



# Project Information Document (PID)

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Appraisal Stage | Date Prepared/Updated: 09-May-2023 | Report No: PIDA35406



## BASIC INFORMATION

### A. Basic Project Data

Country Ghana	Project ID P180060	Project Name Ghana Tree Crop Diversification Project	Parent Project ID (if any)
Region WESTERN AND CENTRAL AFRICA	Estimated Appraisal Date 03-May-2023	Estimated Board Date 20-Jun-2023	Practice Area (Lead) Agriculture and Food
Financing Instrument Investment Project Financing	Borrower(s) Ministry of Finance	Implementing Agency The Tree Crop Development Authority (TCDA), The Ghana Cocoa Board (COCOBOD)	

### Proposed Development Objective(s)

The Project Development Objective (PDO) is to improve economic, climate, and social resilience in selected tree crop value chains.

### Components

- C1. Institutional Strengthening and Value Chain Governance
- C2. Improving Tree Crops Productivity and Climate Resilience
- C3. Support for Post-Harvest Management, Value Addition, and Market Access
- C4. Project Coordination, Management, Monitoring and Evaluation

## PROJECT FINANCING DATA (US\$, Millions)

### SUMMARY

Total Project Cost	227.50
Total Financing	227.50
of which IBRD/IDA	200.00
Financing Gap	0.00

### DETAILS

#### World Bank Group Financing



International Development Association (IDA)	200.00
IDA Credit	50.00
IDA Shorter Maturity Loan (SML)	150.00

### Non-World Bank Group Financing

Counterpart Funding	27.50
Borrowing Agency	27.50

Environmental and Social Risk Classification

High

Decision

The review did authorize the team to appraise and negotiate

## B. Introduction and Context

Country Context

- The Republic of Ghana is a lower-middle income country in which a period of sustained poverty reduction is imperiled by a recent series of macroeconomic shocks.** Ghana doubled its per capita Gross Domestic Product (GDP) between 2000 and 2021 from US\$1,020 to \$2,014, reducing the proportion of its population living on less than US\$2.15 a day from over a half to under a quarter.<sup>1,2</sup> Economic opportunity grew even faster despite rapid population growth, with cash crop, oil, and gold prices exceeding the country's 3.3 percent average annual population growth rate enough to persistently raise per capita income. Yet by 2021, 42 percent of the population continued to live below the poverty line, at less than US\$3.65 a day. 73 percent was living on less than \$6.85 a day.<sup>3</sup> Recent economic events threaten to push more Ghanaians into poverty, and to deepen the poverty of those who are already poor. Inter-regional differences are likely to widen further as well, with the most pronounced effects concentrated in Ashanti, Volta, Brong Ahafo, and other northern regions.<sup>4</sup>
- A deep macroeconomic crisis following COVID-19 and the war in Ukraine three years later represent major setbacks to economic progress in Ghana.** GDP growth fell to 0.5 percent in 2020 after averaging 7 percent between 2017 and 2019. Deteriorating macroeconomic imbalances have reached crisis levels and are

<sup>1</sup> World Bank Indicators, constant 2015 US dollars.

<sup>2</sup> Per the Ghana Living Standards Survey (GLSS), the national poverty rate is 23.4 percent, where \$2.15 (2017 PPP) is the international poverty rate.

<sup>3</sup> Estimates from the World Bank Macroeconomic and Poverty outlook.

[http://macropovertoutlook.worldbank.org/mpo\\_files/mpo/mpo-sm23-gha-scope.pdf](http://macropovertoutlook.worldbank.org/mpo_files/mpo/mpo-sm23-gha-scope.pdf)

<sup>4</sup> Ghana Poverty Note, 2022: Another storm under the radar? Global food prices and potential poverty impacts in Ghana. World Bank Poverty Global Practice.



projected to worsen as 3.5 percent GDP growth in 2022 is expected to decelerate to 1.6 percent in 2023. In 2024, it is expected to improve only nominally, at about 2.9 percent. Inflation reached its highest level in 21 years at 54.1 percent year-over-year as of December 2022, reflecting highly accommodating fiscal policy. Ghana's debt stock is mounting, with a public debt-to-GDP ratio exceeding 100 percent – up from 82 percent in 2021. Foreign exchange reserves are declining, and the value of the cedi is falling rapidly.<sup>5</sup> After peaking in 2022, when exchange rates movements exhibited significant overshooting, the divergence between the Bank of Ghana (BOG) and the market rates has declined significantly. The gap has now declined to around 6.7 percent, almost back to pre-crisis historical levels (5 percent).

3. **Gender-based and geographic inequalities are pronounced in Ghana.** The impacts of COVID-19 fell disproportionately on women and in the north of the country, reflecting longstanding vulnerabilities and higher poverty rates. Poverty rates are higher among women in general. Ghana ranks 108 out of 146 countries in the 2022 Global Gender Gap Index, which is significantly worse than its regional peers in Sub-Saharan Africa at the same level of economic development.<sup>6</sup> Areas where economic opportunities are limited by a lack of roads, electricity, market connectivity, and public services are exceptionally vulnerable as well, and these disadvantages are endemic to the northern savannah agroecological zone of Ghana.<sup>7</sup> These areas also tend to have higher malnutrition, mortality, and child labor rates and lower school enrollment and human capital indicators in general. Their spatial isolation moreover lends itself to greater susceptibility to market shocks and vulnerability to the impacts of climate change.
4. **Ghana's vulnerability to climate change vastly exceeds the country's contributions to it.** Ghana emitted an estimated 48.8 million tons of CO<sub>2</sub> equivalent in 2019 – a marginal volume by just about any realistic standard. The impacts that climate change will have on the country's economy and society on the other hand are dramatic, and potentially cataclysmic. Because of anticipated sea-level rise, half of Ghana's 540-km coastline along which about one-quarter of its population resides is vulnerable to erosion and flooding. Climate-related flooding is expected to damage crops and buildings and infrastructure, while exacerbating pest and disease pressures on both. Since the beginning of the industrial era, which is commonly marked as the year 1750, Ghana has contributed about 0.02 percent of cumulative global anthropogenic CO<sub>2</sub> emissions.<sup>8</sup> Since 1960, average annual mean temperature has increased by around 1° Celsius and the average number of 'hot days' has increased by 13 percent. Changes in temperature and more erratic rainfall patterns reduce agricultural productivity, and may, over time, alter the country's agricultural geography as some areas become ill-suited to the crops they currently grow.
5. **Ghanian markets and institutions have limited capacity to manage environmental risk and vulnerability while the economy itself is highly dependent on the country's natural resource base.** Dependence on export revenues from cocoa, petroleum, and gold leave the country highly exposed to commodity price risk, as well as to vagaries of production, changes in weather, natural hazards, labor and supply chain disruptions, and other shocks. Commodity price volatility is likely to be accentuated by natural resource degradation, climate change, and future global decarbonization efforts. Meanwhile, Ghana's natural resource-based growth has

<sup>5</sup> The Cedi lost over 40 percent of its value against the dollar in 2022.

<sup>6</sup> World Economic Forum. 2022.

<sup>7</sup> Upper West, Upper East, Northeast, Northern, Savannah, Bono, and Bono East regions.

<sup>8</sup> World Bank Country Climate Development Report (CCDR), October 2022



come at a high cost in terms of water pollution, agricultural land degradation, fishery depletion, coastal erosion, and forest loss. These and other changes undermine the long-term potential to continue exploiting natural resources as a source of national income. Sustaining natural resource-based growth hinges on Ghana moving toward more sustainable management models.

6. **The Government of Ghana (GoG) has ambitious plans to diversify and grow the economy by modernizing agriculture and accelerating industrialization, as well as by prioritizing climate resilience and mitigation.** These are among the objectives of the National Medium-Term Development Policy Framework for 2022 – 2025<sup>9</sup> and the GoG’s “Ghana Beyond Aid” reform agenda for 2019 – 2028.<sup>10</sup> These aim to capitalize on Ghana’s comparative advantages in agro-processing and heavy industries like aluminum, steel, and petrochemicals, improving agricultural productivity, enhancing human capital, and developing the digital economy to increase economic efficiency. Ghana unconditionally has pledged to change the trajectory of its greenhouse emissions, keeping them 12 percent below projected levels by 2025 and 15 percent below by 2030 in compliance with its commitments to the Paris Climate Agreement. Its Nationally Determined Contributions (NDC) included 31 adaptation and mitigation actions across the agricultural, forestry and land-use, energy, transportation, waste management, and industrial sectors.<sup>11</sup>

#### Sectoral and Institutional Context

7. **While industry and services now dominate its national economy, agriculture remains a pillar of Ghana’s economic progress.** The sector accounts for 20 percent of Ghana’s GDP and employs over a quarter of its workforce. 68 percent of jobs in the informal sector are related to agriculture.<sup>12</sup> More than 70 percent of the female labor force is engaged in the agriculture sector. Agriculture will moreover continue generating significant export revenues. In 2019, food and agriculture combined accounted for 28 percent of Ghana’s total exports by value. Two-thirds of all non-oil manufacturing depend on agriculture for raw materials. Helped by favorable agroclimatic conditions and relatively liberal economic policies, sector growth averaged 6 percent per year from 2017–2021. It reached new heights during the COVID-19 crisis as the rest of the economy was contracting, growing by 7.3 percent in 2020 and 8.4 percent in 2021.<sup>13</sup> The sector is projected to grow at an average annual rate of 4 percent per year from 2021–2023. The pivotal role of agricultural growth in economic resilience has emerged as a key lesson from the COVID-19 experience in Ghana. Subsistence agriculture is the main source of livelihood for most of Ghana’s poorest households, making the sector’s continued development a major determinant of food security among lower income households. The agribusiness sector in Ghana has a very large multiplier effect on employment, creating over 750 jobs for every additional US\$1 million of output.<sup>14</sup> However, the structure of the sector is dominated by primary production, with limited value-addition (including in processing) which does not allow Ghana to capitalize on this job creation potential.

