



**SEND  
GHANA**

**A DESK STUDY ON COCOA  
RECEIPTS AND SPENDING  
USING THE COCOBOD  
COCOA PRODUCTIVITY  
ENHANCEMENT PROGRAMMES  
AND OTHER FARMER WELFARE  
INTERVENTIONS**

---

**JAN 2025**



# TABLE OF CONTENTS

<b>1. Introduction</b>	1
<b>2. Objective of the study</b>	3
2.1 General Objective	3
2.2 Specific Objectives	4
<b>4. Literature Review</b>	5
4.1 Cocoa Value Chain	5
4.2 Cocoa Productivity Enhancement Programs	7
<b>5. Methodology</b>	11
5.1 Desk Study	12
5.2 Phone Interviews	13
5.3 Content and Trend Analysis	14
<b>6. Findings</b>	15
6.1 Inclusion or Involvement of PWDs in COCOBOD PEPs	16
6.2 Cocoa Trade Volumes	21
6.3 Cocoa Fiscal Issues	22
<b>7. Limitations</b>	26
<b>8. Conclusion and Policy Recommendations</b>	27
<b>References</b>	30





# 01

## INTRODUCTION

Ghana is currently the second largest producer of cocoa in the world, accounting for about 20% of the world's cocoa, behind Cote d'Ivoire which accounts for about 40% of the total world production. The contribution of the cocoa industry to the Ghanaian economy is significant, employing approximately 800,000 farm families and generating \$2 billion annually through foreign exchange.

The Ghana Cocoa Board (COCOBOD) has implemented various programs aimed at enhancing cocoa productivity and improving the wellbeing of cocoa farmers in Ghana. They have been engaged in Cocoa Rehabilitation and Intensification Program (CRIP) which is focused on rehabilitating and intensifying old and diseased cocoa farms. This program is aimed at improving cocoa yield by providing farmers with planting materials, fertilizers, and technical assistance. COCOBOD has been engaged in the Hand Pollination Program which is an effort to increase cocoa yield. This involved training farmers in proper hand pollination techniques to enhance cocoa pod formation. They have as well been implementing the Mass Pruning and Mass Spraying Programs; and plans are well advanced concerning the Cocoa Pension Scheme which is designed to improve the welfare of aging cocoa farmers by providing monthly pensions to cocoa farmers after their retirement.

Nevertheless, global trade rules and the cocoa primary commodity value chains fuel inequality within and between countries and undermine economic opportunities for millions of women and men. In Ghana, mentions can be made of low wages for farmers, lack of access to credit, limited technical knowledge, insufficient support from Government amongst others.

In February 2023, the Ghana Cocoa Board (COCOBOD) honored 15 visually impaired cocoa farmers from three cocoa-producing regions for their immense contribution to the success of the cocoa industry in Ghana. There are several farmers living with disabilities who are contributing to the sustenance of the cocoa industry and need to have knowledge of issues in the sector relating to their welfare and productivity with emphasis on cocoa receipts and expenditure. Such important information if they exist are not readily available to persons with disabilities (PWDs). There must be easy access to this information so that those in the sector can contribute to the discourse.



# 02

## OBJECTIVE OF THE STUDY

### 2.1 General Objective

The overall objective of the study was to analyze fiscal issues in cocoa using COCOBOD cocoa productivity enhancement programs and other farmer welfare interventions in cocoa value chain, especially for Persons with Disability (PWDs) with emphasis on cocoa receipts and spending information between 2013 and 2023.

## 2.2 Specific Objectives

The specific objectives of the study were:

1. To assess the level of inclusion of Persons with Disabilities (PWDs) in COCOBOD cocoa productivity enhancement programs (PEPs) and other farmer welfare interventions in the cocoa value chain.
2. To assess the trend of cocoa quantities exported by Ghana and export values from 2013 to 2023.
3. To examine the receipts and spending in cocoa using COCOBOD PEPs and other farmer welfare interventions from 2013-2023, focusing on PWDs.

