

## COMMUNITIES – COMPANY RELATION IN LIMESTONE MINING REGION OF SOUTHWEST NIGERIA: THE EWEKORO SOCIO-ECONOMIC VIEW

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**ABSTRACT:** *A study to assess the socio-economic impacts of limestone quarrying and processing operations at Ewekoro, South-Western Nigeria has been carried out. Data were collected through the use of well structured pre-tested questionnaires and oral interview in order to assess the socio economic impact of quarrying and processing of limestone on the inhabitants of the community and the workers. The finding shows that limestone exploitation has both positive and negative effects on the host community and the workers. It also shows that the benefits derived by the host community like employment, good roads, schools and hospitals are insignificant when compared with the negative effects of the exploitation on the community which includes reduction in crop production, negligence of education by students, overcrowding and high competition for little-available social amenities. Besides, the socio-economic inputs of the company are not well felt by the communities due to politicizing of the executions. Appropriate recommendations were made to ameliorate these negative socio-economic effects.*

**KEYWORDS:** Limestone, Exploitation, Community, Socio–Economic, Impacts.

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### INTRODUCTION

Mining is a major economic activity in many developing countries (Tauli-Corpuz, 1997; UNEP, 1997) including Nigeria. Nigeria is endowed with abundant mineral resources of international value, including gold, limestone, marble, gypsum, gemstones, iron ore, natural gas, topaz, coal, clay, lead, tar sand, construction stone and construction sand. While the exploitation of natural resources has traditionally been seen as a vital part of economic growth, it is now well recognized that concern for environmental and socio economic consequences must be included as a key component of development activities. In many developing nations like Nigeria, mining is an important contributor to the national economy. However, the negative environmental impacts of mining are increasingly being recognized as critical (Bridge, 2004). In response, many companies, especially international ones, are embracing Corporate Social Responsibility as a fundamental component of resource extraction operations, including mining (Garriga and Mele, 2004). The mining sector may strengthen the economy at the national scale; it may also present an entirely new set of problems at the scale of the local community. Exercising social responsibility in small, remote centres, however, often means that international and transnational corporations must interact with rural or indigenous people who have strong emotional and historical links to the land (Garvin *et al.*, 2009).

The socio-economic impacts are synonymous with adverse and benefits. It could include pressure on local housing, market and increase in community conflict and crime. The creation of supporting social infrastructure including schools, hospitals and so on may transform a previously remote area and investment in transport facilities may improve accessibility to other centres of economic activities, further enhancing its prospect for development. Indeed, governments frequently regard mining projects as an opportunity to 'open-up' peripheral regions. Impacts do not fall evenly on affected parties and areas. Although a particular project may be assessed as bringing a general benefit. Some groups and / or geographical areas may be receiving most of any adverse effects, the main benefits going to others elsewhere. There is also a distinction between actual and perceived impacts. Subjective perceptions of impacts may significantly influence the responses and decisions of people towards a proposed development. Modern mining methods are highly capital intensive by comparison with those prevailing in the 19<sup>th</sup> century. This limits not only the number, but also the type of job opportunities. Locally-recruited labour often lacks the skills required to operate complex machinery and management usually remains in the hands of imported expatriate personnel. This in turn creates an enclave mentality in which mining communities remain isolated from the wider society of the country.

Many of the biggest disappointments have resulted from the failure of mineral processing and related downstream manufacturing to develop at or near the site of extraction. It is these activities which create the largest number of jobs and frequently the greatest profit. They are therefore, highly desirable from a policy perspective. It is not only governments in developing countries which have been frustrated by the minimal extent of downstream processing; state authorities within developed economies have had similar experiences. The contribution on people and culture/heritage within close proximity to the mining operation (host communities) by the industry should create an environment that will accept and encourage development (McDivitt and Jeffery, 1992).

Investigations carried out by Humann (2004) revealed the Luka community (South Africa) representatives staunchly opposed the proposed Impala open cast mine on the grounds that the community has not benefited from the company's historical activities in the area and has not been adequately compensated for negative impacts caused by the company activities in the area. The research also revealed that the company efforts to communicate directly with community representatives in the local government ward committee, including constructing a small office building to facilitate community meetings and interaction with the company yielded little or no result due to tribal faction not until the company realises that, given the new, increasing motives for community engagement, supporting legitimate representation structures in the community.

Mining activities can led to health effects ranging from respiratory problems to mental disorders. Studies in Tanzania revealed that symptoms of heavy metal poisoning such as sensory disturbance, hyporeflexia, tremor, gingivitis, metallic taste, neuroasthenia and night blindness are common (Harada *et al.*, 1999). In the last five years, studies on environmental impact of limestone mining and processing in Sagamu (Sagamu – Ogun State, Nigeria) have revealed a declining kola nut output from the plantations within a few kilometres radius of the cement factory (Adekoya, 2003; Aigbedion, 2005). Exploitation and processing of minerals in a particular area creates cultural impacts, which involves the changes to norms, values and beliefs of individuals that guide and rationalize the cognition of themselves and their society (Burdge and Vanclay, 1996).

