Making Basic Education Physically Accessible in 'Education Ostracized Communities'

By Mr. Michael Biwalib Madin and Dr. Charles Peprah

Abstract
This paper examines the IBIS- Ghana (a name in a symbolic reference to an Ibis bird) Project efforts toward making basic education physically accessible in order to provide the empirical evidence required to redirect development efforts in education. To achieve this, both qualitative and quantitative data were collected from secondary and primary sources, and then analyzed. The analysis showed that through the project intervention, 300 previously school drop-out children in the beneficiary communities have been enrolled into formal education (primary school), exceeding the initial target of 200 children. Nonetheless, the project is confronted with challenges such as inadequate teachers in its implementation. Consequently, it is recommended that the National Service Scheme, as well as the diploma for the untrained teachers' initiatives, should be explored to facilitate the project's efforts toward increasing access to basic education. It is further argued for the replication of the efforts of the project in order not to leave out the "education ostracized communities" from the benefits of the free compulsory basic education policy.

Key Words
Education ostracized communities, accessibility, basic education, social intervention project, IBIS-Ghana.

INTRODUCTION
Sustained access to education in all its form is essential in ensuring a long-term increase in productivity, reduction and/or breaking the intergenerational cycle of poverty, demographic transition, preventive health care, enhancement of women empowerment, and reductions in inequality (Lewin, 2010). Similarly, Akyeampong et al. (2012) opined that basic education serves as the basis for unearthing human capital and is linked to well-established socioeconomic benefits. They attributed these to reduced family size and the improvement of health and well-being which serve as prerequisites for poverty reduction. These arguments aligned with recent global efforts toward championing access to basic education. An example of these efforts is SDG 4 dedicated to ensuring inclusive and equitable quality basic education. Yet, access to basic education in Ghana, more specifically the East Gonja District (EGD), continue to leave much to be desired. The major impediment being bridging the physical access gap in the deprived communities or individuals (referred to in this research as" education ostracized communities) for which education sector investment has dwindled in terms of progress. As a result, Akyeampong et al. (2012) argues that basic education has failed the poor and marginalized them in terms of access and advancement through to successful education completion in Ghana.

Furthermore, Northern Ghana and specifically the EGD is confronted by limited opportunities to escape from poverty (East Gonja District Assembly EGDA, 2016) with poverty levels persistently over half of the population (63.4% in 1992 and 50.4% in 2013) much higher relative to Southern Ghana (41.2% in 1992 and 14.8% in 2013) (World Bank, 2011; Cooke et al., 2016). These limited opportunities include limited access to education, health services, and both job and commodity market among other public services relative to their southern counterpart (Kees, 2011). Clearly, the bewildering poverty level (as established by Ghana Statistical Service, 2014b) in the District cannot be isolated from poor physical accessibility to basic education especially when evidence shows a positive correlation between the output of semi-subsistence agriculture households in the northern regions and the literacy level (Shepherd et.al., 2005). See the first paragraph of the executive summary of CARE International (2013 p.5) for similar arguments.

Likewise, the Ghana Statistical Service (GSS, 2012) provides a revealing evidence to show that 59.2% of the people 12 years and older in EGD have never attended school with which females constituted the majority at 62.5%. Similarly, EGDA (2014) also showed that school drop-outs (aged 6 to 11 years) constitute close to half (49.6%) of the total enrolled in rural communities. This situation is reflected throughout Northern Ghana for three of the five regions (Northern, Upper East, Upper West, Central and Eastern Regions) that continue to be confronted with the lowest level of access to basic education reflecting in weak sustainable livelihood coping mechanisms since 1992. In terms of literacy, the GSS report illustrated that only 32.7% of the population 11 years and older are literate. Literacy rates are however higher among males (37.0%) relative to females (28.3%). Again, the District literacy rate of 32.7% is lower than the national rate of 74.1% and the regional rate of 37.2%. This clearly does not reflect a significant impact of the efforts toward achieving the national universal literacy policy.

This phenomenon in the District could partly be attributed to the fact that the quantity and distribution of basic educational facilities in the district are not evenly distributed (EGDA, 2014). Of more concern in this plight is the low enrollments particularly among the young girls due to the long average distance in commuting to the basic school facilities as a result of the dispersed nature of

settlements. Explicitly, the situation calls for conscious efforts in ensuring physical accessibility to basic education. However, the efforts of the Assembly alone would be woefully inadequate without the support of International Development Partners (IDPs) and other bodies. Consequently, this research sought to examine the IBIS- Ghana's (one of the IDPs) efforts toward bridging physical accessibility to basic education to help provide lessons as well as empirical evidence needed to redirect efforts in education. It is worth noting that although the scope of this study and analysis are based on the East Gonja District of Ghana, the findings and recommendations are expected to be applicable Globally.

