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Mineral Resource Rents and Human Development: The Case of Western Ghana

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Abstract
Africa is endowed with abundance of natural resources but faces huge human development challenges. Managing mineral resources for development is a major challenge to many mineral wealth countries. The focus of this paper is on the human development challenges in Ghana and how mineral rents can contribute to ameliorating these development challenges. The paper argues that in order for mineral rents to be managed responsibly to promote human development, there should be a paradigm shift to focus on how the mining sector is governed. Due to the finite nature of mineral resources, the paper argues that revenues from mineral resources should be invested in human capacity building and medical care delivery. Further, the mining sector should be integrated with other non-mining sectors of the economy to create jobs and provide alternative livelihoods, which will go a long way to assist in the general expansion and growth of Ghana's economy. Although this paper is a case study of the Ghanaian experience, it can serve as a springboard to appreciate the role mineral rents can play to promote development with human face in other sub – Saharan mineral wealth countries.
Keywords: Mineral resource, Rents, Human development, People centred and Development

1. Introduction

The notion that mineral resource rents can contribute positively to the economic and human development of mineral wealth countries makes a lot of sense, especially due to the huge revenue poor countries can generate from the sector to alleviate poverty. However, contrary to this assertion "empirical records demonstrate that mining is more likely to lead to poverty exacerbation than it is to poverty reduction" (Pegg, 2006: 376).

In a study conducted by the World Bank, of mineral wealth countries between 1990 -1999, it revealed that the per capital gross domestic product (GDP) growth of these countries were negative (World Bank, 2003). Today, many mineral wealth African countries remain heavily dependent on mineral resources, gas and crude oil.

Ghana, a mineral wealth country has a long history of mineral endowment dating back to the colonial era which led to the country to be called the Gold Coast. The mineral resources are concentrated mainly in the Southern half, covering about five out of the ten geographical regions. Among these mineral resources are gold, diamonds, bauxite, manganese and recently crude oil.

According to Ghana Statistical Service (2013) the country has a population of 24,658,823 and a Gross Domestic Product of (GDP) of 7.9 % in 2013. The country is still heavily dependent on agriculture which provides about 55% of employment (World Bank, 2013). Aside agriculture, the mining sector also represents another major sector in the country's economy, providing 5% of GDP, 12% of government revenue and 37% of exports mainly from large scale gold by international companies (World Bank, 2014).

According to Bermudez- Lugo, (2013), the country's total export receipts in 2011 for example "increased by 60.6% to about $12.8 billion, which was driven mostly by an increase in export earnings from the gold sector and the commencement of crude oil exports. Gold export earnings which accounted for 38% of total export earnings increased by 29.4% to $4.9.

Furthermore, Ghana's mineral sector accounted for about 14% of total tax revenue and 5.5% of the Gross Domestic Product (GDP) and in the same year, the country recorded its all-time highest GDP growth of 14% which was believed to be one of the fastest growing countries in the world at that time .This growth was attributed to the first crude oil export earnings. Similarly, between 2007 to 2012, the Ghanaian Government's share of mineral revenues increased from $61 million (constituting about 7% of total industry revenue) to $749 million in 2012 (about 14% of total industry revenues) The Government's share of revenue has come from royalties, corporate tax and individuals from its equity interest (Bermudez- Lugo, 2013).

In terms of mining investments, the country has since 1986 earned over US $5 billion of direct investment into mining exploration, with the establishment of new mines and the expansion and rehabilitation of existing ones (Yankson, 2010).

Despite the country's mineral wealth, high investments and huge revenues accrued from the mining sector, not much can be said about the direct effects the mining revenues is having on the livelihoods of the Ghanaian people. Human development is the process of expanding the freedoms that people value and have reason to value (Alkire, 2007; Sen, 1999).Both the United Nations Development Programme (UNDP) and the Oxford Poverty and Human Development Initiative (OPHI) uses elements of poverty such as standard of living, health, education, income levels, empowerment, quality of work and threats from violence to measure the Human Development

Index of a country (UNDP, 2014; Conconi and Seth, 2014).

Ghana's human development index has not grown as expected. Consequently, according to the UN, Human Development Report (2014), about 28.6 % of Ghanaians were below the poverty line of $1.25 per day. 12.1 % were said to be in severe poverty and 18.7 % were near the poverty line.

This implies that in all, about 47.3 % of Ghana's population were around the poverty threshold in 2013. Similarly the report further indicates that from 1980 to 2013, Ghana's life expectancy rose from 52.3 to 61.1 years (an increase of 8 years in a period of 33 years) with maternal mortality ratio standing at 350 women and infant mortality of 52 (per 1,000 live births).

Furthermore, 46% of the adult population have not attained education up to the level of secondary education. The expected number of years of schooling as at 2013 was 11.5 with the mean years of school at 7.

It is against this backdrop that this study is being conducted with the main objective of investigating how mineral rents can be spent responsibly to promote people centred development in Ghana.

2. Research methodology and study area

2.1. Research methodology

The study adopted the concurrent procedures as its strategy of inquiry, as a result, the researcher converged quantitative and qualitative data in order to provide a comprehensive analysis of the research problem. The study collected both numerical and descriptive forms of data at the same time and integrated the information in the interpretation of the overall results (Creswell, 2010). The study adopted questionnaires and archive documents to gather data. It explored multiple sources of data, that is, primary data (sourced from mainly quantitative research methods) and secondary data (data from secondary sources). Semi-structured questionnaires were used to collect primary data from 100 heads of households in the Western Region and relevant institutions. The study adopted the mixed methodology for data analysis. The research generated quantitative data largely from questionnaires and document content analysis.

2.2. Study area and Sampling techniques

The Western Region of Ghana was used as the case study area. Data was collected in 2 Municipalities and 1 Metropolitan area namely, Takwa Nsueam, Prestea Huni Valley and Secondi –Takoradi respectively. Takwa Nsueam and Prestea Huni Valley are Municipalities with populations of 90, 477 and 159,304 respectively, Secondi – Takoradi Metropolitan area has a population of 559,548. 90 (Ghana Statistical Service, 2013). The Western Region was selected on the basis of its mineral resource wealth and socio economic circumstances.

