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Analysing the effects of alternative livelihood on cocoa farmers in the Atwima Nwabiagya district

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ABSTRACT

This study was conducted in the Atwima Nwabiagya district; and *Correspondence to Author: it provides an empirical example of how a community integrates Simon Boateng alternative livelihood activities as part of their livelihood through Tutor, Social Sciences Department, their own initiatives. A qualitative case study approach was St. Monica's College of Education, used in this study. Snowball sampling technique was used to Mampong - Ghana. select 20 respondents for this study. Interview guide was used to glean data from the cocoa farmers. This was augmented with observation. Results show that alternative livelihood activities How to cite this article: have significantly improved household income and consequently increased household standard of living. The study also found that the benefits of alternative livelihood activities are distributed across all households within the community as all households were engaged in at least one alternative livelihood activity. Households benefit directly from alternative livelihood through access to cash. Access to cash opened up opportunities for ican Journal of Geographical Rehouseholds to venture into other livelihood activities within the study community; and also use part to maintain their traditional livelihood. The study recommends to the district assembly to provide technical back-up support systems to enhance the longterm effects of any planned alternative livelihood on farmers' incomes. Again, any planned intervention must avoid the handout Website: http://escipub.com/ syndrome so as to ensure it sustainability.

Keywords: Atwima Nwabiagya district, alternative livelihood, cocoa farmers, bricks making, pottering

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Introduction

Livelihood from an economic perspective is an occupation, work or other means by which one earns income to meet the necessities of life (ILO. 2011 and Ansong et al., 2000). Agriculture, which is widely practiced and understood, has been identified to be a useful starting point for the development of livelihood (Adkins, 2004). However, the National Development Planning Commission (NDPC) of Ghana (2004) reports that households relying heavily on agriculture for their livelihoods, especially those dependent on one commodity such as cocoa are vulnerable in particular to climatic shocks, unstable markets, rising prices of agricultural inputs and human risks.

That notwithstanding, Cocoa production in Ghana remains a major economic activity for over 700,000 households, with around 6.3 million Ghanaians (representing around 30 per cent of the total population) depending on cocoa for their livelihoods (Gockowski et al., 2011). Ironically, growth in cocoa productivity has been slow over the last two decades with average yields for most regions being lower as production is based on extensively low input systems; most often planted to local landraces. The lack of significant structural change within the Ghanaian cocoa sector over the past couple of decades stems from the fact that production is characterised by small scale farming with an average productive cocoa area per household of approximately two hectares (Barrientos et al., 2008). The average yield per hectare is 450 kg (MMYE, 2008), which is low compared to onstation research trials. Meanwhile, with an increasing population and the monetary needs by families for non-food item such as school fees, medical expenses, fuel, and various social obligations, individuals are pressured to look for opportunities to engage in alternative cashearning activities to meet the monetary needs of their households (Hivu, 2013).

To address the problem of low returns from cocoa farming and take advantage of premium earnings of differentiated economic activities in the communities, the cocoa farmers have resorted to other alternative viable livelihoods (ILO, 2011). Alternative livelihoods are therefore thought of in the context of providing livelihoods that may replace or supplement existing livelihoods that are in danger as a result of resource constraints; or those livelihoods that do not generate sufficient incomes to enable those engaged in them live decent lives (Tropendos, 2005).

Alternative livelihood strategies denote a range of activities and choices people make to supplement their basic needs (Niehof, 2004). Access to assets and the choice of activities to undertake is argued to be influenced by people's own preferences or priorities and a wide range of external forces both within and outside the household and the community (Allison & Horemans, 2006; Ireland et al., 2004; Soussan et al, 2001). Such forces (such as environmental, political, social, economic, and cultural influences) define the operation of the livelihood system (Niehof, 2004). For example, rigid social customs and religious constraints may create difficulties for a woman to operate a small business enterprise (Kabir et al, 2012); or geographical settings (access to market) may influence the set of livelihood opportunities (de Haan & Zoomers, 2005). The choice of livelihood strategies may also be influenced by past events and decisions (Niehof, 2004), which may lead to a household opting into either natural resource based or non-natural resource based activities or a combination of both.