<sup>9</sup> [https://ndpc.gov.gh/media/MTNDPF\\_2022-2025\\_Doc-2021.pdf](https://ndpc.gov.gh/media/MTNDPF_2022-2025_Doc-2021.pdf)

<sup>10</sup> [http://osm.gov.gh/assets/downloads/ghana\\_beyond\\_aid\\_charter.pdf](http://osm.gov.gh/assets/downloads/ghana_beyond_aid_charter.pdf)

<sup>11</sup> Republic of Ghana. 2015. *Ghana’s Intended Nationally Determined Contributions and Accompanying Explanatory Note*.

[https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Ghana%20First/GH\\_INDC\\_2392015.pdf](https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Ghana%20First/GH_INDC_2392015.pdf).

<sup>12</sup> International Labor Organization (ILO) 2019 estimate.

<sup>13</sup> The sector grew by 7.3 and 8.4 percent, respectively, in 2020 and 2021.

<sup>14</sup> World Bank. 2017. Creating Markets in Ghana: Country Private Sector Diagnostic



**8. Ghana's tree crops sector plays an outsized role in agriculture and the economy.** Tree crops generate income for subsistence households as well as for commercial producers. While production constitutes just 24 percent of the land area cultivated, and 9 percent of the total volume of crops produced, they account for roughly 85 percent of Ghana's total agricultural exports, 70 percent of which is cocoa. Globally, Ghana is the second largest producer of cocoa after Cote d'Ivoire, having generated 17 percent of the global supply from 2019 - 2022. Ghana is also a more minor supplier of half a dozen other tree crops including cashews (2% of global supply in 2020), coconuts, oil palm fruit, natural rubber (each <1% but among the top-20), mangos (<1%, ranked 36th), and shea nuts (4.5%, ranked 5th). Generally, these other tree crops have lagged with lackluster competitiveness and a lesser ranking in global export markets than what could be achieved (Table 1).

**9. The tree crop sector can contribute substantially more to Ghana's economy and society than it currently does, including in terms of job creation, poverty reduction, and upholding the socio-economic fabric of some of the country's poorest people.** Cocoa, cashew, coconut, and rubber segments employ some 728,000, 100,000, 10,364, and 4,322 farmers respectively.<sup>15</sup> On-farm employment in producing these crops accounts for nearly 6 percent of Ghana's total labor force. Yet low farm-level earnings typically undermine the sector as a source of sustainable livelihoods for most growers. In cocoa for example, one 2021 study found that up to 60 percent of producers remain below the international poverty line and that between 75 and 90 percent earn less than \$5.81 (2018 Purchasing Power Parity (PPP) per person per day).<sup>16</sup> Less information is available on poverty in other tree crop segments of Ghana, but most producers are predominantly rural smallholders, and most likely poor.<sup>17</sup>

#### *Challenges facing the tree crop sector*

**10. Persistent challenges limit the development of the tree crop sector.** Low and stagnant productivity is the most pressing of these, with low yields despite increases in output in recent decades.<sup>18</sup> Low yields are

<sup>15</sup> See annex 2 for more details on the cashew and coconut sectors. Employment statistics by the Directorate of Crop Services (DCS) of MOFA, 2022.

<sup>16</sup> A Living Income for Cocoa Producers in Côte d'Ivoire and Ghana? van Vliet Jiska A., Slingerland Maja A., Waarts Yuca R., Giller Ken E. (2021), Frontiers in Sustainable Food Systems, vol. 5,

<sup>17</sup> Cashew, for example, is grown in the northern savannah zone (Upper West, Upper East, Northeast, Northern, Savannah, Bono, and Bono East regions) where the poverty headcount is well above the national average, ranging from 50 to 70 percent.

<sup>18</sup> In raw cashew nuts (RCN) for example, Ghana's production grew ninefold in just ten years, from roughly 9000 tons in 2000 to over 82,000 tons in 2020. Coconut production increased by 33 percent between 2000 and 2020.

**Table 1: Production and exports of tree crop products**

	Production volume in 1,000 tons (Global ranking) in 2020	Export value in millions of US\$ (Global ranking) in 2019
<b>Cocoa</b>	800 (2 <sup>nd</sup> )	2,681 (2 <sup>nd</sup> ) 2,714 (2 <sup>nd</sup> ) <i>including chocolate</i>
<b>Cashew</b>	82 (15 <sup>th</sup> )	243 (5 <sup>th</sup> )
<b>Coconut</b>	412 (15 <sup>th</sup> )	2.9 (14 <sup>th</sup> ) 3.6 (16 <sup>th</sup> ) <i>including copra and copra oil</i>
<b>Palm oil</b>	2,471 (9 <sup>th</sup> )	110 (11 <sup>th</sup> )
<b>Rubber</b>	50 (19 <sup>th</sup> )	65 (12 <sup>th</sup> )
<b>Shea</b>	34 (4 <sup>th</sup> )	NA
<b>Mango</b>	99,242 (36 <sup>th</sup> )	NA

Source: FAO 2022, and Comtrade 2022. Note: Palm oil includes palm kernel oil. Coconut production is based on coconuts in shell, exports are based on fresh and dried coconuts, copra, and copra oil. Mango production includes guavas and mangosteens.



followed by weak coordination and management which limit farmers' access to inputs, technical capacity, and negotiating power. Producers also remain largely unaware of the practical implications of climate smart agriculture (CSA) and related practices, and of the risks that climate change and biodiversity loss represent for their production. This is highly significant at the macro level as well given the sector's role as a primary driver of deforestation as well as its considerable potential contributions to reforestation, restoration of degraded lands, and carbon sequestration and storage. Tree crops can be used as a centerpiece of agroforestry. Tree crops are vulnerable to shifts in agroecological zones resulting from climate change. They are also significantly more vulnerable to pests and diseases, and because they take several years to generate yields, tree stocks require proactive rejuvenation efforts, including incentives and financing, to prevent productivity decline. Child labor is common in the sector and well documented particularly in cocoa. Farmers lack connectivity with upstream service providers for inputs such as saplings and fertilizer, and downstream value addition including processing. The capacity to process and add secondary value is limiting the country's optimization of revenue from tree crops. The situation varies by tree crop, cocoa being particularly distinct. Annex 1 provides greater crop level details.

- **Cocoa.** Cocoa is primarily grown on small farms of 2–3 hectares that are concentrated along the forest-zone belt running from the Western Region through the regions of Western North, Bono, Ahafo, Ashanti, Central, Eastern and Volta. Its production is an essential part of the Ghanaian economy. In 2022, the country produced about 800,000 tons of cocoa, worth roughly US\$2 billion - accounting for 9 percent of Ghana's GDP and 20–25 percent of its foreign exchange earnings.<sup>19</sup>. The parastatal cocoa marketing board, Ghana Cocoa Board (COCOBOD), provides services to the sector, protects producers from price volatility in the global market, and retains a monopoly over cocoa purchases and exports. Despite its critical role, the governance structure of COCOBOD has come under scrutiny in recent times due to several weaknesses: among others, allegations of lack of transparency and accountability in its operations, use of inefficient pricing mechanisms, and inadequate farmer support and input to cocoa farmers leading to low productivity and high post-harvest losses. Governance in cocoa is hindered by the financial and organizational capacity of COCOBOD facing a negative net financial position. This provides limited resources to promote sector growth, for instance through its Productivity Enhancement Program (PEP), or to build much needed technical capacity and knowledge on the part of its institutional cadre. The situation has been exacerbated by spiraling industry costs, from 16 percent of the cocoa price per ton in 2016, to 36 percent in 2021, and projected to reach 49 percent in 2023. These costs are primarily driven by an inefficient input (fertilizers and agrochemicals) procurement and distribution regime, construction of roads, and increasing cost of debt servicing by the Board. These have exerted a depressing effect on the farmer price, excluding the living income differential (LID)<sup>20</sup>, as well as margins to private sector entities in the domestic supply chain. In addition, delays in the payment of cocoa beans delivered by private licensed buying companies (LBCs) caused by liquidity constraints of Board have led to declining purchases. Poor supply chain governance coupled with an inefficient fertilizer distribution system has resulted in the smuggling of subsidized fertilizers and cocoa beans to neighboring countries<sup>21</sup>.

<sup>19</sup> Annex 2 provides greater detail about the cocoa sector in Ghana.

<sup>20</sup> The LID is a fixed premium of US\$ 400 per ton paid on all cocoa contracts sold by Ghana and Côte d'Ivoire to support farmers achieving a living income. The entire LID is transferred directly to farmers.

<sup>21</sup> COCOBOD has recently engaged with a consulting firm (Madison-Pine) to assess, recommend, and implement measures for improving the cooperative governance of COCOBOD.



Another serious challenge is manifest in the form of pressure from cocoa swollen shoot virus disease (CSSVD) and its effects on the lifespan and yields of infected trees.<sup>22</sup> Yet replanting efforts are lagging. The spread of CSSVD, is the single most critical issue for cocoa productivity, especially in the Western North region. In addition to CSSVD, limited intensification and other pests and disease curtail productivity. Yields averaged 541 kg/ha in 2018–2021, well below the yields of 1,400–3,000 kg/ha attained on research and more productive farms. With limited virgin land left to expand into, closing this yield gap is the main way Ghana can increase cocoa output. Cocoa farming is particularly vulnerable to climate change, and to an extent, a contributor to the phenomenon. The decline in precipitation and temperature rise that Ghana has been experiencing since the 1960s has negatively impacted cocoa harvests. Meanwhile, cocoa is a driver of deforestation through area expansion in forested zone. Since 2000 deforestation increased significantly in Ghana with much of it occurring in Ghana's high forest zone (HFZ).<sup>23</sup> This is the main area for cocoa production in the country, covering over 1.2 million hectares of forest reserve and protected areas.<sup>24</sup> Nonetheless, more recently the impacts of illegal logging and mining especially in HFZ, and agricultural expansion for food crops are the major drivers of deforestation. Deforestation in cocoa is an issue which assumed greater urgency in November of 2021 with the European Commission's new regulation to minimize European consumption of products associated with deforestation or forest degradation.<sup>25</sup> Once the regulation is in effect, exporters are required to provide evidence that cocoa beans have not been grown on land that has been subject to deforestation or forest degradation after December 21, 2020 (the so-called "cut-off date").<sup>26</sup> As part of their due diligence obligations operators must ensure the full traceability of the covered goods. It is expected that the regulation will be approved by the European Parliament in 2023 and that compliance with the Regulation will become mandatory 12 months after it comes into force. Cocoa rehabilitation, as planned in the proposed project, contributes to reforestation/afforestation and carbon sequestration. Rehabilitation programs of COCOBOD do not engage in forest reserves and focus on CSA (including agroforestry practices of replanting at least 18 – 20 shade trees per hectare). Not least of all, today, Ghana's cocoa processing capacity is underutilized and post-secondary value addition to beans is limited. While Ghana has developed a reputation for high-quality cocoa most of the value that is added to cocoa is created after the beans are shipped out of the country.<sup>27</sup>

- **Cashew.** Although its volumes and value are nowhere near cocoa's, cashew nuts are among Ghana's

<sup>22</sup> Almost 25% of cocoa trees are now around 30 years old and their productivity is declining (COCOBOD, 2015).