The Western Region is one out of the ten administrative regions in Ghana with a population of 2, 376, 02, covering an area of 23,921 square kilometres representing about 10 percent of the total land surface of Ghana. The region has 17 Municipalities and Districts (Ghana Statistical Service, 2013). The units of analysis for this study were households and the heads of the sampled households were targeted. This study specifically employed the stratified, random and purposive sampling method.. The sample consisted of 100 households. The households were selected from Takwa Nsueam, Prestea Huni Valley and Secondi - Takoradi. 45 households were selected from each of the two Municipalities, Takwa Nsueam and Prestea Huni Valley whiles 60 households were selected from Secondi – Takoradi Metropolitan area.

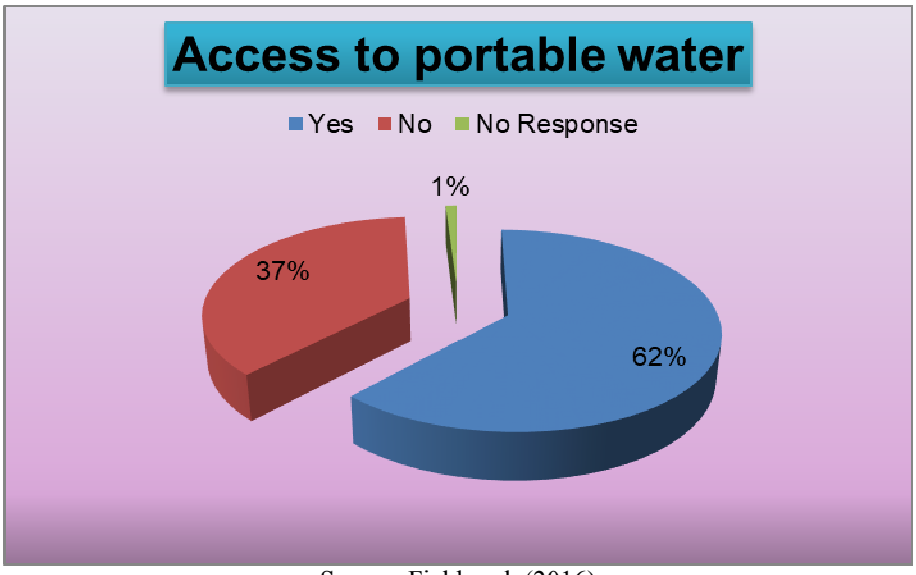
3. Presentation and analyses of data

3.1. Households' conditions of living

The well-being of household members to a very large extent is dependent on the availability of and accessibility to safe drinking water. Sources of drinking water can have tremendous effects on disease burdens of households. For example, clean drinking water can help to reduce water borne diseases such as diarrhoea, bilharzia, typhoid and cholera. This can help to promote a healthy and productive life of households.

The sources of water can be classified as 'improved' or 'unimproved' sources. The safe water sources include pipe public water into homes, public stand pipe, protected (lined) dug well, borehole, and protected collected rain water. The unimproved sources are wells that are unprotected, vendors and tanker- trucks (WHO and UNICEF, 2000 cited in GSS, 2013: 393).

Figure 1. Map of the Western region, showing the mineral deposits



Source: Fieldwork (2016)

Figure 2. Access to portable water

Figure 2, above shows the distribution of their access to drinking water for the households. From the figure, out of the 100 respondents, 99 of them responded to this question.

The proportion of respondents who indicated that they have portable water in their homes constitutes 62% with 32% responding that they do not have portable water in their homes.

Main Source of Water Supply for household	Frequency	Percent
Inside Pipe Stand	50	50%
Pipe in Neighboring house	21	21%
Water Vending/ Tanker Service	3	3%
Bore hole	18	18%
Well	7	7%
River/Stream	1	1%
Total	100	100%

Source: Fieldwork (2016)

Table 1. Household sources of water supply

Similarly, on the question of what is their main source of water supply. Table 1, shows the distribution of the responses given by the household heads. From the figure, there are six main sources of water supply for the households as follows, inside pipe stand which constituted 50%, pipe in neighbouring house which constitute 21%, water vending / tanker services which constitute 3%, bore hole which constitute 18%, well which constitute 7% and rainwater which constitute 1%.

The study further asked the respondents to indicate how regular their main power supply after sunset. Regular electricity supply is very essential for the development of every society. Table 2, shows the distribution of their responses. Out of the 100 respondents interviewed, 88 of them responded to this question.

How regular is your main power supply after sunset	Frequency	Percent
Regular	19	23%
Cut Once or Twice in A Week	51	63%
Cut More than Twice A Week	16	20%
Others	2	2%
No Response	12	15%

Source: Fieldwork (2016)