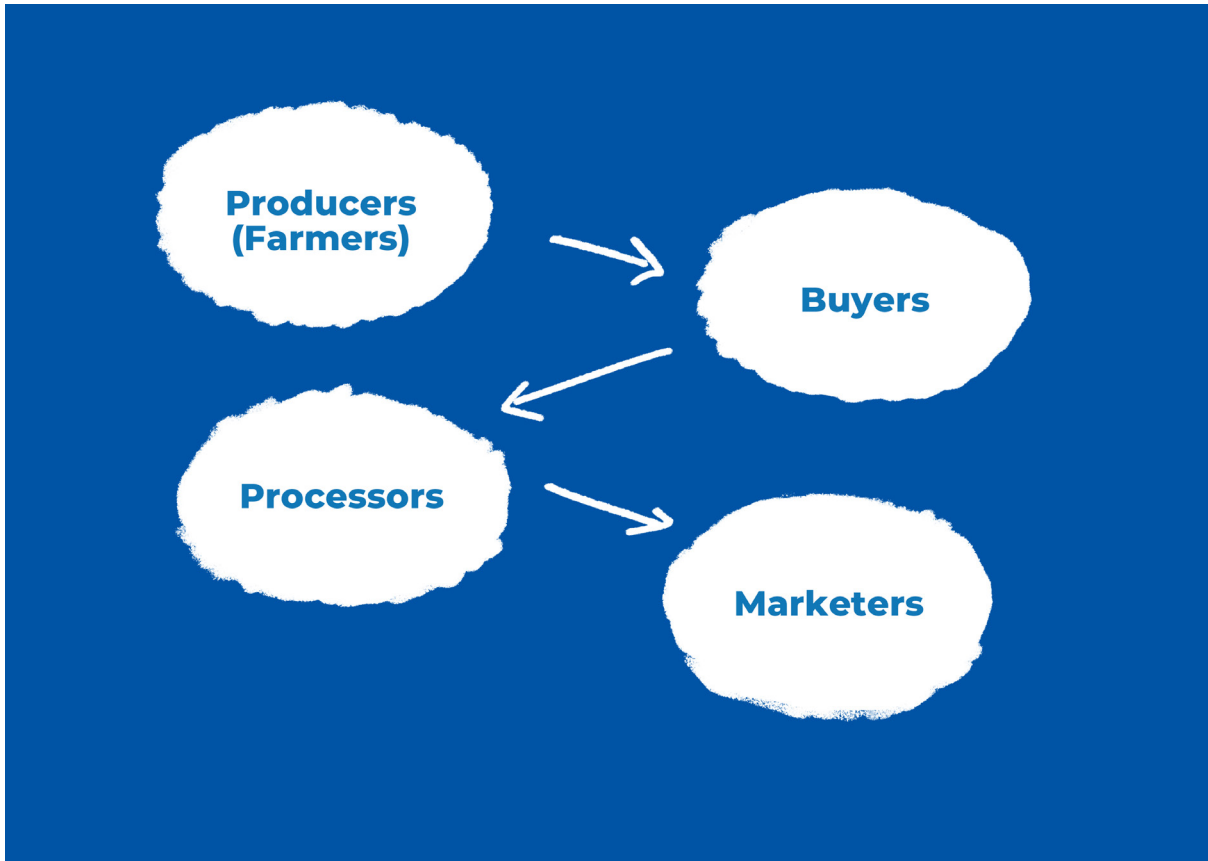


# 04

## LITERATURE REVIEW

### 4.1 Cocoa Value Chain

Cocoa beans are the seeds of the cocoa tree. Cocoa is popularly known for its use in the chocolate, pharmaceutical, and cosmetic industries. The Ghana Cocoa Board (COCOBOD) is the only marketing board responsible for the production and marketing of cocoa in Ghana. The Cocoa Value Chain begins with farmers (producers), proceeds to government certified buyers, continues with its processing locally or out of the country and finally the marketing of the cocoa products (Figure 1).



**Figure 1.** Actors in the Cocoa Value Chain in Ghana

Cocoa production is quite a lucrative business but that's not so for farmers. There are about 800,000 industrious cocoa farmers in Ghana who with their relentless effort have helped the country to become the second largest cocoa producer in the world. Farmers, also known as producers, form the base of the Cocoa Value Chain and mostly have a land area of 2-5 hectares of land for cocoa production. Cocoa farmers are responsible for the growing, harvesting, fermenting and drying of the cocoa beans. COCOBOD which is the public sector in the value chain, provide the main inputs for cocoa production such as cocoa seedlings, fertilizers, pesticides, fungicides as well as farming equipment such as harvesting hooks, cutlasses, pruners and spraying machines. Farmers use these inputs provided by the government in getting the beans ready for export. It is no doubt that the production and quality of cocoa depends on the farmers.

About 20% of the cocoa beans produced are used locally while 80% of the beans are exported. Cocoa beans sell for around \$110 USD per 62.5kg bag. The beans are processed into finished and semi-finished goods. Both retailers and wholesalers sell these goods. The Ghanaian consumers very much accept cocoa products.

Since cocoa is shade loving and therefore grows best under the cover of trees, farmers tend to encroach protected forest reserves. Cocoa production is affected by tenure insecurity, shortage of labour, pests and diseases and lack of access to credit, climate change and inadequate inputs, especially fertilizers and agrochemicals. Poor transportation networks and low prices of cocoa beans are also main challenges in the marketing phase of the cocoa values chain. Even though, Ghana is the second largest cocoa producer in the world, efforts could be made to switch to mechanized farming other than the ancient use of cutlasses and hoes for farming.

## **4.2 Cocoa Productivity Enhancement Programs**

The Cocoa Productivity Enhancement Programs (PEPs) was introduced in 2017 by the COCOBOD to enhance the productivity of cocoa farms across the country. To achieve this, the COCOBOD has designed several interventions, aiming at reducing loss and increasing production in the wake of climate change and its adverse effects, as well as diseases and pests' infestation on cocoa farms. The interventions include

**01**

**Agroforestry based cocoa farm rehabilitation**

**02**

**Hand pollination on cocoa farms**

**03**

**Mass spraying**

**04**

**Mass pruning**

**05**

**Irrigation**

**06**

**Fertilizer Application**

## Cocoa Farm Rehabilitation

The cocoa farm rehabilitation (CFR) seeks to remove Cocoa Swollen Shoot Virus Diseased (CSSVD) trees, plant temporary and permanent economic shade trees and replanting of cocoa and maintaining farms treated of CSSVD. Specifically, the CFR aims to prevent the spread of the CSSVD by removing source of inoculum, assist farmers to achieve higher productivity on the rehabilitated farms, enhance food production in cocoa growing areas through the cultivation of tubers and plantain, incorporate planting of economic tree seedlings to provide permanent shade, and provide jobs for youth to improve incomes and living standards. This is an improvement over previous rehabilitation intervention.

In 1946, the Department of Agriculture through the 'cutting out' campaign formally launched the compulsory removal of CSSV diseased trees from affected areas (Ameyaw et al., 2015). This program has been considered as the most determined and expensive eradication campaign to curtail a plant viral disease anywhere in the world (Dzahini-Obiatay et al., 2006). "Ghana colonial department of agriculture destroyed 81,000 cocoa trees on 300 farms between 1936 and 1937" (Danquah, 2003). Dzahini-Obiatay et al. (2006) mentioned that at the beginning of the cutting out campaign in 1956, over a million affected and contact trees were removed. By 1982, it was estimated that 185.5 million trees had already been removed in the Eastern Region alone and there were still 31.2 million trees to be removed (Osei-Bryson, 2007). In 2007, COCOBOD through CSSVDCU fully financed the "cutting out" and replanting program in the country from 2007 to 2014. According to Agriculture Development Bank report in 2002, the specific objectives of the projects were to (i) increase cocoa production to give an annual output of at least 300,000 tons per year by 1995; (ii) increase foreign exchange earnings from cocoa export and (iii) reduce rural poverty and improve quality of life in the cocoa growing areas. During this period, Government supplied cocoa seedlings, borne the labour cost of removal of identified infected trees, educated farmers on good agronomic practices, and paid monetary compensation (ex-gratia) of GHS 547 per ha to farmers depending on the size of acreage and number of cocoa trees removed.