BACKGROUND OF STUDY

Overview of the Concept of Accessibility to Education

Accessibility is one of the multidisciplinary concepts used differently in planning, geography, architecture, medicine, education, engineering and others (Jones et al., 2002, cited by Peprah et al., 2015). This has resulted in diverse contextual meanings of the concept. Hence, the meaning of accessibility to education in the available scholarly literature has been skeptical and scanty. In this paper, accessibility to education is viewed as the ability of all persons to have equal opportunity in attaining education, irrespective of their income, class, gender, ethnicity, race, geographical location or physical and mental disabilities. Meanwhile, Nkum (2003) opined that within a particular community, student accessibility to an educational facility would differ being high, medium or low access. Nkum referred to high access at all locations in the community that are within the reach of the school within a given reasonable travel time whilst low access refers to all locations in the community that falls outside of the reach of the facility within the acceptable travel time. The author, however, failed to illustrate clearly medium access as he tries to argue in the simplicity of it being the regions between the high and low access zones.

Furthermore, physical accessibility to an educational facility is seen as the ease at which an individual can travel from a given location to an educational facility within a given geographical location (Nkum, 2003). This is determined by the time spent in traveling between the two locations (travel time), which in turn depends on distance. Distance is considered as the principal determinant of the travel time since walking and bicycling are not significantly influenced by the conditions of the roads. As such, the most common means of shuttling to school in these areas is by walking and bicycle (Nelson et al., 2008). Alternatively, the concept of economic accessibility relates to the level at which facilities are affordable to all people in a manner which does not diminish their ability to buy other fundamental basic needs (Frone and Frone, 2013). Therefore, education can be said to be economically accessible if a given household's annual income spent on it does not exceed 10.6% (Ghana Statistical Service, 2014a). A more generic definition is the one provided in Article 26 of the UN Declaration of Human Rights. The declaration states that "Everyone has the right to education which shall be free and compulsory at least at the basic level." (The United Nations, 2010). This Declaration, therefore, requires all United Nations members to strive toward achieving equal access to basic education (in both economic and physical accessibility).

Physical accessibility to basic education in this research is referred to as the ability of the individual to access a basic school facility within a radius of 3.2 km irrespective of their location. The distance of 3.2 km is adopted from the Ghana zoning and planning standards. In recent years, the government of Ghana has instituted phenomenal efforts such as the Capitation Grant, School Feeding Programme, free distribution of school uniforms, exercise books and textbooks, and the free compulsory universal basic education policy which have achieved some level of success in ensuring economic accessibility to basic education among all households (Amuzu et al., 2014). So, this research mainly focuses on the efforts toward physical accessibility as a prerequisite for the enjoyment of economic accessibility.

Physical accessibility to basic education- which is dependent on the parity of educational facilities distribution, is negatively influenced by the planning standards adopted in the country. According to the standards provided by the Republic of Ghana (2011), basic schools are to be located within communities with populations up to 5,000. Also, the walking distance between the houses and the school should a maximum of 3.2 km (equivalent to 15 to 30 minutes) in dispersed rural settlements. The Cap 84 of 1945 and Act 936 of 2016 provide a legal basis for this guideline which is binding for all persons, organizations or institutions proposing the location of basic educational facility as defined in the law. In the same manner, the practice has taken a heavy toll on the rural communities in terms of physical access to basic education in EGD. This is on the backdrop that the rural communities are scattered and sparsely populated to meet neither the 3.2 km or the 5,000 population requirements. This creates a concern on the premise that the lack of physical accessibility to basic education facilities denied these communities the chance of benefiting from the free compulsory basic education policy and, more importantly, their right to education. This paper calls for a second look of these planning standards in educational development efforts by adding 'human face' to it.

IBIS- Ghana Efforts Toward Making Basic Education Physically Accessibly in Northern Ghana

According to the Republic of Ghana (2013), basic education comprises pre-school as well as primary and junior high school. Access to these levels of education is considered fundamental to the education of the individual (Amuzu et al., 2014; The Republic of Ghana, 2013). However, a comparative analysis in terms of regional distribution of basic educational facilities revealed disproportionate facility distribution (GSS, 2014b). For instance, 82.8% of the rural communities in the Ashanti region have pre-schools whilst only 49.5% of the rural communities in the northern region have pre-schools. Again, 84.5% of the rural communities in the Ashanti region

have primary schools relative to 64.2% in the northern region. Similarly, 31.6% of the rural communities in the northern region have junior high schools compared to 74.1% of those in the Ashanti region.

A further analysis showed that 26.3% of out-of-school children in the Northern region are not attending school because the schools are too far away from their communities (GSS, 2014b). Clearly, these disparities present a huge gap in physical accessibility to basic education in the Northern region of which EGD is a part. This could be considered the most unfortunate form of educational exclusion. More so, the situation certainly impedes the efforts toward achieving Free Compulsory Universal Basic Education. As a result, some IDPs have initiated Social Intervention Projects (SIPs) toward combating this phenomenon. An example is the Campaign for Female Education (CAMFED) Association. The association focused on rural communities (where poverty is chronic and pervasive) where girls are faced with exclusion from education and opportunities that are offered by education (Alhassan & Sulemana, 2014). It works to provide girls with a supportive environment in which they can attend and succeed at basic school levels and progress into opportunities that include professional training, higher education, and job creation. In addition, Social Enterprise (SEND) Foundation Ghana also contributes toward access to basic education in the northern region (Wood and Swan, 2001). The SEND Foundation recognized gender inequity in basic education as a development challenge in the region coupled with low confidence of rural girls which have shaped Foundation efforts toward making basic education accessible. Also, Action Aid has implemented projects in the region toward its vision in education by working with the government to form partnerships across the society to ensure quality early childhood education and adult learning linked to social change (Alhassan & Sulemana, 2014). Alhassan and Sulemana (2014) further illustrated that Action Aid contributions have resulted in its pioneering adult literacy tool and resource support to the education sector.