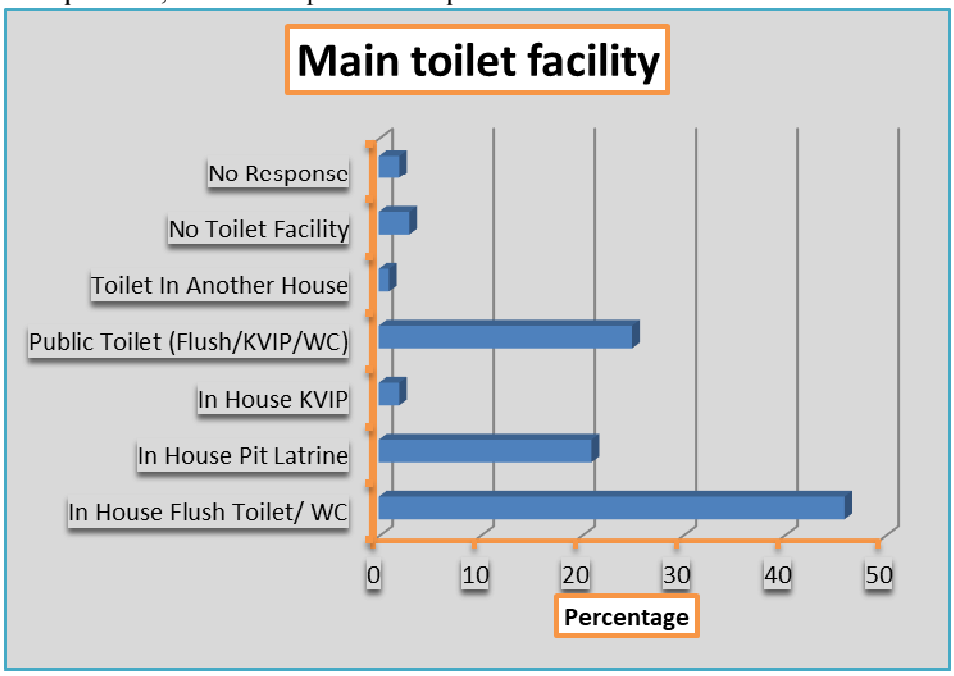
Table 2: Regular power supply

From the table 2, the respondents were made to select from the options provided and shows that 19% of them that 19% indicated that they have regular power supply, 16% responded that their power cuts more than twice a week. The proportion of the respondents who indicated that their power cuts once or twice in a week constituted a narrow majority of 51% with 2% indicating that their option is not captured in any of the categories.

Furthermore, equally important on the issue of lighting is the availability of street lights, and it is one of the ways of determining the standard of social amenities in a community. In Ghana, the unavailability of streetlights is not just a common feature of rural areas but also of urban areas. The respondents were asked to indicate

whether they have street lights in their communities. Out of the 100 respondents, 97 responded to this question. Their response indicate that a vast majority constituting 87% of the respondents opined that they have street light in their communities, 10% indicated that they do not have street lights in their communities.

Sanitation is yet another critical area worth focusing. One of the important indicators of a sanitary condition is a hygienic and efficient disposal method of human waste. Public health is one of the indirect ways of measuring a household socio – economic status. However, it is often a neglected aspect of development in developing countries. Figure 3, shows the distribution of toilet facilities in the households selected for the study. Out of the 100 respondents, 3 did not respond to this question.

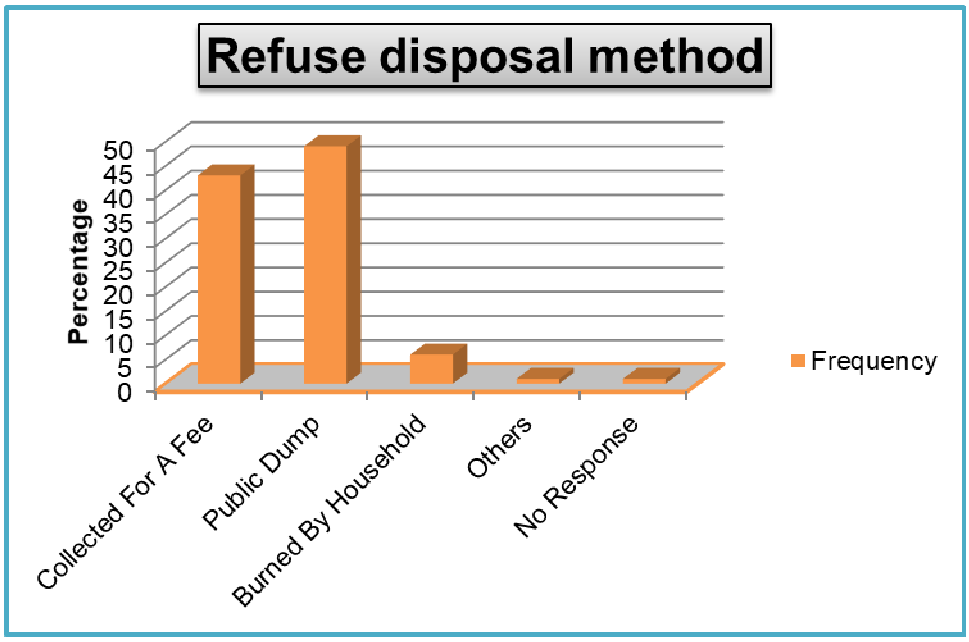


Source: Fieldwork (2016)

Figure 3. Main toilet facilities

From figure 3, there are five main sources of toilet facilities in Ghana. The highest facilities reported are in-house flash toilet also known as water closet (WC) constituting 46% of the responses, in- house pit latrine constituted 21%, in- house Kumasi ventilated improved pit (KVIP) constituted 2% of the responses, public toilet (flush/KVIP/WC) constituted 25% of the responses, toilet in another house constituted 1% of the responses, households with not toilet facilities constitutes 3%.

Adopting modern and hygienic system of solid waste disposal in both rural and urban areas of Ghana has been a major challenge. Acceptable and hygienic waste management system helps to prevent the breed and spread of some contagious diseases and also helps to contribute to the improvement of the quality and sustainability of the environment. Figure 4, shows the distribution of the various mediums for waste disposal.



Source: Fieldwork (2016)

Figure 4. Methods of refuse disposal

From figure 4, the most commonly used medium of solid waste disposal is the public dump, which is dumping in either a container or an open dump site, constituting 49% of the responses. This is followed by the medium where the solid waste is collected for a fee, constituting 43% of the responses. Solid wastes that are burned by household constitute 6% of the responses with 1% disposing their solid waste in other ways not indicated in any of the options provided.

3.2. Education and skills development in the Western region

Education provides the vital tool for the general development of every society; hence, it is a critical indicator for measuring human development. Accordingly, the Ghana Statistical Service (GSS, 2013) defines education as the process whereby people acquire knowledge, skills, attitudes and values to enable them to develop fully their human capitals for the well-being of society.

Ordinarily, one could argue that, there should be a positive relationship between mining boom on one hand and development in education on the other hand. In like manner, the United Nation Development Programme (UNDP, 2011) affirms this notion when it reported that there is a correlation between education, human resource development and general economic growth.

Consequently, countries the world over, especially those in the developed North, place high emphasis on formulating and implementing educational policies that promote people-centered development. Though Ghana has made high gains in achieving the universal basic education as a result of the introduction of the Free Compulsory Universal Basic Education (FCUBE) policy which was adopted by the government in 1961, there still remain huge challenges in quality education especially at the basic level, as well as affordability challenge in the second and tertiary levels of education (Ghana Statistical Service, 2013).