The government in its bid to decrease the cost of implementation of the program reviewed and presented a new parameter for cutting out policy in 2014 to control the spread of CSSVD. This new policy shifted the cost of operation of the cutting out program largely to the farmer. The government

only supplied free seedlings and other inputs (fertilizers and pesticides) to the farmers. A total of 91,754 and 71,574 bags of fertilizers were also supplied in 2014 and 2015 respectively. Monetary compensation to the farmer was not paid in addition to all other costs; for instance, the labour cost of replanting and managing cleared farms, and removal of diseased trees were being borne by the farmer (Aneani et al., 2017). One main challenge of the program is that “sharecroppers and tenant farmers could as well suffer ejection from their farms once the cocoa trees are removed if an earlier land tenure agreement does not exclude this clause” (Ameyaw et al., 2015). Although it is not advisable to replant in a CSSVD infected farm since the disease will surely affect the young ones, many farmers are forced by the situation to replant in the already affected farms in order not to lose their land.

## **Cocoa Mass Spraying Program (CODAPEC)**

As part of efforts to arrest the decline in cocoa production, the government of Ghana through the Cocoa Board initiated a National Cocoa Disease and Pest Control (CODAPEC) program, popularly called the Cocoa Mass Spraying Program, to assist all cocoa farmers in the country to fight the capsid / mirid and the Black pod diseases. The aim of the program was to increase cocoa production to 1,000,000 metric tonnes by 2012 (Naminse et al., 2011). The program was introduced in the 2001 / 2002 cocoa season with a budget of about 32 million US Dollars (Exchange rate of 1 \$US to 1.87 Ghana Cedis (Naminse et al., 2011). The program covered all the cocoa growing regions in Ghana. Some of the cocoa farmers, however, wanted to do the spraying themselves complaining the government workers seemed to be too slow (Naminse et al., 2011). After COCOBOD initiated the free mass spraying program in 2001, 93 per cent of cocoa farmers who participated in the survey conducted in 2002 linked their yield improvements to the effects of the program (Kolavalli et al., 2012). Similarly, the cocoa farmers’ panel referred to above for the crop years 2002 and 2004 suggests that nearly all farms were sprayed in 2003/04, when producers reported an average of more than four spraying applications during the crop year, of which 46 percent were carried out by the government (Vigneri and Kolavalli, 2017).

Each farm was supposed to be sprayed three times between June and October in case of black pod and twice between August and September in the case of mirids. On the contrary, spraying for mirid control were observed to have been done only once in the district per a growing season. It would

therefore interest stakeholders to be aware of the effect the program has on cocoa production, since there are claims that the spraying was not being done in line with what was recommended at the onset. A membership of ten (10) sprayers (gang) for black pod and six (6) for capsid programs have a supervisor who is responsible for the general supervision at the unit level. Other objectives were to train farmers and technical personnel on the cultural methods of pest control, educate and train local sprayers on safe pesticide usage. The farmers are responsible for the cultural practices (pruning, shade management, removal of black and other diseased pods), and provision of water for spraying and monitoring of spraying on the farm to ensure proper and satisfactory results.

## Hand Pollination

COCOBOD started the nationwide hand pollination exercise in 2017 and it has continued till date. The objective of the programme is to increase the number of pods to a minimum of 50 per tree. The introduction of the artificial pollination exercise was stimulated by the dwindled population of insects that pollinate cocoa.

The excessive use of weedicides and other agrochemicals as well as indiscriminate bush burning have culminated to wipe away significant number of the insect called midges. According to COCOBOD, the extinction of the midges has accounted for an average of 10-20 percent of cocoa flowers being pollinated while about 80-90 percent of the flowers are aborted, hence nationwide introduction of the hand pollination exercise.

Cocoa farms that are selected for the exercise are mostly hybrids farms that are between 8-20 years. Other criteria include farms free from the cocoa swollen shoot virus (CSSVD), pruned and accessible. Farmers who seek to enjoy this productivity enhancement programme must be willing to control pests and diseases and apply fertilizer as well. Cocoa hand pollination is preceded by pruning.



**05**

**METHODOLOGY**

## 5.1 Desk Study

A desk study or literature review was conducted to address the study objectives. The desk study covered COCOBOD cocoa productivity enhancement programs and other farmer welfare interventions in the cocoa value chains from 2013 to 2023. Emphasis was laid on cocoa receipts and spending information during the literature review. The study obtained relevant information from public available documents published on the websites of COCOBOD and other relevant agencies or organizations operating in the cocoa sector. The documents included reports on the following interventions:

- 01**      **Agroforestry based cocoa farm rehabilitation**
- 02**      **Hand pollination on cocoa farms**
- 03**      **Mass spraying**
- 04**      **Mass pruning**
- 05**      **Irrigation**
- 06**      **Development of Cocoa Management System**
- 07**      **COCOBOD newsletter, 2021**
- 08**      **COCOBOD annual report and consolidated financial statements**

## 5.2 Phone Interviews

The study also complemented the desk study with phone interviews with four regional coordinators of the PEPs from Ashanti, Eastern, Bono, and Western North regions of Ghana to solicit information on how the PEPs have been implemented, the revenue and expenditure of the various interventions, and the stakeholders involved. The study used an interview guide to obtain data from the coordinators. The following questions were asked during the phone interviews:

- 01**      **What are the various interventions being implemented under the PEPs in your region?**
- 02**      **Who are the major stakeholders involved in the implementation of the PEPs?**
- 03**      **How many farmers with disabilities are included in the PEPs?**
- 04**      **How is COCOBOD providing information to farmers with disabilities under the PEPs?**
- 05**      **What are the roles and responsibilities of the farmers with disabilities in the program?**
- 06**      **What is the budget allocation for farmers with disabilities included in the program?**
- 07**      **What are the benefits of the program to farmers with disabilities?**

## 5.3 Content and Trend Analysis

The study subjected the documents gathered from online to a content analysis. The analysis was based on the involvement of farmers with disabilities in the PEPs and cocoa revenue and spending on PWDs in the cocoa value chain, which was the unit of analysis. The study used iterative content analysis to retrieve and code text or statements in the review materials that connect to the unit of analysis. The gathered documents on PEPs were uploaded into a software program called ATLAS.ti version 9 for coding and analysis. Binary codes were used as the content analysis units: 1 = Yes and 0 = No. The values of the coded texts or statements were added and ranked using a Likert scale ranging from 1 (very low) to 5 (very high). The findings were presented in a table with some interpretations.

