Project Information Document (PID)

Appraisal Stage | Date Prepared/Updated: 24-Apr-2021 | Report No: PIDA28521

BASIC INFORMATION

A. Basic Project Data

Country	Project ID	Project Name	Parent Project ID (if any)
Ghana	P171933	Ghana Landscape Restoration and Small Scale Mining Project	
Region	**Estimated Appraisal Date**	**Estimated Board Date**	**Practice Area (Lead)**
AFRICA WEST	26-Apr-2021	31-Aug-2021	Environment, Natural Resources & the Blue Economy
Financing Instrument	**Borrower(s)**	**Implementing Agency**	
Investment Project Financing	The Republic of Ghana	Environmental Protection Agency, Ministry of Lands and Natural Resources	

Proposed Development Objective(s)

to strengthen integrated natural resource management and increase benefits to communities in targeted savannah and cocoa forest landscapes

Components

Component 1: Institutional Strengthening for Participatory Landscape Management
Component 2: Enhanced governance in support of sustainable ASM
Component 3: Sustainable Crop and Forest Landscape Management
Component 4: Project Monitoring and Knowledge Management
Component 5. Contingent Emergency Response

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	102.76
Total Financing	102.76
of which IBRD/IDA	75.00
Financing Gap	0.00

DETAILS

World Bank Group Financing	
International Development Association (IDA)	75.00
IDA Credit	75.00
Non-World Bank Group Financing	
Trust Funds	27.76
Global Environment Facility (GEF)	12.76
Global P'ship for Sust. and Resilient Landscapes - PROGREEN	15.00

Environmental and Social Risk Classification

Substantial

Decision

The review did authorize the team to appraise and negotiate

Other Decision (as needed)

B. Introduction and Context

Country Context

1. **Ghana, a country in West Africa with a population of 30.4 million people in 2019[1], has achieved remarkable success in economic growth over the past two decades, with significant contribution from renewable and non-renewable natural resources**. Since 1990, real GDP in Ghana has more than quadrupled, and in 2011 the country hit a significant milestone when it joined the ranks of the Lower Middle-Income Countries. Poverty declined from 13.0 percent to 11.1 percent between 2016 and 2019 as a result of strong GDP per capita growth. In 2019, export earnings from gold, cocoa, and oil accounted for 83 percent of exports.[2] Though the economic structure is shifting to services, 35 to 45 percent of jobs are still based on renewable natural resource sectors, including agriculture, forestry, livestock, and fisheries.[3]

2. **However, growth has been unequal, and unsustainable growth could imperil future economic development.** It is noteworthy that Ghana's Adjusted Net Savings[4] have been negative since 2007 despite

[1] https://data.worldbank.org/country/ghana accessed on March 24, 2020.
[2] Bank of Ghana, 2020, Summary of Economic and Financial Data
[3] GLSS6. (2014, August). Ghana Living Standards Survey Round 6: Main Report. Retrieved from *http://catalog.ihsn.org/index.php/catalog/5350/download/65128*; and Ghana Statistical Service (2016). 2015 Labour Force Report. Retrieved from *http://www.statsghana.gov.gh/docfiles/publications/Labour_Force/LFS%20REPORT_fianl_21-3-17.pdf*
[4] ANS adjusts the conventional measure of (gross) national savings for (a) asset depletion; (b) environmental damage; and (c) investment in human capital.

a simultaneous increase in the stock of non-renewable capital. In other words, the economic benefits of energy and mineral resources and intensified land use have been outweighed by the costs of degraded forest areas and environmental impacts as a result of unsustainable practices.[5] **The cost of environmental degradation due to unsustainable use of land for agriculture, forests and mining stands at 2.8 percent of national GDP (2017)**.[6] If the current natural resource extraction remains unchanged, Ghana will see its natural resource base destroyed over the long term, with fewer opportunities to sustain growth and share prosperity.

3. **The improvement in the national poverty rate is not equal across regions**, as in 2012-2016, poverty further increased in the four Northern regions (Upper West, Upper East, Northern, and Volta regions).[7] Bridging the developmental gap has been a national goal; but, despite attempts to address the challenge, the inequality gap keeps widening, and the Northern Savannah Zone continues to have a higher poverty rate. Poverty remains highest amongst rural populations dependent on natural resources and agriculture. In addition, the deterioration of natural capital disproportionally exacerbates poverty amongst vulnerable rural communities and amplifies natural disaster and climate risks.