## The Study Area

The Quarry is located North-East of the main cement factory itself which is about 65km North-East of Lagos. This is within the South-Western part of Nigeria, which is located on Latitude  $6^{\circ}55'N$  and longitude  $3^{\circ}12'E$  near Ewekoro village, along Lagos Abeokuta highway, geographically within the Dahomey Basin. The Dahomey Basin extends to the West as far as the Togolese Republic and is bordered on the East by Niger-Delta. The undifferentiated rocks of the basement complex of South Western Nigeria, which are mainly gneiss in nature, act as the Northern border, while to the South is the Gulf of Guinea. Figure 1 shows the map of Nigeria indicating Ogun State is located, while figure 2 shows map of Ogun state where Ewekoro is located.

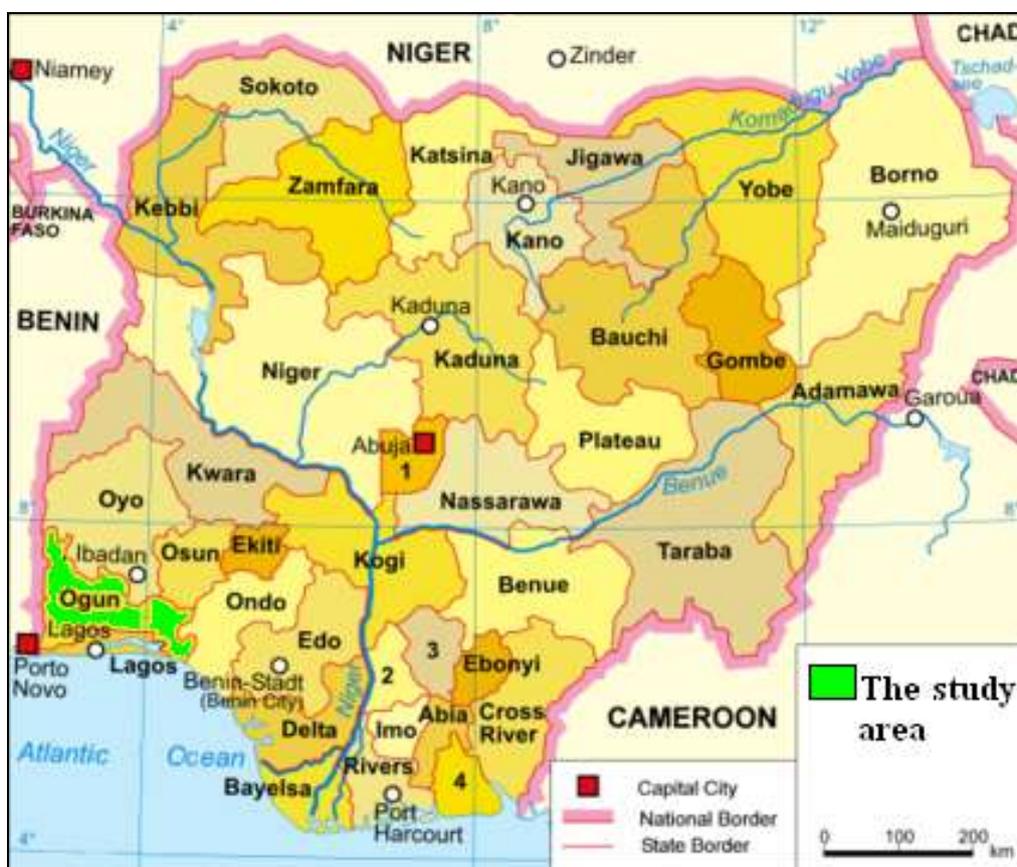
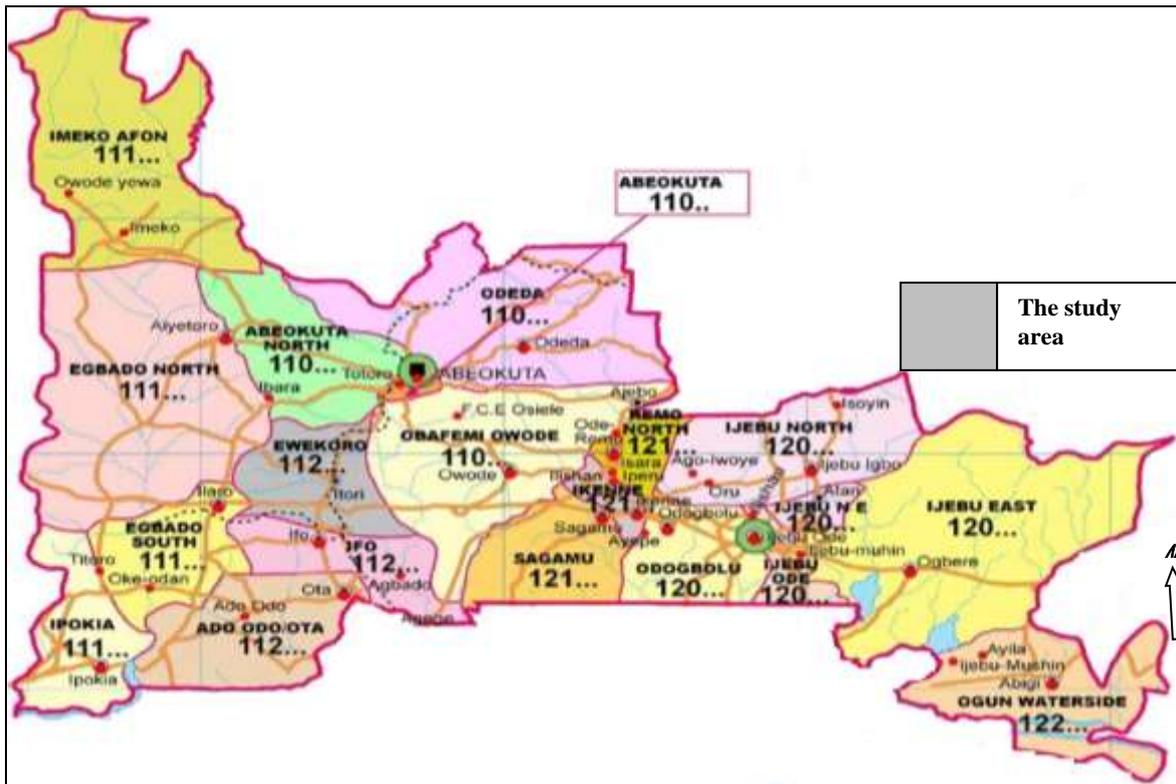