In addition, the study conducted a trend analysis of Ghana's cocoa trade volumes and computed the expenditures of some of the interventions under PEPs implemented in six regions, namely Ashanti, Brong Ahafo (now, Bono, Bono East, and Ahafo), Central, Eastern, Volta, Western North, and Western.



# 06

## FINDINGS

This section presents the results observed from the desk study and phone interviews. It includes the inclusion or involvement of PWDs, cocoa trade volumes, and fiscal issues regarding COCOBOD PEPs and other welfare interventions in the cocoa value chain.

## 6.1 Inclusion or Involvement of PWDs in COCOBOD PEPs

The COCOBOD has implemented some interventions under the PEPs to boost cocoa production and increase farmers' income in the cocoa-growing areas of Ghana since 2017. The PEPs seek to improve productivity per hectare and increase cocoa production levels well above 1 million tonnes per year (versus an average of 800,000 tonnes per year). The PEPs entail measures to sustainably increase plant fertility, develop irrigation systems, rehabilitate aged and disease-infected farms, increase warehouse capacity, and create an integrated farmer database. The PEPs provide short-term working capital to support local cocoa-processing companies, thus facilitating domestic value addition and consumption of cocoa products in Ghana. In this desk study, the consultant paid attention to interventions reported by COCOBOD, including free seedlings, hand pollination, Cocoa Disease and Pest Control (CODAPEC), mass pruning, and the subsidized fertilizer program. Other social welfare programs the consultant looked at were the COCOBOD Child Education Support as well as Cocoa and Forest Initiatives over the years, such as cocoa farm rehabilitation and diversification, farmer training and climate-smart cocoa, agroforestry, income-generating activities, and financial inclusion.

Through the content analysis, the study observed that there was no specific mention of PWDs' involvement in any aspect of the programs mentioned above in terms of getting information, consultation, decision-making, taking action, and receiving support (Table 1), which is necessary for effective participation of programs (Wilcox, 1999). Despite the COCOBOD honouring 15 visually impaired cocoa farmers from three cocoa-producing regions for their immense contribution to the success of the cocoa industry in Ghana, information on whether they are fully involved in the PEPs and other welfare interventions is conspicuously missing in the reports. This is problematic and could affect decision-making in improving the welfare of cocoa farmers with disabilities. However, there were general mentions of farmers as beneficiaries of the programs. For example, the COCOBOD reports that the Seed Production Division raises disease-tolerant hybrid cocoa seedlings for distribution to farmers free of charge to increase their production and incomes. As of the year 2020, it was reported that 1,947 hybrid cocoa seedling nursery sites had been established and a total of 7.8 million hybrid cocoa seedlings had been supplied to beneficiary farmers (MLNR, 2020), but the report did not specify whether any of the beneficiaries

were PWDs. Again, COCOBOD has engaged over 20,000 pollinators to hand-pollinate cocoa farmers' farms to increase yield and provide them with sustainable incomes. About 192,000 cocoa farmers benefitted from the hand pollination intervention. Also, COCOBOD supports cocoa farmer cooperatives with motorized pruners and technical backstopping under the mass pruning program. Furthermore, 229,000 cocoa farmers were trained in good agricultural practices (GAPs), and 8,870 cocoa farmers benefitted from rehabilitation with additional compensation to enhance their livelihoods (MLNR, 2020). Additionally, the Cocoa Forest and Initiatives 2020 Annual Report indicated that 5,427,947 plantain suckers were supplied to provide temporary shades for young cocoa farms while 4,793,926 multi-purpose trees were distributed to farmers.

The general lack of information in reports and literature about the involvement of PWDs in PEPs and other welfare interventions was corroborated by phone interviews with some coordinators across the cocoa-growing regions. The coordinators provided information about the various PEPs interventions being implemented in their areas, the major stakeholders they work with as well as the number of PWDs involved (Table 2). According to some coordinators interviewed, the various programs implemented did not specifically target PWDs but farmers in general hence they were unable to provide any responses to the interview questions related to PWDs. Out of four interviews with coordinators from four regions (Eastern, Ashanti, Western North, and Bono), two from Eastern and Ashanti did not provide records of PWD inclusion in the PEPs and other interventions. The rest from the Western North and Bono regions provided some data on the involvement of PWDs. The coordinator from Western North region narrated as follows:

***“In the Western North region, only Asankragwa District had 16 disabled farmers, 15 of them formed an association and benefited from pruning, mass spraying exercise, and the rest of the interventions, and 1 benefited from the rehabilitation program in addition to the remaining interventions. Other districts have not yet singled out data on disability.”***

According to the coordinator from the Western North region, COCOBOD provides information to farmers with disabilities through Television and radio programs, Community Information Centres, District and Mini Rallies, Group meetings, Home and Farm visits, and Chief Farmers engagement as well as One-on-One contact basis. On the role of farmers with disabilities, the coordinator stated:

***“The PWDs are like able-bodied farmers; they participate in all activities like pruning, fertilizer applications, planting of cocoa seedlings, hand pollination, etc., as their strength and skills can allow.”***

Concerning budgetary allocation and benefits to PWDs, the coordinator said that all farmers are treated equally, with no specific budgets for PWDs. The benefits to all beneficiaries, including PWDs, are as follows:

**01**

**Supply of motorised pruners, lubricants, and fuel for the pruning exercise**

**02**

**Training on curing and application of poultry manure, Ammonia (NH<sub>3</sub>) for young cocoa, and other fertilizers for matured cocoa.**