The respondents were asked to respond to the question of whether mining revenues have contributed to the construction of schools in their communities. From their responses, a vast majority of the respondents constituting 85% indicated in the affirmative with 14% disagreeing with the question. In their explanations to justify their responses, some of those who responded in the affirmative added that the mining companies only construct schools in their catchment areas. Others also explained that apart from the schools, the mining companies also provide school buses, community centres and the establishment of scholarships for but brilliant but needy students.

The field data therefore supports that the mining companies funds the construction of schools in especially mining communities. In order to compare this with secondary data from the District and Municipal Education offices of the three districts selected for the study, efforts were made to obtain such data, however only one, Takwa Nsaeum Municipality provided such data. In the 2010 census, the Ghana Statistical Service (2013) estimated the population of Takwa Nsuaem at 90,477. The average annual population growth has been 2.5%, which means that from 2010 to 2015, the Municipality's population has grown to about 101,786.6. It is estimated that those aged 0-24 years old constitutes 58.3% of the total population. As a result, the estimated number of people from kindergarten to Senior High School (0- 24 years) is 59,342 people. Below is the breakdown of the

number of schools in the Takwa Nsuaem Municipality.

Ghana's educational system can be categorized into three levels; the basic level, second cycle level and the tertiary levels. These are nursery/ day care/ primary schools (for the basic level), junior secondary/ technical/ vocational schools (for the second cycle) and Universities/ Polytechnics/ Training Colleges (for the tertiary level) A vast majority of the respondents representing 80% indicated that all the above mentioned types of schools exist in their communities. Respondents who indicated that only nursery/ day care / primary school exist in their community constituted 5%, 7% indicated that there are only junior secondary schools, 2% indicated only senior secondary / technical vocational schools, 3% indicated only tertiary institutions / universities /polytechnics / training colleges and 3% did not respond to any of the options given. The available data from District education office shows that all types of schools exist in the Western region. On the other hand, secondary data obtained from the Takwa Nsuaem Municipality revealed a rather pyramid nature of the number of schools in the Municipality and the entire Western Region.

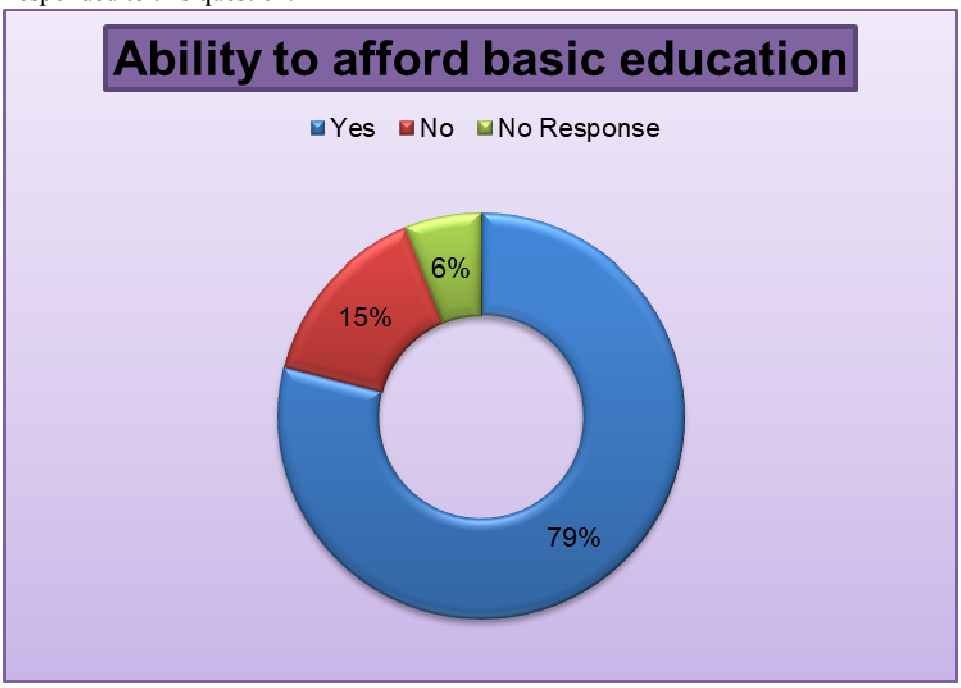
LEVEL	NUMBER OF SCHOOLS	ENROLMENT
Kindergarten	67	5159
Primary	68	17526
JHS	56	7377
SHS	3	3178

Source: Municipal Education Office, Tawka Nsuaem, 2016

Table 3: Number of schools and Enrolment levels in the Takwa Nsuaem Municipality

From table 3, the Municipality has 67 kindergarten, 68 primary schools, 56 junior high schools, 3 senior high schools and 1 tertiary institution. There are more schools at the basic education levels with very few schools at the second cycle and tertiary levels. This trend however is not different from what exist in other non- mining regions of Ghana. This is so because most education policy interventions in the past have focused on the basic education to the neglect of the tertiary level.

Affordability of education is a key determinant of development in the educational sector and other factors such as access and quality education are closely related to education. In order to ascertain whether the respondents are able to afford the cost of education, they were first asked to indicate whether they have children of school going ages in their household. The distribution of their responses indicates that 96 out the 100 respondents responded to this question.



