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The Effects of an NGO development project on the Rural Community of Tarkwa Bremen in Western Ghana

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Keywords

Gender discrimination, Wealth, Education, Sustainable Development

Disciplines

Business | Social Statistics

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Disciplines

Business and Social Impact

THE EFFECTS OF AN NGO DEVELOPMENT PROJECT ON THE RURAL COMMUNITY OF TARKWA BREMEN IN WESTERN GHANA

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1. INTRODUCTION

1.1. Statement of the Problem

It is often referred to that women in Africa are treated very poorly, have little to no rights and that in Western Africa in particular, there is a higher value placed upon the education of young boys over girls. Most Ghanaian girls attend what is termed “mushroom” secondary schools. These are poor quality institutions that lack almost all the required facilities ranging from qualified teachers to teaching-learning materials and appropriate infrastructures. (Tanye, M. Interchange (2008) 39: 167.) The comment on the general poor quality of educational institutions is certainly warranted based on the observation of Educational Institutions in Tarkwa Bremen, where it was common to find that walls were falling apart, desks have not been replaced since the schools were built and many teachers do not even come to work-the often cited reason being that the government has not yet paid them. Apart from the decrepit education system, Villagers highlighted a failing National Health Insurance System, lack of medical facilities and poor road networks as main reasons for deaths within the community.

The Blackbaud Index which tracks the donations to 6,377 US based Charitable Organisations shows that from July of 2013 to July of 2016, Overall Giving has decreased from +6.9% to -2.2% on a Year on Year basis.¹This is a worrying downward trend for charities that are for the most part donor reliant. The Tarkwa Bremen Community Alliance (TBCA) is an NGO committed to providing quality education to young girls within the village of Tarkwa Bremen and the surrounding community, whilst promoting women’s rights and improving the healthcare system in the surrounding area. The project consists of the TBCA School for girls, a health clinic and a forty acre cocoa farm. Prompted by concerns about donor funding, TBCA has created a

¹ Data obtained from www.blackbaud.com

model for development that focuses on using revenues created by the cocoa farm to make up for the shortfall between the costs associated with running the health clinic and school and the nominal fee that patients and parents will pay for the use of these facilities. The aim of TBCA is to provide higher quality healthcare and a first class education for young girls at costs similar to what villagers already pay at much inferior institutions, whilst addressing cultural concerns associated with the education of women.

1.2 Scope and Limitations

This research is limited to the Tarkwa Bremen Community Area, due to time and budget constraints, quantitative data was only sampled from the villages of Tarkwa Bremen, Techimantia, Fantekrom and Krofofrom. (4 of the 8 villages in the project) future research will have to take this into account. It was also not possible to conduct a survey of the government Methodist Primary school in Tarkwa Bremen as they had been instructed not to give interviews. As no government clinics existed until 3 weeks prior to the survey in the community, quantitative data on healthcare in the community had to be obtained through surveys and is limited in scope.²

² In Typical Fashion, the building had been completed approximately three years before hand and was simply never staffed

2. METHODOLOGY

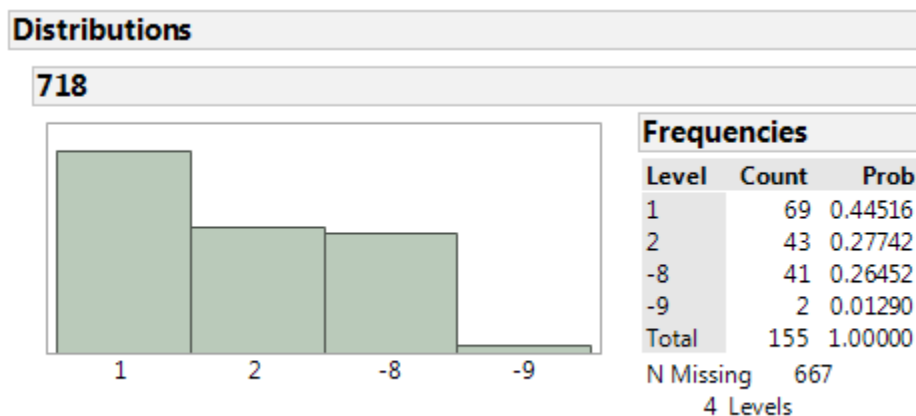
This paper uses results obtained through quantitative and qualitative methods using 156 separate household surveys, numerous formal and informal interviews, focus groups and observation of community meetings and interactions. As such the method of analysis and weights applied to different household characteristics used to determine wealth are subject to the authors discretion, where possible footnotes shall be used to explain the methodology used in the analysis of particular data sets. Surveys were conducted at random households during the hours of 7 am to 9 pm and on all days of the week, including holidays and weekends in an effort to create the best approximation of the community make up. Interviews were conducted with Village Elders, the Chiefs council, Community members and healthcare professionals. All material was verbally translated from English into Twi by local translators

3. OF WOMEN IN CHANGING THE CULTURAL PERCEPTION THE COMMUNITY

3.1 The Education of Women and Young girls

Research findings have shown that investing in females' education may be the most cost-effective measure a developing country can take to improve its standard of living (Donkor, 2002 as cited in Tanye 2008). While this is certainly the premise on which TBCA is operating, the views held by the members of the community differ somewhat, particularly pertaining to the role of women in society and the importance of education for girls. Figure 1 shows the distribution of which child (boy or girl) household heads would choose when being asked to educate a male or female child given limited funds. There was a large difference in choice, with 44.5% choosing the male child and 27.7% choosing the female child.