**03**

**Free hybrid cocoa seedlings, plantain seedlings, insecticidal and fungicidal spraying exercises through mass cocoa spraying**

**04**

**Access to COCOBOD’s trained skilled pollinators in every district**

**05**

**Initial treatment (cutting of disease trees), re-establishment (re-planting of the area cut) and maintenance of farms free of charge under the cocoa rehabilitation project.**

**Table 1.** Level of inclusion or involvement of PWDs in COCOBOD PEPs and other welfare interventions based on documents reviewed

Programs/ Interventions	INDICATORS					Level of Inclusion
	Informing – were PWDs informed about the program?	Consulting – were PWDs opinions solicited about the program?	Deciding together – were PWDs allowed to contribute to decisions concerning the program before taking action?	Taking action – were PWDs allowed to take action together with implementers?	Support – were PWDs supported in various activities under the program?	
Free seedlings	0	0	0	0	0	0
Hand pollination	0	0	0	0	0	0
CODAPEC	0	0	0	0	0	0
Mass pruning	0	0	0	0	0	0
Subsidized fertilizer	0	0	0	0	0	0
COCOBO Child Education Support	0	0	0	0	0	0
Cocoa farm rehabilitation and diversification	0	0	0	0	0	0
Farmer training and climate-smart cocoa	0	0	0	0	0	0
Agroforestry	0	0	0	0	0	0
Income- generating activities	0	0	0	0	0	0
Financial inclusion	0	0	0	0	0	0

**Note:** Binary codes (No = 0, Yes = 1);

**Inclusion level** (0 = no mention, very low = 1, low = 2, neutral =3, high = 4, high = 5)

**Source:** Information gathered from documents on PEPs and other welfare interventions

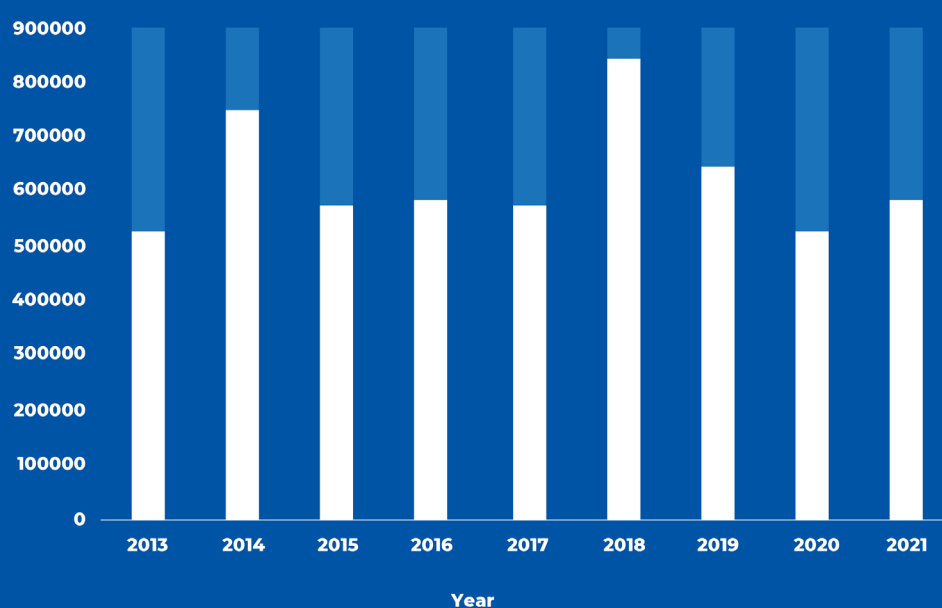
**Table 2.** Involvement of PWDs in PEPs and other interventions using phone interviews

Region	Interventions being implemented	Major stakeholders	Number of PWDs involved
<b>Eastern</b>	<ul style="list-style-type: none"> <li>- Cocoa Rehabilitation</li> <li>- Hand Cocoa Pollination</li> <li>- Free Hybrid Cocoa Seedlings</li> <li>- Mass cocoa pruning</li> <li>- CODAPEC (Cocoa Disease and Pest Control)</li> <li>- Irrigation</li> <li>- Provision of subsidized Fertilizer</li> </ul>	COCOBOD (Cocoa Health & Extension), Cocoa Farmers, Inputs Dealers, Service Providers (KUMAD AFARINICK), Africa Development Bank (AFDB)	No records available
<b>Ashanti</b>	<ul style="list-style-type: none"> <li>- Cocoa Rehabilitation (cutting down and re-planting of CSSVD infected farms)</li> </ul>	Cocoa Farmers, CHED, SPD, KUMAD/AFARINICK Company	No records available
<b>Western North</b>	<ul style="list-style-type: none"> <li>- Mass Pruning</li> <li>- Hand pollination</li> <li>- Cocoa Rehabilitation</li> <li>- CODAPEC</li> <li>- Pilot Irrigation Scheme</li> </ul>	CHED/ COCOBOD, Kumad / Afarinick Company Ltd. (Service Providers), SPD, Cooperative Executives, Society and District Chief Farmers and Cocoa Farmers.	16
<b>Bono (Berekum District)</b>	<ul style="list-style-type: none"> <li>- Hand Cocoa Pollination</li> <li>- Free Hybrid Cocoa Seedlings</li> <li>- CODAPEC</li> <li>- Provision of subsidized fertilizer and insecticides</li> </ul>	CHED/COCOBOD, farmers	1