Clearly, the glaring physical accessibility disparities to basic education in rural communities in the Northern region seems to be neglected by the interventions of these and other IDPs. This is also evident in their advocacy efforts in various forms including media education for the need for children's (especially the young girls') education and the capacity for creating teachers. In addition is the IDPs financial or other resources support to the government (District Assembly) in the education sector as well as the institution of various types of scholarship schemes (Alhassan & Sulemana, 2014) to the detriment of physical accessibility.

MATERIALS AND METHODS

Study District

The East Gonja District Assembly is one of the districts was carved in the Northern Region by a legislative instrument (LI 1938) in 2007. It is located at the southeastern corridors of the Northern Region of Ghana. The district lies between latitude 8o00o and 9o29o north, and longitude 0o29o East and 1o26o west (see Figure 3.1). According to the Ghana Statistical Service (2014), the total population of the District stands at 134,450 in 2010. More so, the total number of 69,721 of males (51.9%) is higher than the 65,729 of females (48.1%).

It shares common boundaries with the Mion District and the Tamale Metropolitan Assembly in the north; the Central Gonja District in the west; the Nanumba-North, Nanumba-South and Kpandai Districts in the east; and the Brong-Ahafo Region to the south, respectively (see Figure 3.1). Thus, the district covers a total land area of about 8,340.10 square kilometers, representing about 11.95 percent of the total area of the Northern Region. This gives a population density of about 16 people per square kilometer. Its size makes the district the largest in the Northern Region as well as in the country in terms of land mass (Ghana Statistical Service, 2014a). Salaga, the district capital is located in the central part, which is about 119.3 kilometers from Tamale, the regional capital (see figures 3.1 and 3.2). The study communities are Tachipe-Kulupi, Mantalopo, and Kinklin Nkwanta. Figures 3.1 and 3.2 show the District Map and the East Gonja District in national context, respectively.