Figure 1: Map of Nigeria showing the position of Ogun State (J.A. LesEdition, 2002)



**Figure 2: Map of Ogun State Showing the study area –Ewekoro (Adapted from NIPOST post code)**

The objective of this study is to assess the socio-economic impacts of quarrying and processing of limestone in Ewekoro, Nigeria and to make suggestions for possible ways of improving the company communities' relation in the area.

## MATERIALS AND METHODS

This study was conducted in Ewekoro, a village in Ewekoro Local Government Area of Ogun State, in Nigeria. The vegetation is grass shrubs, with thick green vegetation covering its overburden, signifying Guinea Savannah. There are settlements around limestone quarry/cement work in Ewekoro most of which have turned to villages, such as Akinbo, Olapeleke, Oke-oko, Agbesi and towns like Papalanto and Itori which is the local government headquarter, about 4km from the cement factory. The major occupation of the inhabitants of Ewekoro and her environment is farming, with rice, cassava and sugarcane as predominant crops. Data were collected through the use of questionnaires and oral interview; visitations were made to the community health centre and Local Government Secretariat. Two hundred (200) pre-tested well-structured questionnaires were distributed to the residents of the communities and the workers in the factory, out of which one hundred and sixty-two (162) were returned. The recovered questionnaires were subjected to percentage and statistical analyses. The results of the analyses are presented in Figures 3 to 10 below. Some selected socio-economic features of the respondents are summarized in appendix A.

## RESULTS AND DISCUSSIONS

### Respondents on the Basis of their Socio-demographic Characteristics

Figure 3 shows that 22.84% of the respondents were between 25-39 years of age, 29.63% were between 40-54 years of age, those that are 55-61 years old were about 25.31% and 22.22% were 70 years and above. With this scenario, it was inferred that the percentage of the working group was more, compared to the dependant; hence it gave an overview that most of the people living here were adults, out of which 89% were male. This is one of the reasons while the residents engaged mostly in farming activities to fend for their daily leaving (Fig. 4).

According to Figure 5, about 51% were found to be Christians, 48.2% were devoted Muslim (Islamic faith) and small proportion were traditional worshipper. Physical observation in the study area and oral interview conducted confirmed that there was no permanent place of traditional worship that the mining activity disrupted nor did the cement industry did anything against any traditional belief of the people. Figure 6 shows that about 84% of the respondents were married while 5% were single. It shows the predominance of dependence and culture, societal norms within the community must have been quieted and some of the singles will have been able to move out to the neighbouring communities in search of greener pasture. Also, from Figure 7, it could be deduced that larger number of respondents (57%) had been in the various settlements for at least 20 years. Therefore, they were in better position of giving fair assessment of their environment and some of the benefits they must have derived from the industry if any. However, Figure 8 shows that their educational background was found to be generally poor as over 50% of them did not have adequate education, about 32% had no formal education and 2.47% had post secondary education. The two primary schools in the area i.e. Baptist Day Primary School, Agbesi and Local Government Educational Primary School at Olapeleke were not centrally located to the benefit of all host communities. We can deduce that due to the low and poor educational background, these host communities could not optimize the benefits of the mineral and cement industry in their domain, also the effect of scholarship awarded by the cement industry could not be felt, even though, few of the community residents clamoured for it, but had not actually benefited. Only people that reside far from such community enjoy the benefit. The lack of good educational background shows how underprivileged and underdeveloped these host communities had been.