**Source:** Information gathered from coordinators of PEPS.

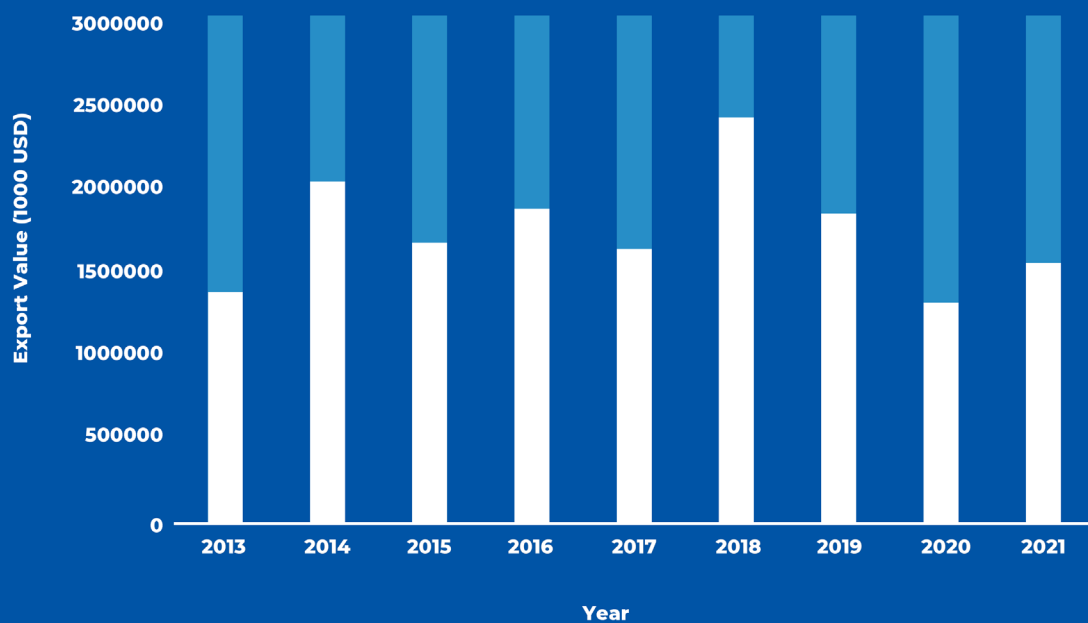
## 6.2 Cocoa Trade Volumes

Cocoa is said to be the mainstay of Ghana's economy. It is a significant cash crop widely cultivated in the southern part of Ghana. For over a century now, cocoa has been the main contributor to Ghana's gross foreign reserves. In 2021, cocoa contributed 3.1 billion Ghana cedis (533 million USD) in real terms to Ghana's Gross Domestic Product (Quainoo, 2024). Given this, the study looks at the quantity of cocoa exports by Ghana and the respective export values from 2013 to 2023 as presented in Figure 2 and Figure 3, respectively. Results show that cocoa exports from Ghana to other countries have fluctuated over the period under review, with a similar trend in export value. In 2013, the cocoa export was 526,187 tonnes, valued at about 1.4 billion USD. Export quantity increased sharply in 2014 but declined in 2015 and remained steady in 2016 and 2017. However, in 2018, there was a dramatic increase in the export volume, which hit 843,641 tonnes. This may be attributable to the COCOBOD PEPs introduced in 2017 to increase cocoa production and farmers' income. The export value in 2018 was about 2.4 billion USD. Despite the significant gain in 2018, the export quantity dropped drastically to 521,397 tonnes in 2020 at a value of 1.3 billion USD. This decline from 2018 to 2020 was occasioned by adverse weather conditions in the country alongside the spread of diseases and associated control measures involving the removal of infested trees (COCOBOD, 2020). Additionally, the demand for cocoa during the 2019/20 was affected by the COVID-19 pandemic, where there were lockdowns and restrictions, which stalled seasonal as well as out-of-home consumption of chocolate and cocoa products.



**Figure 2.** Cocoa export quantities by Ghana, 2013 to 2021.

**Source:** FAOSTAT Database (FAO, 2023).



**Figure 3.** Cocoa export values by Ghana, 2013 to 2021.

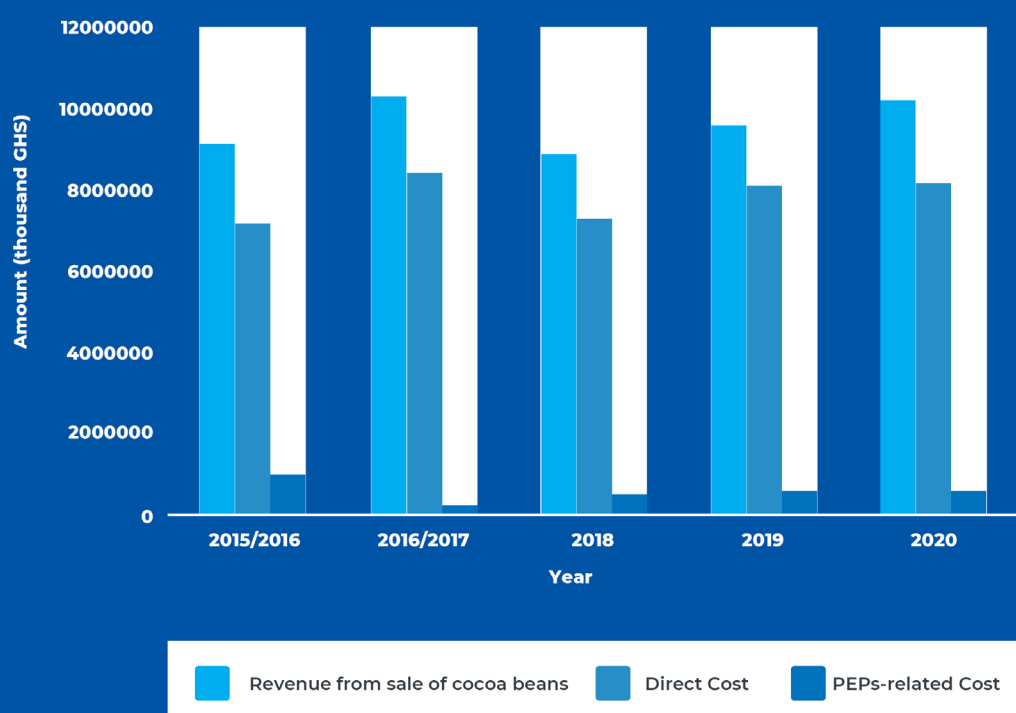
**Source:** FAOSTAT Database (FAO, 2023).