Scoones (1998) identified three types of alternative livelihood strategies open to rural people: agricultural intensification/ extensification. livelihood migration, and diversification. Agricultural intensification refers to the strategies that are based on the "exploitation of natural resource such as food crops, cash crops, and livestock" (Orr & Mwale, 2001). Turton (2009) argued that agricultural intensification/extensification can be through increased frequency of cultivation, adopting new technology (such as improved varieties, high levels of input use, and shift to higher value crops), and expansion of cultivated area. Intensification requires an increased use inputs like fertilisers and chemicals. Intensification through expansion of cultivated area would be possible only in areas of abundant Migration occurs when one or more land. household members leave the resident household for varying periods of time (Orr & Mwale, 2001; Turton, 2000). Ellis (1998) distinguished two types of migration: temporary migration which may be determined by the agricultural seasonality (in some cases it may not be linked to crop season); and permanent migration where movement from the village to town or abroad is permanent. Migration is argued to be more important for households with little or no land resource (Pingali et al. 2005). Diversification is defined as the combination of diverse activities and assets to make a living (Niehof, 2004). It is seen as the most important strategy for many rural households because as argued by some authors (Niehof, 2004; Scoones, 1998), it is not only based on diversifying the income sources, but it also depends on the limited resources available to the household.

Literature revealed that some examples of alternative livelihood activities for people living in rural areas of Ghana include a combination of more than one of the following: subsistence food production (gardening, hunting, and fishing); cash earning activities (such as handicraft, small business enterprise [trade store], shop keeping, cash cropping, livestock production, and fishing); government jobs (teachers and nurses in rural schools and health clinics); and remittances (ILO, 2011; Pingali et al., 2005; Niehof, 2004 & Scoones, 1998).

To live a decent lives, there has been a shift to a cash economy in the subsistence system where farmers produce food and sell surpluses in rural community markets for income (ILO, 2011). According to Webb et al. (2001), non-farm income sources form a substantial share of rural African farm household earnings. In spite of this,

majority of cocoa farmers in Ghana go through a lot of hardships during off-season, and cocoa farmers from Atwima Nwabiagya district are no exception. This is because their livelihoods are solely dependent on the income from cocoa farming. For this reason, most cocoa farmers have inadequate resources to take care of the nutrition. medical, educational and other developmental needs of their children (ILO, 2011). As a result, many cocoa farmers have now resorted in combining cocoa farming activities with a variety of alternative livelihoods such as pottery, brick making, trading and other agro-based activities which include ginger farming, animal husbandry and vegetable production.

With the increasing involvement of rural households in these alternative livelihood activities, there is a need to conduct research into this area so that a clear picture can be established as to whether these alternative livelihood activities have effects on cocoa farmers in the Atwima Nwabiagya district. Therefore, the study sought to answer the following questions: what are the Alternative Livelihood activities of the cocoa farmers in the Atwima Nwabiagya District? Do the cocoa farmers have coping strategies for off seasons? What are the socio-economic effects of such Alternative Livelihoods on the cocoa farmers in the Atwima Nwabiagya District? This study will provide the basis to inform policy on the integration of these alternative livelihoods as strategies for enhancing the livelihoods of cocoa farmers in Ghana.

Materials and Methods The Study Area in Context

The Atwima Nwabiagya District lies approximately on latitude 6° 32'N and 6° 75'N and between longitude 1° 45' and 2° 00' West (GIS Laboratory of University of Ghana, 2017). It is one of the 30 political and administrative districts in Ashanti Region. It is situated in the western part of the region and shares common

boundaries with Ahafo Ano South and Atwima Mponua Districts to the West, Offinso Municipal to the North, Amansie-West and Atwima Kwanwoma Districts to the South, and Kumasi Metropolis and Afigya Kwabre Districts to the East. It covers an estimated area of 294.84 sq. km. The district capital is Nkawie. According to Ghana Statistical Service (2012), the population of the Atwima Nwabiagya District is 149,025 with majority (68.5%) of the population living in rural localities; and the average household size in the

district is 4.1 persons. More than one third (35.6%) of household in the district are engaged in agriculture (GSS, 2012). In terms of locality, the proportion of households engaged in agriculture is 21.7 percent and 42.1 percent for urban and rural households respectively (GSS, 2012). There are well established alternative livelihood activities like brick making in Mfensi, Pottery in Aferi and ginger production in Gyankobaa. Figure 1 is a map showing Atwima Nwabiagya District and the study communities.