4. **Climate change poses a significant threat to Ghana's sustainable economic growth**. Climate change threatens to adversely affect the health and well-being of people and communities, livelihoods, natural and agricultural resources, and infrastructure,[8] which could derail progress on economic and social development. The poorer regions of the country such as the Northern region are more exposed to impacts of climate change due to a higher vulnerability of assets and livelihoods, lower ability to cope and recover from disasters, and the effects of risk on saving and investment behavior.[9] Ghana's Nationally Determined Contributions (NDC) to the Paris Climate Agreement place a strong emphasis on adaptation to ensure that all people and communities are resilient to climate impacts. Sustainable land use, including food security, and sustainable forest management have been identified as two priority sectors in the NDC.[10]

5. **In light of the novel coronavirus (COVID-19) pandemic, natural resources, including land and forests, are critical to delivering long-term inclusive growth recovery.** Growth in Ghana, like in many countries, has slowed considerably, from 6.5 percent in 2019 to as low as 1.1 percent in 2020, putting an end to Ghana's strong growth period from 2017-2019. The COVID-19 crisis is also set to worsen the poverty and social conditions in the country as the fiscal deficit is expected to more than double in 2020. Natural capital and its relevance for jobs and livelihoods will be more important than ever, especially

[5] Ghana – Country Environmental Analysis (English). Washington, D.C. : World Bank Group (p. ii)
[6] Ghana – Country Environmental Analysis (English). Washington, D.C. : World Bank Group.
[7] World Bank.2020. Ghana Poverty Assessment. World Bank.
[8] Government of Ghana MESTI. (2012). National Climate Change Policy.
[9] Hallegatte, Stéphane, Mook Bangalore, Laura Bonzanigo, Marianne Fay, Tamaro Kane, Ulf Narloch, Julie Rozenberg, David Treguer, and Adrien Vogt-Schilb. 2016. Shock Waves: Managing the Impacts of Climate Change on Poverty. Washington, DC: World Bank.
[10] Ghana's Nationally Determined Contributions includes actions that Ghana has committed to undertake as part of its climate change mitigation and adaptation agenda. The implementation of the actions is expected to help attain low carbon climate resilience through effective adaptation and greenhouse gas (GHG) emission reduction in the following priority sectors: a) sustainable land use including food security; b) climate proof infrastructure; c) equitable social development; d) sustainable mass transportation; e) sustainable energy security; e) sustainable forest management; and f) alternative urban waste management.

during this time of crisis where urban workers who have lost their jobs and livelihoods will return to villages. The same goes for rural populations who will increasingly depend on forests and agriculture due to loss of wages.

6. **The economic slow-down may push an increasing number of informal workers and graduate students with diminishing employment prospects into artisanal and small-scale mining (ASM).** At the same time, rural populations are increasingly vulnerable to the spread of zoonotic diseases such as COVID-19, as around three-quarters of all new human diseases emerge from animals.[11] Restoring natural habitats, engaging in community-based information and outreach campaigns, and supporting communities on developing viable alternatives to some forms of livelihoods such as bushmeat hunting can be vital in reducing economic and health vulnerabilities of these populations. Support to agricultural productivity for cocoa and food crops and natural resource-based sustainable alternate livelihoods is, therefore, directly relevant for mitigating future risks while providing meaningful support to efforts aimed at preserving biodiversity in the target areas and reducing human exposure to zoonotic diseases.

Sectoral and Institutional Context

7. **Land resources, including agricultural lands, forests, natural habitats, and minerals are critical for Ghana's growth.** Together, agriculture, forestry and minerals account for more than 20 percent of GDP[12] and are a major source of revenue and local livelihoods**.** Cocoa is a predominant commodity in agriculture and accounts for 7 percent of GDP and 20–25 percent of export earnings.[13] Gold accounts for more than 90 percent of gross mineral revenues,[14] of which ASM accounts for one third[15]. Undeclared ASM gold production is estimated to be of the same magnitude. Moreover, the entire diamond production in Ghana is derived from ASM.