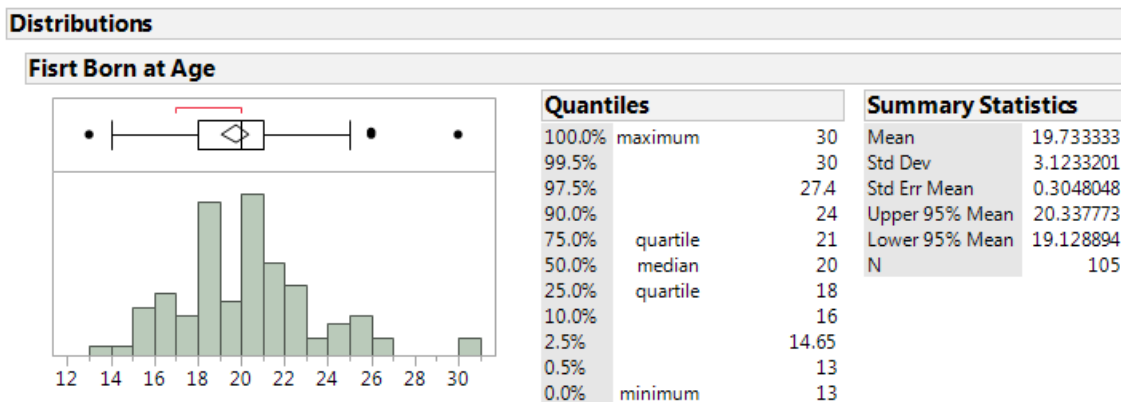
Figure 1³



³ 1=Boy, 2=Girl, 3=Don't Know, -9 = Refused to Answer

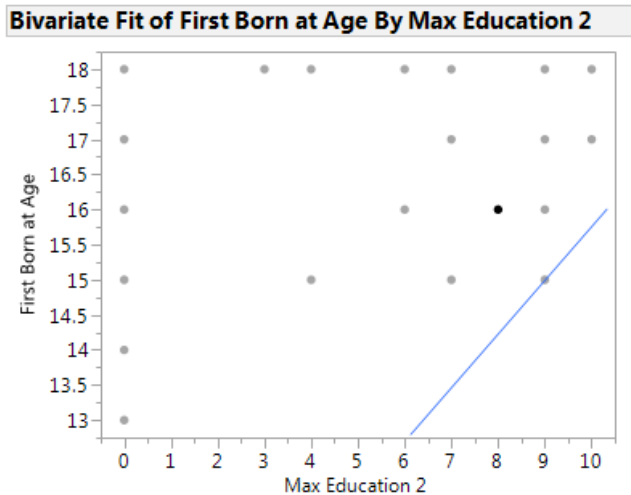
Two commonly given reasons for why a household head would prefer to educate their sons over their daughters were that men had to ‘provide’ for the household and that daughters would simply get pregnant and have to drop out of school thus wasting the money spent on her education. The author was only able to find a handful of examples of this actually occurring, though the Ghana Multiple Indicator Cluster Survey (MICS) conducted in 2011 did report the percentage of women aged 20-24 who had a live birth before age 18 in Western Ghana at 23.7% (MICS 2011 p 155, Table RH.2). Figure 2 shows at what age women who identified as the spouse of a household head or as the household head themselves within the TBC Area had their first born child. The number for births at or below age 18 amongst all ages is 20.7%. Figure 3 shows the plot of the Age and which these mothers had their children against the number of years of education they had, only one data point is consistent with a mother getting pregnant whilst in school, with the majority leaving school before pregnancy occurs. The case for girls getting pregnant and dropping out of school does not therefore seem very well founded within this particular community.

Figure 2⁴



⁴ The age at which women reported to have their first child.

Figure 3⁵



Well-founded or not, the very fact that this fear exists is an indicator of the wider problems within the Village culture concerning the role of women in the community. TBCA is counting on the fact that by educating the young women to the point where they are superior to their male peers, that men will begin to have more respect for them and their abilities. Indeed during a formal interview, one woman stated *“If you have no education you are nothing to them [men], so education is good”*. When asked to elaborate, it was explained that in this case ‘education’ referred to a university degree, it was in fact a common theme throughout interviews and focus groups that simply being as well educated as a man was not enough to gain his respect, you had to be significantly more educated as a women for your education to have any bearing on societal interactions with men who were not part of your immediate family.

⁵ 0=No education, 1 to 6= Primary Education, 7 to 9= Junior High School, 10 to 12= Senior High School

3.2 The Role of Women in the Community

Within the TBCA, women are generally seen as the homemakers and house-keepers of the village and will commonly engage in activities such as cooking, cleaning, selling of produce, managing of stores, sewing, farming and the collection of firewood⁶. Women typically receive little to no credit for the success of the household, with compliments for the success of a farm or household generally being offered to the male figurehead. At Community Meetings, the Elders will often ignore women who raise their hands or they shall give them less time to speak and there is only one women, known as the ‘Queen Mother’ on the Council of Elders, though she does wield considerable power and influence, the research found no evidence that she uses this to increase the standing of women in the community. In contrast to this, at most TBCA community meetings the author attended, a significant number of participants were women and they often asked the most penetrating and pertinent questions, being much more concerned with the Project and its effect on them and their daughters.

The treatment of women in the community is also largely influenced by the religious beliefs to which they and their spouses hold. In M. Tanye’s paper ‘Access and Barriers to Education for Ghanaian Women and Girls’ (2008), she makes the point that men often use biblical scriptures such as Timothy 2:12 as a means of cementing their authority over women, stating that “Men refer to such religious admonishing to silence women into docility”. Indeed one women, when asked whether a man was more important than a women replied “*Of course! The bible says so*”.

This is not necessarily however an endorsement of Tanye’s views as the same woman went on

⁶ Typically this involves waking up at around 5am to begin cleaning the area around the home with the help of your children, with firewood being collected weekly and women and girls expected to carry around 20kgs of wood distances of up to 5km

to say *“but if your husband is ‘God fearing’, he will treat you well”*. It is of course not possible to outline exactly what is meant by ‘God fearing’ as the many different Christian sects within the village follow markedly different religious teachings, but the author did note that Church Going Couples were more at ease with one another and considerably relaxed answering survey questions about the household and family life. This connection between being ‘God fearing’ and treating your wife well also appeared during a focus group discussion with illegal miners where when asked “Who makes the important decisions in your family, you or your wife?”, one man answered *“We are one, God gave us women to be man’s helper but you must also look after your wife, there should be no secrets and you should always consult her about everything”*. The concept of ‘being one’ with your spouse was stressed repeatedly during conversations, Figure 4 shows the responses given to various questions about decision making in the household that were administered to the Female Heads of House without the presence of their husband. It is notable that in most cases over 90% of respondents indicated that the decision was made jointly, with the only major deviation from this being the question “Whether or not to use family planning (including contraception) to space or limit births?” (Figure 4, Indicator 80216), and in this instance men only had the ‘final say’ in 4.76% of the cases. Overall, the treatment of wives by their husbands was reported on in a positive manner, with, the poor treatment experienced by women mostly coming from a male outside their immediate family. In spite or perhaps because of this distinction, would appear that a significant number of women, reported at 28% in Figure 5 responded negatively when questioned as to how much influence they felt they had on community decisions. It is hoped that in the coming years and with exposure to TBCA’s methods of including women at all stages of community decision making during project development,

there will be a gradual shift in how women perceive themselves within the community decision making process.