### Respondents Socio-economic Characteristics.

Figure 9 shows that majority of the respondents (34.57%) did not have income that is up to N90, 000 (\$600) per annum from the jobs they engaged in. These jobs include farming, petty trading, unskilled labourer in the cement industry and some local government workers [civil servants]. While 24.69% made between N90, 000-N150, 000 (\$600 –\$1000) per annum, most of the civil servants and teachers (21.6 – 16.05 %) used to make between N150, 000-N270, 000 (\$1000 - \$1800) per annum. Only a few people among the civil servants and teachers make (3.09%) above N270, 000 per annum. This statistics invariably shows that, the people are still living below standard economy values, moreso, those that were earning above N270, 000 (\$1800) were business enterprise owners, whose business centres were located near the cement industry and some workers in the managerial positions (who are not indigenes of the villages, though, some are from the state) in the cement company. In most cases, these business owners were not permanent residents of the study area. It is therefore unrealistic to

assume that these amounts of money could commensurate with the future implication of the socio-economic impact of the limestone mining and processing of the community.

### **Responses on Health**

During analysis of health data, the respondents claimed that dust emission from the cement works had adverse effects on their health; majority of them did not visit hospital. For instance, 162 of all the respondents did not visit hospitals occasionally; only about 13% of them visit the hospital regularly, while about 11% did not visit the hospital regularly. Figure 10 shows that the ailments commonly treated included headache/fever (28.9%), malaria (19.8%), stomach problems (14.0%), eye problems (16.5%), cold/catarrh (9.9%), skin irritation (6.6%) and cough (4.1%). The frequency at which these ailments occur tends to suggest that the limestone quarrying and processing activities have no significant adverse effects on the health of surrounding communities.

### **Competition for Social Amenities**

As a result of the effect of limestone mining and processing in Ewekoro, it has given rise to competition of social amenities in surrounding towns, such as Ifo, Papalanto, Arigbajo and Itori. This has increased the population of residents in these towns; hence it has stressed food, water and other suppliers to the limit. This increase in population has led to inflation, due to increase in demand for certain food item which had been unable to meet up with agricultural produce as a result of withdrawal of inhabitant from farming. There was high competition for available social amenities due to shortage of housing, school, electricity and medical facilities. The electricity supply in Ifo was being rationed due to high increase in number of residents, also the water supply from Papalanto was erratic in supply. The available schools were not enough, thereby increasing staff student ratio.

## **CONCLUSION AND RECOMMENDATION**

In this paper, the reports on the assessment of the socio-economic effects of limestone quarrying and processing operations at Ewekoro, South-Western Nigeria has been presented. From the results obtained, both from the respondents through questionnaires and personal visitation, it could be concluded that the lifestyle of the people is still below standard in comparison to non-mineral exploiting areas, also their level of education is poor, and there is higher percentage level of illiteracy. This is an indication that the host communities have not been able to optimize the benefit of the mineral industry.

The main challenge now is not so much to debate potential policy prescriptions, but rather to develop practical mechanisms to ensure that those good policies which are being conversed by MSMD (Nigeria Ministry of Solid Mineral Development) be widely implemented – whether by governments, companies or other actors. There is need for collaborative approaches involving companies, governments, inter-governmental organizations, NGOs and communities. Together, these organizations can address development priorities and ensure that public revenues from mining are used to enhance overall socio-economic development in the host communities and Nigeria as a whole.

The Government of Nigeria should adopt a system whereby any company with good records of impacting positively in their host communities are given tax relief equivalent to amount

expended in such projects/programs. The scorecard should be based on question such as “Has the company co-operated in the formulation of integrated development plans and is the company co-operating with government in the implementation of these plans for communities where mining takes place and for major labour sending areas? Has there been effort on the side of the company to engage the local mine community and major labour sending area communities? (Companies should be required to cite a pattern of consultation, indicate money expenditures and show a plan)”.

There is a common practise in South Africa whereby mining companies embark on developing young able bodies from their host communities by full footing their education cost up to University level and later employ them into their mining companies. Selection of people for scholarships must not be based on politics or man-know-man. People from the host communities must be given priorities during selection process. Lastly, the following additional recommendation should be implemented to improve the existing relationship between the company and the host communities:

1. Regular assessment of environmental impacts and mitigation through technical initiatives with collaborative efforts of research institutes should be encouraged.
2. To improve access to qualitative education, the company should initiate the provision of schools (primary and secondary) and finance all its expenses to assist the government’s effort towards the development of the community.
3. ‘Health is wealth as the common adage says’ therefore, in order to sustain the wealth of the industry, another health centre should be provided with both medical personnel and facilities in place.
4. Royalties paid to government by the cement industry should be a benefit for all community members; hence the government should endeavour to provide basic amenities for the residents living around the cement factory.
5. The farming activities of the residents can be better encouraged by the provision of fertilizers to further help improves the soil quantity such as the supply of organic manure.
6. There is need to open a permanent office in the Local Government Secretariat for representative of the communities, Local Government nominated official and the company representative monthly meetings. This will enhance quick development rather than pumping money to the Local Government and nothing to show for it at the end of the day.

