

THE GHANA COCOA STORY

Social and Environmental Challenges in the Ghanaian Cocoa Sector



SÜDWIND





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1. Executive Summary

Ghana is the second biggest producer of cocoa in Africa and one of the biggest in the world. Over the years, Ghana has prided itself as being the world's second-largest producer of cocoa beans and the global benchmark in terms of quality on the world market. Producing 21% of total global output, over 90 percent of Ghana's cocoa is grown on small farms between 5-15 hectares, in the six main cocoa-growing areas namely, Ashanti, Brong Ahafo, Volta, Eastern, Central and Western Regions of Ghana.

As the demand for cocoa continues to grow, over 500,000 tonnes of cocoa are hauled from farms across Ghana each year and shipped to the industrialized world for the production of chocolates and allied products. Ghana's accolade as the second biggest producer of cocoa in Africa and one of the biggest in the world is fast proving to be a mirage. With a myriad of factors threatening the sustainable production of cocoa in the country with dire consequences for the country's sustainable development and poverty reduction efforts it adverstes implications for the global cocoa and chocolate industry.

Research objectives and methodology

The following research was conducted by the League of Environmental Journalists in Ghana during the period of July 2016 until February 2017.

The main research objective was to spot and analyze the main social and environmental challenges in the Ghanaian cocoa sector and to give a voice to cocoa farmers and their concerns.

The research was both, quantitative and qualitative. A broad range of instruments were used including desk research and field research with interviews in the three main cocoa producing areas of the Eastern, Western and Ashanti Regions.

Desk Research: The team conducted extensive reviews and examined international and local publications as well as data from other international organizations, academic and policy studies, non-governmental organization reports and relevant media reports.

The study also comprised a desktop/internet analysis of public available information on cocoa production.

Field Research: The research was based on information gathered from a broad range of sources. The research team held interviews (structured and semi-structured) and focus group discussions as well as one-on-one interviews with some female cocoa farmers who told the team they had so much to say about women's work and remuneration on cocoa farms, but could not speak in the presence of the men.

As part of field research, the team also conducted field investigations, interviewing farmers, farm hands and other workers both men and women on their farms and in their homes. Interview techniques varied and were adapted for each situation.

Social and environmental challenges in the Ghanaian cocoa sector

Land tenure insecurity

The research first examined land ownership amongst cocoa farmers in Ghana and asserts that access to land is low and the security of rights almost non-existent for cocoa farmers in the country despite the existence of legal and regulatory systems that are intended to facilitate land rights.

Thousands of cocoa farmers in Ghana produce the country's main agricultural export and the country's main cash crop, accounting for more than 9 percent of agricultural GDP. Employing about 800,000 farmers and their families they do not have secured rights to the land they farm, as many of them work as sharecroppers on land owned by absentee landlords.

This insecure land access restricts cocoa farmers as it limits their expansion of farms and how much cocoa they can grow and places a limitation on their income and perpetuates poverty.

Climate change: Water scarcity, gender, traditional fuels and biodiversity-loss

In the villages visited, cocoa farmers stated that climate change had resulted in intense rainfalls and higher temperatures and weather unpredictability. According to the farmers, increased rain and prolonged wet seasons slows the drying and processing of cocoa beans with the attendant reduction in the value of the bean and an increase in the cost of processing with negative impacts on cocoa and food production.

A major concern is that climate change was negatively affecting soil health and fertility and also impacting the occurrence, stages and rates of development of cocoa pests and thus lowering resilience.

According to the farmers, limited rainfall and water scarcity are leading to the deterioration of soil properties and destruction of cocoa and livelihoods as soils dry out. The heavy rainfalls also cause rapid run-off, increasing flooding and erosion and filling water bodies downstream with sediment and other pollutants. All these processes reduce the productivity of the land and affect food production and cocoa yields.

It was also observed that climate change and the increased frequency in floods and droughts significantly affect the availability of water used for domestic purposes and work on cocoa production. This negatively impacts women who traditionally are responsible for water management in homes as they have to spend significant amounts of time daily searching and collecting water from distant water bodies mostly streams or rivers. Water scarcity induced by climate change and the lack of access to safe water are major factors in the increasing cases of maternal and child mortality in cocoa growing areas in Ghana. As the quality of ground and surface water deteriorates, hygiene is compromised and this impacts health and puts the safety of women at risk. Further, women's role as primary healthcare givers of their families is heightened when they have to attend to sick family members. Their role in cocoa production suffers as they are left with less time to work on cocoa farms.

The research revealed that climate change was exacerbating the loss of biodiversity and ecosystems in most cocoa growing areas with a disproportionate impact primarily on women cocoa farmers who need biodiversity for their family's meals and health care.

Deforestation

It also became apparent that the removal of vast swathes of forests in some cocoa producing parts of the country to make room for cocoa farms had resulted not only in the loss of forest, but an acceleration of the impact of climate change, making cocoa farms susceptible to increases in temperature and rainfall variations.

Bush fires

The effects of bushfire on cocoa farming, rural livelihoods and on the ecosystem in Ghana are increasingly becoming extensive and damaging as large tracts of cocoa farms in Ghana are burnt by bushfires that sweep through them during the Harmattan¹ season each year. This has even compelled some cocoa farmers

¹ "The Harmattan is a season in the West African subcontinent, which occurs between the end of November and the middle of March. It is characterized by dry and dusty northeasterly trade wind, of the same name, which blows from the Sahara Desert over West Africa into the Gulf of Guinea."

to keep wake on their cocoa farms to protect them.

Agrochemicals and cocoa farming

Agrochemical use on cocoa farms in Ghana was also examined by the research and it was observed that the excessive spraying of pesticides was causing some pests and weeds to build up resistance rather than causing damage to the land and the health of the sprayers applying them. This has prompted questions as to why Ghana was not actively producing organic cocoa beans to maintain its position as a leading producer of some of the highest quality cocoa beans in the world.

Aging farmers and lack of youth motivation

The research revealed that an increasing number of cocoa farmers are overaged with an average age of 55 years. The need to encourage more young people to venture into cocoa farming to replace the aging farmers is imperative but the near absence of a comprehensive succession plan to motivate the youth to take on cocoa farming and take over from aging farmers is disturbing.

Lack of pension schemes for cocoa farmers

As the world's obsession with chocolate soars and the 100 billion dollar chocolate industry rakes in the profits, cocoa farmers in Ghana who toil to produce quality cocoa for export still live significant below the international poverty line. After devoting a lifetime of hard labour to produce Ghana's main cash crop, thousands of cocoa farmers are struggling to survive for the remaining days of their lives because there is no state pension system.

Lack of capital

The majority of interviewed farmers indicated that they were constrained by a lack of capital and this was making it difficult for them to buy the relevant pesticides, fertilizers, seedlings or expand their farms. The refusal of banks to grant them loans or credit facilities makes the matters worse. Named reasons are, next to others, to provide a guarantor with good salary.

Gender and cocoa production

Research indicated that the importance of the gender dimension in cocoa production cannot be overlooked.

In Ghana thousands of women are actively involved in the cultivation of cocoa

with pruning of young cocoa plants, drying and fermentation of cocoa beans - being one of the myriad working fields. Despite these roles, which are critical for increasing yields and ensuring sustained productivity and the production of high quality chocolate, women's work is seen as family labour and goes unpaid. If paid at all, so reported many female cocoa farmers, their remuneration was less than their male counterparts.

Another critical issue concerning female cocoa-farmers is land ownership. Land ownership and control of agricultural land by women remain a mirage as women smallholder farmers in Ghana generally do not own the land they cultivate. For the women who own farmland, the land is small in size leaving no room for expansion and further investment (see chapter 2 - land tenure insecurity).

Limited access to credit and finance further worsens the plight of female cocoa farmers who are unable to increase productivity on the farm and also invest in future production.

In the context of climate change women cocoa farmers disproportionately suffer the impacts of climate change because of cultural norms and the inequitable distribution of roles, resources and power in these communities. (see chapter 3 - Climate change and cocoa production)

Occupational- and health hazards

The production of cocoa in Ghana according to the farmers is fraught with numerous health hazards and injuries. This includes cuts from cutlasses, spider- and insect-bites and stings from bees and wasps, scorpions as well as lower back pains and effects of pesticide use. These threats are common during pre-planting, clearing, planting, post-planting and post-harvesting of pods.

The farmers explain that lack of information about the hazards to which they may be exposed in the handling of farm tools and agrochemicals in particular accounts for most of the health and safety problems they encounter. Majority of the respondents however mentioned increasing snake bites during the warm periods as the most prevalent and troubling of all their woes, as it affects working hours on the cocoa farm and cocoa productivity.

Complaints were also rife that the non-availability of anti-snake-vaccines at health facilities in the cocoa growing districts and the inefficacy of some imported anti-snake-venoms in some situations were resulting in death and loss of limbs of some cocoa farmer.

Child labour in the cocoa-production

As human rights groups, consumers, media, advocacy groups and academic institutions in Ghana and the West continue to focus the world's attention on child labour in Ghana, research reveals that the government of Ghana makes a headway with the rescue of several children from cocoa farms and other exploitative forms of child labour. The passage of several laws and the signing of a number of treaties aimed at the prevention and withdrawal of children from hazardous work on cocoa farms.

In the cocoa growing communities the research observed that there is a high awareness of the illegality of child labour.