Figure 4⁷

Tabulate

	8021		8022		8025			8026			8027		8028	8029	
	3	1	3	1	3	5	0	1	3	0	3	3	3	4	
% of Total	100.00%	1.56%	98.44%	1.61%	96.77%	1.61%	1.72%	3.45%	94.83%	1.49%	98.51%	100.00%	98.65%	1.35%	

666 rows have been excluded.

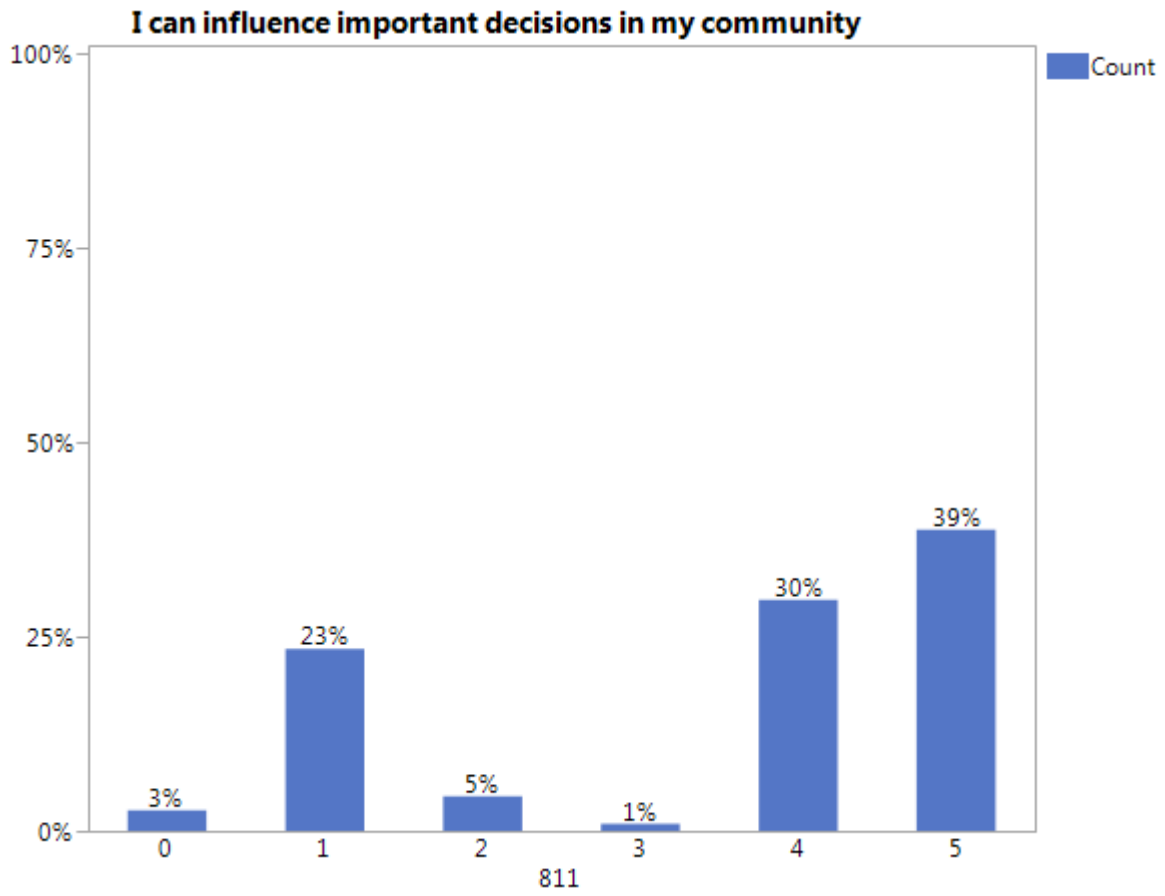
Tabulate

	80210			80211		80212			80213			80214	80215	80216				
	3	4	5	3	4	3	4	5	1	2	3	3	3	0	2	3	4	5
% of Total	97.33%	1.33%	1.33%	97.37%	2.63%	86.84%	2.63%	10.53%	3.95%	5.26%	90.79%	100.00%	100.00%	19.05%	4.76%	59.52%	4.76%	11.90%

666 rows have been excluded.

⁷ See Appendix A for description of Variables

Figure 5



3.3 Educational Differences between Adult Women and School Age Girls

It is encouraging to see that the quantitative data shows that the views held by many household heads on the education of boys and girls have not been causing any major differences in the education levels between the two groups. Figures 6 and 7 show that there is a statistically significant difference between the education levels of men and women among adults but that this does not hold true when comparing the population of children. This would seem to indicate that common views held in the past concerning the education of young women are no longer a good measure of circumstances within the village at this point in time, although as we shall elaborate on in Section 4.2 there are still major problems within the village concerning the education of both sexes.