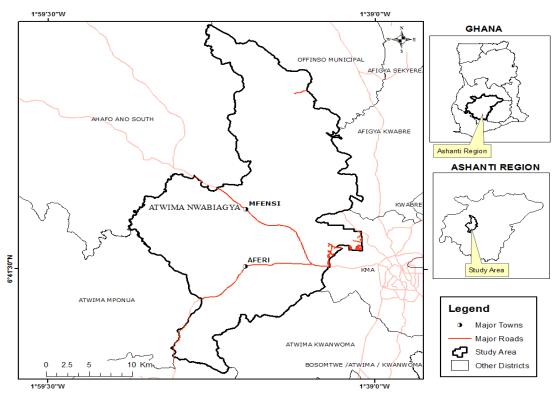


Figure 1: Map showing the study areas.

Source: University of Ghana GIS Laboratory, 2017

Research Design

This study is a qualitative research. Qualitative method was ideal for this study as it was used information gain in-depth needed to understand the complex realities of rural livelihoods which have been established by a number of authors as among others being

The sample and sampling procedure

this study, twenty participants were interviewed. We aimed to obtain high quality Atwima Nwabiagy District, namely Aferi, Mfensi and Gyankobaa where there are

difficult to measure (Berg, 2009; Curry et al., 2009). Again, the study was undertaken in a natural setting where the researchers had no control over the behaviour of the respondents 2003), focusing on how alternative livelihoods affect cocoa farmers in the Atwima Nwabiagya District.

information on the complex normative standpoints regarding alternative livelihood. The study was conducted in three communities in the established alternative livelihood activities (bricks making, pottery, ginger production etc.) AJGRR: http://escipub.com/american-journal-of-geographical-research-and-reviews/

for cocoa farmers. The study participants were enlisted through non-random subjective sampling procedures. Precisely, we used snowball sampling (prospective participants are recommended by others) technique (Tongco, 2007), given that cocoa farming activities are widespread across the study areas. In this regard, we fell on the directives and the recommendations of the already identified cocoa farmers in tracking other cocoa farmers.

Data generation

In-depth interview guides were used as the data collection instrument. Verbal informed consent was obtained from each participant prior to the interviewing process. The respondents were initially approached and informed of the key aim of the study. Those who were interested in participating were given further details of the objectives of the study.

All interviews, augmented with informal and personal conversations, were conducted by the first author. This was systematically done between a participant and an interviewer at the place where the participant was recruited, mainly at the participant's home. To guarantee anonymity, no names were assigned to interviewees and no personal identifying details were recorded. Interviews were conducted in Twi (the local dialect of the study area). The instrument included items relating to the participants' views on effects of alternative livelihoods, coping strategies during off-seasons among other things. Aside from taking field notes, each interviewee was provided an informed consent for recording, and then the interview was audio recorded. This allowed the interviewer to capture the responses of the participants in their own words, which allowed for the examination of what was actually discussed. Audio records were transcribed in both the Twi dialect and English language. Those in Twi were later translated into English. The accuracy was translation crosschecked by and back translation approaches. **Transcripts** were randomly selected, re-checked by the authors independently, and matched with the audio

records and field notes to maintain strict accuracy. Each interview lasted for approximately 45 minutes.

Data analysis

The study employed the a posteriori inductive reduction approach to develop consistent themes (Glaser, 1967). With this model, themes were derived from the experiences the interviewer obtained from the interactions with the respondents, rather than prior theoretical standpoint of the researchers. We initially conducted open coding of the data, followed by a selective coding. These generated a number of themes after careful multiple readings of the transcripts. We finally performed a thematic analysis based on the data content. The instrument included items relating to the participants' standpoints on the effects of alternative livelihoods on cocoa farmers. Alternative livelihood was defined in the context of providing livelihoods that supplement existing livelihoods. Themes were compared with the responses to identify common trends. similarities and contrasts. The thematic data analysis offered the opportunity to identify, analyse and report patterns within data and also helped to organise and describe the data in rich detail (Braun and Clark, 2006). The study results were presented under three broad themes and key subjective views of the participants were presented using quotations.

Results and discussion

Demographic Characteristics of Respondents

With regard to the sex structure, 60% were males while 40% were females. This selection of respondents was deliberate due to the male dominance in cocoa farming in the district. Again, typical of a rural community, the study area had an ageing population. In the table, the proportion between 20 and 29 years engaged in cocoa farming constituted 3% while those between the ages of 30 and 39 formed 15%. Those between 40 and 49 years constituted 40%

whilst those between the ages of 50 and 59 30%. constituted Sixty years and above constituted the remaining 12% of the respondents. The age structure has repercussions on cocoa production in the community, particularly as cocoa farming is left in the hands of the aged. The household size in the community ranged between single-member to more than nine household households. Five percent of the respondents constituted single household size, 75 percent were between the households' size of 2 and 5.