<sup>23</sup> Ghana has experienced a high rate of deforestation in recent decades, losing 17 percent of its forestland from 2001–2019, according to the national forest reference level.

<sup>24</sup> Drivers of cocoa sector encroachment on forestland include shifting cultivation as a response to soil fertility decline, limited intensification, the absence of a clear land and tree tenure regime, the shrinking of land that is suitable for cocoa production, and the adoption of full-sun varieties that compete directly with standing forests.

<sup>25</sup> Drivers of cocoa sector encroachment on forestland include shifting cultivation as a response to soil fertility decline, limited intensification, the absence of a clear land and tree tenure regime, the shrinking of land that is suitable for cocoa production, and the adoption of full-sun varieties that compete directly with standing forests.

<sup>26</sup> The Proposal defines "deforestation" as being the conversion of forest for agricultural use, whether human induced or not. Furthermore, "forest degradation" is defined as harvesting operations that are not sustainable and cause a reduction or loss of the biological or economic productivity and complexity of forest ecosystems, resulting in the long-term reduction of the overall supply of benefits from forests, which includes wood, biodiversity and other products or services.

<sup>27</sup> It is telling that in 2019, Ghana's exports of cocoa were worth 81 times more than its exports of chocolate. Ghana processes about 30 percent of its cocoa beans and the government aims to increase that share to 50 percent.



major export crops. The crop is primarily grown by smallholders with under 3 hectares of land in the Bono East, Bono and Ahafo, Northern, Upper West, and Upper East regions. Most cashew nuts—over 90 percent—are exported in raw form. Seeing potential in the crop, the GoG issued a 10-year Cashew Development Plan in 2018. Although the government aimed for 250,000 hectares of cashew plantations by 2020, Ghana harvested a little over 155,000 hectares of cashew nuts that year. Addressing low cashew yields is a major challenge for Ghana. Yields are higher than they are in some West African countries like Benin and Burkina Faso, but national yields are still low, averaging about 530 kg/ha in 2018–2021, or roughly 30 percent of the crop's technical potential according to the Ministry of Food and Agriculture, MOFA (1,800 kg/ha). Use of poor agricultural practices, low yielding lower quality unimproved tree varieties, limited use of inputs, pest and diseases are some of the main causes of these relatively low yields. Another challenge facing the subsector is a lack of organization. The Cashew Council operates with a limited governance structure and mandate. It is linked to farmer associations (though its Farmer Based Organizations (FBOs) are mostly unregistered), a processors' association, and an exporter association. For farmers, a lack of access and dissemination of CSA, post-harvest management and storage at the group level, and understanding of quality standards and norms, limits their ability to use collective bargaining power for establishing forward contracts with private off-takers. As of 2021, Ghana reportedly processed less than 10 percent (7.7–9.5%) of its raw cashew nuts (RCNs). Many processors use manual or semi-automatic machinery and are not able to operate efficiently; and many struggle to compete with better-resourced foreign buyers to ensure a continuous supply of raw material. Several national processing plants have shut down as a result. Meanwhile, cashew nut byproducts such as cashew apples and shells are usually discarded rather than transformed into marketable products such as food and feed ingredients, leaving value on the table.<sup>28</sup> Developing local processing capacity could have multiple benefits (see Annex 1). Labor-intensive processing is seen as a promising source of additional employment, especially for women, who do about 80 percent of agri-processing.<sup>29</sup> Government regulations supporting the development of processing, RCN quality enhancement, and value addition to exports are currently weak but ramping up (see government strategies section below). Key challenges include an unfavorable business environment and limited access to technology and finance (working capital). Cashew is less susceptible to climate change impacts than cocoa and can be used to derive carbon benefits but is not immune to climate pressure. One concern is that the pest and disease pressures that already weigh down their yields are expected to worsen under changing climate conditions.

- **Coconut.** Ghana is a relatively small producer of coconut by global standards, but the crop makes important contributions to the local economy in parts of the country. Coconut is extensively grown in Western, Central, Accra, Eastern, Ashanti, and Volta, and to a lesser extent in Bono, Ahafo, and Oti. It plays a critical role in the parts of the Western region where its production is concentrated, primarily in the Jomoro, Ellembelle, and Nzema East Districts, and it is a significant source of income along Ghana's coast; the tree growing well on marginal lands. Its production is mainly smallholder on an average of 2–5 hectares, though more recently coconut growing is tending towards commercially oriented plantations ranging from 10–200 hectares. Growth in production volumes has primarily resulted from coconut's expansion, the area on which coconut was harvested having grown by 43 percent over the last two decades. Ghana's average yields are not particularly high, averaging a steady 5.4 tons per hectare in

<sup>28</sup> One analysis found that Ghana had the lowest gross margins on cashew processing among its African peers (Nigeria, Cote d'Ivoire, Benin, Guinea-Bissau, Mozambique, and Tanzania). USAID-funded ProCashew Project (2022).

<sup>29</sup> It reportedly takes roughly 380 people to process 1,000 tons of cashew.



2018–2020. At present, supply of coconut is well below demand for local consumption, processing, and exports. The coconut federation supports the sector but is constrained by weak governance and limited capacity, which in turn limits support to its associations and FBOs to link its farmers and value chain actors to services. Coconuts may also offer an attractive climate adaptation strategy to the extent that, compared to many crops, the trees can tolerate relatively salty and dry conditions. Ghana's coconut sector is still, to an extent, recovering from its devastating encounter with Cape Saint Paul Wilt Disease (CSPWD). Since the early 2000s, efforts have been underway to develop and plant CSPWD-tolerant varieties. More support to research in this area of geographic varietal suitability is needed. Challenges range from aging trees and a lack of access to finance for replanting, to weak land tenure and low investment in production technologies, something that has implied high land preparation and labor costs. Ghana also has limited capacity to process coconut products and weak regulation of the coconut industry. The country could position itself more strongly in relation to market opportunities that are emerging. Those including a rapidly growing regional market for cosmetics and food products and rising European demand for fresh coconuts and coconut-based snacks.<sup>30</sup> Coconuts are perceived as a zero-waste product. Shells can be used to produce charcoal and therefore activated carbon with a variety of uses. These include in air conditioning, car filters, as a source of sustainable fuel, and critically in the mining industry.

- **Rubber.** Rubber production in Ghana is modest by global standards at just around 54,800 tons in 2021 and occupying the nineteenth position internationally in terms of production. Productivity is somewhat low at 0.88 tons/hectare, compared to global leaders in production like Thailand (first) and Vietnam (third) whose yields are 1.39 and 1.69 tons/hectare respectively. Potential for exports is high, wherein 95 percent of rubber produced in Ghana is exported and the country is the 12<sup>th</sup> largest exporter in value terms. Areas suitable for natural rubber production in Ghana include the forest zones of the Western, Central, Eastern, and Ashanti regions. The tree requires a minimum rainfall of 1,200 mm per annum and is evenly distributed on lower slopes, uplands, and flatlands. Around 70 percent of rubber production in Ghana comes from smallholder farms. Rubber is increasingly becoming a lucrative farming venture for those looking to diversify out of cocoa, coconut, and other tree crops, despite the long gestation period of six to seven years. Planting of rubber trees on non-forested land can contribute heftily to climate benefits by acting as a carbon sink, sequestering carbon in biomass and indirectly in soils. The Ghana Rubber Estates Limited (GREL) controls about 60 percent of the land area in rubber plantation, and around 90 percent of processing.<sup>31</sup>
- 11. **Child labor is of concern in all agricultural subsectors in Ghana both inside and outside cocoa production.** A 2017 ILO, UNICEF, and World Bank study<sup>32</sup>, based on the 2012/13 Ghana Living Standards Survey (GLSS6), estimated that for the 5 – 14 age group, child labor in non-cocoa agriculture is 13.3 percent, and 5.0 percent in cocoa. Roughly 6.6 percent and 5.4 percent of children in the 15-17 age group work in non-cocoa agriculture and cocoa respectively. In the five principal cocoa-growing regions, almost 9 percent of all children are in cocoa child labor, translating into 464,000 children. Of these, 84 percent (294,000 children) were exposed to at least one component of hazardous child labor in cocoa production, two-thirds of all

<sup>30</sup> Nearly 90 percent of Ghana's coconut exports are already destined for Europe.

<sup>31</sup> GREL was wholly state owned in the 1980's but after support from Agence Française de Development (AFD) to rehabilitate and manage the company's rubber plantation and to build a new rubber processing plant, in 1996 the French management company, Societe Internationale d' Plantation d' Hevea (SIPH) became the major shareholder (60%) of the company.

<sup>32</sup> ILO, UNICEF and World Bank. Not Just Cocoa: Child Labor in the Agricultural Sector in Ghana (October 2017), [http://www.ucw-project.org/attachment/12032018169Not\\_Just\\_Cocoa\\_Ghana\\_child\\_labour\\_summary.pdf](http://www.ucw-project.org/attachment/12032018169Not_Just_Cocoa_Ghana_child_labour_summary.pdf)



children working in cocoa production self-report at least one injury or ill-health episode a frequently overlooked form of workplace hazard.<sup>33</sup> Livelihood interventions can prevent child labor. Among these are a combination of measures that address the root causes of child labor like area-based interventions to improve access to basic social services and child protection, and access to decent work opportunities for children of the minimum age for employment and their adult household members.