Figure 6

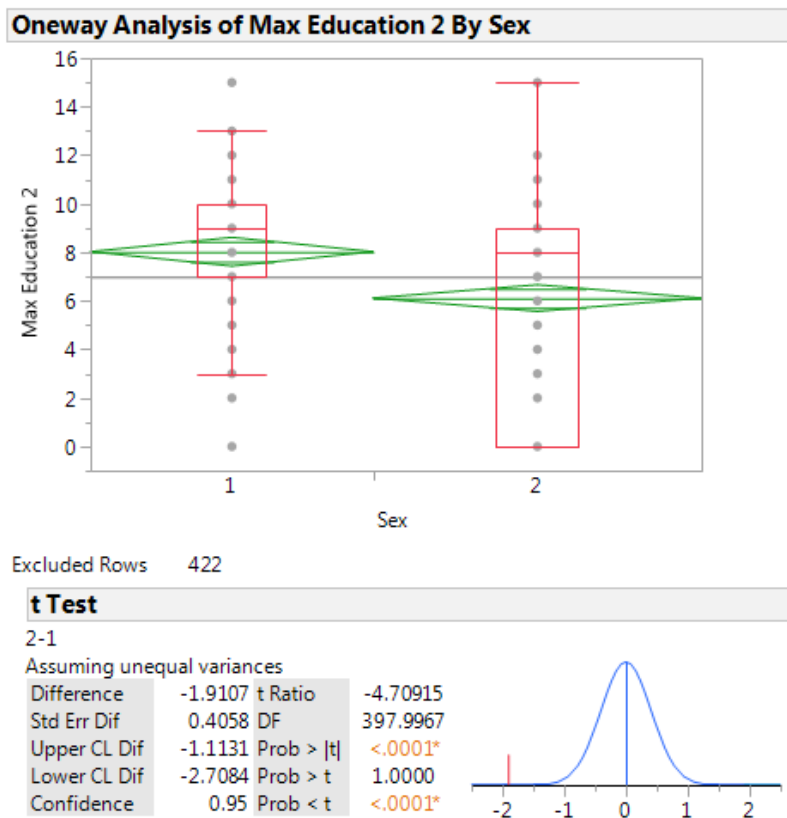
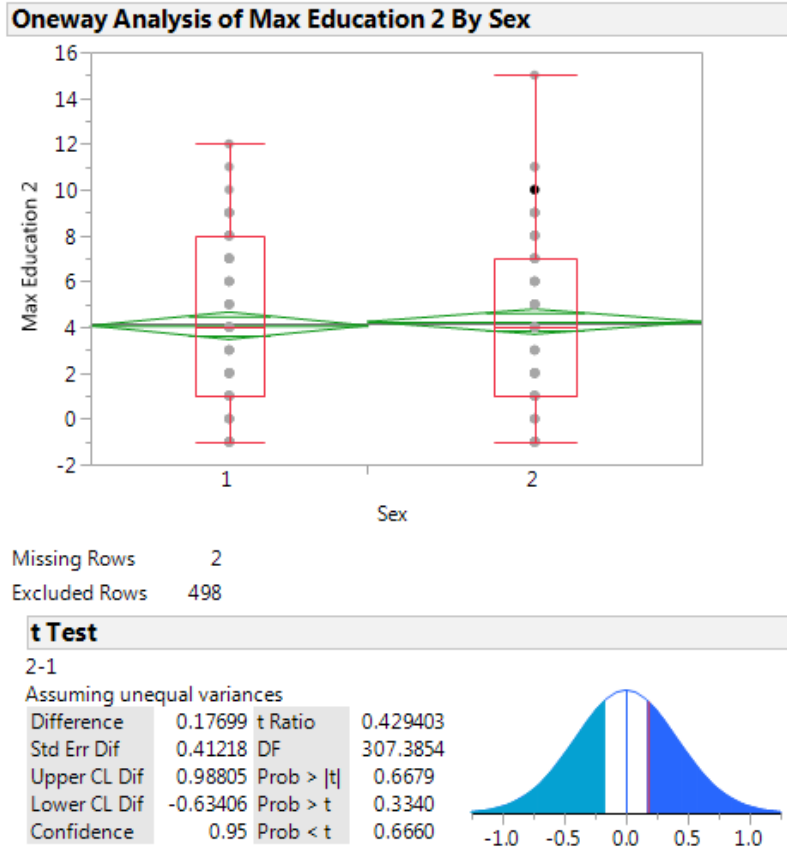


Figure 7



4 PROJECT IMPACT ON LOCAL HEALTHCARE SYSTEM, EDUCATION AND ECONOMY

4.1 Healthcare within the Community

At the time the research for this paper was conducted, the clinic within the village of Tarkwa Bremen had only been staffed for three weeks, even though the building had been constructed around three years prior to the start of research. The Nurses staffing the clinic also complained that they did not have enough equipment such as forceps, gauze and malaria test kits. The building itself does not have enough beds for its patients and the Clinic is not equipped to handle anything more than First Aid and Emergency Childbirth, which does not include Caesarean sections. This means that in cases of life threatening illness, a patient is referred on to Bogoso Clinic, which is over an hour away on terrible roads and does not have a qualified medical doctor⁸ on its staff. Bogoso Clinic will then refer patients requiring an operation to either Prestea or Tarkwa, roughly another two hours away. Members of the community when asked what caused the largest number of avoidable deaths⁹ cited lack of transportation and a poor road network as their two main problems, in the case of an emergency caesarean, the patient would die before making it to Tarkwa

⁸ This is defined as holding an MD or OD equivalent

⁹ Those that could have otherwise been avoided with access to basic services provided in a public health institution

Figure 8¹⁰

Tabulate

	None		Dysentery		Malaria		Cholera		TB		HIV/AIDS	Hepatitis B		Buruli Ulcer		BP		Stroke		Cancer		Diabetes	
	0	1	0	1	0	1	0	1	0	1	0	0	1	0	1	0	1	0	1	0	1	0	1
N	137	19	122	34	31	125	136	20	144	12	156	146	10	123	33	130	26	150	6	155	1	147	9
% of Total	87.82%	12.18%	78.21%	21.79%	19.87%	80.13%	87.18%	12.82%	92.31%	7.69%	100.00%	93.59%	6.41%	78.85%	21.15%	83.33%	16.67%	96.15%	3.85%	99.36%	0.64%	94.23%	5.77%

666 rows have been excluded.

¹⁰ 1= A household member suffered from this disease at some point in the last 12 months, 0=No Household Member suffered.

For each Household Surveyed, we recorded the number out of the 12 chronic diseases that the household had encountered during the last year, the table is shown in Figure 8. Malaria had the highest prevalence rate with 80.13% of surveyed households having a member that had been treated for malaria in the last 12 months. Observations of houses showed that whiles houses generally had screens to prevent mosquitos from entering they often lacked enough mosquito nets for everyone and though the government gives these out for free each year, according to the locals there are never enough.