Finally, twenty percent were between 6 and 9 household size. This had a significant effect on incomes of cocoa farmers in the community. This is because the larger the household size, the larger the consumption level of household. In terms of education, only six percent of the respondents had formal education (JHS/MLSCE), whereas the rest had no formal education. Per the statistics above one could infer that illiteracy rate would be high among the cocoa farmers in the Atwima Nwabiagya District. Table 1 illustrates this information.

Table 1: Demographic characteristics of respondents

Demographic	Frequency	Percentage
Characteristics		(%)
Sex		
Male	12	60
Female	8	40
Age		
20-29	1	3
30-39	3	15
40-49	8	40
50-59	6	30
60 and above	2	12
Household		
Size		
Single	1	5
2-5	15	75
6-9	4	20
Educational		
Levels		
Formal	2	10
Non-formal	18	90
Total	20	100

Source: Field Survey, 2017

Descriptive analysis of major Alternative Livelihoods of cocoa farmers

The study sought to identify the major alternative livelihood activities of the cocoa farmers in the

Atwima Nwabiagy District. The alternative livelihood activities undertaken by many households during the time of study included food cropping, pottery, bricks making (burnt brick) and trading. During the interview one farmer stated:

"I grow plantain and cassava too. I do that to ensure a continuous supply of food from the food farm....., I try to maintain a sizable food farm to ensure a yearlong food supply for my family." (Cocoa farmer 1)

Another farmer also stated:

"I sell some of the produce from my food farm to support my family. I also use some of the monies accrued from food farm to maintain my cocoa farm. And so for me I don't joke with my food farm at all" (Cocoa farmer 2)

Again, other alternative livelihood activities for most households included pottery and brick making. Many farmers engaged in these as alternative livelihood activities for subsistence. A respondent said this"

"This business (bricks making) has been with us for years. We were born into it and so cannot stop such a job. We do it to supplement our cocoa farming and it's really helpful." (Cocoa farmer 3)

A respondent who was engaged in a similar activity also stated:

"More than half of my cocoa trees are not bearing at the moment. I therefore resort to pottery as an alternative livelihood to support my family." (Cocoa farmer 4)

Trading of surplus food and trade stores were also common in the community. A respondent explained:

"I used my proceeds from my cocoa farming to start this store as an alternative livelihood to support my family during off-seasons. The community patronise the commodities in my store and really the store has helped me and my family." (Cocoa farmer)

Another respondent also had this to say:

"I trade to support my family..... apart from the store I operate, I also trade my food surplus from my farm. It helps me to take good care of my family." (Cocoa farmer 6)

Socio-economic effects of alternative livelihood on the cocoa farmers

Interview with the cocoa farmers revealed that the alternative livelihoods had socio-economic effects on their lives. These have been described in the following sections.

Income

All the farmers interviewed stated that the alternative livelihood activities had allowed their families to have easy access to money and a reliable source of income for their families. A farmer interviewed explained that:

"Before engaging in this alternative livelihood (pottery), it was hard to have access to cash and my family did not have cash available to buy basic household needs for months. Now, I can always earn money even during off seasons." (Cocoa farmer 4)

To reiterate the flow of income for households in a regular basis, two farmers interviewed confirmed:

"This alternative livelihood (bricks making) is a major means of money to supplement my family's income. This is because the money I earn from my cocoa farm is not sufficient to keep my family year long. But with the support of this activity, I am able to take care of my family." (Cocoa farmer 3)

"Yes, this pottery business has increased my family's income and it is like a bank, I get income after every one week" (Cocoa farmer 8)

The study further found that the increase in income from these alternative livelihoods had led to an increase in demand in the local economy. This demand had presented an opportunity for entrepreneurial farmers in the study area to

start a trade store. At the time of data collection, trade stores provided a retail services for the study communities, with the owners being cocoa farmers themselves. An interview with the owner of one of the trade stores revealed that:

"The income from the alternative livelihood was used to start my business. Initially I saved some of my income from the alternative livelihood until it was enough to purchase a few cartons of milk and bags of rice to sell. Over time, my business had expanded and I was able to build a semi-permanent house for my family" (Cocoa farmer 10)

The trade stores sell goods that previously had to source outside the study communities. These included basic household cleaning items, food (rice, milk, flour, cooking oil, snacks, drinks), batteries, school stationery, toiletries to name a few.