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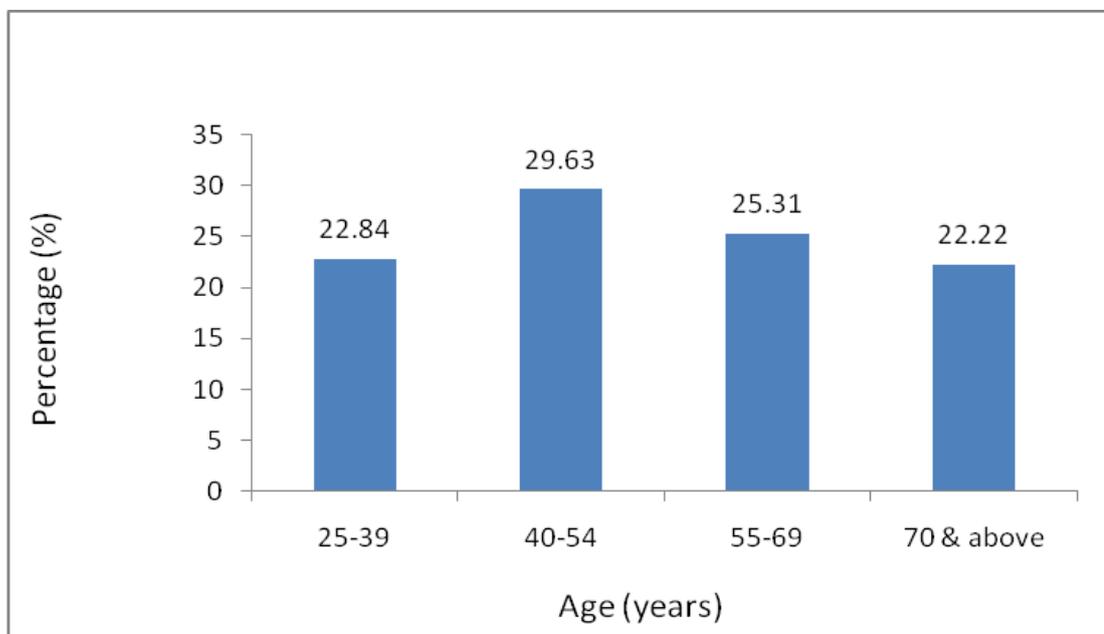