A statement on the healthcare of the village would not be complete without addressing the issue of HIV/AIDS and Sexual Education. In the case of the TBC Area, no survey respondent recorded a household member suffering from HIV/AIDS in the last year-an improbable statistic in any country. There seems to be a ‘Taboo’ surrounding any discussion of the topic- when asked this question, respondents would often shake their heads and make a clicking noise to indicate the ridiculousness of the question. As one Nurse at the clinic pointed out during an Interview *“Normally they have the fear of coming for testing, because if the person is not aware that he or she is having the HIV virus she or he will move freely, but if she or he will get to know that I am carrying the HIV virus”*. The Government Nurse’s response to a question about sexual education and the use of contraceptives is quite detailed and worth quoting in full to give the reader a better understanding of the situation face by healthcare professionals and young women.

“Their parents don’t bring their daughters here! At times when we are going out we go along with the contraceptives, so some of them after the education they will wait, when everybody

dispersed most of the mothers will go to their various houses then they (The daughters), they will come see us privately and if they need the condoms we can give it to them and if they need injectables we can also give it to them and over here to they can just walk in at any time. For a father or a mother to bring a daughter that lets go to the clinic and then do family planning, it's only the boyfriend, the boy and the girlfriend, that one they can come together and a husband and a wife they can come in both of them at times. The parents themselves, they don't normally bring their children in to come in for those activities. The one thing I have noticed is that the mothers, they only bring the children to this facility when they think the child is pregnant and they come for pregnancy tests. The one thing we have thought of is that we want to form a club (JHS level and upper Primary) in the schools so that we can teach them the education, because actually no matter what you will do to the children they will have the sex- they can never abstain from that"

While the Tarkwa Bremen Clinic Staff do run educational programs on contraception and HIV/AIDS in places such as churches and schools, the author was lead to believe that they are often not well attended, with villagers seeming to take a 'hear no evil, see no evil do no evil' approach to the situation. Indeed a Significant difference between the TBCA health clinic and the current community clinic will be the existence of a laboratory for clinical analysis and the testing of all blood samples for HIV/AIDS and other diseases. TBCA will also be purchasing an ambulance to provide transportation in emergencies to those in need at no additional cost which should help reduce the number of unnecessary deaths that occur, in some cases villagers reported

instances where they had been forced to carry relatives up to 10km because they could not afford the taxi fees from their village.¹¹

4.2 Education and the Economy

The Government Education System within the TBC AreaF is plagued with numerous problems, from run-down and outdated facilities to teachers not showing up for work. Schools and therefore classrooms are over-full and the quality of education is such that any families that can afford to send their children to better schools in towns such as Kumasi in the Ashanti Region or even as close as Tarkwa or Bogoso will do so, though this often means that the children must board or find alternative lodging. Where the government fails, communities will often step in themselves, building schools with rudimentary facilities and paying teachers. A large problem facing the community currently is the lateness of enrolment amongst school children. Figure 9 shows a Mosaic Plot of the proportion of school going children who, when Age and Years of education have been adjusted for, must have enrolled late in the schooling system. The proportion sits shockingly high with 45.7% of all students enrolling late, though it is important to note that once again there is no tangible difference between the results when separated by sex. This is just one indicator of the much wider problem facing families who cannot afford to send their children to school on time, often due to financial difficulties that families are facing. Farming families in particular are struggling to cope at a time when much of the farmland, which is often rented from a prominent family is being sold to Chinese miners and Local Ghanaians who are involved in the practice of Galamsey or illegal gold mining.

¹¹ Typically Speaking a Taxi costs \$3 if it originates from your destination, \$10 if it does not

Whilst the Chinese miners often have mineral rights, or concessions to the land they mine, these are often given out by government officials in Accra and if the land is not being used for farming, the mine owner is not required to pay compensation to the landowner. Where the land is being used for farming, farmers may opt to sell the land for the value of the crops currently being cultivated. This leads to many farmers, who are desperate for cash, selling their land for short term gain at the expense of their long term livelihood. With the main cash crop being cocoa trees and cocoa trees taking anywhere from three to five years to mature, this will likely lead to a long term reduction in farmer's wealth and consequently a shift away from farming as the primary occupation in the community (see Figure 10). Galamsey has also been blamed by community members for many male children choosing not to continue their education after JHS, to quote one 16 year old boy who was asked, during an informal conversation why he was chose to leave school and go work on a mine *"why should I wait, it is not like I'll get paid any better after high school"*.

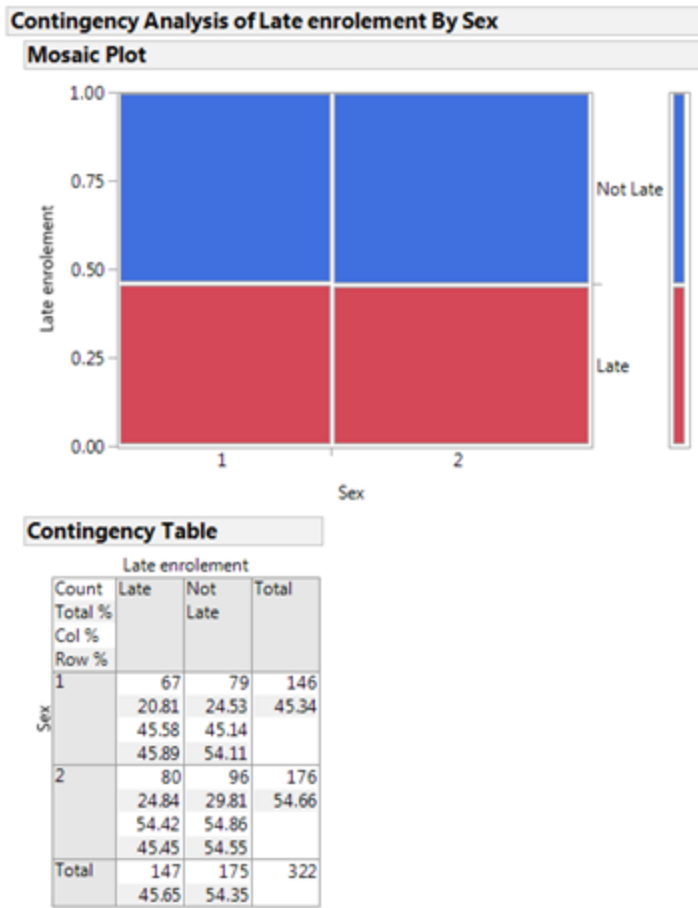
The widespread use of illegal practices is likely the largest problem facing the community at this point in time. The illegal miners will often not refill the holes that they dig searching for the valuable gold, these holes fill up with water during the rains and provide perfect breeding grounds for malaria larvae, no doubt a contributor to the high number of households affected by malaria within the community. In addition to this, there is no training provided to mine workers on the dangers of the mercury they use in the refining process, neither by their Chinese employers nor any government programs. A common practice is for workers to mix mercury with crushed rocks using their bare-hands to collect the trace amounts of gold, they will then suck the mercury off the gold at spit it into a container to be reused later. More importantly, although it is the government who provide mineral rights to miners, local chiefs and officials will