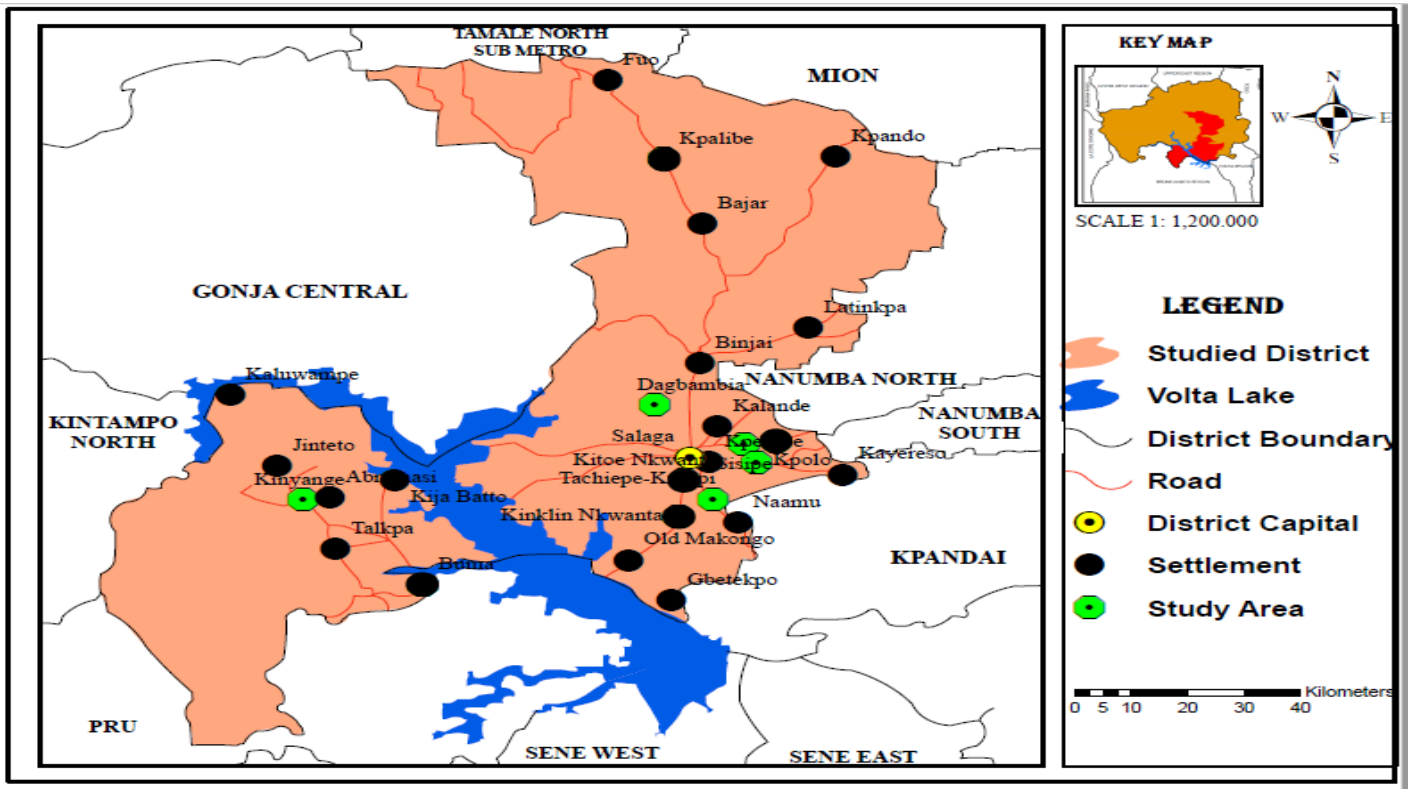

Figure 3.1: Map illustration of the study area in the district context with the selected settlements where beneficiary households were sampled in light green (The other settlements that were not sampled are differentiated with black color as indicated.)
Source: Ghana Statistical Service 2014

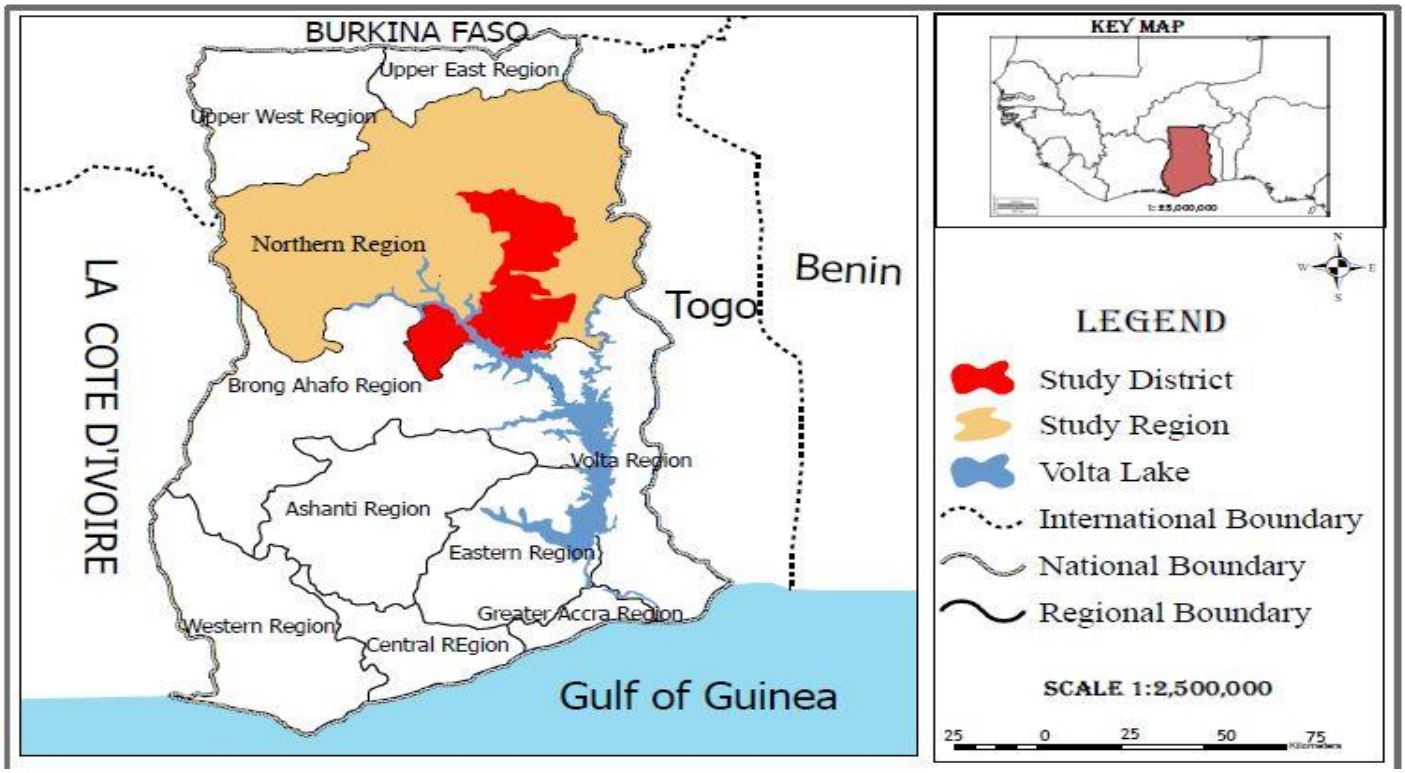

Figure 3.2: Map illustration of the Study Area in the National context relative to other regions in Ghana.
Source: Ghana Statistical Service, 2014

Methodology

A combination of qualitative and quantitative techniques of data collection and analysis was used in this research. Data on specific areas of the design, implementation, and outcomes of the SIPs initiated by IBIS- Ghana in the study area were collected. A sample size of 36 households was obtained by taking a sample frame of 79 households (total household beneficiaries of the three selected communities) with an error margin of 5% (see Appendix1). The beneficiary 36 households surveyed during the study were based on a systematic sampling approach. Thus, the households were selected systematically proportionate to the households' population of each of the three selected communities based on the District 2014 projected 2010 Population and Housing Census statistics. In addition, a purposive sampling was used to collect data from key institutions such as the IBIS-Ghana Office and the District Planning Coordinating Unit, Chiefs, Assembly Members as well as Unit Committees in the district. Structured questionnaires and interview guides were used to interview household heads as well as to obtain information from key institutions involved in the design and implementation of the SIPs.