Purchasing power of households

For many, they simply enjoyed the pleasure of buying things which for them was a new experience. One farmer happily explained:

"Having a regular income is good; I can buy things I want and that makes me happy." (Cocoa farmer 11)

Employment

Although the alternative livelihood were seen as an additional activity that was adopted as part of the households' livelihoods, it was found to have occupied farmers' time during their "nothing to do period."

With income from these alternative livelihoods, some were able to hire labour to work in their cocoa farms. In an interview with a farmer, he stated:

"When I have enough money, I sometimes hire some boys in the village to weed around my cocoa trees and this has reduced my burden..... at least I can say it has helped to reduce unemployment among the youth in this village." (Cocoa farmer 12)

Employment in such cases, however, was only short term.

Social aspects

All the farmers interviewed stated that the alternative livelihood activities have relatively made it easier for them to pay for their children's school fees, school stationary and uniforms. All the farmers interviewed see sending their children to school as an investment, from which they will benefit once their children acquire better jobs in future. Some hope that their children will someday put to good use the knowledge and skills learnt in school in the village. Two parents expressed their hopes for their children saying:

"I want my children to have a better education so that they are able to get a good job and be able to take good care of me during my old age..... And so the income I get from this activity (pottery) has helped to support my children's education which is very paramount to me" (Cocoa farmer 13)

Another respondent also stated:

"I want my children to go to school because even if they do not make it to the tertiary level, they can look after our business and manage the income better than I do and better still be able to make good decisions on what is best for the family." (Cocoa farmer 14)

Cocoa Farmers Coping Strategies for offseasons

The study found that the main coping strategies in the community were pottery and brick making (burnt bricks). Respondents had these to say during the interviews:

"Myself and my family are engaged in pottery during cocoa off-seasons, We make a lot from this business though it is tedious." (Cocoa farmer 15)

Another farmer also reiterated:

"Brick making and pottery are businesses for the community. We have

grown these businesses and automatically have become part of us. We support ourselves with the incomes generated from these businesses during off-cocoa seasons." (Cocoa farmer 16)

Cash is the main medium of exchange in the community. As the monetary economy in the community is important, households needed cash to purchase basic necessities such as soap, matches, school fees and stationary for their children, clothes and other household goods. However, the study found that money was hard to obtain during the off-cocoa seasons for households without these off-season strategies; as a respondent explained:

"Had it not been this pottery business, myself and my family would have been starved to death during off-season cocoa farming. Hmmm....., the cocoa money comes ones a year around October. We use the monies accrued from the cocoa farming to pay our children's school fees and the rest for Christmas festive season. When the Christmas festive season is over, our pockets become empty and we turn to this alternative business for survival." (Cocoa farmer 17)

Income earning activities included: sale of surplus from their food gardens and casual laboring. A respondent had this to say in an interview:

"Food is not a major problem during offseason cocoa farming. We get cassava, plantain and vegetables from our small farms..... money to buy fish or meat is the problem during off-seasons." (Cocoa farmer 18)

Another respondent buttressed this in an interview:

"For our local foods like fufu and Ampesi we manage to get them. But sometimes you may want to change it a bit and that's where the problem comes. You can't enjoy the fast foods the rich people are enjoying.

Every day it is either fufu or Ampesi." (Cocoa farmer 19)

The study found that households who wished to sell their food surplus had to travel to Kumasi or the district capital (Nkawie) on Wednesday market to sell their produce.

Income for many households was low, intermittent and many possibly had no access to cash for months in a year. A male respondent explained in an interview that:

"hmmm..... it is not easy during offseasons I travel to Kumasi to do buy and sell with the little money left on me to be able to remit my family back home. I remember using only fifty Ghana Cedis left on me to start selling matches to be able to support my family." (Cocoa farmer 20)

Discussion

The study found farmers' recognition of cocoa production as the main means to generate income and therefore a source of cash to pay for essential needs and meet social obligations. However, farmers did not lose sight of the importance of food production as one of the sources of their alternative livelihoods. As a result, most farmers interviewed did not grow cocoa on land used for food cropping. This food production had positive effects on household interviewed. The study found that many farmers took advantage of newly cleared land for cocoa and intercropped food crops such as plantain, cocoyam and cassava. Some interviewed experienced huge surpluses of food when those inter cropped with cocoa were ready to be harvested, and were able to sell some for additional income. The study also found that some cocoa farmers were also engaged in trading as an alternative livelihood strategy. This findings corroborates with the findings of Allison and Horemans, (2006); de Haan and Zoomers, (2005); Ireland et al., (2004); Niehof, (2004) and Soussan et al., (2001) that rural communities engage in several alternative livelihood to support their family.