often demand a tithe of any gold mined on their land. In these areas where the government's presence is minimal, chiefs thus benefit directly from 'endorsing' illegal mining practices. ("Challenges with eradicating illegal mining in Ghana: A perspective from the grassroots" Sadia Mohammed Banchirigah, Resources Policy, Volume 33, Issue 1, March 2008, Pages 29–38) It was discovered that within the Tarkwa Bremen area that the tithe required was 10%. One Galamsey worker estimated that the Queen Mother collected roughly US\$ 10 000 in a good week from his mining site. The chiefs when interviewed denied any collection of a tithe stating instead that they collected "*Every month we collect some two or three thousand cedi as a 'Social Responsibility Tax'*". We would determine that considering the existence of hundreds of illegal mining sites within the hills of Tarkwa Bremen it is the failure of the local notables¹² to redistribute the proceeds of the illegal mining combined with rampant local corruption that are the main limiting factors of economic growth within the region.¹³

¹² Elder's Council

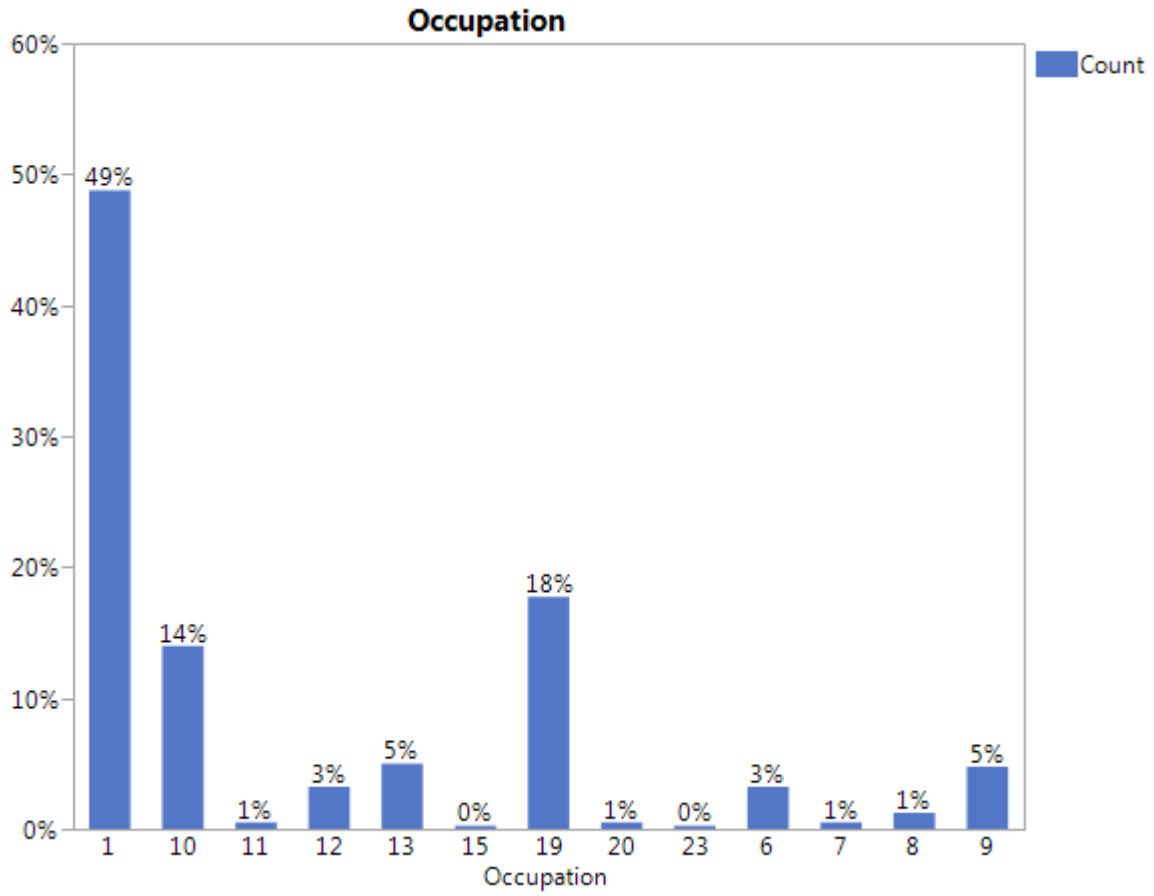
¹³ A rough estimate of the wealth being claimed is around \$1 million per year

Figure 9¹⁴



¹⁴ Late If, Age of Child- School Year>6, that is you are more than one year older than recommended government age.