The data collected from both primary and secondary sources were organized, rationalized and analyzed using both qualitative and quantitative methods to draw rational conclusions and inferences. Tables, charts, percentages, and graphs were employed in analyzing quantitative data such as households' total enrolments and total school dropouts, while descriptions were used in the case of the qualitative analysis of the level of project perceived outcomes and satisfaction. This was done using the Statistical Package for Social Scientists software (SPSS) to aid the analyses.

SPSS was used to categorize, tabulate and decode data into frequency tables to address the study objectives as per the research questions. Meanwhile, with the qualitative data analysis, inference and content analysis were utilized.

RESULTS AND DISCUSSIONS

The IBIS-Ghana Education Social Intervention Project

The project primarily targets out-of-school children in the 'education ostracized communities' to help them physically access quality basic education. Precisely, the project assists children between 8 and 14 years old who have either never been to school or might have dropped out, to acquire basic education. In terms of operation, efforts are devised specifically to teach out-of-school children (in those communities) how to read, write and acquire numeracy skills (Complementary Basic Education- CBE) to enable them to be enrolled into formal education at the primary level. Also, the project help provides basic educational facilities (WING Schools) to 'education ostracized communities' (with distance exceeding 3.2 km to the nearest school). These approaches are in line with the Lewin (2007) CREATE's conceptualized education model of "zones of exclusion". He referred to this as Zone 1, consisting of children who never have the opportunity to attend or to enroll in school. Zone 2 consists of children who enrolled but dropped out after initial entry. one is comprised of children enrolled in school but are not attending regularly or who are at risk of dropping out. Finally, Zone 4is comprised of children who failed to move to the next level after completing basic education.

Further probes indicated that the project operates in two folds. The first fold consists of the Complementary Basic Education Schools which are designed to assist children between 8 to 14 years (with at least 50% being girls) how to read, write and acquire numeracy skills to be subsequently enrolled into formal education at the primary level. These targeted children have either never been to school or might have dropped out for some reasons (consisting the Zone 1 and Zone 2). In so doing, the survey reveals that 300 previously out-of-school children in the various communities have been enrolled in formal education exceeding the initial project target of 200 children. The second fold includes the WING Schools (which normally run kindergarten to primary three) established in 'education ostracized communities which are located outside the radius of 3.2 kilometers to the nearest schools but do not merit their own basic school based on population. This fold of the project is to provide relief and to aid children less than six (6) years who cannot walk the far distances to access basic education.

To benefit from this project, the intended beneficiary community needs to apply to the District IBIS office. The application is then vetted and if the application is successful, the community members are required to provide a structure (such as a shed) for the school. The study found out that the two folds of the project made use of facilitators (teachers) who are mainly members of the indigent communities. To ensure effective delivery, the facilitators are given workshop training to equip and build their capacity in child-centered teaching methodologies upon recruitment. Also, a facilitator must be literate in the language of the community as they use the mother tongue as both the literacy language and medium of instruction. These facilitators are given Gh₵100 ('soap money') monthly whilst parents are also sensitized to motivate them through monthly contributions (Gh₵1- Gh₵3) which vary across the communities, and in some cases, labor to help the facilitators on their farm.

Plate 4.1: A picture of IBIS- Ghana WING School in Sisepe (one of the sampled communities showed in **Fig. 4.1**) taken during the field survey.
Source: Authors' Field Survey, February, 2017

The effectiveness of the project in this study will be examined based on how the different aspects of the project have contributed or are contributing to the efforts toward addressing physical access to basic education in the District. More so, emphasis will as well be focused on how well the interventions have enabled the beneficiaries to pursue their basic education based on the identified focal areas illustrated below;