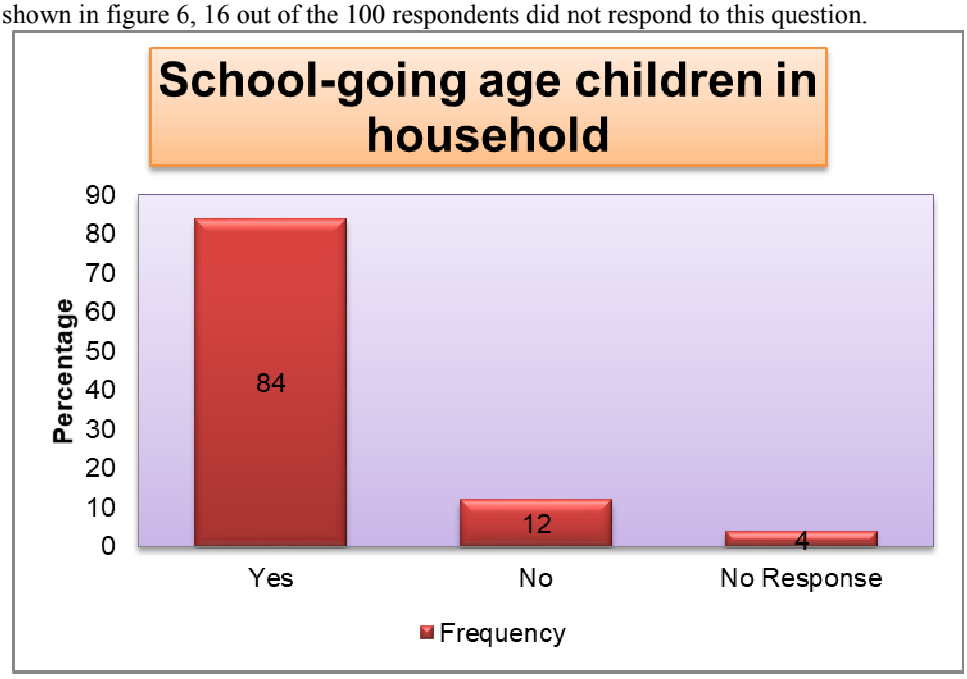
Source: Fieldwork (2016)

Figure 5: Affordability of basic education

As shown in the figure 5, a vast majority of the respondents constituting 84% opined that they have children of school going age in their household whereas 12% responded in the negative. Affordable education at the basic level in Ghana generally has been boosted by the introduction of the Free Compulsory Basic Education (FCUBE) policy. This policy initiated by the Government of Ghana has not only made education at the basic level affordable but also compulsory. The school feeding programme, also introduced by the government which

ensures that children at the basic level are fed in school has equally contributed to this responses.

Moreover, the respondents were also asked to indicate whether their children of school going age are in school. As shown in figure 6, 16 out of the 100 respondents did not respond to this question.



Source: Fieldwork (2016)

Figure 6. Children of school going age

From figure 6, the proportion of respondents who opined affirmatively constitutes 77% with 7% responding negatively that their children of school going age in their households are not in school.

Consequently, Table 4, shows the distribution of whether the respondents' children of school going age in their households are all in school. Out of the 100 respondents, 19 of them did not respond to this question.

Are all children of school-going age in school?	Frequency	Percent
Yes	77	77%
No	7	7%
No Response	16	16%
Total	**100**	**100%**

Source: Fieldwork (2016)

Table 4: Children of school going ages in households

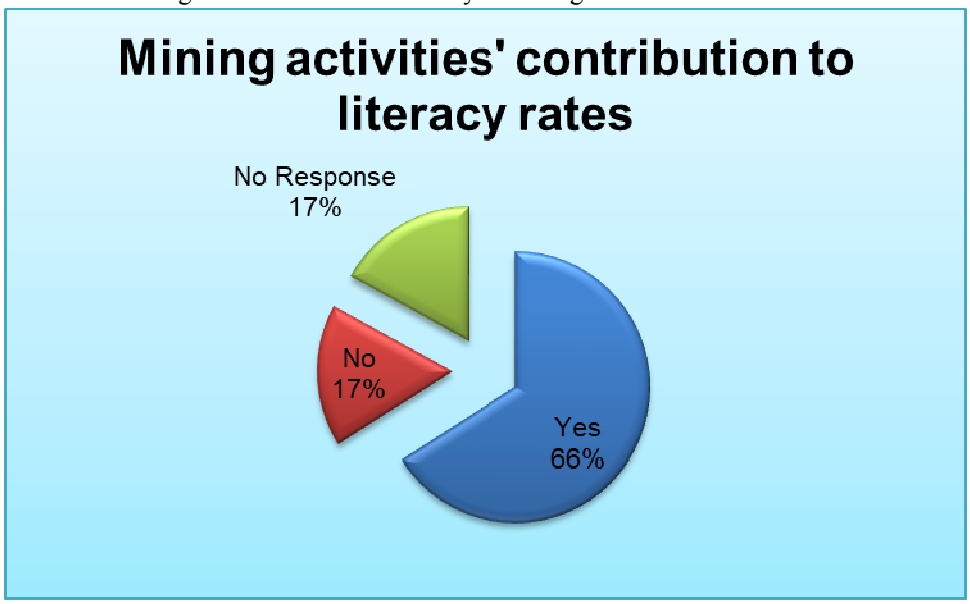
The table shows that majority constituting 77% of the heads of households indicated that they are able to afford the cost of school fees for the children of school going age in their household. A very small minority of them however responded that they are not able to afford the cost of the school fees of the children.

Similarly, the heads of the households were also asked to indicate their opinion about whether they think other parents, who may be their friends, family members, church members, or even neighbours, are able to afford the cost of their ward's school fees.

From their responses, a vast majority of them constituting 77% responded that other parents are able to afford the cost of their school fees whilst 14% of the respondents responded in the negative. When asked for their explanations to buttress their responses on how affordable they think school fees is, some of those who responded in the affirmative noted that, though the school fees of the children is very high, they nevertheless sacrifice to pay. Others also said most parents who are gainfully employed are able to afford very good schools for the children in their households. As a coping strategy, some of the respondents among those who are able to afford the cost of the school fees revealed that they secure loans to enable them pay for the fess. On the other hand, some of the respondents who responded said that they are not able to afford the cost of the school fees for their children indicated that the school fees is very expensive whereas others also explained that the cost of living is very high coupled with high unemployment in their communities. Secondary data from the district education office indicates that for example in Takwa Nsuaem Municipality, for children between 0- 24 years old, out of 59,341 of them, 33,240 are in school. This means that about 26,101 children of school going age in that municipality alone are out of school from Kindergarten to Senior High School.