Findings of a survey of child labor in Ivory Coast and Ghana in the 2013–14 growing season by the Payson Center for International Development at Tulane University indicates that 2.1 million children had been engaged in inappropriate forms of child labor in Ivory Coast and Ghana. Combined that is a 21% increase over the 1.75 million identified in its survey five years earlier. Of those, 96% were found to be involved in “hazardous activity”. The number of children reported to be performing dangerous tasks fell by 6% in Ghana but rose by 46% in Ivory Coast.

However, as efforts to end child labour increased steadily, it was observed that this progress could be marred by widely held beliefs of some cocoa farmers and government workers, as to what really constitutes child labour within the family system. It was observed that some people maintain that culturally it is acceptable for children to run family business, understudy their parents' vocation and also contribute to family income.

Gold mining threatens cocoa farming

It was observed that an increasing number of able bodied youth in most rural communities in the country, who formed the labour force on cocoa farms are now trooping to gold mining fields in search of work. This follows the growing number of cocoa growing communities in Ghana that are under siege following the activities of formal and informal gold miners. Mining degraded soils and destroyed cocoa farms and livelihoods, polluted rivers and streams with cyanide and mercury - all toxic chemicals used extensively in goldmining.

In the Western Ashanti and Eastern Regions, it was observed that cocoa farmers are up in arms with formal and informal gold miners over the destruction of their cocoa farms - their primary source of income to make way for gold mining. In Tarkwa, cocoa farmers who had a source of sustained income, now have to go

begging for food and money as they've lost their cocoa farms to mining. There were also cases where cocoa farms have been destroyed without the free, prior and informed consent of their owners.

2. Land tenure insecurity

In Ghana land is a major source of livelihood for about 73.4% of the rural population who use land mainly for agricultural purposes particularly the rearing of livestock and production of crops including Cocoa (based on 2010 Population and Housing Census).¹

Research reveals that, access to land and the security of rights for smallholder farmers and women in particular is however low despite the existence of legal and regulatory systems in Ghana, that are intended to facilitate the land rights of both women and men.

For cocoa, which is Ghana's main agricultural export and the country's main cash crop (accounting for more than 9 percent of agricultural GDP) and employing about 800,000 farmers and their families², the story is no different as cocoa farmers in the country's cocoa producing regions of Western Region, Ashanti Region, Brong-Ahafo Region, Eastern Region and Volta Region do not have secure rights to the land they farm as many of them work as sharecroppers on land owned by absentee landlords.

“People are always telling us to work hard and produce more cocoa, we work really hard on our cocoa farms and we are prepared to do more but where is the land? Millions of hectares of land in cocoa growing communities have been grabbed by rich people from the big cities and the lands are just sitting there waiting for god knows what. Who are you to ask these big men from the cities to use the land that is just lying there, they will speak big, big English to you. So we just manage our cocoa farming on these our small, small lands”, says Otis Ayensu, 63-year-old cocoa farmer at Ayensuade in the Gomoa district of the Central Region.

“Even when the land owners living in the big cities have mercy on you and they allow you to use part of their land, there are no written contractual agreements between you and the land owner. So he can ask you to leave at any time. In case he dies, his family comes and kicks you out just like that “, he adds.

According to the farmers, this situation does not encourage them to make bold

decisions regarding the land they grow cocoa on or invest in any form on the land as they are not sure of what they can do and what might annoy the owner of the land lest they are told to get out. Land tenure insecurity and the attendant perpetual suspense that cocoa farmers face affects cocoa productivity ultimately.

In the communities visited, the nature of customary norms related to land does not exclude women from access to agricultural land. However, ownership and control of agricultural land by women remain a mirage as women smallholder farmers in Ghana generally do not own the land they cultivate. For the women who own farmland, the land is small in size leaving no room for expansion and further investment.

“Limited access to credit with flexible terms and capital is a further limitation even in situations where land is available for smallholder women farmers to cultivate”, says Diana Ahiatongo, a cocoa farmer at Kantanso Barrier in the Asante Akim South District of the Ashanti Region.

According to the Civil Society Coalition on Land (CICOL) only 10 per cent of female farmers in Ghana own land compared to 23 per cent for that of men.³

Insecure land access restricts cocoa farmers as it limits their expansion of farms and how much cocoa they can grow. This contributes to a decline in cocoa production and perpetuates poverty among farmers, particularly women who depend on land and natural resources for a living.

It was however observed that in recent times women’s restricted control over land seems to be changing in response to the increasing demand for cocoa, contemporary legal systems and agitations of civil society groups.

“These days, women in some parts of the country can inherit and own land. At least I own the 9acre land I grow cocoa on and this is helping me with income”, says Diana Ahiatongo, mother of three and a cocoa farmer of 7 years at Kantanso Barrier in the Asante Akim South District of the Ashanti Region.

Interactions with some Akan communities in the Western Region revealed that increasingly women now have plots of land that they control. These communities are known for their age old land tenure system where women traditionally were denied access to land and could not inherit or own land.

“Supporting the implementation of policies promoting women's equal access of land and secure land tenure for small holder farmers in general, provides the

vulnerable with a source of livelihood, food security and opportunity for investment. This should be seen as indispensable to sustained cocoa productivity economic growth in general and poverty alleviation”, Diana Ahiatongo stated.

3. Climate change and cocoa production

Faced with decreasing productivity as a result of lack of access to land, extension services, credit and quality farm inputs including seeds and fertilizers, cocoa farmers in the communities visited say they are faced with increased temperature and rainfall variability as a result of climate change. This poses immense threat to cocoa production and community livelihoods.

All farmers interviewed complained that climate change had resulted in intense rainfall and higher temperatures and weather unpredictability. In the forest zone where you have cocoa farms, it was observed that climate change is having an impact on soil health and fertility, resulting in increasing rapid depletion of forest vegetation.

Farmers at Otwe Bedi Adua, a village in Suhum/Kraboa/Coaltar district in the Eastern Region mentioned that increases in temperature and long periods without rain were drying up their younger trees whereas heavy rains also affected the blooming of flowers.

According to Samuel Addo, a forty-three year-old cocoa farmer at Otwe Bedi Adua and a father of six, rainfall patterns in the last 12 years have changed significantly.



Samuel Addo drying his beans in the sun. Rainfall patterns changed significantly in the last 12 years. That makes it difficult to plan and to nurture cocoa seedlings, also pests increased and yields declined.

The farmers also mentioned that climate change impacts the occurrence, stages and rates of development of cocoa pests and alters resilience with immense implications for cocoa yields and losses, livelihoods, income and poverty.

“I have five farms, a total of fourteen acres, sometimes we have heavy rains and sometimes no rain for long periods, it’s difficult to plan with the rains these days and we find it extremely difficult to nurture the growth of the cocoa seedlings. We cannot afford irrigation facilities. Now, we have all sorts of pests such as capsid, cocoa shield bug and others worrying us. This is affecting our yields, income and livelihoods”, Samuel adds.

Addo Aniapam from Otwe Bedi Adua in the Eastern Region confirms this when

he says: “I am 85 years old, I have been a cocoa farmer all my life but have never witnessed such confusion in the pattern of rainfall. We need assistance to understand what is going on and what we can do.”

According to the farmers, increased rains and prolonged wet seasons slow the drying and processing of cocoa, which reduces the value of the bean and increases the cost of processing.

“With this weather, it is almost impossible for us to continue our age old method of fermenting our cocoa for six to seven days and air-drying the beans on bamboo mats consistently for about a week and turning the cocoa regularly to ensure even drying. Because this has to be done in the open air and not in our rooms”, Addo Aniapam explains.

“Now rainfall patterns here have changed and remain unpredictable’, but this trend is not suitable for cocoa production. How do we with our limited knowledge deal with these challenges to boost cocoa production?” Samuel asks. “Some of us even with our little indigenous knowledge can tell that these erratic rainfall patterns and particularly long periods of drought are taking a toll on our cocoa farms and our pockets. How can we save money and take care of our children with these degraded soils and low yields”, Samuel laments. He adds that they lack the appropriate and practical methods to deal with the impacts.

Deterioration of soil

According to the farmers, limited rainfall and water scarcity also lead to the deterioration of soil properties and destruction of cocoa and livelihoods as soils dry out. The heavy rain also sets off rapid run off, increasing flooding and erosion and filling water bodies downstream with sediment and other pollutants.



Michael Asiedu created a water-reservoir on his cocoa-farm because of water-scarcity

“All these processes reduce the productivity of the land and affects food production and cocoa yield”, Kobla Costa, a cocoa farmer at Gomoa Ayensuade area of Central Region explains

Floods

“Extreme weather conditions and floods mean that we at Ayensuade and surrounding cocoa growing communities here have to adapt our lives to a changing climate but how do we do this? So when the floods come we don’t go to our farms we leave our cocoa farms in chest deep crocodile infested waters and everything gets rotten”, says Otis Ayensu.

“In normal weather the river Ayensuade which runs through this community and my cocoa farms helps me to irrigate my farm but when the floods come, it fills my farm with water and spews out its huge crocodiles and other reptiles onto my cocoa farm”, Otis Ayensu adds.



River Ayensuade: Changing climate leads to floods more often.

3.1 Climate change and women

In the context of climate change, the research suggests that women cocoa farmers disproportionately suffer the impacts of climate change because of cultural norms and the inequitable distribution of roles, resources and power in these communities.

In addition to their activities in cocoa production, traditionally women cocoa farmers (like most women in Ghana) also have the responsibility of securing water, food and fuel for the family.