Figure 10¹⁵

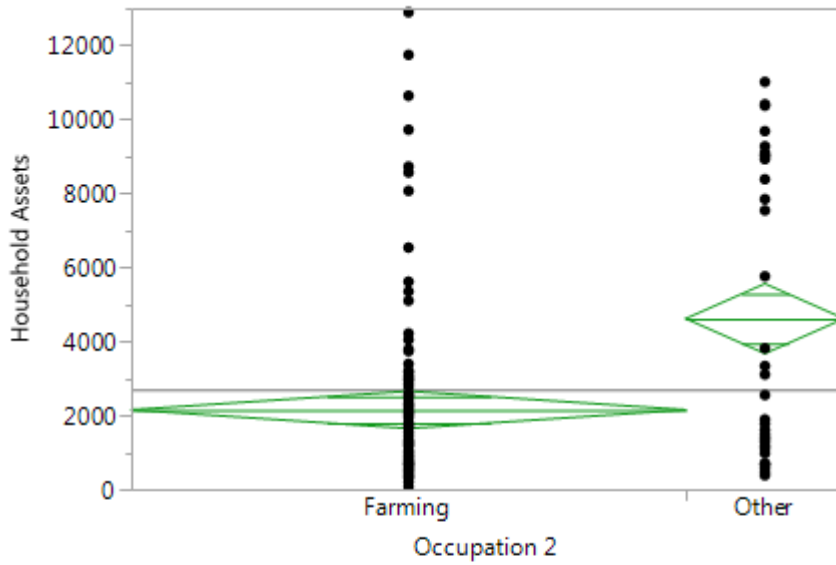


¹⁵See Appendix B for description of occupations. 1=Farmer, 19=Unemployed

With regards to the possible effect of education on wealth within the community, no correlation was found between the education of a household head and the wealth that a household had in assets with a value of $r = 0.07641$ found for a bivariate fit of household wealth in assets against maximum education, however it was found that there was a statistically significant difference between both the wealth of households when separated into 'Farming' and 'Other' occupations (Figure 11) as well as in the levels of education between 'Farming' and 'Other occupations' (Figure 12). This would suggest that any increases in education even if wealth and education are themselves not strongly correlated that better education does lead to a somewhat better financial situation. This being said, it is unlikely that the project is going to have a significant impact on the local economy beyond improved access to information and the provision of a small number of jobs. The abject poverty that villagers find themselves living in is less a product of their lack of education and more an indicator of poor government policy and corrupt local traditional government.

Figure 11

Oneway Analysis of Household Assets By Occupation 2



Excluded Rows 669

t Test

Other-Farming

Assuming unequal variances

Difference	2465.71	t Ratio	3.478513
Std Err Dif	708.84	DF	40.09999
Upper CL Dif	3898.23	Prob > t	0.0012*
Lower CL Dif	1033.20	Prob > t	0.0006*
Confidence	0.95	Prob < t	0.9994

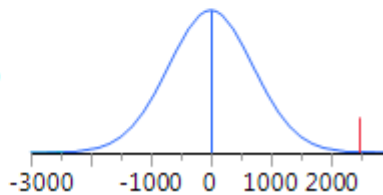
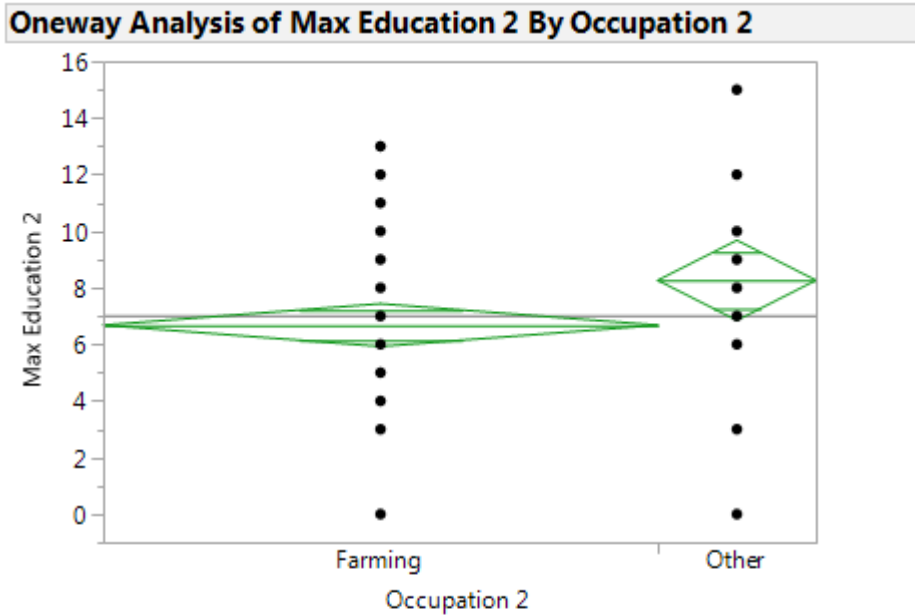


Figure 12



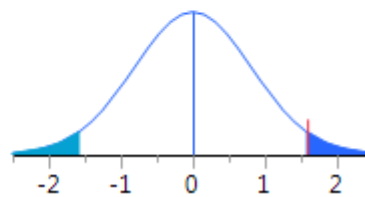
Excluded Rows 669

t Test

Other-Farming

Assuming unequal variances

Difference	1.5840	t Ratio	1.927491
Std Err Dif	0.8218	DF	52.48841
Upper CL Dif	3.2328	Prob > t	0.0593
Lower CL Dif	-0.0647	Prob > t	0.0297*
Confidence	0.95	Prob < t	0.9703



5 PROJECT SUSTAINABILITY

The TBCA project is mainly reliant on their cocoa farm to produce the necessary profits to cover project overheads and allow them to maintain the roughly 80% scholarship that they are offering to all students from the TBC Area. The three main obstacles that were identified to the financial success and thus sustainability were; The Acquisition of Land, The Expected Yield of the Cocoa Trees and the Variability in the World Price of Cocoa.

In a Community where the majority of farms are under 10 acres, it would have seemed that finding 40 acres of land for sale was impossible, indeed farming families typically do not wish to sell their land unless they are migrating or are desperate for cash. In the case of TBCA however, the NGO was able to make a deal with the community leaders whereby the community donated 40 acres of land made up of several different plots towards the school farm. In Fact all the land currently being utilised by TBCA is communal land, a particular set of circumstances only made possible through a deep level of community involvement in the planning and implementation of the project.