The quality of education determines the calibre of students that will be produced and one of the relevant variables in education aside accessibility and affordability of education. Secondary data collected from the

district education office of Tarkwa Nsuaem Municipalty shows that there are 53,310 students at the basic level with corresponding 971 trained teachers. The ratio is therefore 1 trained teacher is to 55 students. This is more than twice the national average of 1 trained teacher is to 25 students. This factor might have contributed to the performance of the students in the Basic Education Certificate Education (B.E.C.E) and S.S.S.C.E since secondary data from the Takwa Nsuaem municipal education office indicate that for example, out of 27, 55 pupils who sat for the Basic Education Certificate Education (B.E.C.E), 2314 representing 84% passed. Similarly, at the West African Senior School Certificate Examination (WASSCE), out of the 901 students who sat for the examination, 897 representing 99.5% passed. This means that performance at the basic and second cycle level is very high compared with other parts of Ghana. The study also revealed that there are technical and vocational institutions as well as training centres in their communities. Ideally, revenues from mining should contribute to education in general. As a result, the study wanted to find out if mining has contributed to literacy in the Western Region. Literacy has to do with the ability to read and write. Figure 7 shows the proportion of the respondents' responses on whether mining has contributed to literacy in the region.



Source: Fieldwork (2016)

Figure 7. Contribution of mining to literacy rates

As shown in figure 7, out of the 100 responses, 17 of them did not respond to this question. From their responses, majority of the respondents constituting 66% indicated that mining has contributed to the literacy rate in the Western Region. The proportion of respondents who expressed that the mining sector has not contributed to the literacy rate in their communities constitutes 17%. In explaining their reasons, some of them who expressed that the mining sector mining has contributed to the literacy rate said that the mining companies have contributed by constructing schools in the communities. Others further explained that some mining companies operating the region have introduced scholarship schemes for brilliant but needy students in the community. On the contrary, some of those who expressed that the mining sector has not contributed to literacy rate in the community also explained in the reasons that follow. Firstly, majority said that many of the youth in the community dropped out of school to engage in small scale mining (mainly illegal). Secondly, some bemoaned the inadequate school infrastructures, facilities and other teaching and learning materials in the various schools in their communities, and added that the general support that the schools use to get from the mining companies has drastically dwindled. Thirdly, others were of the opinion that the mining companies do not have literacy program for the communities.

3.3. Medical care in the Western region

One major reform that has taken place in Ghana's health sector has been the introduction of the National Health Insurance Scheme. It was introduced to by the government of Ghana to address the problem of financial barrier to health care posed by the then 'cash and carry system' of healthcare which required out-of- pocket payment for health care at the point of health service delivery.

In trying to investigate the accessible nature of health care in the Western region, the study asked the respondents to indicate the number of hospitals in their communities.

Table 5 below shows the number of health facilities in the Tarkwa Nsuaem Municipality with a population of 90,477 (GSS, 2013).

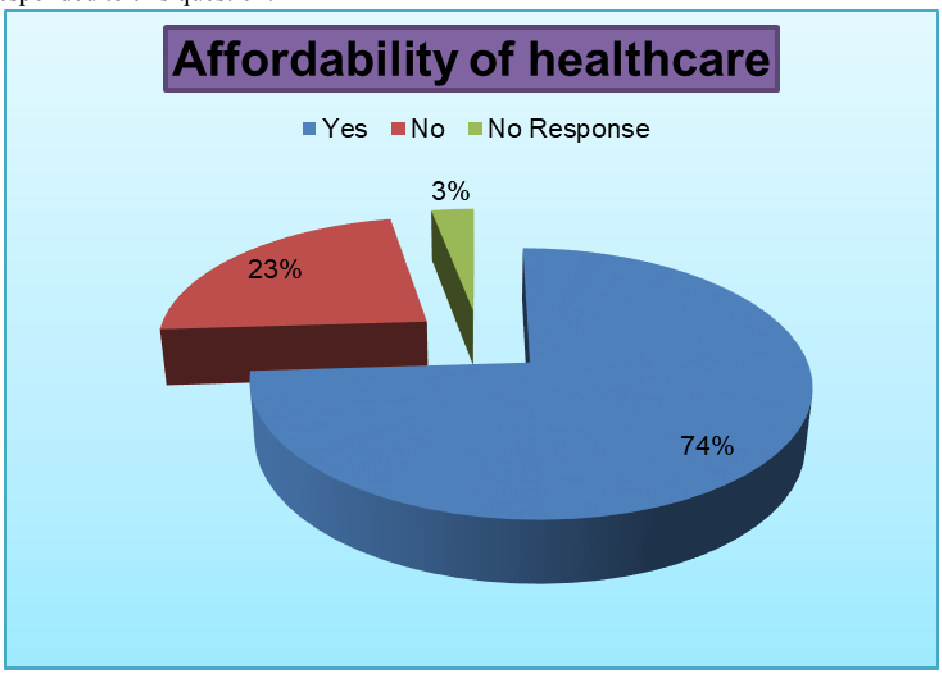
Health facilities	Public	Private	Total
Hospitals	2	5	7
Health centres	5	0	5
Clinics	3	8	11
Reproductive and Child Health (RCH) centres	2	0	2
Maternity Homes	0	2	2
Community – based Health Planning and Services (CHPS)	14	0	14
Total	**26**	**15**	**41**

Source: Municipal Health Directorate, Tawka Nsuaem, 2016

Table 5: Health facilities in Takwa Nsuaem Municipality

Moreover, the heads of households were asked to indicate the different types of health facilities in their communities. The types of health facilities in Ghana are , Community –Based Health Planning Services (CHIPS), clinics, polyclinics, hospitals and those who are 'not aware'. Table 5 above indicates that Takwa Nsuaem municipality has for example has all the different types of health facilities in the country.

Affordable healthcare was one of the main reasons for the introduction of the National Insurance Scheme (NHIS), a healthcare scheme that ensures free health care for all citizens. Prior to the introduction of the scheme, the general cost of healthcare was expensive especially for the average Ghanaian. The respondents of the study were asked to indicate whether the cost of health care is affordable. Figure 8, shows the distribution of the respondent's responses on whether the cost of health care is affordable and shows that out of the 100 responses, 97 of them responded to this question.