As streams dry out, groundwater levels dwindle and forests and cocoa farms and other vegetation yield to droughts, women in the cocoa growing communities explained that they have to spend more time and energy finding water and food for their families.

“The weather is threatening food and water supply, even crop production has dropped and traditional food storage methods are not helping us. We find it difficult to store food for the family traditionally with this plenty rain and long dry seasons”, says Diana Ahiatongo, a cocoa farmer at Kantanso Barrier in the Asante Akim South District of the Ashanti Region. “We are women and we have to take care of our children and husbands, and then our cocoa farms how do we balance all these problems?”, Akwele Addo, a 42-year-old cocoa farmer at Otwe Bedi Adua in the Eastern Region, asks.

In Ghana, women constitute 52% of the agriculture labor force and also contribute 46% of the total GDP. They also produce 85% of food distribution in the areas of fish and food crops. ⁴

In spite of these contributions by women to the national economy, it was evident in the course of the research that the nature of gender inequality worsens the plight of women with regards to the changing climate and environmental conditions and cocoa productivity.

All the cocoa producing women interviewed maintained that the unpredictable seasons and increased incidence of droughts and floods placed the daily food needs of their families and their livelihoods at risk.

Compounding this situation is women’s lack of representation in decision-making processes as well as their limited access to capital and technology.

3.1.1 Water-scarcity

It was observed that climate change and the attendant increased frequency in floods and droughts significantly affect the availability of water used for domestic purposes and work on cocoa production. In both situations women are responsible for the water management.

Women farmers spend significant amounts of time daily searching and collecting water from distant water bodies, mostly streams or rivers. But this water which is often contaminated hardly suffices the needs of the household.

Like many rural women in Ghana Akwele Addo, cocoa farmer at Otwe Bedi Adua a village in Suhum, spends hours each day hauling water for her family to drink and wash, as well as for their livestock and crops.

“The water pump nearby that provides clean water is inadequate to provide for the community and it breaks down often “, she explains.



Girls fetching water at a water-pump in Otwe Bedia Adua

3.1.2 Women's health

The research noted that threats to the health of women in cocoa growing areas are further exacerbated by climate change as water scarcity and contamination increase the incidence of debilitating diseases such as typhoid, cholera and malaria and other waterborne diseases.

Increasing temperatures are known to be favorable to the lifecycle and maturation of the malaria parasite as well as the spread of malaria.⁵ Women's role as the primary healthcare givers of their families is heightened when they have to attend to sick family members. Their role in cocoa production suffers as

they are left with less time to work on cocoa farms.

Interviews with the women revealed that climate change induced water scarcity and that lack of access to safe water is a major cause for increasing cases of maternal and child mortality in cocoa growing areas in Ghana. As the quality of ground and surface water deteriorates, hygiene is compromised and this impacts health and puts the safety of women at risk. Sometimes women face an impossible choice – certain death without water or possible death from illness.

“Each day we pray that, child and maternal mortality as a result of lack of access to safe water and sanitation facilities and the attendant lack of hygiene during childbirth will be things of the past. Even during menstruation, pregnancy and childbirth we go through a lot of stress just looking for clean water; it’s even more stressful when we have to carry the heavy pots and buckets and gallons of water when we are pregnant”, says Linda Owusu, 34 years old and a cocoa farmer at Ajopa, Western Region.

Climate change and the attendant inadequate access to water and poor water quality does not only affect women and the health of their families, it also impacts agricultural production as it increases the countless hours spent to collect, store, protect and distribute water. For women in the cocoa growing areas this means loss of harvests and income.

This locks women in a cycle of poverty as they have less time to work on cocoa farms to earn money or go to school to get empowered.

In family owned cocoa farms, women say they often have limited or no control over family finances.

“As a wife, we are only entitled to chop money from what the family gets from the cocoa farm. Unlike our male counterparts, we depend directly on natural resources for our livelihoods and survival. Our incomes are lower than the men’s and when the floods or drought come the men easily pull through these hard times because they have savings and they are better educated than us “, adds Gloria, a 38-year-old cocoa farmer at Juaso in the Ashanti Region.

3.2 Energy/traditional fuels for cooking

In the cocoa growing communities of Ghana women and men cocoa farmers are all heavily dependent on biomass, such as wood and other forest resources for

their energy and livelihoods. However, in the face of climate change, the ability of women and men to obtain these indispensable resources is reduced as the research observed.

Women and girls in these cocoa growing communities are also responsible for collecting traditional fuels which is used extensively in their traditional clay wood burning stoves.



The research revealed that collecting and gathering wood and charcoal in the context of climate change means long hours of carrying heavy loads on their heads and backs and walking long distances - loss of hours that could have been used for other income generating activities.

3.3 Loss of biodiversity

“Biodiversity is vital for the survival of women and their families in most cocoa growing areas of Ghana. It is also part of our belief system and they have immense cultural values for us in our traditional religious practices”, says Diana Ahiatongo, a cocoa farmer at Kantanso Barrier in the Asante Akim South District of the Ashanti Region.

According to the Millennium Ecosystem Assessment, climate change is likely to become the dominant driver for the loss of biodiversity by the end of the century. Biodiversity plays an important role in climate change adaptation and mitigation.⁷

As climate change exacerbates the loss of biodiversity and ecosystems, this has a

disproportionate impact primarily on women cocoa farmers.

“The current rate of loss of biodiversity is severe, in the past we just had to pick up mushrooms and snails just around our cocoa farms to prepare food for the farm workers and our families, but these days we actually have to go far to look for these or we rear them in cages at home which is another responsibility”, says Akwele Addo.

4. Deforestation

Forests are known to protect the soil and cocoa trees from the sun and increase biodiversity. But in recent times, the removal of vast swathes of forests in cocoa producing parts of the country - to make room for cocoa farms - has resulted not only in the loss of forests but an acceleration of the impact of climate change, making cocoa farms susceptible to increases in temperature and rainfall variations.

Interviews with cocoa farmers in all the communities revealed that a major factor that has led to the decline of the cocoa sector particularly in forest fringe communities in Ghana has been the very expansion of the cocoa sector and the conversion of forests in the cocoa growing regions into farmlands and the attendant loss of forest cover, carbon sequestration, biodiversity, soil nutrients and urgent ecosystem services needed for increased national cocoa yields.

The research noted that these expansionist tendencies have resulted in the increasing intrusion of cocoa farmers and their cocoa farms even in some protected forest reserves in the country.

Farmers interviewed in Tarkwa and Suhum in Ghana’s Western Region are however quick to blame complicated land tenure systems, particularly customary systems of land ownership, lack of harmonization of customary practices and legislation governing land holding, land acquisition and land use as the reasons for their incursions into reserved forests.

“Customary land ownership in Ghana is informal word of mouth with no documentary evidence and this poses immense challenges for secure land ownership and acquisition for cocoa farming“ says Samuel, a cocoa farmer in Suhum, in Ghana’s Eastern Region.

The research further revealed that farmers haste to clear land for cocoa

plantation and reduce canopy and shade on cocoa farms in some cases have resulted in massive deforestation and increasing livelihood loss in cocoa growing areas in Ghana. As forests are cut down, soils become exposed and nutrients leach, erosion and soil infertility set in and decreases agricultural productivity including cocoa.

It also came to light that as deforestation increases, women in rural areas who depend on forest resources have to travel long distances to collect firewood, fiber, animal fodder and medicinal herbs for their families.

Some cocoa farmers said deforestation was further leading to dwindling water supplies and this means young girls and women in cocoa growing areas need to spend more time to locate and haul water for the family.

“By clearing land in these forests to make way for cocoa farms, species diversity relating to flora and fauna is reduced, as destruction of host organisms and wildlife habitats are accelerate”, said Joshua Awuku Appau from Earth Service.

On some farms, the research discovered that huge trees that were left on cocoa farms as part of the natural tree cover had been felled, despite the fact that some of these huge old trees provided shade for both cocoa and soil.



Huge trees were felled on a cocoa farm. As forests are cut down, soils become exposed and nutrients leach, erosion and soil infertility set in and decreases agricultural productivity including cocoa.

“I can also tell u that rapid depletion of the forest coupled with continuous destruction of the eco-system in the forest fringe communities is also the result of cocoa farming and other negative agricultural practices”, says Otis Ayensu, 63-year-old cocoa farmer at Ayensuade in the Gomoa district of the Central Region.

“When all these problems set in as a result of deforestation and the soil is no longer fertile and yields continue to decrease, some cocoa farmers go into the nearby forest to look for fresh, new and fertile land, and this leads to more deforestation. Some cocoa farmers cut down huge trees on their farms, others even stray into the forest reserves which are protected by law to start cocoa farms. This indiscriminate felling of trees and forests to make way for cocoa farms is not helping us. The shade trees would help us to retain soil moisture in dry seasons and they also return organic matter to the soil as leaves fall so they are important, but some farmers cut them”, Otis Ayensu adds.

5. Bush fires

It was found out that during the harmattan season each year, large swathes of cocoa farms in Ghana are burnt by bushfires that sweep through them. The effects of bushfire on cocoa farming, rural livelihoods and on the ecosystem in Ghana are increasingly becoming extensive and damaging.

In recent times, some farmers are even compelled now to keep wake on their cocoa farms to protect them. The research found that bush fires in cocoa growing communities are known to have started from human activity - either accidentally or deliberately - or as a result of natural causes such as lightning. Bush fires caused by human activities range from farming practices, to hunting activities including honey harvesting, charcoal burning and cooking by nomadic herds men. Traditionally land preparation for farming takes place during the dry season and this involves burning of dead leaves, wood and other materials from the previous year's harvests. These processes often result in bush fires as well.