12. **Ghana has a comprehensive legal framework to prevent child labor but efforts to translate this to measurable reductions are lagging.** There is a national Ghana Child Labor Monitoring System (GCLMS) covering 40/261 districts, that will soon be linked with the Social Welfare Information Management System (SWIMS) that so far covers 162/261 districts (see Box 1). The Ministry of Gender, Children and Social Protection (MOGCSP) and the Ministry of Employment and Labor Relations (MELR) through its' Child Labor Unit have conducted large scale awareness and education campaigns on child labor over the past decade. COCOBOD has complemented these efforts with awareness and education activities with cocoa farmers and communities in cocoa-growing areas. Child labor persists<sup>34</sup> partly due to low coverage, weak convergence, and limited synergy of efforts among the many stakeholders that need to be involved in prevention and referral and remediation systems need strengthening.

**Box 1. Government Policy and Interventions in Child Labor in Ghana**

In line with Ghana's decentralization agenda and in accordance with the government's action plans against the worst forms of child labor (the third phase for 2023-2027 is currently being developed), the government's explicit policy priority to prevent and combat child labor is to ensure comprehensive integrated area-based prevention and response systems at the district level in the form of Child Labor Free Zones.

Among the promising initiatives that have moved to the pilot phase is the JICA-supported Child Labor Free Zone (CLFZ) project, for which the MELR has formally adopted guidelines. The Integrated Social Services (ISS) initiative, led by the MOGSCP, is another promising initiative to be included in a UNICEF, ICI, and government-pooled funding mechanism to address child labor in the cocoa sector. Both CLFZ and Integrated Social Support (ISS) are complementary initiatives that strengthen decentralized structures to address child labor, leveraging key national systems such as the GCLMS, the MOGCSP Child Protection and Social Welfare Case Management System, and the SWIMS. Metropolitan, Municipal District Assemblies and their Social Services Subcommittees (SSSCs), as well as District Social Welfare and Development Officers and Labor Officers, are at the helm of these local systems and are responsible for managing and reducing the risk of child labor.

The World Bank's Ghana Productive Safety Net Project 2 (GPSNP2, P175588) and GPSNP additional financing (P180659) focus on providing beneficiaries access to integrated social protection at a large scale. The program is implemented by the MOGCSP social protection directorate and the Ministry of Local

<sup>33</sup> A NORC survey undertaken in 2018/2019 commissioned by the USDOL, finds 770,000 children in Ghana engaged in child labor in cocoa production. Of these, 92 percent (710,000 children) were exposed to at least one component of hazardous child labor in cocoa production. However, the study does not justify the big difference from the GoG GLSS6 findings and its own, in absolute terms. The GoG's formal letter of objection to the reliability of NORC data and comparisons are presented on Page 22 of the report.

[https://www.norc.org/PDFs/Cocoa%20Report/NORC%202020%20Cocoa%20Report\\_English.pdf](https://www.norc.org/PDFs/Cocoa%20Report/NORC%202020%20Cocoa%20Report_English.pdf)

<sup>34</sup> US Bureau of International Labor Affairs (2021) qualified Ghana's advancement to in efforts to eliminate the worst forms of child labor to "moderate". See: Findings on the Worst Forms of Child Labor - Ghana | U.S. Department of Labor (dol.gov)



Government and Rural Development (MLGRD). Among the integrated programs supported are access to (i) Livelihood Empowerment Against Poverty (LEAP) cash transfers; (ii) Ghana National School Feeding Program (GSFP); (iii) National Health Insurance Scheme (NHIS), and (iv) Labor-Intensive Public Works (LIPW) Program. The LIPW includes among its community activities: rehabilitation and maintenance of rural feeder and access roads; climate change mitigation interventions (including afforestation and reforestation, through seedling production, cultivation of fruit trees and cash crops (such as cashew). The vector of interventions under GPSNP promote a child labor prevention and mitigation response among the poorest. The proposed project will build on these existing projects for prevention, mitigation, and remediation of child labor.

13. **Gender inequities are a persistent concern in Ghanaian agriculture.** Women are estimated to contribute up to 41 percent of labor input, but they most often work on their husband's land as unpaid family labor. Customary laws drive access and ownership of land and often dictate that on-farm resources belong to men (women are three times less likely to own farms than men), a situation which leaves women at a disadvantage. It is estimated that if women farmers are granted similar access to productive resources as men, they could increase yields on their farms by 20 to 30 percent, which could raise total agricultural output in Ghana by 4 percent.<sup>35</sup> Women are also less likely than men to have access to formal financial services in rural areas. In addition, 16.3 and 35 percent of urban and rural households engage in the processing of agricultural produce either for sale or own use, respectively. Females represent 90.2 percent of the population responsible for processing agricultural produce, with 90.4 and 90.0 percent in urban and rural areas, respectively.<sup>36</sup> In the cocoa sector women represent 36 percent of farmers at the national level.<sup>37</sup> In this sector, while men are generally in charge of pruning, spraying, fermenting, and selling, all family members are involved in the rest of the activities. Disparities are also noticed in cocoa farmers' organizations. For example, it was estimated that 53.8 percent of male plot managers are members of FBOs, while only 25.5 percent of female plot managers are.<sup>38</sup> In the cashew sector, the main activities are planting either seeds or grafted seedlings, weeding, spraying fertilizer, and pruning. They are typically conducted by men but may also be done by women. Harvesting is conducted by picking from the tree or collecting fallen apples - usually women's work. It was estimated that only 22 percent of cashew farmers are female and 41 percent of women active in the value chain conduct cashew-related activities together with their spouses. Since women are the key actors in local processing, they stand to benefit more from expanding the processing segment. In the overall cashew value chain, women dominate the downstream activities, especially in the processing segment, while men are more present in the upstream activities.

#### *Government Strategies in the tree crop sector*

14. **The Government promotes a dual strategy for the development of the tree crop sector; one focused on cocoa and the other on all other strategic tree crops.** For the cocoa sector, the COCOBOD adopted its Second Cocoa Sector Development Strategy for 2017-2027 (CSDS-II) which aims to addresses weakness of the institution's first strategy (CSDS I). CSDS I, focused predominantly on interventions to increase productivity

<sup>35</sup> UNDP Ghana Gender Analysis (2019)

<https://www.ndcs.undp.org/content/dam/LECB/docs/pubs-reports/undp-ndcsp-ghana-gender-analysis-2019-v4.pdf>

<sup>36</sup> Ghana Statistical Service. June 2019. Ghana Living Standards Survey (GLSS) 7. Main Report.

<sup>37</sup> Women represent 37% and 32% of cocoa farmers in Western and Eastern regions. They also represent 35%, 36%, and 30% of the Essam, Adabokrom, and Assamankese districts, respectively. Source, cocoa management system, COCOBOD.

<sup>38</sup> Danso-Abbeam, G., Baiyegunhi, L. J. S., & Ojo, T. O. (2020). Gender differentials in technical efficiency of Ghanaian cocoa farms. *Heliyon*, 6(5), e04012. <https://doi.org/10.1016/j.heliyon.2020.e04012>



but did not adopt adequate strategies for dealing with CSSVD, and failed to include management information systems for efficient operation. CSDS II addresses these weaknesses by seeking to modernize the industry to be competitive, robust, and resilient. Interventions of CSDS II are geared towards improving productivity and efficiency, adopting innovation and differentiation with a focus on quality management, traceability, and certification.

15. For the other tree crops, the GoG established the Tree Crop Development Authority (TCDA) in 2019 among other purposes to support diversification within the sector.<sup>39</sup> In 2022, the TCDA launched a five-year tree crops development strategy (2022–2027) targeting the six-priority tree crops: cashew, shea, mango, coconut, rubber, and oil palm (see Annex 1). This strategy aims to regulate and develop in a sustainable environment the production, processing, and trading of six tree crops, and is articulated around four main strategic/operational areas (i) research support (ii) production and value chain support including commercialization; (iii) capacity building; and (iv) licensing and regulation. TCDA is also enacting measures through parliament via the tree crops regulation to be passed in 2023 like (i) setting farm gate prices<sup>40</sup>; (ii) imposing higher levies on foreign tree crop buyers; (iii) allowing processors to access pre-season tree crop purchases; and (iv) repurposing some of the levies as subsidies for processors. **The proposed project is a critical instrument in the World Bank Group's assistance for the implementation of GoG's tree crops strategies and contribute to the diversification of its agriculture sector.**

#### *Strategic alignment*

16. Project design and activities are fully integrated into a multi-pronged, coordinated program which also include (i) key reforms such as the establishment of a comprehensive national cocoa traceability system; (ii) the recently approved Ghana Food System Resilience Program (P178132), supporting the development of promising staple food crop value chains; (iii) the Emissions Reduction Program (ERP, P160339) and the Forest Investment Program (FIP, P163745) reducing emissions and forest degradation; and (iv) other IDA-financed projects in the education and social sectors to improve the quality of social services to fragile rural households. The ERP program makes payments to the Ghana Cocoa Forest REDD+ program for measured, reported, and verified emission reductions related to reduced deforestation, forest degradation and enhancement of forest carbon stocks.<sup>41</sup> The FIP project focuses on improved forest resource management to reduce forest loss and degradation in selected landscapes in Ghana's high forest zone. Some support is provided for forest and tree management in admitted cocoa farms in forest reserves. These projects will be implemented in a coordinated fashion in priority areas selected because of their key importance for sustainable tree crops production. Project activities will also be closely coordinated with activities by other development partners and the private sector under programs such as the Cocoa & Forests Initiative (CFI) and the International Cocoa Initiative (ICI).

### C. Proposed Development Objective(s)

Development Objective(s) (From PAD)

<sup>39</sup> TCDA was established through an act of parliament, the Tree Crop Development Act, 2019 (Act 1010).

<sup>40</sup> An initial attempt to address price volatility was taken when the TCDA set an indicative minimum farmgate price for RCN in December 2021—a measure that is expected to be strengthened going forward.

<sup>41</sup> To date the program focuses more on forest zones and predefined hotspot intervention areas in a few districts.