Figure 3: Distribution of Respondents' Age

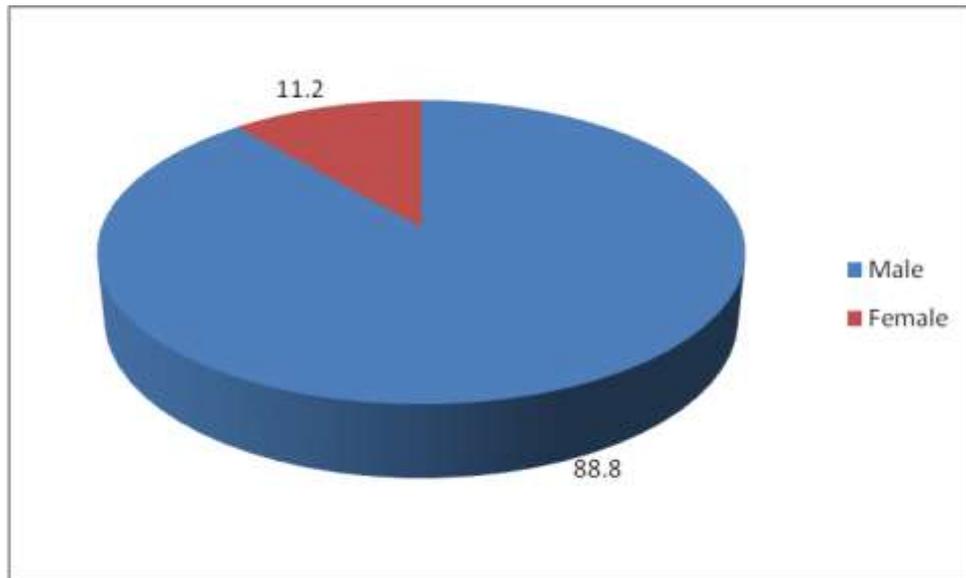


Figure 4: Distribution of Respondents' Sex

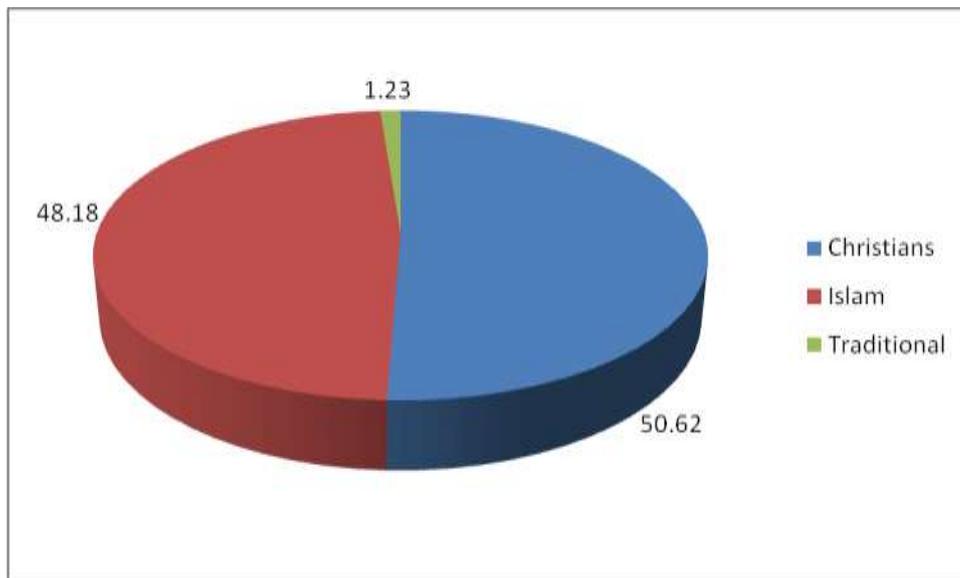


Figure 5: Distribution of Respondents' Religion

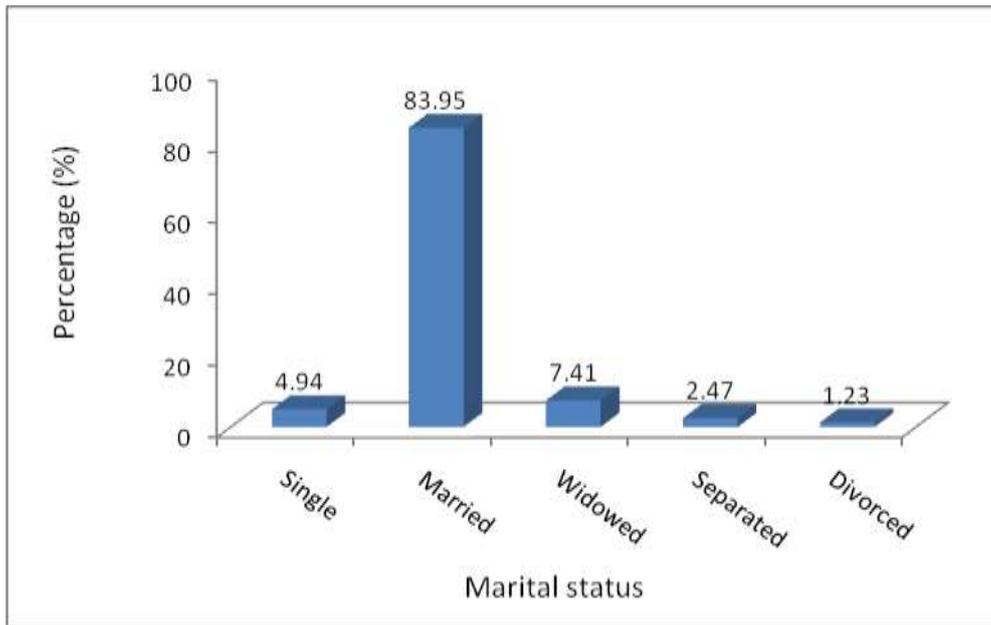


Figure 6: Distribution of Marital Status

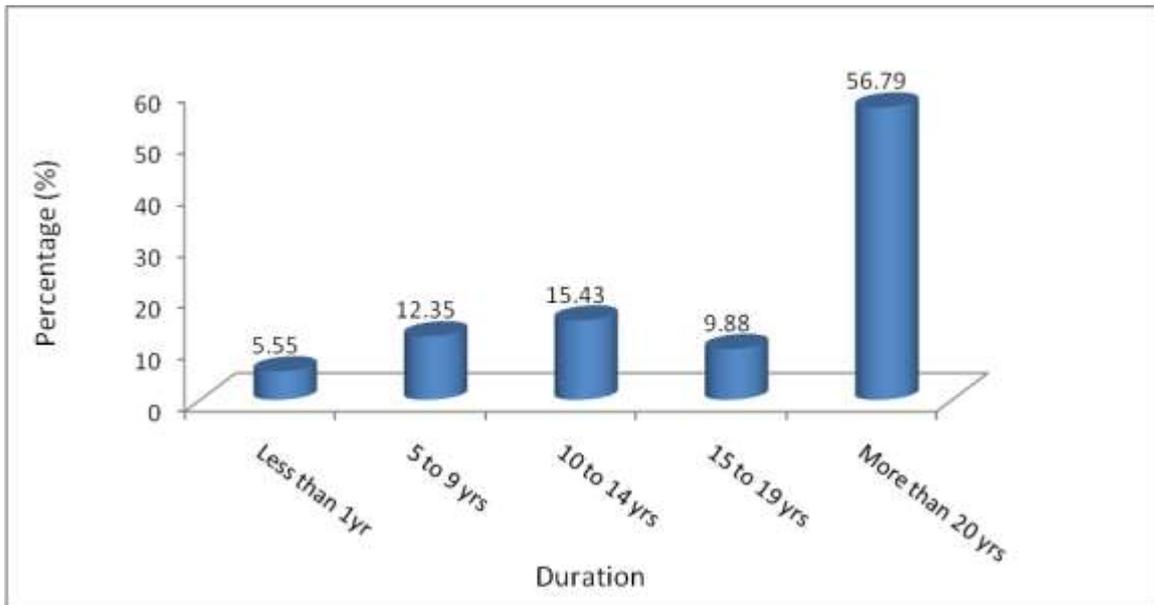


Figure 7: Length of Staying in the Settlements

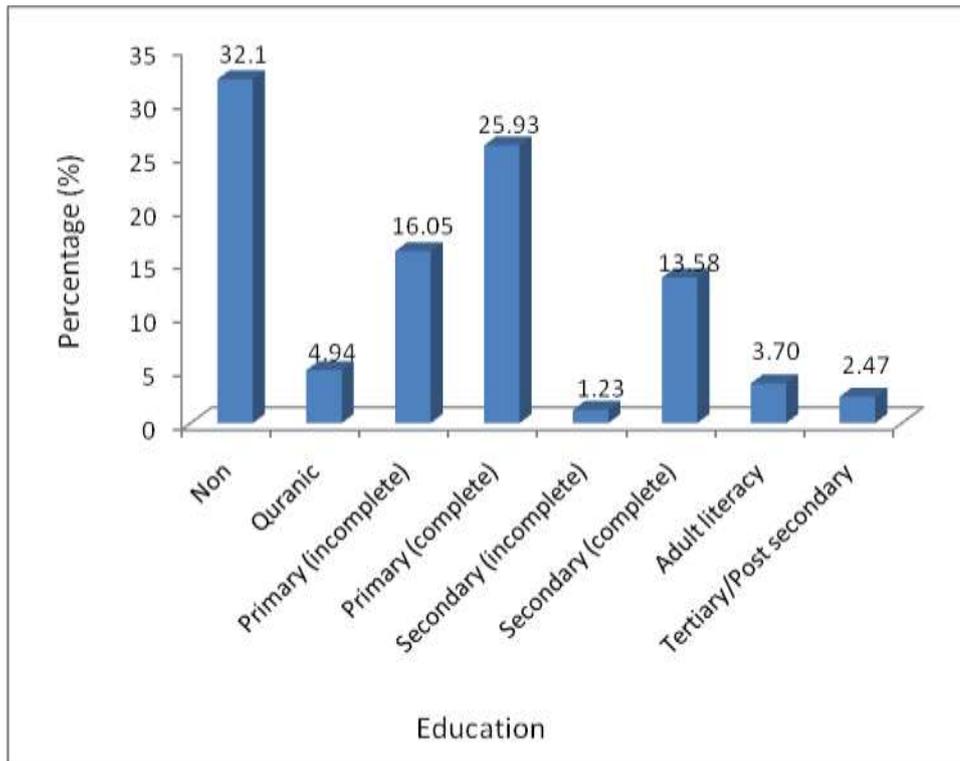


Figure 8: Educational Development

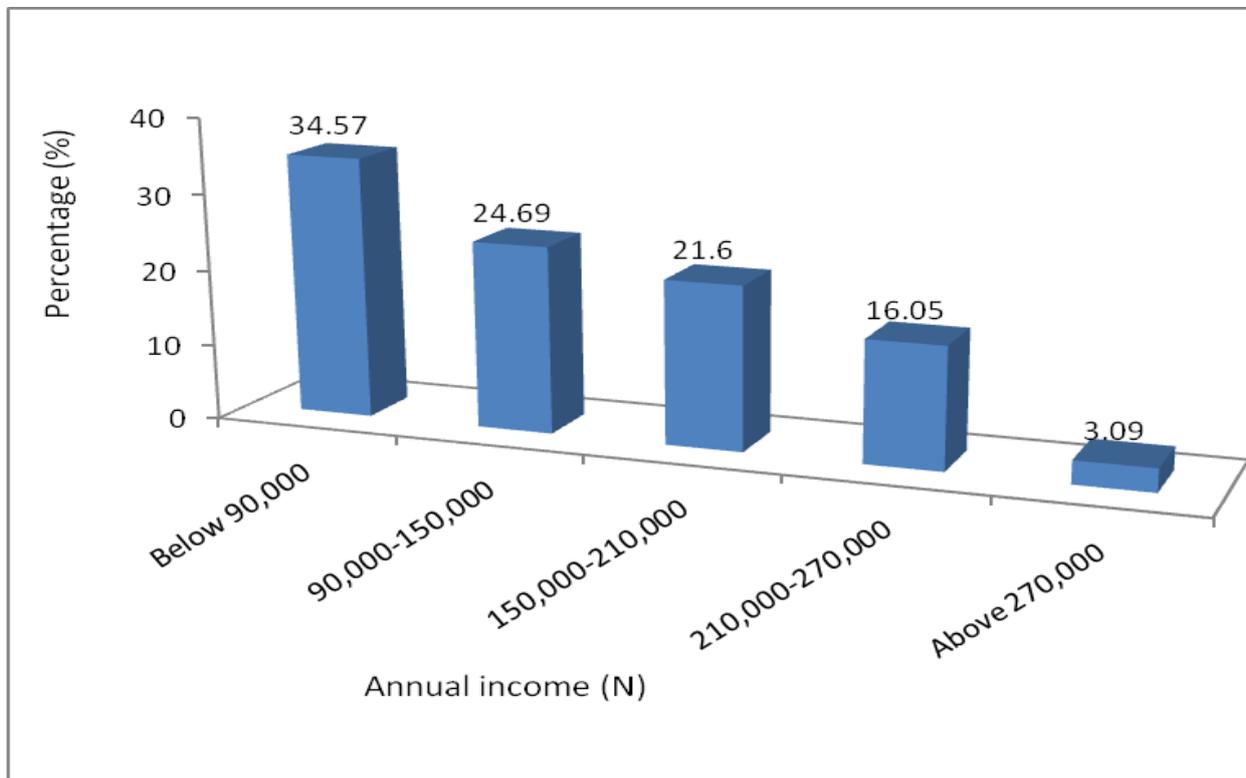


Figure 9: Percentage Annual Incomes

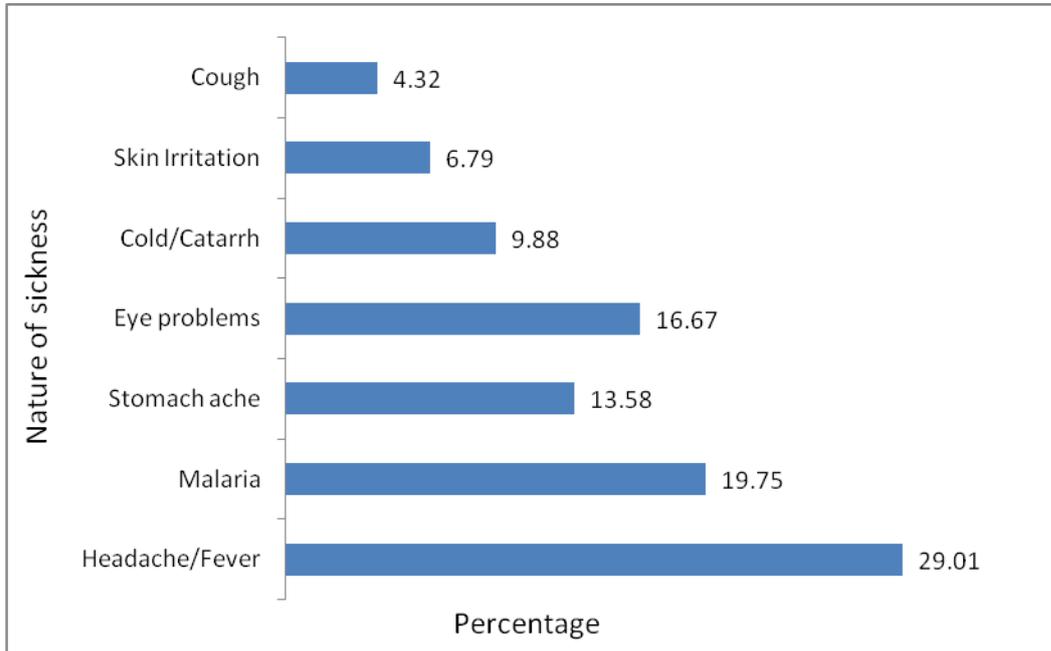


Figure 10: Responses of Respondent on Health

**Appendix A****CHARACTER OF RESPONDENTS**

Distribution of respondents age		