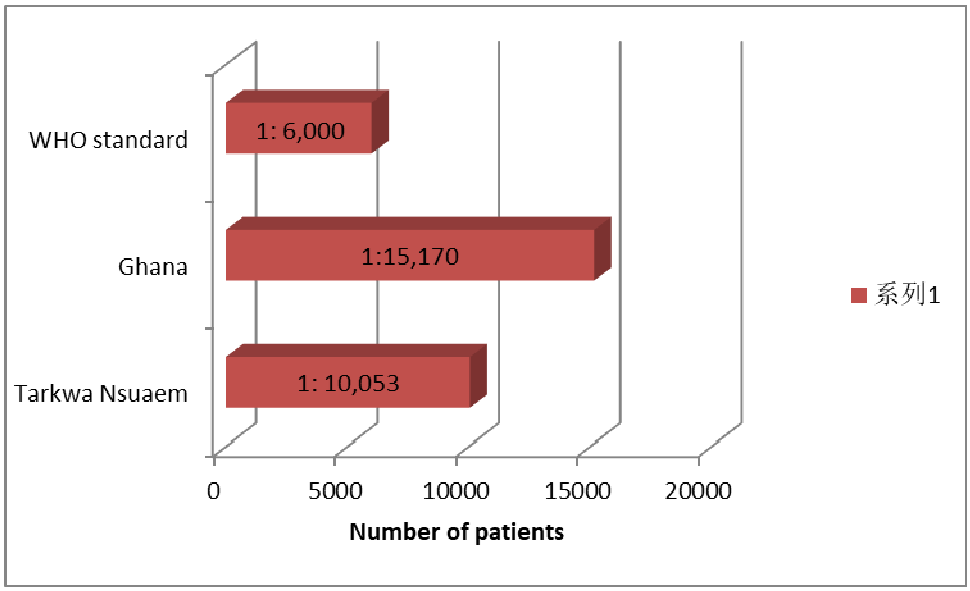


Source: Fieldwork (2016)

Figure 8. Affordable healthcare

From the figure, majority of the respondents constituting 74% indicated that they are able to afford t the cost of health care in their communities. The proportion of respondents who are not able to afford the cost of health care for themselves and other members of the household constituted 23%. . In explaining their points, those who responded in the affirmative noted that, firstly, they utilize the National Health Insurance Scheme (NHIS) and that it is expensive to pay for health care without NHIS, and as a result most of them access this insurance scheme. On the contrary, those who responded negatively explained that they are unable to afford the cost of health care because the NHIS is not working effectively and that it does not cover all the ailments. This according to them is gradually ushering them back to the days of the 'cash and carry' era, the system where a patient has to pay in cash before he/she can access healthcare in the various health facilities.

Besides, the respondents were asked to indicate whether the trained Doctors and nurses were adequate in the various health facilities. The proportions of their responses indicate that out of the 100 respondents, 98 responded to this question. The proportion of respondents who responded in the affirmative is 69% with 29% of the respondents responding in the negative.



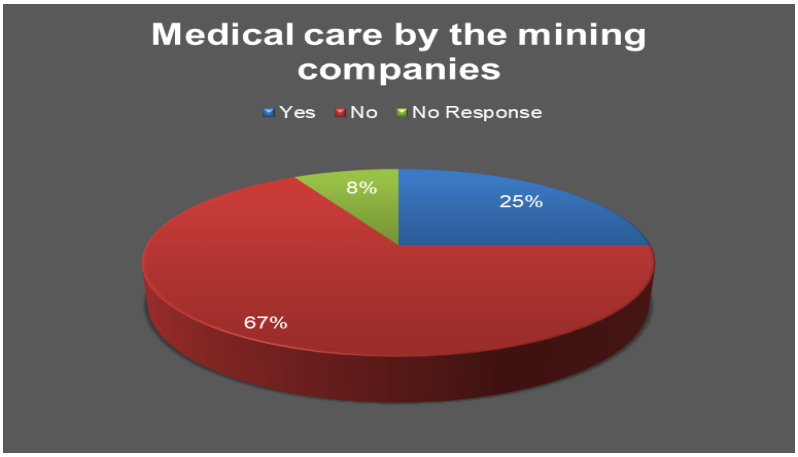
Source: Fieldwork (2016)

Figure 9. Ratio of doctors to health facilities

To buttress their points, those who responded in the affirmative explained that firstly, there are enough trained doctors and nurses in their communities' whiles others added further that though there are trained doctors and nurses, they are not many enough. Those who disagreed with the question explained that the doctor- nurse to patient ratio is very high because most of the doctors especially refuse postings to the remote parts of their communities. Secondary data from the district health directorate of Takwa Nsuaem indicates that with a population of 90,477 (GSS, 2013) and 41 different health facilities (shown in Table 5), there are 9 doctors and 359 nurses in all categories.

Consequently, the doctor- patient ratio in the second biggest municipality Takwa Nsuaem, selected for this study is 1:10,053, which is lower than Ghana's doctor to patient ratio of 1: 15,170 but higher than the World Health Organization (WHO) which is 1: 6,000. The nurse to patient ratio in the municipality is 1:252, which is rather an improvement on the nation nurse to patient ratio average of 1:24,533 (GSS, 2015).

In addition to this, the study wanted to find out if the mining companies operating in the Western region have instituted a health insurance scheme for the people in the communities they are operating. Figure 10, shows the distribution of the responses of the health scheme of the households and shows that out of the 100 respondents 92 of them responded to this question.



Source: Fieldwork (2016)

Figure 10. Medical care by the mining companies

The figure shows that 67% of the respondents responded that there is no such health insurance scheme in the western region apart from the National Health Insurance Scheme introduced by the state.

The proportion of responses who indicated in the affirmative constitutes 25%. In explaining their stance, some of those who responded in the affirmative indicated that most of the mining companies have their own insurance policies for their workers but not for the entire community.

4. Critical evaluation of findings

The western region of Ghana is endowed with several mineral resources such as gold, diamond, bauxite and manganese. The sector involves foreign mining companies who engage in large scale mining but the government of Ghana still holds the minority shares (10%) in most of these mines.

Despite the mining activities in the western region, findings from this study indicate that majority of the people still lives below the international economic poverty line of $1.9 per day (approximately $6935 per annum). This poverty translates into other areas of the household's conditions of living. To start with, findings from the communities reveal that majority of the households in the western region live in compound houses, which are the most common types of housing in Ghana for low income earners. Furthermore, 37% of the households in the communities surveyed for the study do not have access to portable water. Out of those who have access to portable water, half of them access water from unimproved sources, making access to portable water one of the major challenges in Ghana.