The COCOBOD has made significant gains through the export of cocoa. Therefore, there must be a conscious effort to continuously support farmers and sustain the various programs under PEPs and other interventions to enhance productivity. More funds should be reinvested into the cocoa sector, especially for PWDs to increase their involvement to improve their welfare since they are often marginalized in government programs. This section of farmers needs much attention to drive inclusive growth and development of the sector. Richards et al. (2004) argued that involving all stakeholders in decision-making is a democratic right and is vital to any development process.

### 6.3 Cocoa Fiscal Issues

Intensive desk studies did not reveal actual revenues or income receipts earmarked for the various interventions across the cocoa-growing areas of Ghana. Similarly, information about expenditure was not readily available in literature and reports, thus making a comprehensive analysis challenging. However, pockets of information on revenue obtained from sale of cocoa and expenditure on the PEPs were gathered from the COCOBOD annual reports and consolidated financial statements and Statista website ([www.statista.com](http://www.statista.com)).

The total value of the Cocoa Rehabilitation Project (CRP) was initially 100 million USD, financed jointly by ADB (19.2%), ADF (6.6%), IDA (31.6%), BADEA (7.8%), ODA (9.3%), the Ghana Cocoa Board (17.4%) and the Government of Ghana (8.4%). During the 2016-2017 reporting year, COCOBOD reported a total revenue of over 10 billion GHS from sale of cocoa beans. According to Statista (2024), COCOBOD raised revenue from sale of cocoa to the tune of 10,297 million GHS, 9,038 million GHS, and GHS 9,762 million GHS for the years 2017, 2018, and 2019, respectively. The total direct cost during 2016-2017 was 8,342,987 thousand GHS, with PEPs-related expenditure (pollination, pest and disease control, and Cocoa Hi-Tech) reported to be 226,228 thousand GHS as presented Figure 4. In 2020, the total direct cost was 8,139,089,000 GHS and the PEPs-related cost was 582,106,000 GHS. In addition to the 2020 direct cost, COCOBOD reported that 98,578,000 GHS of administrative expenditure and 67,991,000 GHS finance expenditure were incurred on the PEPs (COCOBOD, 2020). It can be observed that the PEPs-related expenditure accounted for only a small proportion of the total direct cost reported. This, however, does not include all the costs relating to the various projects under the PEPs such as cocoa rehabilitation project.



**Figure 4.** Revenue from sale of cocoa beans and direct cost on cocoa activities by COCOBOD from 2015-2020.

**Source:** Ghana Cocoa Board Annual Reports.

In the case of the cocoa rehabilitation program (CRP), the study obtained some data as presented below. Interviews with coordinators and officers working on the CRP revealed that the intervention comprises two components: (1) initial treatment of aged farms i.e., farm clearance (Table 3) and (2) maintenance activities of rehabilitated farms (Table 4). At the initial treatment stage, some of the activities funded by COCOBOD are slashing before tree removal, actual tree removal, and hacking. These are usually followed by the maintenance stage, which typically includes weeding, fertilizer, and insecticide application.

**Table 3.** Expenditure on farm clearance under the Cocoa Rehabilitation Program in different cocoa-growing regions

<b>Region</b>	<b>Number of farms</b>	<b>Area (Ha)</b>	<b>Total cost (GHS)</b>
<b>Ashanti</b>	472	408.11	408,110.00
<b>Brong Ahafo</b>	1,368	940.74	940,740.00
<b>Central</b>	292	183.00	183,000.00
<b>Eastern</b>	294	181.57	181,570.00
<b>Volta</b>	270	317.23	317,230.00
<b>Western North</b>	8,526	6,696.84	6,696,840.00
<b>Western South</b>	1,905	1,729.82	1,729,820.00
<b>TOTAL</b>	13,127	10,457.31	10,457,310.00

**Source:** Information gathered from coordinators

About 13,127 farms received initial treatment under the CRP as of December 2023, with a total area of 10,457.31 hectares. Western North recorded the highest number of farms (8,526) and the highest area (6,696.84 ha). According to data from the COCOBOD, each farmer received 1,000 GHS for each hectare that benefited from an initial treatment, which translates into GHS 10,457,310.00.

Regarding maintenance activities, about 24,454 farms benefited from the intervention. This covers a total area of 20,469.14 ha. The Western North region again recorded the highest (Table 4). For expenditure on maintenance activities, 1,250 GHS is paid per ha, which results in a total of 25,586,425 GHS.

**Table 4.** Expenditure on maintenance activities under the Cocoa Rehabilitation Program in different cocoa-growing regions

<b>Region</b>	<b>Number of farms</b>	<b>Area (Ha)</b>	<b>Total cost (GHS)</b>
<b>Ashanti</b>	724	651.49	408,110.00
<b>Brong Ahafo</b>	2,869	2,259.44	940,740.00
<b>Central</b>	357	211.75	183,000.00
<b>Eastern</b>	393	293.61	181,570.00
<b>Volta</b>	17,696	14,723.18	317,230.00
<b>Western North</b>	1,896	1,720.81	6,696,840.00
<b>Western South</b>	519	608.86	1,729,820.00
<b>TOTAL</b>	24,454	20,469.14	25,586,425.00

**Source:** Information gathered from coordinators



# 07

## LIMITATIONS

The following are limitations of the study. However, none of the limitations affected the validity of the trends presented in this report.

**01**

The fact that this was mainly a desk study meant that the information and data was limited only to those found in published reports. However, it is commonly the case that significant amounts of useful information are found from other sources outside published documents.

**02**

The study faced data limitations, especially on fiscal issues that are not readily available in the public domain. Officials of COCOBOD demanded formal requests at the highest level before the release of such data would be considered.



# 08

## CONCLUSION AND POLICY RECOMMENDATIONS

This study assessed fiscal issues in COCOBOD's cocoa productivity enhancement programs (PEPs) and other farmer welfare interventions in the cocoa value chain, especially for persons with disability (PWDs) through a desk study. The emphasis was on cocoa receipts and spending information between 2013 and 2023. In addition to the desk study, interviews were conducted with four PEP coordinators in four cocoa-growing regions, including Ashanti, Bono, Eastern, and Western North.