Age (yrs)	Frequency	Percentage (%)
25-39	37	22.84
40-54	48	29.63
55-69	41	25.31
70 & above	36	22.22

Distribution of respondents sex		
Gender	Frequency	Percentage (%)
Male	144	88.80
Female	18	11.20

Distribution of respondents religion		
Religion	Frequency	Percentage (%)
Christians	82	50.62
Islam	78	48.18
Traditional	2	1.23

Distribution of respondents marital status		
Marital status	Frequency	Percentage (%)
Single	8	4.94
Married	136	83.95
Widowed	12	7.41
Separated	4	2.47
Divorced	2	1.23

Distribution of respondents on health		
Nature of sickness	Frequency	Percentage (%)
Headache/Fever	47	29.01
Malaria	32	19.75
Stomach ache	22	13.58
Eye problems	27	16.67
Cold/Catarrh	16	9.88
Skin Irritation	11	6.79
Cough	1	4.32

Length of staying in settlements		
Duration of settlements (years)	Frequency	Percentage (%)
<1	9	5.55
5-9	20	12.35
10-14	25	15.43
15-19	16	9.88
>20	92	56.79

Educational development		
Level of education	Frequency	Percentage (%)
Non	52	32.10
Quranic	8	4.94
Primary (incomplete)	26	16.05
Primary (complete)	42	25.93
Secondary (incomplete)	2	1.23
Secondary (complete)	22	13.58
Adult literacy	6	3.70
Tertiary/Post secondary	4	2.47

Distribution of annual income		
Annual income (N)	Frequency	Percentage (%)
Below 90,000	56	34.57
90,000-150,000	40	24.69
150,000-210,000	35	21.60
210,000-270,000	26	16.05
Above 270,000	5	3.09