Furthermore, sanitation poses a challenge to households in Ghana. More than half of the households interviewed do not have their own private descent toilet. This is a common feature of many underprivileged societies in Ghana. Similarly, many households have unhygienic solid waste disposal systems. Only less than half of the households adopt hygienic method of waste disposal.

Moreover, the cost of education is high at all levels of the educational ladder. At the basic level, the Government of Ghana has introduced the Free Compulsory Universal Basic Education (FCUBE) policy in the public schools, making basic education in the country affordable and accessible. This however does not cover the basic private schools making it rather expensive and reserved for mainly middle income and affluent people. This two – tie education system which prevails in Ghana has ostensibly encouraged class stratification. Basic private schools tend to be effective in terms of teaching, learning and general performance at the Basic Education Certificate Education (B.E.C.E) than their counterparts in the public institutions.

At the second cycle level, access is still a challenge; some children who progress from the basic level are unable to further to the secondary and technical schools. Factors such as non- qualification as a result of bad grades at the BECE, woefully inadequate number of secondary schools in relation to the number of students who qualify to be admitted and inability of parents and guardians to afford the cost of fees, account for this. The second cycle has senior high schools, technical and vocational schools. Out of the three second cycle institutions in Ghana, secondary schools are the most attended by students. This is because the technical and vocational institutions have not received the needed support and attention from government and other stakeholders in the education sector. Many students who graduate from the vocational and technical institutions find it difficult to get tertiary admissions especially into the universities and polytechnics. Quality basic education in the Western region of Ghana still remains a major challenge with twice as high teacher- student ratio, compared with the national average. Besides this, technical and vocational educations have not been properly integrated into the industrial sector leaving many polytechnic and graduates with technical background unemployed.

The health of a people is an important factor in development. Many governments of Ghana have implemented several strategies and policies to increase access to quality health care at an affordable cost. Despite these efforts, findings from the communities interviewed reveal that Ghana still faces challenges in its health sector. Currently, the country has the National Health Insurance Scheme (SHIS) which replaced the previous 'cash and carry' way of financing health care in the country. Nevertheless, the study shows that access to health care is still a challenge. The number of health facilities in relation to the population portrays a mismatch since the health facilities are woefully inadequate. The direct consequence of this is the congestion that is often witnessed in the few health facilities (both public and private health institutions). It was revealed from the study that the mining companies do not directly own or run health facilities but do support some of the health facilities as part of their corporate social responsibilities. On the issue of affordability of health care, the study indicates that many of the people registered under the NHIS(a government health insurance scheme) are able to afford the cost of health care whereas those who are not registered in the NHIS find health care very expensive . The study confirmed that most people access health care under the government funded NHIS with only a few who access it under other means such as those under private companies.

Closely associated with access to health care is quality health care. The doctor –patient ratio in Takwa Nsuaem which is 1: 10,053, which is almost the same as the national average of 1: 10, 170. However, considering the health hazards that mining activities can pose; the doctor to patient ratio is rather on a low side in the mining areas.

5. Way forward

The current structure in Ghana where mineral revenues are treated as part of general revenues that goes into the consolidated fund and spent indiscriminately by Government dilutes the contribution of the mining sector in the eyes of the general public and does not ensure that mineral revenues are spent on sustainable human centered interventions for national development. As a result, the government should introduce a Mineral Revenue

Management Act, to serve as a legal framework that will determine how mineral revenues should be spent.

Moreover, since mineral resources deplete, it is prudent to invest in people centered interventions such as education, health and job creation to create sustainable returns. Consequently, for mineral resources to promote sustainable quality of life and well- being for the people, it must be human centered. Critical human centered development areas that government should invest mineral resources are education, health and job creation.

In the area of education, government should invest mineral resources in the construction of educational institutions. In particular, at the tertiary level, investments in the construction of at least two universities in each region of the country will contribute enormously in the training of professionals for the country. Technical and vocational institutions must be given face lifts and linked with the industrial sector of the economy. There should be the training of more teachers across the various levels of the educational ladder and the provision of incentives for teachers who accept postings to deprived communities in the country. In order that the coverage of education can be universal, government should channel resources in the provision of scholarships for needy students at all levels.

Besides this, government must invest mineral revenues in the construction of more health facilities and train more health personnel to cater for the current deficit. This will help to improve access and quality healthcare health in the country. The National Health Insurance Scheme which is currently facing financial challenges can be supported with mineral revenues, so as to tackle the current challenge of access and affordability in the health sector.

If mineral revenues are invested in these areas, it will help to solve the numerous challenges in the education and health sectors whiles contributing to the creation of jobs to address the current unemployment situation in the Ghana.

References

Alkire, S. (2007). *The Missing Dimensions of Poverty Data: Introduction to Special Issue.* Oxford Development Studies, Vol. 35: 4, pp. 347-359.

Bermudez- Lugo, Omayra (2013) *The Mineral industry of Ghana. 2011 Minerals Yearbook*. US Geological Survey: US Department of the Interior.

Creswell, John. W. (2010) *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. United States of America: Sage Publications, Inc.

Ghana Statistical Service (GSS) (2013) *Population census Report,* GSS, Accra.

Pegg, S (2006) *Mining and poverty reduction: Transformation rhetoric into reality*. Journal of Cleaner Production, Vol.14, pp. 376-387.

Sen, Amartya (1999) *Development as freedom.* Knopf Doubleday Publication Group, Boston.

United Nations Development Program. 2014. *Human Development Report, Sustaining Human Progress-Reducing Vulnerabilities and Building Resilience. Explanatory Notes on the 2014 Human Development Report*

Composite indices, Ghana. UNDP.

United Nations Development Program (2004) *Governance for Sustainable Human Development*. A UNDP Policy document. UNDP. New York.

World Bank (2014) *Project Performance Assessment Report*. Washington DC, World Bank.

Yankson, W.K (2010) *Gold Mining and Corporate Social responsibility in the Wassa West District: Ghana*. Development in Practice, Vol. 20:3, pp.354- 366.