17. The Project Development Objective (PDO) is to improve economic, climate, and social resilience in selected tree crop value chains.<sup>42</sup>

#### Key Results

18. The PDO level indicators are:

- (i) Increase in yields for targeted tree crops, (percent, disaggregated by tree crop)<sup>43</sup>
- (ii) Increase in value-added (sanitary and phytosanitary standards (SPS), quality assured) commodity sold; (percent, disaggregated by tree crop)
- (iii) Reduction in net greenhouse gas emissions (tCO<sub>2</sub>eq per year, *Corporate Results Indicator*)
- (iv) Share of households in project communities identified to be at risk and subsequently prevented from child labor (percent, disaggregated by type)<sup>44</sup>

#### D. Project Description

19. **The project design embodies the following principles:** (i) Combined support to critical tree crops sector-wide activities and reforms and field level investments in priority agro-ecological areas selected on the basis of their potential to achieve critical mass and optimize the efficiency of interventions; (ii) Improvements in the national institutional framework (policy reforms and governance) of the tree crops sector and the capacities of its actors to ensure the economic, social and environmental sustainability of their productions, particularly, improve farmers' income, reverse the current trend of deforestation and contribute to eliminating child labor; (iii) Better inclusion of all actors in sector management—including women and youth—by improving the governance of the sector and the management and efficiency of FBOs, and strengthening the capacity of key institutions overseeing the sector; and (iv) Implementation arrangements that rely on existing national institutions: MOFA, COCOBOD, TCDA, the National Agriculture Research Centers, Ghana Export Promotion Authority (GEPA), Ghana Investment Promotion Center (GIPC), Food and Drugs Authority (FDA), Ghana Standards Authority (GSA), FBOs and their communities and the private sector (by scaling up their on-going activities in support of tree crops development). Annex 2 provides further details on the above institutions.

**Geographic focus:** For cocoa, the project will intervene in the Western North (districts of Essam and Adabokrom) and Eastern regions (Asamankese district - see selection criteria in Annex 2 and map in Annex 9 ).<sup>45</sup> Compared to the national poverty rate of 23.4, the poverty levels in Essam, Adabokrom, and Asamankese were 14.6, 24.7, and 11.0 percent respectively. However, these rates are not likely to be representative of the population of cocoa farmers, as this group tends to be amongst the poorest in Ghana. For the other tree crops (cashew, coconut, and rubber), the following districts were prioritized: (a) Cashew in Bole and Sawala-Tuna-Kalba of the Savana region, Wenchi and Tain in Bono region,

<sup>42</sup> For the purposes of the project (i) economic resilience outcomes improve productivity and value addition; (ii) climate resilience outcomes are increase in climate adaptation and mitigation strategies resulting in reduced GHG emissions; (iii) social resilience outcomes address child labor issues and gender gaps in the intervention areas.

<sup>43</sup> The yield indicator is included as a PDO indicator even if it takes several years to realize higher yields from rehabilitation or planting as this is a higher-level outcome indicator than the intermediate beneficiary number output indicator. The team has developed yearly targets by crop for yield indicator and expect significant changes after year 3 of the project.

<sup>44</sup> The child labor indicator will be measured via household surveys in beneficiary communities. A baseline project prevalence (i.e., share of households at risk) will be established. Type refers to hazardous and nonhazardous.

<sup>45</sup> Child labor cannot be used as a selection criterion due to lack of available data. Forest zones (and deforestation) were considered for cocoa and cashew. Concerns like CSSVD prevalence and production potential were critical for selection.



Techiman Municipal and Techiman North in Bono East; (b) Coconut in Upper West Akim and Suhum of Eastern Region; and (c) Rubber in Upper West Akim. The poverty levels are very high (well above the national average) in predominant cashew production areas targeted through the project in the Savana and Bono regions. For Bole and Sawala-Tuna-Kalba in Savana and Wenchi and Tain in Bono, the poverty incidence was 65.0, 79.4, 41.2, 38.2 percent. In the other project targeted region of Bono East, in Techiman Municipal and Techiman North were 14.2 and 15.7 percent. Lastly, for the targeted rubber and coconut producing district of Upper West Akim in the East poverty was 11 percent, and for coconut in Suhum in the East just 6.5 percent.

20. **The project also has a focus on closing the gender gaps in the tree crops sector by:** (i) increasing women's ability to obtain productive resources and increase incomes through tailored access to inputs, advice, and financial services, (ii) supporting women to open bank accounts and mobile money accounts to receive direct livelihood support payments and farm maintenance payments, (iii) building their entrepreneurial capacities to develop activities in tree crops production, processing, and value addition (via SMEs) – with preference given to women in this segment; and (iv) promoting their participation and leadership in FBOs and decision-making in sector management. By tackling gender gaps in the sector, the project is looking to have a strong long-term impact on women's incomes and associated household welfare. The gender gaps to be addressed respond directly to the World Bank's Gender Strategy<sup>46</sup> to provide more and better jobs and increase control of assets. Annex 8 provides a gender analysis and action plan that aims to describe relevant gender gaps and identify specific actions supported by the project. During implementation further analysis will be done to identify factors preventing women's participation in the identified actions for closing gender gaps, and what can be done to incentivize or increase knowledge and awareness. The project will make efforts to reach out to women through local communities, civil society, women's groups, and other stakeholders.
21. **Project cost and duration.** The proposed project is structured as an Investment Project Financing (IPF) to be implemented over six years, from 2023 to 2029. The total cost of the project is US\$227.5 million with US\$50 million from IDA Performance Based Allocation (PBA), US\$150 million from the Scale-Up Window Shorter Maturity Loans (SUW –SML), and US\$27.5 million in counterpart financing from COCOBOD. Ghana is eligible to receive SUW-SML financing in the current World Bank fiscal year. The proposed project is aligned with the following pillars of the World Bank COVID-19 response<sup>47</sup>: (i) protecting poor and vulnerable people; (ii) ensuring sustainable business growth and job creation; and (iii) strengthening policies, institutions, and investments for rebuilding better. The project is equally aligned with all pillars of the World Bank Global Crisis Response Framework.<sup>48</sup> Therefore, the proposed operation meets the eligibility criteria to receive SUW-SML financing.
22. **Components description.** Reflecting the above principles, the project clusters its activities around three interrelated technical components supporting soft and hard solutions to promoting the tree crops sector development, respectively: (i) Institutional Strengthening and Value Chain Governance; (ii) Improving Tree Crops Productivity and Climate Resilience; and (iii) Support for Post-Harvest Management, Value Addition, and Market Access. The fourth project component focuses on project management and monitoring. Table

<sup>46</sup> <https://documents1.worldbank.org/curated/en/820851467992505410/pdf/102114-REVISED-PUBLIC-WBG-Gender-Strategy.pdf>

<sup>47</sup> <https://documents1.worldbank.org/curated/en/136631594937150795/pdf/World-Bank-Group-COVID-19-Crisis-Response-Approach-Paper-Saving-Lives-Scaling-up-Impact-and-Getting-Back-on-Track.pdf>

<sup>48</sup> <https://documents1.worldbank.org/curated/en/099640108012229672/pdf/IDU09002cbf10966704fa00958a0596092f2542c.pdf>



A7.1. in Annex 7 provides direct climate adaptation and mitigation activities by subcomponent.

**Component 1. Institutional Strengthening and Value Chain Governance (US\$16.8 million of IDA).**

23. **The objective of this component is to strengthen the institutional capacity of COCOBOD and TCDA and improve sector governance for competitive and sustainable development of tree crops.** This will be achieved by: (i) supporting organizational capacity development of both institutions; (ii) operationalizing policies and regulations meant to improve the enabling environment including for private sector investment; (iii) investing in digitizing the value chains for traceability including environmental and social sustainability, and (iv) building the national capacity to monitor and prevent child labor in the tree crop sector. The project will support both TCDA and COCOBOD in their digital transformation for traceability, including setting digital payment and money collection systems, tree tagging and registration, bar coding, and monitoring of output from farm to port. It is expected that the digital management systems that trace every tree crop farmer under the project (and beyond) will contribute to improving the governance of the value chains; especially, in terms of transparency.

***Subcomponent 1.1. Institutional capacity, policies, and regulations (US\$3.4 million of IDA)***

24. Subcomponent 1.1 supports the Ghana Cocoa Board in implementing its Medium-Term Capacity Building strategy.<sup>49</sup> Implementation includes strengthening the operational capacity of its technical departments like the research, monitoring and evaluation department (RM&E), the Cocoa Health and Extension Department (CHED), Quality Control and Cocoa Marketing, as well as the auxiliary departments including human resource, finance, internal audit, and information system departments. The project will also finance the following activities (i) COCOBOD Information Technology (IT) agility and paperless transformation of internal operations, as well as interoperability of administrative processes with the Cocoa Management System (software, IT equipment and training of staff; (ii) technical assistance (TA) to develop a methodology for measuring and monitoring carbon sequestration under cocoa farms, for accessing climate financing;<sup>50</sup> (iii) TA to finalize and implement the policy and standards for cocoa agroforestry. These standards will guide on-farm productivity investments and implementation will result in substantive above and below ground carbon stock<sup>51</sup>; and (iv) a study to evaluate and propose modifications to expand cost-effective access to semi-finished cocoa products (liquor, butter, and powder) from free zones companies through regulatory or policy instrument changes.<sup>52</sup> Support to activities under this subcomponent will strengthen COCOBOD's policy environment. Activities (ii) and (iii) will be done in conjunction with the forestry commission (FC) and CRIG, and directly contribute to agricultural policy development on climate change adaptation. The COCOBOD Project Implementation Unit (PIU) will be responsible for implementing activities under this subcomponent.

<sup>49</sup> This strategy is currently being designed building on the GoG's Second Cocoa Sector Development Strategy for 2017-2027 (CSDS-II). It is being developed with financing from the Institutional Support Project funded by the African Development Bank.

<sup>50</sup> COCOBOD will work with Forestry Commission to design a methodology specifically applying to off-reserve rehabilitation of farms involving agroforestry practices. The methodology will allow COCOBOD to tap into climate financing over the course of the project.

<sup>51</sup> This is in line with the Interim Note on GHG Sustainability Demonstration and criteria under 5.6: Agriculture GHG-emission reduction and carbon sequestration of the revised Joint MDB

<sup>52</sup> Reducing the tax on domestic sale of processed products, both semi-finished and tertiary, from free zones companies, will lower the prices of such products in the domestic market.