The study found that there was no specific mention of PWDs' involvement in any aspect of the PEPs in terms of getting information, consultation, decision-making, and receiving support. This lack of information about PWDs inclusion in PEPs and other welfare interventions was corroborated by some of the coordinators interviewed. However, coordinator from Western North region revealed that 16 disabled farmers in the Asankragwa district are part of the PEPs and that 15 had formed an association and benefited from the various interventions. The coordinator added that the PWDs did not receive any special treatment but took part in all activities and received all benefits like any other farmer under the program. Also, there were no specific budgets allocated to them. Again, the study found that cocoa exports by Ghana were high in 2014 and 2018 with export values of 2 billion USD and 2.4 billion USD, respectively, as compared to the other years, which could be due to Cocoa Hi-Tech and other PEPs-related projects introduced in 2016/2017. The sharp decline in quantities of cocoa exported by Ghana in 2019 and 2020 is attributed to adverse weather conditions in the country alongside the spread of diseases and associated control measures involving the removal of infested trees, and COVID-19 pandemic. Furthermore, the study found that a total revenue from sale of cocoa beans from 2015 to 2020 was 48 billion GHS, with a total direct expenditure for the same period was 39.14 billion GHS, including direct cost on cost PEPs-related activities. Specifically, the study observed that only small proportion of the total direct cost was spent on PEPs-related projects, such as pollination, pest and disease control, and Cocoa Hi-Tech, which totalled 2.93 billion GHS. In addition, the study found that an amount of 10.5 million GHS was spent on the initial treatments (farm preparation) of 10,457.31 hectares of cocoa farms belonging to 13,127 farmers across the six cocoa-growing regions, and 25.6 million GHS was spent on maintenance of 20,469.14 hectares of cocoa farms belonging to 24,454 farmers under the cocoa rehabilitation program.

It is evident from the study that more attention needs to be given to the involvement of PWDs in the COCOBOD PEPs and other welfare interventions in the cocoa value chain. This would ensure inclusivity and equal opportunities for all to benefit and contribute to the cocoa sector of Ghana. Beyond inclusivity, farmers with disabilities need to be given special attention in some cases, especially funding, training, and provision of information to facilitate their participation in some of the interventions in the cocoa sector. Additionally, more of the funds generated from the sale of cocoa beans should be reinvested into the sector, especially for PWDs and that attention should be paid to that section of farmers.



# REFERENCES

- Ameyaw, G. A., Dzahini-Obiatey, H. K., Domfeh, O., Oppong, F. K., & Abaka-Ewusie, K. (2015). History and data analyses of 'cutting out' method for Cocoa Swollen Shoot Virus Disease (CSSVD) control in Ghana. *Journal of Plant Diseases and Protection*, 122, 200-206.
- Aneani, F., Adu-Acheampong, R., & Sakyi-Dawson, O. (2017). Exploring opportunities for enhancing innovation in agriculture: The case of cocoa (*Theobroma cacao* L.) production in Ghana. *Sustainable Agriculture Research*, 7(1), 33-53.
- Cocoa and Forests Initiative-CFI (2020). Cocoa & Forests initiative annual report 2020.
- COCOBOD. (2020). 51st annual report and consolidated financial statements. The Ghana Cocoa Board. 30 September 2020.
- Danquah, F. K. (2003). Sustaining a West African cocoa economy: Agricultural science and the swollen shoot contagion in Ghana, 1936-1965. *African economic history*, (31), 43-74.
- Dzahini-Obiatey, H., Ameyaw, G. A., & Ollennu, L. A. (2006). Control of cocoa swollen shoot disease by eradicating infected trees in Ghana: A survey of treated and replanted areas. *Crop Protection*, 25(7), 647-652.
- FAO (2023). Crops and Livestock Products. Food and Agriculture Organization. <https://www.fao.org/faostat/en/#data/QCL> [Accessed on December 27, 2023]
- Kolavalli, S., Vigneri, M., Maamah, H., & Poku, J. (2012). The partially liberalized cocoa sector in Ghana: Producer price determination, quality control, and service provision.
- Krippendorff, K. (2018). *Content analysis: An introduction to its methodology*. Sage publications.
- Ministry of Lands and Natural Resources (MLNR), (2020). Cocoa and Forest Initiative. Annual Report 2020, Ghana.

Naminse, E. Y., Fosu, M., & Nongyenge, Y. (2011). The impact of mass spraying programme on cocoa production in Ghana. Report on Field Survey.

Osei-Bryson, K. M. (2007). Post-pruning in decision tree induction using multiple performance measures. *Computers & operations research*, 34(11), 3331-3345.

Quinoo, F. K. (2024). Highlighting the 4Ps of cocoa production in Ghana: Pruning, Pollination, Poultry Manure, and Protection. *Cocoa Post*. <https://thecocoapost.com>

Richards, C., Carter, C., & Sherlock, K. (2004). Practical approaches to participation. Macaulay Institute.

Vigneri, M., & Kolavalli, S. (2017). Growth through pricing policy: The case of cocoa in Ghana. Background paper for UNCTAD-FAO Commodities and Development Report.

White, M. D., & Marsh, E. E. (2006). Content analysis: A flexible methodology. *Library trends*, 55(1), 22-45.

Wilcox, D. (1999). A to Z of Participation. Joseph Rowntree Foundation.













# SEND GHANA

**Contact us:**

A28 Regimanuel Estate, Nungua  
Barrier, Sakumono  
Accra, Ghana

0302 716 830 / 0302 716 860

**Find us online:**

-  [www.sendwestafrica.org](http://www.sendwestafrica.org)
-  [info@sendwestafrica.org](mailto:info@sendwestafrica.org)
-  [@sendghanaofficial](https://www.facebook.com/sendghanaofficial)
-  [@send\\_ghana](https://twitter.com/send_ghana)
-  [@sendghana](https://www.youtube.com/sendghana)
-  [@sendghana](https://www.linkedin.com/company/sendghana)