Fulani nomadic cattle herds men are also known to set fires to cook their meals, these fires – if left unattended – do also spread and decimate forests and cocoa farms.

Hunting with naked fire to smoke out rats and grasscutter and other bushmeat for food is a favorite of some hunters during the dry season and this fire easily spreads uncontrollably. Honey hunting also involves the use of naked fire to

smoke out bees from their hives so honey can be collected.

Charcoal, a domestic fuel used extensively for cooking is also known to be key in setting off bushfires. The production of charcoal involves the burning of logs and tree stumps but sometimes these fires spread to nearby cocoa farm. Cigarette butts are also known to have caused bushfires in some farming communities.

In the Dormaa East District of the Brong Ahafo Region, more than 90 acres of cocoa farms have been lost to bush fire.⁸

In the Bosomtwi District in the Ashanti Region, bushfires also destroyed over 500 acres of farms and claimed one life.⁹

The effects of droughts are worse, as many farmers cut down trees which provide shade to cocoa farms. As young trees withered, fire ravaged through the farms with the older trees.

“We are currently experiencing the dry season and we are very worried about the detrimental impacts of bush burning and bushfires on cocoa farming. I am also a volunteer bushfire fighter in my community and I mobilize my colleagues every year to fight bushfires”, says Asiedu Michael, a 29-year-old cocoa farmer at Kantanso Barrier in the Asante Akim South District of the Ashanti Region and father of two.

Hundreds of farmers from cocoa growing areas are trained to fight bushfires each year by the country’s fire service. Participants are taken through series of fire prevention tactics to enable them prevent bushfires and also protect their farms and other properties against fires. In the Ayensuano district alone 25 cocoa farms were burnt to ashes last year.¹⁰

6. Agrochemicals and organic farming

Yayra Glover, a leading advocate and producer of organic and chemical-residue-free cocoa beans in Ghana, explains that agrochemicals used on cocoa farms damage the land and the health of the sprayers applying them.

“Excessive spraying of pesticides can cause the weeds and insects to build up a resistance which will eventually create more harm to the crops”, Yayra says.



Yayra Glover: “The benefits of consuming organically grown cocoa seeds far outweigh benefits derived from other forms of cocoa that grow with agrochemicals.”

As demand for organic cocoa beans by nations that purchase Ghana's cocoa beans soar, many Ghanaians are also asking why Ghana is not actively producing organic cocoa beans to maintain its position as a leading producer of some of the highest quality cocoa beans in the world.

It is however no secret that a unique collaboration between the Ghanaian social entrepreneur Yayra Glover and his Swiss partners Max Felchlin AG is providing just what discerning consumers of chocolate want.

“We produce certified and traceable organic cocoa beans in Ghana for export here in Ghana. The benefits of consuming organically grown cocoa seeds far outweigh benefits derived from other forms of cocoa that grow with agrochemicals. We work in the Suhum-Craboar-Coaltar district in Ghana's Eastern Region, where we work with over 3000 smallholder farmers”, Yayra Glover says.

Yayra further explains that “raw organic cocoa is cultivated in the best natural way, organic fertilizers are used and no chemical pesticides are involved in its

production”.

Research reveals that organic cocoa is also important for its huge magnesium content which is believed to be essential in the treatment of osteoporosis, asthma and maintaining a healthy heartbeat.

7. Nutritional and medicinal value of cocoa

“Each day I eat two raw beans straight from the pods or fermented and dried not processed. I prefer it this way because in their raw form they still contain their super food qualities. I have been eating two beans daily for over ninety years now. I am over a hundred years old. My father taught me how to eat raw unprocessed cocoa beans at an early age”.

Akua Doodua, 110-year-old woman at Ayesuade in the Central Region explains that raw cocoa beans possess more nutrients than any other form of processed cocoa beans.

“One other way I enjoy my raw cocoa beans is to crush them and sprinkle them over a bowl of mashed yam or rice or anything either for breakfast, lunch or supper”, Akua Doodua adds.

“You don’t find raw cocoa beans being sold in shops but I have lived near cocoa farms all my life and I get them fresh from the farm and I eat them fresh”, she says with a smile.

“When they are processed, boiled or heated, cocoa beans lose many of their nutrients. Cocoa is health and chocolate makers and consumers of chocolate should all ensure that all is well with the cocoa growing communities”, she adds.

Scientists are unanimous about cocoa's exceptional nutritional value, with its very high antioxidant content and very high magnesium content (as well as vitamins B and E, protein, iron, potassium, phosphorus, copper and zinc).

Research reveals that antioxidants found in cocoa such as phenolic phytochemicals are helpful in the treatment of Alzheimer diseases and other cardiovascular diseases because they neutralize the oxidative effects of free radicals that destroy cells and tissues.

Flavanols, theobromine, and other components found in cacao may lower blood pressure and improve blood flow and enhance circulation by reducing plaque buildup on artery walls and promoting dilation and health of blood vessels.

8. Aging farmers and lack of youth motivation

With the increasing global demand for chocolate and cocoa being Ghana's most important export crop, maintaining sustained cocoa productivity is critical. Research however revealed that an increasing number of cocoa farmers are growing old with the average age of cocoa farmer being 55 years. The need to encourage more young people to venture into cocoa farming to replace the aging farmers is imperative but the near absence of a comprehensive succession plan to motivate the youth to take on cocoa farming and take over from aging farmers is disturbing.

Michael Asiedu, a 29-year-old farmer at Kantanso Barrier in the Asante Akim South District of the Ashanti Region, who was adjudged the best district young farmer for 2016 in the Asante Akim south district of the Ashanti Region, said the increasing number of aging cocoa farmers is worrying as this is affecting cocoa production.



A rare appearance in Ghana – the young cocoa farmer Michael Asiedu: “The sector has simply lost its attractiveness to entice the youth into taking cocoa farming.”

“There are no incentives for the youth to stay in the communities and engage in

cocoa farming. The sector has simply lost its attractiveness to entice the youth into taking cocoa farming”, he explained.

“There are no good road networks and other social amenities in the cocoa growing communities which would help improve the quality of life. Even conveying your cocoa beans to the weighing centres is a problem because there are no roads linking cocoa farms or communities to the major roads leading to the marketing centres”, Michael Asiedu adds.

“You have to carry sack loads of cocoa beans on your head from your farm and walk to the roadside, how many sack loads can you carry on your head each time?” he asks.

According to Micheal Asiedu, the government has to take a look at the producer price of cocoa as part of the incentives to sustain the interest of farmers and motivate the youth to go into cocoa production.

“The cocoa mass spraying programm, payment of bonuses and a pension scheme are necessities. Otherwise only aged farmers will be left to manage cocoa farms because of the lack of incentives in cocoa production”, he adds.

9. Lack of pension schemes for cocoa farmers

Over 500,000 tonnes of Cocoa are hauled from farms across Ghana each year and shipped to the industrialized world for the production of chocolates and allied products.

However as the world’s obsession with chocolate soars and the 100 billion dollar chocolate industry rakes in the profits, cocoa farmers in Ghana, who toil to produce quality cocoa for export, still live well below the international poverty line. Most of these farmers say they are too poor to even afford to buy chocolate. A lot do not even know what chocolate looks like.

After devoting a lifetime of hard labour to produce Ghana’s main cash crop, thousands of cocoa farmers are struggling to survive for the remaining days of their lives because the state has no pension scheme for them.

All farmers interviewed lamented the lack of a pension scheme for cocoa farmers, they indicated that this was necessary, to end poverty and insecurity amongst retired cocoa farmers, and assure them of a secure and comfortable old

age when they retire.

They explained that, despite their contributions towards raking in so much income for the nation, they go on retirement and become a burden on their respective families, because they cannot care for themselves.

“When we are old and frail and can no longer work on the cocoa farms we have nothing to fall on. After a short while, our personal savings get exhausted and we have no money for healthcare and food”, says Addo Aniapam, an 85-year-old cocoa farmer from Otwe Bedi Adua in the Eastern Region.



“Look at me, at my age of 85years, I should be sitting at home playing with my grandchildren and enjoying the fruit of my labour. But look at me, I am still struggling to dry cocoa beans because I have no pension”, laments Addo Aniapam.

“We are begging government and companies as well as consumers of chocolate products to push for a pension scheme to cater for aged cocoa farmers whose sweat and hard work contributed to the cocoa industry, which is the backbone of Ghana’s economy”, he adds.

”There is no reason why farmers should not have the same benefits as their counterparts in the formal sector”, said Andrews Addoquaye Tagoe, Head of Programmes, Training and Education, General Agricultural Workers. “Access to pension schemes is a must for Ghana’s cocoa farmers”, he adds.

Sources within government however indicate that there are plans for cocoa

farmer's pension scheme. This has not materialized because of the absence of a database for the identification of landowners of cocoa plantations and the real cocoa farmers to determine the actual persons who qualify to benefit from the scheme.

10. Lack of capital und smuggling

All the farmers further indicated that they were constrained by a lack of capital and they were unable to buy the relevant pesticides, fertilizers, seedlings, adopt adaptation techniques or expand their farms.

“When we go to the banks for loans to work on our cocoa farms they ask us to bring a guarantor, a salaried worker with a good salary. Where are we going to get a salaried worker with a good salary in this village?” Micheal Asiedu disclosed.