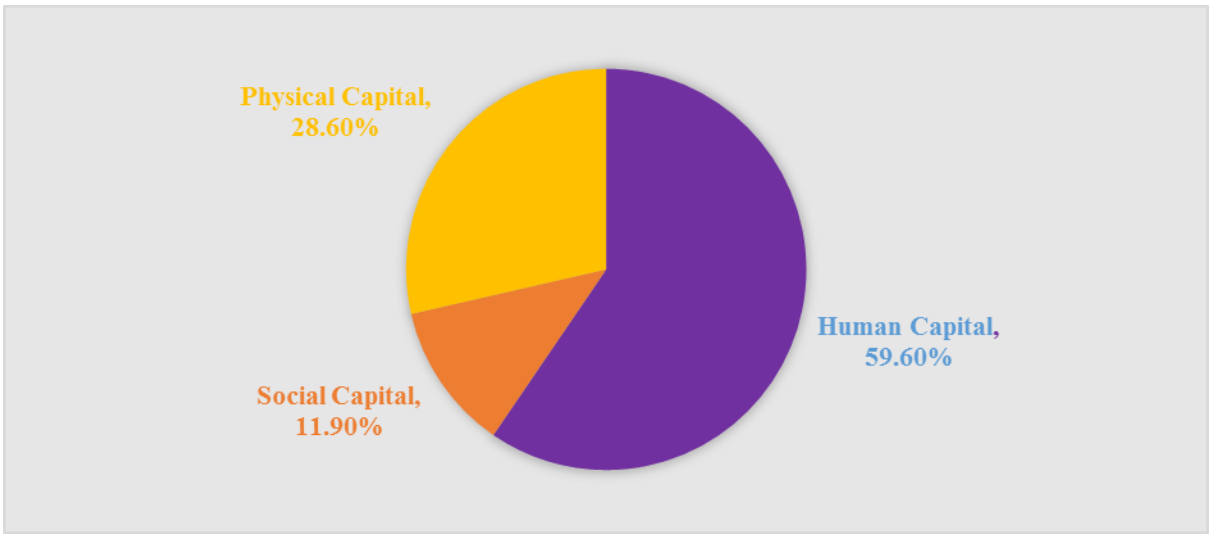

Figure 4.1: Comparison of the overall Focal Areas of the IBIS- Ghana Project in the EGD toward making basic education physically accessible.
Source: Authors' Field Survey, February, 2017.

From the data in Figure 4.1, it is apparent that the human capital (59.6%) component takes a greater chunk of the project delivery. This comprises 12.9% of the recruited facilitators (teachers) and the school management committee members who received capacity building training and workshops to aid in delivering their roles toward project objectives. It also included the project provision of education to the communities through the provision of structures, teachers, teaching and learning materials as well as capacity building programs for the District Assembly. This is essential in contributing to achieving Universal Basic Education linked to the livelihood objectives of the households. Basic education is critical for smallholder farmers who need to adopt new technologies, seeds, and crops in their daily livelihood (Abdul-Razak & Kruse, 2017; Asante et al., 2012), as over 80% of the households are engaged in the

agriculture sector. It is also evident in the Shepherd, et.al. (2005) analysis of GLSS4 data which showed a positive correlation between outputs of semi-subsistence agriculture households in the northern regions and literacy.

In addition, the social capital aspect of the project revealed that 10.8% of the respondents were part of the school management committee members to take charge of the management and operations of the established school at the community level. This is fundamental toward strengthening local institutions' capacity and creating a participatory environment aimed at ensuring a more supportive and cohesive social atmosphere for SIPs. It would as well ensure the sustainability and continuity of the project after the IDPs exit. Lastly, the physical capital aspect of the project included the construction of educational facilities for the communities of which 66.4% of the sampled households reaffirmed.

The Influence of the Project on Physical Accessibility to Basic Education

In assessing the project influence, 13.6% of the sampled households indicated that the project has increased literacy level among their children. Thus, comparative analysis of data shows that the project targeted population (children aged 8-14 years in the studied communities) literacy rate of 86.2% exceeds the district literacy level of 56.4% among children 11- 14 years old, indicating a positive outcome after SIP intervention. More so, 13.6% of the sampled households reported that the CBE has helped enrolled their children into formal education which was previously impossible. Data from the district IBIS-Ghana office confirmed that 300 previously out-of-school children in the beneficiary communities have been enrolled in formal education [primary school] exceeding the initial target of 200 children. Also, about 15.2% asserted that the project has encouraged children to help in household chores. Antony (2014) confirmed by arguing that education is linked with a wide range of positive livelihood outcomes such as better health and well-being, and less hostile attitudes.

In addition, the study shows that 18.2% of the sampled households attributed to the reduction in educational expenditure incurred previously in accessing basic education to the project. This is on the basis that parents initially needed to buy bicycles for their children to access basic education over six (6) kilometers from the community and as well give them money for daytime meals. A sampled respondent shared his view that:

"having the school in the community has saved me a lot of money because, with my six wards, I bought three bicycles for them, send them for repairs every week and as well gave the children 'chop- money' every day. But since the WING school has been established, I do not spend those monies on education again I rather used it to buy farm inputs for my farm as the children go to school" (Personal interview with a household head, Sisepe, February 2017).

Also, 30.3% of the sampled households attested that WING has freed up time used by parents initially in sending their children to school. However, this was unique to parents who wanted their wards to attend school but could not afford bicycles. Thus, these parents resorted to taking their children to and picking them up from school which resulted in a reduction in time for work. Clearly, the saved expenditure and time would help households increased their productivity and disposable income levels. It will as well save the time the children waste in commuting to school over a far distance.