25. For TCDA, the project will finance the Agency to build its organizational capacity to deliver efficient agri-value-chain oriented services and improve the ground for private sector investments. This includes the following activities: (i) conducting a needs assessment, developing a capacity building plan, and implementing this plan for organizational development; (ii) financing the development of administrative policies and manuals for TCDA internal operations; (iii) strengthening the governance of the cashew, coconut, and rubber value chain associations and their respective umbrella organizations. Support will be provided to the Federation of Associations of Ghanaian Exporters (FAGE), Cashew Council Coconut Federation – TCDA's service delivery value chain interlocutors,<sup>53</sup> and (iv) financing the operationalization of the tree crops regulation to be passed by parliament in 2023, that would improve the enabling environment<sup>54</sup>, via zonal offices, district assemblies and other entities. TCDA will also carry out consultations and analysis to better understand the impacts of its levies, farmgate access policies, and subsidies on farmers, processors, enterprise owners, and other value chain actors' revenues and performance. The project support to implementing TCDA's policy reform will strengthen the enabling environment to favor the development of exports and processing in country. Annex 2, Table A2.1 provides specific regulatory changes and related actions the project will support under production and productivity, pricing of tree crop products, buying procedure, scientific R&D, use of chemicals and pest control. Activities (iii) and (iv) will contribute to policy dialog and development on climate change adaptation. The TCDA Project Coordination Unit (PCU) will be responsible for the implementation of the set of activities.<sup>55</sup>

***Subcomponent 1.2. Value chain digitization for traceability (US\$5.3 million of IDA).***

26. Under this subcomponent, the project finances COCOBOD's "last mile" roll-out of the Cocoa Management System (CMS) in project areas and train staff in the use of the system. The specific activities to finance under CMS include (i) operationalization –rollout of CMS in project districts among farmers, Licensed Buying Companies (LBCs), and other supply chain actors – for traceability (digital grading and sealing); (ii) making digital payments, input distribution, and other farm management services operational; (iii) training of LBC staff, and COCOBOD staff linked to quality control company (QCC), Cocoa Marketing Company (CMC), CHED, RM&E on how to use relevant applications of the CMS system; (iv) financing logistics for operationalization i.e. computers, tablets, basic connectivity, and vehicles; (v) capacity building, knowledge exchange, and study tours. The subcomponent will also finance the development and implementation of e-extension modules for CHED, leveraging CMS to offer e-extension.<sup>56</sup> The financing will support farm-level tree tagging for tenure security and remote sensing; these are critical for measuring agroforestry practices and ensuring buildup of carbon stocks in rehabilitated farms. The subcomponent will also monitor land use changes, study climate change patterns and their impacts, and estimate on-farm biomass and carbon storage that could benefit from climate financing. The promotion of agroforestry and activities described will contribute to a substantial reduction in GHG emissions, both in and outside project areas within the cocoa landscape in line with the Interim Note on GHG Sustainability Demonstration. COCOBOD's PIU with CMS department will be responsible for implementing these activities.<sup>57</sup>

<sup>53</sup> The Cashew Council and Coconut Federation would benefit from improved governance structures and support for management capacity building.

<sup>54</sup> The regulation is currently under parliamentary review and is expected to be passed by 2023. The regulation deals with several segments of the tree crop value chains as noted under government strategies section above and Annex 2, Table A2.2.

<sup>55</sup> Implementation arrangements section describes the setup of TCDA PCU and COCOBOD PIU.

<sup>56</sup> The development and deployment of e-extension will be supported by the Global Center for Adaptation (GCA) through direct technical and grant assistance.

<sup>57</sup> Work on climate change patterns and impacts, as well as biomass/carbon storage estimation carried out under subcomponent 1.1 will be



27. TCDA will be financed to implement an existing blueprint for digitizing the value chains it oversees. Support will be provided for: (i) a web-based platform and apps for licensing and regulating the operations of tree crop value chain actors (including farmers and their FBOs); (ii) the mapping of value chain actors, including the mapping of farm parcels, and other data collection; (iii) the training of value chain associations (the Cashew Council and Coconut Federation) and TCDA staff in the use of the platform; and (iv) the upgrading and maintenance of a database of certified and traceable tree crop value chain actors (on the platform) (v) developing e-extension for beneficiary farmers leveraging the digital system. TCDA's PCU will be responsible for implementing these activities.
28. Both systems at TCDA and COCOBOD will be designed to be interoperable with other databases to ensure that the digitized systems respond to international and regional quality standards around child labor, forest degradation, and deforestation.<sup>58</sup>

***Subcomponent 1.3. Preventing and responding to child labor (US\$8.1 million of IDA).***

29. Under the subcomponent, an integrated, area-based child labor prevention, identification, and remediation strategy will be applied in the 11 project districts. The project will collaborate with the PSNP to identify and leverage on social protection support (namely LEAP) to project communities. The specific activities to be financed under the subcomponent are (i) alternative livelihood support packages, including in-kind support (inputs, equipment, training etc.) for agriculture income generation opportunities, to households vulnerable to child labor; (ii) implementation of nationally representative child labor surveys for project tree crops and assessment of prior inter-ministerial interventions in child labor; (iii) set up of a national child labor implementation review committee for harmonizing ministerial interventions; (iv) set up of child labor desk or unit at COCOBOD and TCDA; (v) scaling up of MOGSCP SWIMS and MELR's GCLMS in the project districts currently not implementing these child labor monitoring systems; (vi) development of an interface between GCLMS and COCOBOD's CMS and TCDA's digital platform; (vii) increasing awareness, case management and remediation of child labor. This subcomponent will be implemented by COCOBOD's PIU and TCDA's PCU in collaboration with the GPSNP, Ministry of Local Government and Rural Development (MLGDRD), Office of the Head of Local Government Service (OHLGS), MOGCSP, MELR, and Ghana Statistical Services (GSS). Description of subcomponent in greater detail is elaborated in Annex 6.

**Component 2. Improving Tree Crops Productivity and Climate Resilience (US\$127.9 million of IDA, US\$27.5 million of COCOBOD counterpart funds)**

30. **Component 2 supports the productivity, profitability, and climate resilience of tree crop farms.** These objectives will be achieved by: (i) strengthening research capacity for tree crops and ensuring collaboration with value chain actors to promote demand driven research; (ii) rehabilitating farms affected by cocoa trees disease on a voluntary basis<sup>59</sup> through the use of a livelihood support mechanism and adoption of improved cutting, spraying, and other farming practices; (iii) supporting cashew, coconut

incorporated into e-extension services to support CSA practices.

<sup>58</sup> For CCB assessment roughly US\$2.33 million is assigned to COCOBOD's CMS activities, US\$1.03 million is assigned to COCOBOD's study on climate change patterns and their impacts, and US\$ 2million is assigned to TCDA's digitization system.

<sup>59</sup> A protocol relating to consent of beneficiaries for rehabilitation will be established in the project implementation manual.



and rubber nurseries engaged in climate-smart tree multiplication and input delivery centers; (iv) linking private sector service delivery to farmers via the coconut federation, cashew council and FBOs; and (iv) strengthening delivery of climate-smart extension and other relevant services. The component promotes reforestation, restoration of degraded lands, and carbon sequestration to maximize CCBs. Diversification is a central element of the project at the farm, landscape, and country level that the component will promote. On farm diversification will be promoted through as part of a climate smart strategy for all on farm investments. Diversification of tree crops in project areas is promoted according to geographic climate suitability to promote landscape level benefits.

***Subcomponent 2.1. Demand driven research (US\$18.4 million of IDA).***

31. Under this subcomponent, the project will finance an update of critical research infrastructure and strengthening of demand driven research in cocoa. Specific activities to be financed are (i) expanding and refurbishing laboratory space and upgrading equipment; (ii) capacity building and formal training of researchers;<sup>60</sup> (iii) identification of all major CSSVD strains, early detection for CSSVD and ancillary research; (iv) research in priority topics for cocoa farmers.<sup>61</sup> Activities will be implemented by the Cocoa Research Institute of Ghana (CRIG) under COCOBOD PIU's supervision. It is also foreseen that CRIG collaborates with the International Institute for Tropical Agriculture (IITA) under the Cocoa Soils initiative and the International Center for Tropical Agriculture (CIAT) under the Cocoa for Excellence program.
32. In cashew, coconut, and rubber research, activities to be financed are (i) establishing and upgrading in-vitro laboratories for cashew and coconut respectively, to develop high-yielding, pest- and disease-resistant, and climate-resilient tree crop varieties; (ii) capacity building and formal training of researchers; (iii) developing and disseminating appropriately stress-tolerant tree crop varieties for different geographical regions including, highly disease prone ones (iii) research in other priority areas. The activities will be implemented by CRIG, Oil Palm Research Institute (CSIR-OPRI), and the CSIR Crop Research Institute (CSIR-CRI) under the TCDA PCU's supervision.
33. The project will additionally finance TCDA to establish and institutionalize a market-led tree crops research agenda platform under this subcomponent. The platform will be a collaboration with research institutions, value chain actors, farmers and development partners and will be self-sustaining after the third year.
34. The project will also collaborate with the Global Center for Adaptation (GCA) through the center's own financing for (i) elaborating a climate risk assessment and adaptation options for cocoa, cashew, coconut, and rubber value chains; (ii) supporting the co-design and rolling out of digital e-extension modules on CSA practices for COCOBOD and TCDA; (iii) co-develop curricula the implementation of e-extension for capacity building; (iv) provide capacity building in the delivery of CSA advisory services. The support from GCA will build a special focus on design and delivery of e-extension for youth and women, to close identified gaps in access to extension services.

<sup>60</sup> Specific support to be identified but can include training of new MSc and PhDs, as well as increasing capacity of existing researchers

<sup>61</sup> The current research priorities are identified as follows but will be further narrowed: (a) mapping of variations of black pod, and cocoa hybrids with higher tolerance with aim of reducing fungicide spray for the disease; (b) integrated disease management protocol for anthracnose developed and epidemiology of anthracnose elaborated; (c) fertilizer use and efficiency.



