (1997). Impact on Workers of Reduced Trade Barrier: the case of Tunisia and Morocco in *International Labour Review*, 136(3): 379-399

Daily Graphic (2007). Union Bemoans Unemployment In Mining Areas.
www.modernghana.com

[Food First Information & Action Network \(FIAN\) International \(2008\). Human Rights violations in the context of large-scale mining operations. Universal Periodic Review – Ghana.](#)

[Ghana Statistical Service \(2000\). Ghana Living Standards Survey Report on the Fourth Round \(GLSS 4\), Accra: GSS.](#)

[Lee, E. \(1996\). “Globalization and Employment: Is Anxiety Justified?”, *International Labour Review*, 135\(5\), 485-497.](#)

[ILO \(1998\). “World Employment Report 1998-99,” *Employability in the Global Economy, How Training Matters*, Geneva: ILO.](#)

[GSS. \(2005\). Ghana Population and Housing Census Report \(2005\), Ghana Statistical Services, Government of Ghana, Accra.](#)

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