“This lack of incentives also makes the smuggling of cocoa beans to neighboring countries very attractive because of the high prices offered there”, he added.

For instance, whilst Ghana was paying GH¢ 3,392 per ton in the 2013 and 2014 crop year, which is a little over \$1000, Ivory Coast was paying CFA750, which is about \$1500 per ton, Joshua Awuku Apau, Director at Earthservice in Accra explained.

One complaint that resonated in all the farming communities was that farmers said they did not trust cocoa purchasing clerks because they adjusted cocoa weighing scales and paid the cocoa farmers less than what was actually due them.

“Aging cocoa trees are a major problem for us, as the peak production of a cocoa tree is between of 5 and 25years. Once old age sets in, fruiting starts to decline, meanwhile we do not have money to purchase seedlings”, he adds.



50-year-old cocoa tree. Old and unproductive cocoa-trees are a reality in Ghana.

11. Gender in cocoa production

With the increasing consumption of chocolate and demand for quality cocoa, the importance of the gender dimension of cocoa production cannot be overlooked.

Land ownership

A critical issue concerning female cocoa-farmers is land ownership. Land ownership and control of agricultural land by women remain a mirage as women smallholder farmers in Ghana generally do not own the land they cultivate. For the women who own farmland, the land is small in size leaving no room for expansion and further investment (see also chapter 2 - land tenure insecurity).

Payment

In the cocoa growing communities visited, hundreds of women cocoa farmers are actively involved in the pruning of young cocoa plants as well as the drying and fermentation processes of cocoa beans. Despite these roles, which are critical for increasing yields and ensuring sustained productivity and the production of quality chocolate, the research found that women's work is seen as family labour and goes unpaid.

If paid at all the women said their remuneration is less than their male counterparts. Despite the obvious role that women play as the backbone of the cocoa sector and the supply chain, women cocoa farmers interviewed also said their needs and priorities are not acknowledged.

“Nobody cares about the important role we play in ensuring quality cocoa production but when they are buying our cocoa they tell us they want good quality beans for their chocolates. They insist and we break our backs to make sure they have the best but our efforts go unnoticed, our needs are not fulfilled, our voices are not heard, nobody cares about us, it is as if we the women are just tugging along”, the 49-years-old Susanna Yeboah from Ajopa in Western Region said.

Female-headed households

Compounding the problem of lack of acknowledgement of women's efforts is the increasing number of female-headed households in cocoa growing communities in the country where women cocoa farmers have become the sole breadwinners for their family as a result of the death of their husbands.

“I wake up at 5 in the morning each day and walk sometimes several kilometers



Diana Ahiatongo: After her husband passed away she runs the cocoa farm on her own. Side job: Selling home grown bananas on the roadside.

to get water for the children and medicinal herbs in case any of the children has malaria since the clinic is about 4 kilometers away. When I return, I prepare breakfast for the children and bathe the little ones so that they can go to school. Then I go to the cocoa farm to weed around the young cocoa plants and pluck the pods from the lower branches and also break the pods, scoop the beans and heap them on plantain leaves to ferment. I dry them as well on bamboo mats and turn them from time to time to ensure that they have a nice flavor. Then I quickly go to the roadside to sell banana from my farm to commuters traveling in buses on the high way. I do all this single handedly since my husband passed away some two years ago. I have to do this to get some income to supplement what I get from cocoa so that I can feed the children

clothe them and also maintain the cocoa farm. Who will give me money if I don't toil to make ends meet?” Diana Ahiatongo, a cocoa farmer at Kantanso Barrier in the Asante Akim South District of the Ashanti Region laments.

Limited access to credit and finance

Limited access to credit and finance further worsens the plight of women cocoa farmers who are unable to increase productivity on the farm and also invest in future production.

“The efforts of women cocoa farmers are indispensable to the sustainability of the cocoa supply chain and cocoa-growing communities. It cannot be doubted that supporting women cocoa farmers would ensure women's economic and social empowerment and ultimately increased productivity and sustainability in quality cocoa production”, says Andrew Addoquaye Tagoe, Head of Education

and Training for the General Agricultural Workers Union (GAWU) of the Ghana Trades Union Congress.

“Ensuring gender equity should be a priority for all along the cocoa-chocolate value chain from manufacturers to consumers, governments and civil society. It is important that steps are taken to increase women’s participation acknowledgement and adequate remuneration in cocoa production. This also means empowering women and putting in place mechanisms to address their lack of access to inputs, credit and extension services.

The effectiveness of such interventions are also enhanced when it takes into account men’s leadership responsibilities in the cocoa growing communities and the role of local customs and traditions in gender inequality and women empowerment”, Andrew Addoquaye Tagoe adds.



12. Occupational hazards

Cocoa production largely involves the use of manual labour during land clearance, planting of cocoa seedlings and application of agrochemicals (fungicides, insecticides, fertilizers and herbicides). Harvesting and transporting cocoa pods, fermenting and drying beans and transporting the

beans to a storage area also requires immense manual labour.

The production of cocoa in Ghana according to the farmers is fraught with numerous occupational hazards and injuries.

These include injuries from cutlasses, spider, insect- and snake-bites and stings from bees, wasps and scorpions. These threats, according to the farmers, are common during pre-planting clearing, planting, post-planting and post-harvesting of pods. Furthermore, back pains from bending over and other bodily pains are common complaints among cocoa farmers. Many cocoa farmers also said they are exposed to serious health hazards when they use pesticides.

“Since most activities related to cocoa cultivation need to be done within a stipulated time to ensure quality cocoa, we are compelled to break our backs working long hours and in the course of this we get injured on a daily basis by many of the sharp tools we use in cocoa production such as machetes, axes and harvesting hooks. But we do not have any money to seek medical care”, says 34-years-old Isaac Nuertez, a cocoa farm worker at Otwe Bedi Adua in the Eastern Region.

The farmers explain that lack of information about the hazards to which they may be exposed in the handling of farm tools and agrochemicals in particular accounts for most of the health and safety problems they encounter.

This calls for sensitization and education of farmers of the inherent hazards and risks and training on safety and how to minimize risks on cocoa farms.

Snake bites

Majority of the respondents however mentioned increasing snake bites during the warm periods as the most prevalent and troubling of all their woes, as it affects working hours on the cocoa farm and cocoa productivity.

Research conducted by the School of Public Health, University of Ghana, in the Western Region (biggest cocoa producer in the country) revealed that 7,275 snakebites were recorded in the region between 2006 and 2010 with 12 deaths.¹²

The research, conducted as part of the Ghana Field Epidemiology and Laboratory Training Programme to assess snakebites magnitude in the region, said 3,776 males and 3499 females were bitten representing 51.9 % and 48.1 %

respectively.

Ebenezer Kofi Mensah, a laboratory technologist who collected the data made these revelations at the Annual Performance Review Meeting of the Western Regional Health Directorate held in Takoradi.

Information from the database of the District Health Information Management System 2006 also reveals that the highest incidence of snake bites in the Western Region was recorded in the year 2009 in the Juabeso district. Over the study period, about 55% of the incidence was between 50 –100 per 100,000 population.

In the cocoa growing areas in Ghana, the saw-scaled viper *Echis ocellatus* is a commonly found species responsible for the majority of snake bites with high morbidity and mortality.

“We have seen some unprecedented snake invasions on our cocoa farms and the communities here particularly in these warm temperatures. Our observations locally indicate that increasing climate change and the mass hatching of a high number of eggs due to the suitable persistent warm temperature is to be blamed”, says Asiedu Michael, a cocoa farmer at Kantanso Barrier in the Asante Akim South District of the Ashanti Region.

“When the heavy rains and floods come, the snakes also seek refuge on trees or upland where we have our cocoa farms. We’ve always had snakes on our cocoa farms but these snake invasions in recent times in our communities are strange and cannot be dissociated from climate change and the long warm temperatures”, Asiedu Michael explains.

“My leg almost withered up after I was bitten by a poisonous snake while on my cocoa farm. I felt a sharp pain, then I remember this huge black snake slithering away then I felt this tingling sensation in my leg, then I started sweating. I couldn’t see well, everything around me was so blurred, then, I felt faint. I did not even realize how I got to the hospital. All I saw was my father standing beside me at my bedside at the hospital and I was in a lot of pain and my leg was swollen. For months I couldn’t go to my cocoa farm. I lost so much income”, Samuel Addo, a 43 year-old cocoa farmer at Otwe Bedi Adua said, as tears welled up in his eyes.

“Sometimes they hide under the leaves so when we step on them unknowingly they bite us, sometimes the green ones are even on the trees. The mambas and cobras are aggressive and when the climate is warm they come out”, Samuel

Addo adds.

According to the cocoa farmers, the legs or arms or fingers of some cocoa farmers become gangrenous after being bitten by snakes. This is worsened after subsequent inappropriate care when they visit some traditional healers. They disclosed that some farmers lose these limbs and can no longer work on their cocoa farms as a result.

“We have herbalists and other traditional medicine practitioners but sometimes their treatments have resulted in complications far worse than expected leading to amputations in some cases. By the time the person finally reached appropriate medical facilities their limbs had to be amputated”, said Benjamin Odei, 32 year-old farm worker at Otwe Bedi Adua in Suhum Eastern Region. “In my community, we have local first aid that we administer before taking snake bite victims on the 6-kilometre journey to the nearest hospital. We rub the wound with the stem of the cocoyam plant and then we give the victim onions to chew and we administer some of the onions on the wound then we look for palm tree leaves tourniquet the area above the bite to prevent the venom from spreading and it works”, says Micheal Asiedu.