Challenges of IBIS-Ghana Education Project

Education in all its form plays an inevitable role in development. As such, Lewin (2010) opined that sustained accessibility to education in all its form is essential for a long-term increase in productivity, reduction of intergenerational cycles of poverty, demographic transition, preventive health care, enhancement of women empowerment, and the reductions in inequality. Despite this critical role education has on efforts toward poverty reduction, there are certain challenges that impede the IBIS-Ghana in making basic education accessible in the district. As a result, 29.0% of the sampled respondents reported lack of adequate classroom blocks as a major challenge confronting the Project. The current state of the classrooms exposes the children to the mercy of bad weather. This is worsened in the raining season where classes are severely affected by rains as teaching and learning normal come to a halt on rainy days.

More so, 30.4% of the respondents indicated that inadequate remuneration of facilitators (teachers) was negatively affecting the full commitment of the facilitators in teaching the pupils. This is mainly because parents were not able to honor their contributions. Meanwhile, the lack of electricity in the communities for effective teaching and learning is as well reported by 11.6% of the sampled households to be impeding the success of the project. This is due to the fact that in an era where ICT is being promoted at basic education level, the lack of electricity in this communities affects the use of computers and the necessary accessories required for ICT lessons. The lack of electricity as well as impedes the ability of the children to learn during nights. Also, 11.6% cited the slow processes in adopting the WING schools by the government as a major challenge that puts the future of the project in limbo. Because IBIS management of the schools ended in 2017, the government was expected to adopt the schools into the public education system. That is, the government recruiting and remunerating teachers, providing teaching and learning materials as well as curriculum. Unfortunately, the government is reported not to be showing enough commitment toward its realization.

About 7.2% of the sampled respondents viewed high absenteeism due to the engagement of the pupils in farming activities as a challenge to the project. On the other hand, the ineffectiveness of the school management committee at the community level was reported by 2.9% of the respondents to be one of the challenges undermining the effectiveness of the project in the community as the committee members do not show enough commitment toward the discharge of their duties. Lastly, inadequate teachers for the CBE schools (cited by 7.2% of the respondents) serve as a challenge to the project. The program officer at Salaga in a personal interview equally emphasized the lack of project facilitators (teachers) in some communities. This is mainly because the project is aimed at recruiting facilitators with a good background in native language literacy and numeracy from each beneficiary community.

CONCLUSIONS

Despite available literature and statistics showing the existence of the physical accessibility gaps in certain rural communities ('education ostracized communities') that mitigate development efforts in education in the EGD, obviously, the IDPs support has neglected the situation. The IDPs support in the district for the past years continue to concentrate on intervening in the areas of research on girls' enrolment, attendance, performance and dropout in basic schools among others, to the detriment of pragmatic measures to bridge this physical accessibility gap.

As a result, this research provides evidence to redirect development efforts (as provided by IBIS- Ghana Project) toward this neglected but crucial situation. Thus, IBIS-Ghana education project recognized the situation by targeting children who never had the opportunity to attend or to enroll in school, and by targeting out-of-school children in 'education ostracized communities' to help them access basic education through improvement in physical accessibility. That is, through the provision of facilitators and basic educational facilities (WING & CBE schools) to those communities in the district with far distance (exceeding 3.2 km) from the nearest school and strengthening of local institutions' capacity and as well creating a participatory environment aimed at ensuring a more supportive and cohesive social environment for making basic education accessible.

However, it is recommended for government (the District Assembly) to fast track processes to ensure that the WING schools are absorbed into the public education system. The mainstreaming of the schools into the public education system would help solve the problem of the inability to enumerate the facilitators. More so, there is the need to explore certain government initiatives in the education sector such as the National Service Scheme, the education sector Youth Employment Module, and Educate Ghana (NABCO) as well as diplomas for the untrained teachers' program and among others to support the project in the quest toward increasing access to basic education. Also, the classrooms should be constructed to aid effective teaching and learning in the schools in these communities.

Mr. Michael Biwalib Madin: *is a Graduate Teaching Assistant at the Department of Geography and Environment, University of Denver, 2199 S. University Blvd., Denver, CO 80208, USA. Research areas; Education, Climate Change, Food Security, Seed Security and Resilient.*

E-mail: *Michael.madin@du.edu*

Dr. Charles Peprah: *is a Senior lecturer at the Department of Planning, KNUST, Kumasi, Ghana. Research areas; Education, Housing, Resilient and Land Use Planning.*

E-mail: *akwes2002@yahoo.com*

References

Abdul-Razak, M., & Kruse, S. (2017). The adaptive capacity of smallholder farmers to climate change in the Northern Region of Ghana. *Climate Risk Management*, *17*, 104–122. https://doi.org/10.1016/j.crm.2017.06.001

Akyeampong, K., Rolleston, C., Ghartey, J., Keith, A., & Lewin, M. (2012). Consortium for Research on Educational Access, Transitions and Equity Access, Transitions and Equity in Education in Ghana: Researching Practice, Problems and Policy. Retrieved from http://www.create-rpc.org/pdf_documents/PTA72.pdf

Alhassan, E., & Sulemana, I. (2014). Gender Access Gap in Basic Education: Can Non-Governmental Organizations (NGOs) Provide A Panacea in The Northern Region of Ghana? *International Journal of Education*, *6*(3), 175–191. https://doi.org/10.5296/ije.v6i3.6346

Amuzu, A., Osei-akoto, A., Anum, J., Mintah, S., Misefa, Y., Kusi-boateng, A., … Mensah, F. B. (2014). *Ghana Living Standard Survey Round 6 (GLSS6). Poverty Profile in Ghana (2005-2013).* Accra- Ghana.