The current TBCA model¹⁶ calls for a yield of around 640 kgs or 10 bags of Cocoa per acre to obtain sufficient profits. Francis Baah of the Cocoa Research Institute of Ghana defines a ‘High Class Cocoa Farmer’ as *“uses High class Improved seeds from designated seed gardens used to raise seedlings for planting, regular spacing at 3m X 3m, regular weed management, shade management, pest (about 4 times a year) and disease control (5-6 times a year) is practiced, frequent pruning, fertilizer application once a year, frequent harvesting, Proportion to total production: 5 % Average Yield: 1400 kg (or 22 bags)per*

¹⁶ The Company’s preliminary financial model was created in partnership with google and using local knowledge concerning cocoa yields and labour costs

hectare (or 9 bags per acre)". With this in mind the goal of 10 bags seems realistic, although we would recommend that adding another 10 acres of land to the project at a cost of approximately \$1000 an acre as estimated by locals would provide the proper measure of security against the usual fluctuations in crop yields. Maximum cocoa yields are obtained between the ages of 15 and 25 years after planting with a possible, profitable life span of up to 50 years (M., Nalley, L. L., Dixon, B. L. and Popp, J. S. (2014), An optimal phased replanting approach for cocoa trees with application to Ghana. *Agricultural Economics*, 45: 291–302.) This indicates that there will be sufficient time for the planting of replacement cocoa trees, as trees begin to produce sufficient amounts of cocoa after 3 years. As the seeds used for planting will come from part of the previous year's crop, this will not impose any significant added costs on TBCA.

Lastly, BMI Research in its quarterly review of Cocoa production for 2106 in Ghana stated

BMI View: Cocoa production in Ghana will improve throughout the coming years, as the set price given to farmers by Cocobod will increase, allowing them to spend more on inputs. However, the sector suffers from key structural issues such as labour shortages and fragmentation, which will prevent the country from overtaking Côte d'Ivoire as the world's largest cocoa producer and exporter.

BMI also predicted an industry growth of 2.9% as well as predicting that there will be a moderate upward trend in world cocoa prices through to 2020. This Paper finds it reasonable to state that there are significant problems with the financial viability of TBCA's model that would prevent the project from becoming self-sustaining in the near future.

6 CONCLUSION

Religion has had a surprisingly positive impact on the treatment of women and whilst the current cultural practices concerning women and the education of young girls leave much to be desired, women are not as disadvantaged in some areas as was previously believed. It is very encouraging to note that the current level of young female education is now on a par with that of their male counterparts. The current health situation within the area, particularly with regards to the prevalence of Malaria and the lack of HIV testing is very worrying but this situation is likely to improve within the next couple of years as the TBCA health clinic begins to play a more important role in the community. The Incredible amount of support shown for the project with all but one of the 156 survey respondents stating their belief that it would bring positive change to the village combined with the land donated by the community are good indicators of the commitment of the village to the project in general. The combination of community support and the positive outlook outlined for the Cocoa Industry in the coming years give us confidence in the sustainability of the project for the near future. In spite of this, we do not expect the project to make a marked impact on the local economy. The Project will be only providing a small number of jobs to the local community and its intention is to address primarily educational and health concerns, not the major problems facing the community which is the terrible road networks and prevalence of Galamsey that is having a negative effect on both the health of workers and the environment.

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8 APPENDICES

8.1 Appendix A

If household does not engage in a particular activity, enter code 3 for “Decision not made” and skip to next decision category .		Did you yourself participate in decisions about [ACTIVITY] in the past 12 months ? 1. Yes 2. No 3. Decision not made → 2,3 skip to next [activity]	How much input do you have in the decision for [ACTIVITY]? CODE ↓	How much input did you have in decisions on the use of income generated from [ACTIVITY] CODE ↓
		801	802	803
1	Crops that are grown primarily for household food consumption			
2	Cash crop farming: crops that are grown primarily for sale in market			
3	Livestock raising (excluding poultry)?			
4	Livestock raising - poultry			
5	When or who will take products to the market?			
6	Non-farm business activity?			
7	What inputs to buy for agricultural production?			
8	Major household expenditures? (large appliances, etc.,)			
9	Minor household expenditures? (such food for daily consumption or other household needs)			
10	Negotiate with buyers?			
11	Buying clothes for yourself or your children?			
12	Spending money that you have earned?			
13	Spending money that your spouse has earned?			
14	Children’s education			
15	Seeking medical treatment for your children or yourself.			
16	Whether or not to use family planning (including contraception) to space or limit births?			

802/803: Input into decision making			
1	I have no say in the decision	4	I ask other HH members, but I most always have final say
2	Husband/other male asks for my opinion, but I don't have final say	5	I am solely responsible for the decision
3	Joint decision with each person having equal say	-8	DK
		-9	Refused
		0	Did not take part in Activity

8.2 Appendix B

204 Relationship Type		205 Education		208 Occupation	
1	Head	1	Never Attended	1	Own crop production/sales
2	Spouse	2	Primary 1	2	Own livestock production/sales
3	Son/daughter of head and	3	Primary 2	3	Agricultural wage labor (casual, temporary, seasonal,
4	Son /daughter of head	4	Primary 3	4	Non-agricultural wage labor (casual, temporary,
5	Son/daughter of spouse	5	Primary 4	5	Salaried, permanent (agricultural)
6	Mother/father of head/	6	Primary 5	6	Salaried, permanent (non-agricultural, non-mining)
7	Sister/brother of	7	Primary 6	7	Sale of wild/bush products (e.g., honey, charcoal)
8	Foster child			8	Informal trader/vendor (agricultural products)
9	Grand child	8	Form 1	9	Informal trader/vendor (non-agricultural products)
1	Other relatives	9	Form 2	1	Other self-employment (e.g., bricklayer, builder,
1	Non-relatives	1	Form 3	1	Own business (agricultural)
-8	DK	1	Form 4	1	Own business (non-agricultural)
-9	Refused	1	Form 5	1	Mining (works as operator or gold washer etc)
		1 3	Form 6	1 4	Handicrafts (baskets, beads, pottery)
		1	Incomplete higher	1	Remittances
		15	Post-secondary certificate		Childcare/domestic work (paid)
		16	Completed higher		Homemaker/housewife (unpaid)
		17	Adult literacy program	1	Unable to work due to illness/disability
		18	Other Qualifications e.g	1	Unemployed
		19	Some church/mosque	2	Retired with pension
		-8	DK	2	Retired without pension
		-9	Refused	2	Child/student
			207 Marital status	2	Other
		1	Married	-	DK
		2	Never married	-	Refused
		3	Divorced/separated		
		4	Widowed		
		-8	DK		
		-9	Refused		