According to Philip Quashie, deputy chief physician’s assistant at the Notre Dame clinic at Adoagyiri, Nsawam, a snake bite is a medical emergency situation that requires immediate attention and the fatality rate of snake-venom poisoning could be improved with early reporting at the hospital and extensive education of local communities. A high survival chance could be achieved.

“While the availability of a broad-spectrum of anti-venom products for healthcare facilities fringing cocoa growing communities in Ghana is imperative, the products are often in short supply or beyond the means of the farmer as most clinics simply do not have the anti-snake-venom. Compounding this problem is the fact that in some situations the ‘offending’ snakes are not seen by the victim and even in cases where a snake was seen it is difficult for the farmer identify the specie. This information could provide good epidemiological information on the type of snakes which is relevant for the type of anti-venom to administer”, Philip Quashie explains.

“This makes it imperative for government to equip healthcare facilities in the country with modern antidotes and also organize periodic training sessions to equip medical practitioners with modern trends in snake bite management. Districts Health Directorates should also organize community education and sensitization on snake bites and the use of protective clothing by the farmers”,

Philip Quarshie adds.

It is also no secret that some anti-venoms imported into the country for the treatment of *Echis ocellatus* snake bite patients were ineffective. This calls for the need of pilot tests to assess the efficacy of new anti-venom products against local snake-venoms before its distribution locally.

Use and scarcity of medicinal plants

For a number of cocoa farmers, the inefficacy or the non-availability of anti-snake vaccines at health facilities in the district is worrying. They disclose that hundreds of medicinal plants available locally are used widely by traditional healers, as antidotes for snakebites. And there is the need for government to evaluate the therapeutic potential of these medicinal plants used traditionally for the treatment of snake bites and support their development and distribution in the country.

They add that this enormous repository of plants believed to possess anti-snake-venom could be used to supplement the imported scarce and expensive anti-snake-venom.

“The medicinal plants for treating snake bites are safe, effective and not expensive and have been used over the years by our forefathers, but these days the medicine men can’t find the herbs in the forests nearby as they used to, as all the forests have been destroyed as a result of logging, farming and the long dry seasons. So now they have to travel far in search of forests, where they can find these medicinal herbs to treat snake bites”, says Michael Asiedu, a cocoa farmer at Asante Akim.

13. Child labour

In most developing countries, agriculture has been the highest employer of child labour with children aged 5–16 working on farms. Ghana has had its share of this predicament with child labour on cocoa farms.

In the past, hundreds of children trafficked from poor communities to cocoa farms in other regions of the country, could be seen openly working on cocoa plantations often doing hazardous tasks when they should be at school. They worked lifting heavy cocoa sacks on their heads to storage facilities, and worked with potentially dangerous chemicals and tools without protective clothing.

These children suffered from hernia, chest pains, spinal deformities, snake bites

and others could not continue their education.

However, mounting evidence indicates that the cocoa industry's worst nightmare might be over, as efforts to reduce child labour on cocoa plantations in Ghana intensifies.

For the weeks and days that we visited cocoa farming communities in Ghana, children sighted near cocoa farms on weekends or after school were rather looking for snails or plucking oranges or corn to roast. On weekdays nearby classrooms bustled with activity as children glued to their seats and listened to their teachers with rapt attention.

Interviews with farmers suggests that indeed there has been a decline in children working on their parent's farms or being transported and sold into slavery on cocoa farms. "It is actually nonexistent now", one farmer told us.

Child labour has been a target of many advocates for reforms in the cocoa industry as pressure from human rights groups, consumers, media, advocacy groups and academic institutions in Ghana and the West have focused the issue. Efforts to curb child labour on cocoa farms began in 2001 with the Harkin-Engel Protocol - an agreement, signed by cocoa and chocolate companies to source cocoa grown and processed according to ILO child labour standards.¹³

Findings of a survey of child labour in Ivory Coast and Ghana in the 2013-14 growing season by the Payson Center for International Development at Tulane University indicates that 2.1 million children had been engaged in inappropriate forms of child labor in Ivory Coast and Ghana combined, a 21% increase over the 1.75 million identified in its survey five years earlier. Of those, 96% were found to be involved in "hazardous activity." The number of children reported to be performing dangerous tasks fell by 6% in Ghana but jumped by 46% in Ivory Coast.¹⁴

Research reveals that Ghana has responded to international pressure by passing laws prohibiting child trafficking and work and mandating primary school attendance.

Programmes, initiatives and legislative measures against child labour

Inspired by the belief that facilitating access to quality education and educational opportunities will discourage child labour on cocoa farms and mobilize communities against child labour, the government of Ghana has put in

place a number of interventions to increase access to basic education including capitation grants, school feeding programmes, free textbooks and exercise books as well as free school uniforms.¹⁵

While progress to combat child labour in Ghana was initially criticized as too slow, the government indicates that it has made major inroads in the cocoa growing communities to end child labour as it has passed several laws and signed a number of treaties to guard against exploitative forms of child labour and also rescued many children.¹⁶

On cocoa farms, it has rescued over 6000 children in the past year and supported them to return to school. Primary school attendance in Ghana is also mandatory.

In Ghana, a national programme for the elimination of the worst forms of child labour in cocoa production was launched in 2006. A database system for monitoring and tracking information on child labour issues in Ghana was also launched in Ghana. The Child Labour Monitoring System (CLMS) facilitates effective child labour interventions by identifying child labourers and linking them to satisfactory and sustainable alternatives such as schooling and skills training.¹⁷

It is also documented that Sam Atoquaye Quaye, Ghana's child labour monitoring system coordinator at the time with the Ministry of social welfare, reported that over 12,000 children had been taken off cocoa farms through this programme, enrolled in school and provided with school supplies.¹⁸

The Ministry of Employment and Labour Relations (MELR) also signed a Memoranda of Understanding (MOUs) with 36 lead institutions in the implementation of the National Plan of Action (NPA2) which aimed at the elimination of the worst forms of child labour.¹⁹

A second phase of the NPA, developed by the Ministry of Employment and Labour Relations through the National Steering Committee on Child Labour for implementation from 2016 to 2020, is also aimed at reducing the worst forms of child labour to the barest minimum, that is 10 per cent, by 2020.²⁰

The International Labour Organisation (ILO) through its International Programme on the Elimination of Child Labour (IPEC) also commissioned a two year project to assist the government of Ghana to reduce child labour to the barest minimum.²¹

The project dubbed “Support for the Elimination of Worst Forms of Child Labour in the Cocoa sector” was launched in Juaboso in the Western Region on January 21st 2011. It aimed at the prevention of child labour and the withdrawal of children from hazardous work on cocoa farms and assisting vulnerable families.²²

Recognizing child labour as a violation of children's standards, all the major chocolate makers who source their cocoa from Ghana have also created their own programmes and partnered with families and community organizations to combat child labour.²³

Ghana has also passed legislation in recent years to make trafficking illegal. The government trained police to combat trafficking and sensitized the judiciary on the subject of child labour and trafficking of children for forced labour.²⁴

District Assemblies have mainstreamed child labour interventions into their medium term development policy and they have admonished cocoa farming communities to assist law enforcement agencies by reporting offenders to the authorities.

High awareness about child labour

In the cocoa growing communities, the research observed that there is a high awareness of the illegality of child labour.

“But what confuses us sometimes is what really constitutes child labour within the family system. More so when culturally, it is acceptable for children to help their parents on cocoa farms and other family businesses, I worked on my father’s cocoa farm from age 10”, says Ato.

“In the past we expected our children to contribute to family income. However, with the introduction of free compulsory schooling and availability of schools as well as free school feeding programmes, the children are not even available for you to put them to work”, he adds.

Poverty as a key driver of child labour

“Poverty is clearly what pushes us to employ children on our cocoa farm, we need cheap labour. I am sixty years old, there are no roads from my farm gate to the market for my cocoa, I cannot carry the bags of sack loads of cocoa on my head so I pay the kids to do that”, says Kofi Yesu, a cocoa farmer at Juaso in the

Asante Akim South district in the Ashanti Region.

“I have attended many meetings on child labour and it is clear to all of us now that child labour is criminal and we can be arrested for employing children on our farms. Who will take care of my family if I am sent to jail because of child labour? It makes sense though not to have children work for us on our cocoa farms but every now and then we are tempted to because of so many financial problems and the need to cut down costs”, Kofi Yesu adds.

Laws, treaties and conventions on child labour in Ghana

Ghana was the first country to ratify the Convention on the Rights of the Child Act 560 for the protection of children in Ghana, then came into being. Article 32 of the Convention on the Rights of the Child (CRC) 1989, ratified by 191 countries, states that every child has the right to be protected from work that threatens his or her health, education or development. In June 2000, Ghana ratified the International Labour Organisation (ILO) Convention on worst Forms of Child Labour.

Article 28 of the country’s 1992 Constitution further prohibits labour that is considered injurious to the health, education or development of the child. In pursuit of this, the Department of Children, Social Welfare and the Special Policy Unit for Child Protection were created by the government.

Ghana has also passed its own laws on child labour, this includes the Children's Act of 1998 and the Labour Act of 2003, both ban all exploitative labour which denies a child of health, education or development.