***Subcomponent 2.2 On-farm productivity enhancement and resilience (US\$ 105.3 million of IDA, US\$ 27.5 million of COCOBOD counterpart funds).***

35. Under this subcomponent the project will finance COCOBOD's rehabilitation of CSSVD-infested farms.<sup>62</sup> The specific activities to be financed are: (i) core rehabilitation by competitively selected private sector firms -slashing, cutting of diseased and contact trees, application of arboricide, reinspection or retreatment, production and supply of plantain seedlings, production and supply of permanent shade trees, and cocoa saplings; (ii) standard payment<sup>63</sup> to farmers and landlords to compensate for a loss of income from cutting of cocoa trees; (iii) individual contracts with farmers for maintenance - weeding, refilling of cocoa and economic shade trees, pesticide, and fertilizer application;<sup>64</sup> (iv) support for rolling out e-extension on CSA practices in agriculture; (v) certification of all rehabilitated farms.<sup>65</sup> The number of women cocoa farmers is a small proportion of all farmers, nationally and in project areas. The project will make a concerted effort to include all women cocoa farmers in rehabilitation for the selected CSSVD contiguous areas and support women to open bank accounts or mobile money accounts to reduce the related gender gap. Through the planting of plantain suckers, farmers would also be able to harvest plantain during the period of cocoa plant growth. The project investment for cocoa rehabilitation will be roughly US\$ 64.49 million to rehabilitate 25,000 hectares, the bulk share of COCOBOD's project budget. COCOBOD would provide counterpart financing of around US\$ 27.5 million.<sup>66</sup> Annex 2 provides more information on cocoa rehabilitation. COCOBOD PIU with its CHED department will be responsible for implementing rehabilitation. RM&E and CRIG will provide support for deploying e-extension.
36. The project financing for TCDA under this subcomponent in cashew, coconut, and rubber, will support private sector to deliver seeds, saplings, other inputs, and CSA practices to farmers. The activities to be financed include (i) matching grants for private sector nurseries to be able to access loans to scale up multiplication services; (ii) matching grants to input suppliers for certification and to be able to access loans for scale up;<sup>67</sup> (iii) provision of inputs to farmers via private sector; and (iv) delivery of CSA via e-extension and training. Targeting of farmers for access to quality planting materials and inputs will involve the bulk share of spending of TCDA under component 2.2. Farmers will receive a subsidy for these inputs.<sup>68</sup> TCDA's PCU will be responsible for implementing the above activities with support from MOFA directorates.

***Subcomponent 2.3 Strengthening of FBOs (US\$4.3 million of IDA).***

37. The subcomponent will finance capacity building of FBOs to enhance their ability to implement and absorb the project's productivity investments. Specific activities to finance are (i) training on group dynamics, management, good governance, business development, M&E, and financial literacy; (ii) support the

<sup>62</sup> Rehabilitation can generate significant CCBs through reforestation and addressing land degradation – contributing both to adaptation and mitigation – using shade trees, food crops and cocoa saplings, as well as CSA practices.

<sup>63</sup> The current levels of livelihood support payments for farmers and landowners are being reviewed through the project PPA.

<sup>64</sup> Contracts will be recorded in the CMS, will include child labor clauses, and would ensure direct payments via the PIU to the farmers savings accounts or mobile money accounts.

<sup>65</sup> An assessment will be made to determine which certification scheme would be used vis-à-vis affordability and ability to meet EU, US and other market standards.

<sup>66</sup> See Annex 3 for sample estimated cost and full details of rehabilitation including phases.

<sup>67</sup> TCDA will identify and select eligible commercial nurseries and input suppliers through competitive solicitation (see Annex 3 for further details).

<sup>68</sup> Criteria for size of the subsidy will be establish in the project implementation manual.



registration of cocoa cooperatives and the development of organizational by-laws if needed, in order to facilitate FBOs' access to rural finance and the establishment of contracts with buyers; (iii) help FBOs develop a strategy to communicate outreach efforts; and (iv) provide technical assistance, including help with logistics and short-term access to expertise and equipment (IT, audio, logistics). Trainings and business development services will include dedicated sessions on responding to weather/ climate risks, promoting climate change resilient practices through the FBOs to the communities and producers, and farming techniques that will result in reduced GHG emissions in line with subcomponent 2.2. COCOBOD's PIU and TCDA's PCU will be responsible for implementation of the sub-component.

**Component 3. Support for Post-Harvest Management, Value Addition, and Market Access (US\$ 39.3 million of IDA).**

38. **Component 3 supports private investments in secondary value addition of SMEs in cocoa, cashew, and coconut value chains and in cashew and coconut processing units.<sup>69</sup>** The project will finance (i) the promotion, mobilization, and pre-screening of investments proposals via an independent selection committee; (ii) matching grants to partially finance the cost of eligible investments (Annex 2 provides further details); (iii) technical assistance (TA) to investors for detailed preparation of business plans to be presented to financial institutions; (iv) technical assistance to investors for the start-up phase of their investments; (v) support for export fairs in country to link local businesses to buyers.<sup>70</sup> COCOBOD's PIU and TCDA's PCU will be responsible for implementation of the subcomponent with support from GIPC and GEPA for the mobilization of investors, and the facilitation of their investments and market access. Other entities providing support to the subcomponent will be Participating Financial Institutions (PFIs) meeting eligibility criteria for providing credit to eligible investors and GIRSAL for providing partial guarantees for de-risking the lending of PFIs that it considers eligible under its own specific criteria.<sup>71</sup>
39. Total IDA financing under the component will be US\$ 39.3 million. The project's investment support mechanism will be designed in a way that ensures long-term sustainability. In particular, the following principles will be applied. First, selection criteria of eligible investments will include indicators to assess the mitigation and adaptation benefits of the investments (with the objective that at least 75 percent of supported subprojects are expected to have CCBs). Second, investment proposals will include environmental and social assessments in line with World Bank policies and environmental and social standards. Third, technical assistance will be provided during the start-up period (a critical phase) to improve sustainability and reduce the risk perceived by PFIs. The component will finance about 185 private investments (25 by SMEs and 160 by smaller investors). The total cost of private investments will be around US\$77.5 million, financed through US\$32.8 million in project (IDA) support – remaining IDA support of the component (US\$6.5 million) will finance the other activities listed under the component and not the matching grants – and an anticipated US\$44.7 million of private funding (a ratio of 1.4/1.0 between private capital mobilized and IDA funding). Of this private support, the project estimates leveraging US\$29.8 million from PFIs and US\$14.9 million from private investors' own funds. It is expected that the project supported investments would create around 20 000 jobs (US\$4 200/job) of which about

<sup>69</sup> Including for the use of byproducts like pods, shells, husks to produce new, innovative products.

<sup>70</sup> See Annex 2 for details on the investment support mechanism.

<sup>71</sup> The subcomponent will connect beneficiary SMEs to PFIs and provide TA and matching grants but will not provide financing directly to PFIs. The project will not trigger ESS9, however, will make every attempt to work with PFIs using World Bank ESMS systems under the World Bank Ghana Development Finance Project (P169742).



60 percent for women.

**Component 4. Project Coordination, Management, Monitoring and Evaluation (US\$ 16.0 million of IDA)**

40. **The objective of this component is to support project coordination, management, and monitoring and evaluation (M&E) by the PIU at COCOBOD and PCU at TCDA.** Under this component the project will support the following activities: (i) establishing and maintaining financial management and procurement systems; (ii) reporting on program activities; (iii) ensuring the full implementation of environmental and social safeguards; (iv) maintaining and ensuring the performance of the monitoring and evaluation system; and (v) developing and implementing a knowledge management and communication for development strategy. This component will also be leveraged for designing and monitoring gender, child labor and other inclusion issues that will be internalized to the project. The component will finance the needed recruitments of project personnel and the operating costs of the project. Through component 4, the implementation of a project baseline and impact evaluation with quasi-randomized control trial (including surveys as baseline, midterm and endline) will be financed through an independent firm/s to be hired with the relevant expertise.
41. **Climate Co-Benefits (CCB).** The project addresses a range of climate-related challenges. Climate Co-Benefits will be derived from (i) sustainably enhancing productivity; (ii) supporting the resilience of farmers' livelihoods in the face of climate change and weather variability; (iii) reducing GHG emissions per unit of cocoa and cashew produced and increasing carbon sequestration in agroforestry areas; and (iv) restoring degraded lands through replanting, especially coconut. The potential for carbon crediting and other mechanisms through which farmers and supporting institutions investing in climate adaptation and mitigation may derive additional income will be explored. Rehabilitation and replanting in the project's subcomponent 2.2 (40 percent of the project investment) will contribute extensively to reafforestation and carbon sequestration, and increasingly so over the several decades life span of the tree crops. The planting of accompanying shade trees, 25 per hectare, and use of CSA will add to the CCBs. Under component 1, institutional strengthening, digitization for traceability, paperless initiatives are all intended to mitigate climate impacts. The end objectives of subcomponent 2.1 demand-driven research are a form of adaptation to ensure production adapts climate strategies for long-term climate resilience. Lastly, component 3 will select only private investors with strong adaptation and mitigation plans integrated into their business plans. Annex 7 provides a summary of adaptation and mitigation benefits under the project.
42. **Citizen Engagement.** Citizen engagement is a critical part of the project. All key stakeholders in the selected tree crop value chains including farmers, FBOs and cooperatives, tree crop associations, processors, exporters, other private sector agribusiness, the public sector, civil society, and the most vulnerable groups (women and youth) were consulted during preparation. Regular consultations with these entities will continue during implementation with feedback used to inform as needed adjustments in the project. A beneficiary satisfaction survey will be administered, and the following indicator has been included to capture beneficiary feedback: share of target beneficiaries with rating "satisfied" or above with services provided by the project interventions. The indicator will be disaggregated by specific project activities as will be detailed in the project implementation manual. The PIU will also hire an independent



verification agency to track the satisfaction of beneficiaries with access and quality of the services provided by the project, as well action plans to address the survey findings. To respond to complaints or concerns related to project activities, the PCU and PIU will set up a grievance mechanism (GM). This GM will include multiple uptake mechanisms (telephone, complaints box, website, email, and text messaging). Complaints received by the GM will be registered, tracked, investigated, and promptly resolved.