The study further found that with a regular income flow, the local economy of the study community has expanded. Farmers were able to meet their households' basic needs and participate more in monetary contributions in the community as required of them. All the farmers interviewed in this study agreed that with the alternative livelihood activities, they were better off with regards to the way they lived their lives compared to before. They were partially satisfied with the living standards they had attained in their involvement in these alternative livelihoods (pottery, quarry and bricks making). These findings are not different from the findings of Soussan et al., (2001). With the reliable income from these alternative livelihoods, many felt secure and no longer anxious over how and when they would get income. Again, the access to money has led to other changes at both the household and community levels. Some had expanded into entrepreneurship, some chose to spend, while others spend cash but saved some for future use. The study revealed that alternative livelihood had increased the purchasing power of the households in the study areas. Purchasing power in this case refers to the ability of the households to participate in the monetary exchange of goods and services. At the time of interview, many households were able to buy goods as well as meet their household living expenses and made monetary contributions to community projects. These buttress the views of de Haan and Zoomers, (2005).

The increase in income has motivated individuals to invest in other assets and activities to make their lives easier and improve their livelihoods. This findings have been also reported as an outcome of alternative livelihood in other developing countries (Curry et al., 2007; Wamalwa, 2011).

The study showed that the cocoa farmers had off-season strategies. Households were involved in supplementary activities such as pottery, brick making, trading, livestock rearing

and food cropping. Chickens were normally raised for consumption by the farmers themselves. Again, the study intended to find out the food supply for the households during off-season cocoa farming. The study found that the households had a constant food supply from their farms for sustenance, but many found life hard as they struggled to meet their monetary needs.

The study further found that men had to find jobs outside the village to earn incomes for their families. Whenever, a lump sum of money was needed, husbands had to look outside the village to earn money and sometimes had to leave the family for up to three months to work as a casual labourer before returning home with the necessary cash. Since access to cash was limited, parents often found it difficult to meet the required expenses for their children's education such as school fees, stationary, uniforms, or even clothes. Thus, children were discouraged to stay in school. Many dropped out from school in the village. However, these alternative livelihood activities help the farmers to supplement their families' income. This findings support the literature which report that alternative livelihood activities are means to increase income for the rural community (Brown and Kennedy, 2005; Demont and Stessens, 2009; Koczberski et al., 2001; McKillop and Wood, 2010; Nyaga and Doppler, 2009; Susila, 2004; Wamalwa, 2011).

Conclusion and Policy Implication

Results show that alternative livelihood activities have significantly improved household income and consequently increased household standard of living. The study also found that the benefits of alternative livelihood activities are distributed across all households within the community as all households were engaged in at least one alternative livelihood activity. Households benefit directly from alternative livelihood through access to cash. Access to cash opened up opportunities for households to venture into other livelihood activities within the

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study community; and also use part to maintain their traditional livelihood. This may be due to the relatively high amounts of money that the alternative livelihood activities trickled in. The study revealed that besides cocoa, farmers earn income from food crops, petty trading, pottery and bricks making as a form of alternative livelihood. They did not consider their income to be adequate though. The study confirmed the long held knowledge that cocoa farming and its attendant income is seasonal. This seasonal income pattern impacts negatively on the ability of the farmers to acquire quality social service for themselves and their dependents in terms of access to food, health and education. However, the study identified some off-season strategies by the farmers. The study found evidence to the effect that certain alternative livelihood activities (pottery and brick making) could be viable and contributed substantially to the incomes and livelihoods of poor cocoa-farming households in the community. Such impact would enable households hire the labour required for production activities reducing the likelihood of engaging children in hazardous activities on their cocoa farms.

The study recommends that part of the income generated through the alternative livelihood is re-invested in the traditional livelihood, such that coexistence of both the cocoa farming and the alternative livelihood activities can maintained. This coexistence can provide a buffer against climatic variations, economic shocks and during off-seasons; thus conferring stability and sustainability to rural livelihoods. Further, the government through the District Assemblies should provide technical back-up support systems to enhance the long-term impact of any planned alternative livelihood on farmers' incomes. Again, the government must avoid the handout syndrome in any planned intervention. This is referring to instances where projects provide all sorts of largesse only to vanish after a short while leaving farmers to literally run for breath. Lastly, concerted efforts by the government through the

Enterprises Programme to give the necessary training in alternative livelihood management will be paramount.

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