Outlook

Many believe that local participation in child labour projects and Ghana’s centralized marketing system coupled with pressure from international cocoa buyers largely sustained and facilitated the drive towards eliminating child labour. The majority of cocoa farmers in some of the remotest cocoa growing communities that we spoke with had attended meetings on child labour and knew what it was all about.

“A lot of work has been done to tackle the problem of child labour on cocoa farms in Ghana. But it is too early to say we no longer have the problem. We need to do more work to establish this”, says Elizabeth Akanbombire of Ghana’s Child Labour Unit of the Labour Department under the Ministry of Employment

and Social Welfare.

14. (In)formal gold mining threatens cocoa farming

For the past two decades, gold mining and agriculture have contributed consistently to economic growth and development in Ghana.²⁵

The research reveals that, while farming is the traditional source of livelihood in most rural communities in Ghana, gold mining particularly artisanal and small-scale mining are increasingly being embraced by many in traditional cocoa growing communities in Ghana as a profitable venture with immediate financial rewards.

Lending credence to this perception is the significant contribution of the mining sector to the country's economic growth and development over the years. With gold mining contributing some US\$3,673 million in exports in 2013, cocoa contributed an estimated US\$1,731 million in exports in 2013.²⁶

It was obvious during the field visits in the mining communities that uncontrolled gold mining is proving to be detrimental to land, water resources and labour. As mining had rendered land unusable for cocoa farming, as ponds and degraded soils are left behind during and after mining and large tracts of land and water are polluted with mercury and cyanide used extensively in both informal and formal gold mining processes.

As observed by the research, able bodied youth in most rural communities in the country who formed the labour force on cocoa farms are now trooping to mining fields in search of work. Though some have argued that mining and cocoa farming could coexist as it could supplement the income of cocoa farmers and improve productivity on their cocoa farms, Daniel Adu, a 40-year-old cocoa farmer in Mankessim near Tarkwa argues that the two cannot co-exist positively as mining degrades soils and destroys farms and livelihoods of cocoa farmers.

With available statistics indicating that every year Ghana experiences a reduction of about 100,000 tonnes in the production of cocoa²⁷, increasing mining activities in cocoa farming communities and the attendant competition for land water resources and labour could spell doom for the country as production capacity declines.

14.1 Gold-mining: (forced) relocation of cocoa farmers and environmental damage

In the Western Ashanti and Eastern Regions, cocoa farmers are up in arms with formal and informal gold mining companies over the destruction of their cocoa farms- their primary source of income to make way for gold mining. In Tarkwa, cocoa farmers who had a source of sustained income now have to go begging for food and money as they've lost their cocoa farms to mining.

In communities visited in the Western Region Teberebie, Adisakrom Old Mankessim and Ajopa the majority of cocoa farmers were not happy with the takeover of the cocoa farmlands for mining. There were also cases where cocoa farms have been destroyed without the free, prior and informed consent of their owners.

Inadequate compensation and violence

In situations where farmers are consulted to seek their consent before the takeover of their cocoa farms for mining the one-off payment impoverishes the affected farmers.

The country's Minerals and Mining Act, 2006 (Act 703) mandates mining companies to pay affected farmers about 15-25 Ghana cedis (US\$10-US\$15) for each cocoa tree. This one-off compensation is paid to a farmer and is based on the maturity of crops and what a farmer would be able to produce in a year from his farm.²⁸

But farmers interviewed were quick to point out that this once-in-a-lifetime-compensation paid to affected cocoa farmers for loss of land and farms further fast tracks their slide into poverty.

Emmanuel, a farmer at Teberebie in the Western Region, where most of these large formal mines are located, explained the far reaching problems of the one-time compensation for farmers:

“With cocoa trees having a life span of between 40-70 years, these one-time payment is just sheer wickedness. But who do you complain to? The country's laws say that wherever gold is found in the ground it should be exploited with the free prior informed consent of the landowner with the guidance and permission from the EPA and related government agencies. But this is just a

formality as our rights are trampled upon, sometimes with the assistance of police and the military. Some of our colleague farmers who protested these forceful takeovers of the farm lands were shot or manhandled by state security operatives.”

14.2 The case of Anglo Gold Ashanti Iduapriem mine in Tarkwa

In Adisakrom Old Mankessim in the Western Region about 70 cocoa farmers were relocated by the AngloGold Ashanti Iduapriem mine, to a newly constructed relocation site 8 km from their old homes.



New homes built by the AngloGold Ashanti Mining Company for cocoa farmers in New Mankessim near Tarkwa in the Western Region.

The following testimonies of cocoa farmers from Old Mankessim show the devastating impacts of gold mining activities on the life of cocoa farmers.

14.1.1 Testimonies of cocoa farmers affected by AngloGold Ashanti mining operations

„Flying debris from the blast side are scary“

Mathew Kyeremeh: “We have been relocated from Old Mankessim where our farmlands were located to New Mankessim by AngloGold Ashanti Iduapriem Mine operating here in Tarkwa and its environs. Some new houses have been provided for us to make way for its Ajopa mining operations but about eleven of us still have our cocoa farms at old Mankessim near the Ajopa mines, some 8 miles away. AngloGold Ashanti is refusing to compensate us for our farmlands. Their explanation is that their operations will not affect our farms so we can still work on our farms, even though the company has resettled us here at New Mankessim. But there is blasting of rocks by the company close to our cocoa farms, the deafening noise and flying debris from the blast sites are scary. Dust from the mining operations also settle on our vegetables in the farm“, Mathew Kyeremeh laments. Mathew is 49 years old and married with six children. “Here we are in this relocation site. How can we travel 7 to 8 kilometers each morning to our old farms? What about our children? Even if we are old and we can walk the 8 kilometers how about our children aged 4-12 years who have to be with us when we are on our farms?” asked Mathew Kyeremeh.



„Our rivers and streams have been polluted“

Daniel Adu: “We have lost vast tracts of cocoa farms and other agricultural lands and our rivers and streams have been polluted, thanks to gold mining here in Tarkwa”, Daniel explains. Daniel Adu is 40 years old and married with 5 children. He has a 20 acre cocoa farm and two labourers. “We didn’t have many



problems when we were at Old Mankessim and had our cocoa farms. I had a fishpond, sugarcane and pineapple farms, cassava, plantain. With two cocoa harvests per year alongside other food staples, I was able to take care of my family. When cocoa is not in season I had my corn, pepper, plantains, pineapples to give me some income”, Daniel

explains. “With increasing water pollution and diversion of streams and rivers for mining purposes by both formal and informal mines, availability of water to irrigate farms during the dry season can be a difficult one”, he adds.

„We are hungry and angry“

Linda Owusu is married with three children and has a 12-year-old cocoa farm. Like Daniel Adu, she now lives with her family at the new relocation site.

“We can no longer go to our cocoa farms at Old Mankessim as often as we used to each day because of the distance. In the past our homes were at Old Mankessim just a stone throw away from our cocoa farms and we could even go to our farms at midnight just to enjoy some quiet. This resettlement project at New Mankessim where we have our new homes is made up of 70 housing units, each with a toilet facility and potable water but we have no farms here and we are hungry and angry.



"Even when we have some food, how to find fuel wood to cook is a problem as we have been told not to use fuel wood here. We were given money by the company to buy gas stoves but we were not given money to fill our gas cylinders. I am a woman and my family's nutritional needs are important for me but here we are, uprooted from our cocoa farms at Old Mankessim which had vegetables and other staples as well. We had no hand in the selection of this relocation site. They just forced it on us", lamented Linda Owusu.

These stories depict the plight of hundreds of cocoa farmers in the country and it spells doom for the cocoa and chocolate industry.

The field interviews and observations reveal that tension is mounting at Ajopa-Old Mankessim and the New Mankessim relocation site in the Tarkwa-Nsuem constituency in the Western Region. The residents in the community, mainly cocoa farmers and some of whom have been relocated, have expressed their discontent with the ill-treatment meted out to them by officials of AngloGold Ashanti Iduapriem mine. Some of the farmers in the area expressed deep concern about the unfolding events and warned that it could have a devastating impact on the country's cocoa production levels since an increasing number of cocoa farmers are being deprived of their livelihoods.

COCOBOD has reacted strongly to the ongoing mining of gold on cocoa farms and they are asking the government to cancel permits granted to registered mining companies which destroy cocoa farms and mine gold in these farmlands. It is alarming that the state, as it is involved in the minerals commission of Ghana, is granting permits to mining companies to mine gold in cocoa farms.²⁹

What efforts can be made?

To arrest the downward trend of the cocoa farming sector, efforts must urgently be made to deal with the ravages of gold mining operations and their negative impacts. Measures need to be taken to motivate cocoa farmers, improve their conditions and their yields through modern farming practices, proper soil and water management systems and markets to harvest and also add value to the product as well as fertilizer subsidy and payment of bonuses.

This has become even more necessary in the wake of the erratic rainfall patterns due to climate change and the rapid depletion of forests.

15. Recommendations

In view of the many findings of this research, it is imperative that the cocoa and chocolate industry is urged to commit to meaningful sustainability policies aimed at urgent supply chain reforms in Ghana.

It is important that the chocolate industry addresses deforestation, child labour, poverty and gender inequality amongst smallholder cocoa farmers in Ghana and other actors across the cocoa supply chain to ensure a vibrant and sustainable cocoa sector.

15.1 Child labour

Accusations over the use of child labour in cocoa production should spur companies to cooperate on initiatives and also collaborate with the government of Ghana and civil society to find lasting solutions to end child labour. Some work has been done in this direction but it is important that industry and governments deepen their commitment to end child labour. This calls for further sensitization and education not only for cocoa farmers and their families but also policy makers: in view of widely held beliefs and increasing confusion even among the educated class.