Antony, M. (2014). The Wellbeing Effect of Education, Evidence Briefing. Highlighting Research Findings and their Relevance in Key Policy Areas. *Economic and Social Research Council*, (July), 2. Retrieved from http://www.esrc.ac.uk/files/news-events-and-publications/evidence-briefings/the-wellbeing-effect-of-education/

Asante, F. a., Boakye, a. a., Egyir, I. S., & Jatoe, J. B. D. (2012). Climate change and farmers' adaptive capacity to strategic innovations: The case of northern Ghana. *International Journal of Development and Sustainability*, *1*(3), 766–784. Retrieved from http://isdsnet.com/ijds-v1n3-11.pdf

CARE International. (2013). Adaptation Learning Programme (ALP) climate change vulnerability and adaptive capacity in Northern Ghana. Accra, CARE International and ALP Ghana Project. Retrieved from https://careclimatechange.org/wp-content/uploads/2014/08/CVCA_Ghana.pdf

Ghana Statistical Service. (2014a). *East Gonja District*. Ghana, Accra. Retrieved from http://www.statsghana.gov.gh/docfiles/2010_District_Report/Northern/East Gonja.pdf

Ghana Statistical Service. (2014b). *Ghana living standards survey Round 6. Main Report*. *Ecosystems and Human Well-being: A Framework for Assessment* (Vol. 12). https://doi.org/10.1007/s13398-014-0173-7.2

GSS. (2014). *Ghana Living Standards Survey Round 6 (GLSS 6). Community Facilities Distribution.* Accra- Ghana. Retrieved from http://statsghana.gov.gh/docfiles/glss6/GLSS6_Community Facilities Report.pdf

Lewin, K. M. (2010). Consortium for Research on Educational Access, Transitions and Equity Educational Access in Ghana Country Research Summary Caine Rolleston Kwame Akyeampong Joseph Ghartey Ampiah, (November).

Ministry of Education. (2013). Education Sector Performance Report 2013, (August), 1–107. Retrieved from: http://unesdoc.unesco.org/images/0025/002595/259537e.pdf

Ministry of Environment Science and Technology & Town and Country Planning Department. (2011). *Zoning Guidelines and Planning Standards*.

Nkum A. (2003). *How to Do Guide on District Poverty Profiling and Mapping. Local Government- Poverty Reduction Support Programme.* Accra- Ghana. Ministry of Local Government

Peprah, C., Oduro-Ofori, E., & Asante-Wusu, I. (2015). Analysis of Accessibility to Water Supply and Sanitation Services in the Awutu-Senya East Municipality, Ghana. *Journal of Sustainable Development*, *8*(8), 310–325. https://doi.org/10.5539/jsd.v8n8p310

Shepherd, A., C. Jebuni, R. Al-Hassan, A. McKay, C. Poulton, A. Whitehead and J. Kydd (2005) "Economic Growth in Northern Ghana", Report Prepared for DFID Ghana, Overseas Development Institute and Centre for Policy Analysis, London/Accra.

The United Nations. (2010). The Universal Declaration of Human Rights. Retrieved 8th April, 2017, from The United Nations: http://www.un.org/en/documents/udhr/index.shtml. on 8th April, 2017.

Wood, M., & Swam, M. (2001). Supply and Demand Factors Influencing the Educational Drop-Out Rate in Africa and Asia. *International Education Press*. Uganda.

World Bank (2011). Republic of Ghana: Tackling Poverty in Northern Ghana. Report No. 53991-GH. Retrieved on 7th December, 2018, from: http://www.globalclimategovernance.org/sites/default/files/publications/ebaines/Tackling%20Poverty%20in%20Northern%20Ghana.pdf

Appendix1:

The sampled respondents and the respond rate of the research, where structured questionnaires and interview guides were used to interview household heads or representatives, as well as to obtain information from key institutions involved in the design and implementation of the IBIS- Ghana.

District/Area Council	Institutions/Communities	Number	Number of Respondents	Percentage
Departments	DPCU	1	1	
	District IBis Office	1	1	
Kpariba Area	Communities	1	12	32.3%
Council	Chief	1	1	
	Unit Communities	1	1	
Kpembe Area	Communities	1	8	23%
Council	Chief	1	1	
	Assemblyman	1	1	
Kulaw Area	Community	1	11	31.7%
Council	Unit Committee	1	1	
Makango Area	Communities	1	2	5%
Council	Chief	1	1	
	Unit Committee	1	1	
Salaga Area	Community	1	3	8%
Council	Assemblyman	1	1	
Total		**24**	**46**	**100%**

Acknowledgement

First of all, I thank the Almighty GOD for His mercies and blessings in my life. I as well dedicate this work to my brother, Mr. Saja Henry, who has taken my education and welfare unrelentingly. '*Nkpal, Uwumbɔr Nbiin Ibu!!'*. My sincere gratitude to my other brothers, sisters, family and friends as well. I appreciate your support and prayers.