43. **Maximizing Finance for Development (MFD).** The project reflects the WBG focus on MFD approach, aiming to strategically deploy public resources to crowd-in private sector investments in the sector where possible, accelerating economic transformation and developing critical agricultural value chains. It incorporates activities and instruments, including matching grants and de-risking PFI's lending to producers' organizations and agribusiness firms that will lead to leveraging investments from a range of value actors. As reflected in the project's financing data, the project expects to mobilize an amount of US\$ 44.7 million in private investments, including US\$29.8 million lending from PFIs through the de-risking facility and US\$14.8 million from agribusiness, POs, and other value chain actors. The Project's MFD enabling activities largely undertaken through Component 1 include improving the sectors' policy and institutional framework to establish a business environment more favorable to mobilizing private sector investments and increasing their effectiveness in addressing priority productivity, environmental and social issues at all levels of the Ghana's tree crop sector (production, processing, marketing). In addition, the project fosters increased collaboration and partnerships through public interventions more focused on the provision of priority public goods, the improvement of sector governance, the strengthening of public-private partnerships. It will pursue a strong collaboration with IFC, private sector entities, financial institutions, and other partners investing in the tree crop sector. The project will collaborate with IFC under component 3. As the team identifies an investment lead pipeline in SMEs in cashew and coconut (particularly in processing) for financing, the list will be used to identify viability for Capex financing through IFC. The team will also collaborate with IFC advisory services to coordinate on technical support under component 3.

### Project Beneficiaries

44. *Direct beneficiaries* of the project are cocoa, cashew, coconut, and rubber farmers. Project interventions in on-farm productivity will directly benefit 52,775 farmers and their households to improve productivity and incomes. Nearly 40 percent of on farm beneficiaries will be women. Beneficiaries will be in 11 districts in 6 regions (Western North, Eastern, Savana, Bono, Bono East, Eastern). Other direct beneficiaries include nurseries and input suppliers. The project will support 10 nurseries and 5 to 10 input suppliers. Roughly 185 SMEs in cocoa, cashew, and coconut value addition will also be direct beneficiaries through project matching grants, technical assistance support, and access to markets and services. Of these, at least 60 percent will be female owned SMEs. Investments in the private sector through component 3 are expected to leverage significant additional private sector resources and provide jobs for roughly 20,000 beneficiaries. Other direct beneficiaries are cashew, coconut and rubber associations, and FAGE, FBOs and public institutions (including research, COCOBOD, TCDA) that will expand their capacity through training, facilities, and other support financed by the project.



45. *Indirect beneficiaries* of the project are local communities and cooperatives that would benefit from improved institutional capacity of the parent organizations with impacts from TCDA's levies collection through the digital system, to COCOBOD's own capacity building, operationalization of CMS, R&D, stronger child labor safeguards as well as an expansion of market services. Buyers of certified tree crops will benefit from improved contractual agreements with project communities. Similarly, local, and foreign buyers will receive increased access to SMEs for purchase of tree crop by products.
46. The project has transformational potential given the numbers of jobs that will be created linking downstream and upstream value chain actors in the cocoa, cashew, coconut, and rubber value chains. The support to nurseries and input suppliers will automatically create employment benefits among these private service providers and leverage private sector resources. The project investment should leverage at least 3 times the amount of resources from these businesses. More so, cashew and coconut processing have the capacity to create several thousand jobs. The project's support to private sector agribusiness is expected to create around 20,000 jobs at roughly an investment of US\$4,200 per job including a high proportion for women (60 percent) and directly mobilizing youth.

#### Legal Operational Policies

##### Triggered?

Projects on International Waterways OP 7.50	Yes
Projects in Disputed Areas OP 7.60	No

#### Summary of Assessment of Environmental and Social Risks and Impacts

47. **The environmental risk is rated substantial** considering the nature of proposed activities, the sensitivity of the recipient environment, the magnitude of the environmental risks and impacts and the capacity of the implementing agencies – TCDA and COCOBOD – to effectively manage the potential risks and impacts associated with the project. Component 1 will entail capacity strengthening of TCDA and COCOBOD, development of policies and regulations, and digitization of value chains for traceability and revenue mobilization. These activities will largely have low environmental risks and impacts. However, the computers, tablets and other IT equipment which are associated with the Cocoa Management System (CMS) and value chain digitization, even though low quantities are expected, could pose moderate environmental risks and impacts if they are not well managed.
48. Activities under Component 2 are anticipated to present moderate and substantial environmental risks. These include the proposed expansion and refurbishment of laboratory space and upgrading of equipment; establishment and upgrading of in-vitro laboratories for cashew and coconut varietal improvement; rehabilitation of cocoa swollen shoot virus disease (CSSVD)-infested farms; and support for private sector nurseries development. For instance, civil works associated with the expansion and refurbishment of laboratory space/in-vitro laboratories could result in noise pollution, waste generation (solid and liquid waste), dust and fumes emissions, loss of vegetation, workers and community exposure



to health and safety hazards such as vehicular movement, sharp objects, flying objects, etc. The rehabilitation of cocoa farms will cover about 25,000 ha of non-contiguous farms and will entail clearing of CSSVD-infested trees which may expose the land to erosion and pose some degree of disturbance to tree inhabiting organisms. It will also generate a huge volume of infested plant parts that require careful management. Workers may be exposed to some occupational health and safety hazards such as wild animals, hazardous agrochemicals like arboricides, sharp objects, stumps etc. The nurturing of newly planted seedlings through to maturity will require application of agrochemicals, e.g., fertilizers, fungicides, pesticides, etc., which may be hazardous to personnel and biodiversity and could cause surface and groundwater pollution. Likewise, indiscriminate littering of farm lands with empty agrochemical containers could pose environmental and safety risks.

49. As part of support to TCDA, the project proposes to establish a matching grant to partially finance eligible investments. Such investments could include support for rehabilitation, expansion and/or construction of warehouses and other civil works, including possible connections to the grid and water pipelines. These could present some environmental risks and impacts including noise, waste generation, dust and fumes emissions, vegetation clearance and possible forest degradation, soil erosion, disturbances to habitats, depletion of biodiversity, workers' exposure to occupational health and safety hazards, e.g., vehicular movement, work at height, electricity, sharp blades, trips, slips, dust, etc. Depending on the location of such civil works, nearby communities may be exposed to traffic and vehicular risks. The risks and impacts will largely be moderate, localized, and direct, but those associated with surface water contamination through misuse of agrochemicals and pesticides may traverse communities downstream. These impacts are predictable and can be managed through adequate mitigation measures.
50. Despite these risks and impacts, the project is expected to contribute to reducing incentive for deforestation and will strengthen the resilience of cocoa production systems through intensification and improvement of existing cocoa farms. The project could generally contribute to a net gain in biodiversity through agroforestry practices.
51. **The social risk rating for the project is high.** This classification is based on the potential social risks and impacts as well as the capacity of the implementing agencies to manage risks and impacts. The draft ESF instruments prepared by the client and under review by the Bank, especially the Stakeholder Engagement Plan (SEP) further highlights anticipated social risks and impacts associated with the TCDP to include: i) child labor risk due to high prevalence rates and weak enforcement of existing laws and measures for prevention and remediation, weak institutional collaboration and less clarity of roles and mandates due to the multiplicity of agencies responsible for managing child labor risk and social risk management in general; ii) localized social conflicts arising from a complex array of interests on land uses especially in the cocoa sector; iii) temporary loss of livelihood and economic displacement under Component 2 activities which includes rehabilitation of diseased cocoa tress; iv) envisaged challenges in ensuring meaningful consultation, citizens engagement, gender and social inclusion leading to potential exclusion from project benefits; v) weak grievance management systems; vi) the use of migrant labor and incidence of Sexual Exploitation and Abuse and Sexual Harassment (SEAH) and other forms of gender-based violence (GBV), HIV/AIDS and sexually transmitted diseases/infections (STD/I); vii) likely security risks posed by activities of illegal small-scale miners especially in the cocoa producing regions; and viii) Community health risk due to potential use of agrochemicals under Component 2 activities.



52. Finally, the expansion and refurbishment of CSSVD laboratory space under Component 2.1 can lead to land acquisition and involuntary resettlement. In addition, the proposed project activities under Component 2 can alter land tenure arrangement, with potential adverse risk on rights of tenant farmers causing economic displacement and loss of livelihood. The multiplicity of land rights and the frequent presence of many land users in a given parcel of land can pose risks to the project by: (a) presenting difficult to ascertain what the landowner characterizes as a voluntary land donation; (b) impeding the ability of farmers to gain access to land rights for expansion; and (c) increasing the vulnerability of existing land users to displacement, particularly settler farmers and women farmers.
53. The risk of exclusion and elite capture from the project is very likely given the broad array of affected and interested stakeholders along the cash crops value-chains particularly farmers, women, and local communities. Mitigating the risk of exclusion would require robust mechanisms for meaningful community and stakeholders' engagement and consultation, gender mainstreaming and social inclusion along the entire value-chains. Mitigation measures to the risk of community health due to fertilizer and other use of chemicals across the project activity will be outlined in the ESMF. The project under subcomponent 1.3, is incorporating a multisectoral, landscape strategy to manage the risk related to child labor. In preventing child labor with support for expanding the capacity to identify, monitor and remediate child labor cases.

## E. Implementation

### Institutional and Implementation Arrangements

54. The institutional arrangements of the project are designed to facilitate collaboration between the COCOBOD and TCDA, both under the umbrella of MOFA, to facilitate implementation of activities that improve governance and sustainability of the selected value chains. The project is made up of two implementing entities. Among these, the TCDA would host a Project Coordination Unit (PCU) and COCOBOD would host a Project Implementation Unit (PIU). The PCU will have overall administrative, fiduciary, and safeguards coordination responsibility for project implementation. Whereas each entity would be responsible for implementing activities related to their specific value chains and holding responsibility over all aspects of implementation oversight while also managing separate bank accounts. The PIU will monitor and supervise the performance of the specialized service providers and report to the Bank. A Project Steering Committee (PSC) chaired by the MOFA Chief Director, and made up of TCDA and COCOBOD CEO's, representatives of MOF, Ministry of Lands and Natural Resources (MLNR), MELR, MOGCSP, MLGRD. The PSC will provide general oversight of the project. The PCU will be responsible for preparing the meetings of the steering committee.

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