15.2 Gender and cocoa farming

Ensuring gender equity should be a priority for chocolate producers to consumers, governments and civil society. It is important that steps are taken to increase women's participation, acknowledgement and adequate remuneration in cocoa production. This also means empowering women cocoa farmers and putting in place mechanisms to address their lack of access to inputs, credit and extension services, skills-development programmes and technological development. Efforts should also be made to address the role of local customs and traditions in gender inequality, for example when it comes to land tenure issues. Women's knowledge and experience on issues related to the management of natural resources should be recognized and women should be part of related decision making.

15.3 Deforestation

There is no doubt that the chocolate industry's insatiable demand for new lands accelerates deforestation. Forests play a crucial role in climate change mitigation, adaptation, sustainable livelihoods and biodiversity conservation. It is therefore imperative that efforts are facilitated to end deforestation and forest degradation recognizing that destruction of forests, including legally protected forests reserves in Ghana, to make way for large-scale cocoa farms undermines the cocoa sector and the livelihoods of millions of cocoa farmers in the country.

Indisputably, climate change is impacting cocoa farming and it is also imperative that the industry curbs cocoa production induced deforestation as it is one of the largest sources of carbon emissions.

Industry should as a matter of urgency embark on initiatives with farmers to protect existing forests and rehabilitate and restore the degraded forests. It should be possible to achieve sustainable cocoa production with improved yields and viable livelihoods without the massive encroachment on forests and deforestation being witnessed now.

Cocoa farming is destroying forests at an alarming proportion with the attendant loss of livelihoods, biodiversity and natural habitats. It is imperative that the cocoa industry commits to ending the destruction of these valuable ecosystems.

15.4 Climate change

Increasing temperatures and reduced rainfall induced by climate change is a bane to the cocoa industry. It is important that efforts are heightened to deal with the causes and impacts in the cocoa supply chain and Ghana for that matter.

Finding solutions to these problems in the supply chains of companies operating in Ghana as well as initiating reforms are the best opportunities to create a sustainable cocoa supply chain.

According to Andrew Addoquaye Tagoe, Head of Education and Training for the General Agricultural Workers Union (GAWU) of the Ghana Trades Union Congress, climate change directly impacts women and increases gender

inequalities. Despite the increased threat to women, their needs are often neglected in decision-making and policy design relating to impacts of climate change in the areas of food security, agriculture, biodiversity, water and health.

“However women’s role in households and communities as stewards of natural and household resources elevates their role in both mitigation and adaptation measures”, Andrew Addoquaye Tagoe explains.

He adds that “responses to climate change should be gender sensitive; should include gender perspectives, women’s specific priorities, needs and roles, and make full use of their knowledge and expertise, including indigenous knowledge and traditional practices and involve women in all stages to reduce vulnerability and build resilience”.

“Gender inequalities in access to resources, including credit, extension services, skills-development programmes and technological development, must be taken into account in developing activities designed to curb climate change”, he said.

Women interviewed in the cocoa growing communities said they were prepared to contribute their knowledge and experience on issues related to the management of natural resources, policy discussions, programming and implementation of sustainable and gender responsive adaptation and mitigation measures.

“We understand local ecosystems, soil factures, crop use and animal rearing through practical experience. Being the main users of natural resources for subsistence and as natural resources managers of our communities, we possess intimate knowledge of the environment and climate change but our voices do not reach far”, says Akua Doodua, a 110-year-old woman at Gomoa Ayensuade in the Central Region who has lived and farmed in cocoa growing communities in Ghana.

“The need to build and maintain soil fertility, protect watersheds and increase access to knowledge and inputs for more sustained productivity and secure livelihoods is imperative in the face of aggressive climate change and its impact on cocoa productivity”, Joshua Awuku Appau from Earthservice adds.

He is quick to add that Ghana may lose its position as one of the world’s leading producers of cocoa if current trends in climate change persist, as extremes in rainfall and temperatures are not suitable for the growing of cocoa.

15.5 Guarantee pensions for cocoa farmers

It is worrisome that cocoa farmers in Ghana, whose sweat and hard work contributed to the development of the cocoa and chocolate industry, do not have any pension funds to cater for them when they go on retirement. It is therefore very urgent that the cocoa and chocolate industry partners with the government of Ghana to develop arrangements that provide retirement income for cocoa farmers. The cocoa industry cannot be absolved from blame. They are equally liable for the current predicament of retired cocoa farmers without pensions in Ghana. The cocoa industry certainly is responsible and should be a part of the solution. How to design and operate this pension scheme should not be left to government of Ghana alone to figure out.

Making cocoa production an attractive venture for the younger generation is pivotal to securing sustainable supplies, the current situation is a major disincentive. Instituting a pension scheme will encourage the youth to venture into cocoa farming.

15.6 Hazards on cocoa farms

The unavailability of a broad-spectrum of anti-venom products for healthcare facilities fringing cocoa growing communities in Ghana is troubling.

This makes it imperative for the chocolate industry in partnership with the government of Ghana to equip healthcare facilities in the country with a broad-spectrum of anti-venom products and also organize periodic training sessions to equip medical practitioners with modern trends in snake bite management. Districts Health Directorates should also organize community education and sensitization for cocoa farmers on snake bites, preventive measures and the use of protective clothing.

Cocoa farmer's lack of information about the hazards to which they may be exposed in the handling of farm tools and agrochemicals in particular is also worrying. This calls for sustained sensitization of farmers of the inherent hazards and risks and on how to minimize risks on cocoa farms.

15.7 Toxic pesticides and transition to organic farming

Pesticides are known to have adverse impacts on the environment and public health including cancer, hormone disruption and infertility. Cocoa farmers and local communities are especially vulnerable and most at risk to pesticide exposure.

The excessive use of pesticides in cocoa production in Ghana is contaminating soil and water sources and poisoning food. It is time to move away from this chemical based cocoa production and develop policies towards the banning and phasing out of these toxic pesticides.

It is important that the chocolate industry helps cocoa farmers transition away from cocoa farming that relies on chemical pesticides and adopt organic cocoa farming strategies to meet customer demand in view of the many environmental and health benefits. The organic food industry is now one of the fastest growing sector of the food industry and it makes business sense as well.

15.8 Use of certified cocoa

Fairtrade certification helps farmers achieve better income by minimum price and Fairtrade premiums, and it empowers farmers and especially women to work collectively in cooperatives and tackle the complex challenges together.

16. End notes

16.1 Persons interviewed

1. Addo Aniapam, 85-year-old cocoa farmer from Otwe Bedi Adua near Suhum in the Eastern Region
2. Andrew Addoquaye Tagoe, Head of Education and Training for the General Agricultural Workers Union (GAWU) of the Ghana Trades Union Congress
3. Akua Doodua, 110-year-old woman at Gomoa Ayensuade near Swedru in the Central Region
4. Akwele Addo, 42-year-old cocoa farmer at Otwe Bedi Adua near Suhum in the Eastern Region
5. Diana Ahiatongo, mother of three and a cocoa farmer of 7years at Kantanso Barrier in the Asante Akim South District of the Ashanti Region
6. Elizabeth Akanbombire of Ghana's Child Labour Unit of the Labour Department, under the Ministry of Employment and Social Welfare, Accra, Ghana
7. Asiedu Michael, 29-year-old cocoa farmer at Kantanso Barrier in the Asante Akim South District of the Ashanti Region and father of two
8. Gloria, 38-year-old cocoa farmer at Juaso in the Ashanti Region
9. Joshua Awuku Apau, Director at Earthservice in Accra, Ghana
10. Kobla Costa, a cocoa farmer at Gomoa Ayensuade area of Central Region, Ghana
11. Otis Ayensu, 63-year-old cocoa farmer at Ayensuade in the Gomoa district of the Central Region
12. Samuel Addo, 43-year-old cocoa farmer at Otwe Bedi Adua near Suhum, Eastern Region and a father of six.
13. Susanna Yeboah, 49-year-old Ajopa, near Tarkwa, Western Region
14. Yayra Glover, Ghanaian social entrepreneur and a leading advocate and producer of organic and chemical-residue-free cocoa/partner, Max Felchlin AG-Switzerland

15. Philip Quarshie, Notre Dame Clinic (Diocesan clinic) Adoagyiri, Nsawam, Ghana
16. Emmanuel a farmer at Teberebie, near Tarkwa in the Western Region
17. Kweku Fokuo, 70-year-old cocoa farmer, old Mankessim, near Tarkwa, Western Region
18. Daniel Adu, 40-year-old cocoa farmer in Mankessim near Tarkwa in the Western Region married with 5 children, he has a 20 acre cocoa
19. Mathew Kyeremeh, 49 years old, married with six children and one wife, New Mankessim, Western Region
20. Linda Owusu, married with three children, three labourers. Her farm is 12 years old, New Mankessim near Tarkwa, Western Region
21. Mary Ayarigo, 28 years old, married with three children , New Mankessim, near Tarkwa, Western Region
22. Isaac Nuerthey, 34 years old, a cocoa farm worker at Otwe Bedi Adua in the Eastern Region
23. Benjamin Odei, 32 years old, farm worker at Otwe Bedi Adua in Suhum, Eastern Region
24. Joshua Awuku Appau, EARTH Service, Ghana (Development and Environmental organization)

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