8. **Natural resource-based sectors also provide significant employment opportunities.** The agriculture, forestry, and fishing sector (as reported in the national statistics) employs about 3.3 million of the rural population; cocoa sector is reported to employ 1 million households.[16] Together, renewable and non-renewable natural resources contribute significantly to livelihoods for the most vulnerable rural communities. Rural employment makes up 49.1 percent (4.6 million) of total employment in Ghana. Informal employment, including a huge number of unskilled workers in agriculture and forestry, provides livelihoods for more than 70 percent of the rural population, particularly to the country's poorest households.[17,18]

9. **Within the non-renewable resources sector, ASM represents a very important contributor to**

[11] *https://www.cdc.gov/onehealth/basics/zoonotic-diseases.html*. Accessed on August 15, 2020.
[12] Ghana Statistical Service (2020) Annual Agriculture Production Statistics – January 2020. Agriculture accounts for 18.5% of GDP, with food crops, cocoa and forestry accounting for 81.2% of sectoral output.
[13] 3rd Ghana Economic Update.Agriculture as an Engine of Growth and Job Creation, World Bank, 2018.
[14] Ghana Chamber of Mines, 2020.
[15] Ghana Precious Minerals Marketing Company, 2020.
[16] 3rd Ghana Economic Update. Agriculture as an Engine of Growth and Job creation. World Bank 2018
[17] Ghana Labour Force Report 2015
[18] 3rd Ghana Economic update. Agriculture as Engine of Growth and Job Creation. World Bank 2018

national GDP and local livelihoods. Ghana is endowed with substantial mineral resources, including gold, diamond, manganese, and bauxite. The ASM industry in Ghana comprises both a formalized segment of licensed operators and an informal segment of miners working without required permits. The ASM subsector includes just over 1,000 registered small operations.[19] Informal operations (colloquially called "galamsey") are estimated to account for an even higher number of businesses and workers. ASM represents a very important source of income for almost one million households, predominantly in the most vulnerable rural communities. ASM of precious minerals is estimated to employ one million people (about 8 percent of the labor force).[20]

10. **Interrelationship between agriculture, forestry, and ASM is strong and multi-faceted.** Artisanal and small-scale miners are often simultaneously engaged in subsistence farming and other agricultural livelihoods, with proceeds from mining being used to complement lower-income rural livelihoods activities.

11. **Competing land uses for agriculture, mining, and forest utilization are the underlying drivers of land and environmental degradation** that lead to continuous loss of natural capital for future generations. Growing demand for land for cocoa plantations and food crops has resulted in further encroachment into more fertile forest reserves, while ASM is reported to displace cocoa farming because of the prospects of more profitable short-term yields. As short-term income gains determine the switch in land use patterns, the productive and service functions of Ghana's lands are significantly reduced. The interdependence of food crops, cocoa, and forests, including for local livelihoods, needs to be recognized for better and environmentally sustainable resource management.

12. **Complexities in land tenure, lack of land use planning, suboptimal land use, and unsustainable land use practices have compromised realizing the full potential of ASM and negatively affected agricultural productivity.** This has adverse effects on income generation for Ghana's rural poor and on economic development in general. In addition, the high degree of informality erodes the potential fiscal revenues from the ASM sector, due to smuggling and tax evasion.

13. **Inconsistent policies have limited the expansion of agriculture beyond primary production and negatively affected ability to attract private investments into agribusiness and value addition.** For example, after peaking at 1 million tons in 2011–12, cocoa production seems to have plateaued at an average of around 800,000 tons per year. It is clear that the cocoa subsector is operating far below its potential despite the expansion of cocoa farms into forests which has led to loss and degradation of significant forests areas. As the land frontier runs out, farmers are shifting towards more intensive modes of production, and options will need to include higher-yielding technologies and a greater focus on high-value products and value-addition. Likewise, incentives in the form of tree tenure and payment for ecosystem services need to be mainstreamed into resource management and conservation in order to reduce deforestation.

[19] Minerals Commission, 2020.
[20] Delve, www.delvedatabase.org.

14. **Government recognizes that small-scale mining operations undertaken by Ghanaians offer opportunities to support rural livelihoods, develop entrepreneurship, and provide a source of industrial raw materials.** However, small-scale miners must be assisted in their efforts to operate in a technically, economically, and environmentally sustainable manner. The ASM sector is constrained by a dearth of information about the national geology and mineralogy which could more clearly demarcate the areas most suitable for small-scale mining. This lack of geo-scientific data has resulted in speculative hoarding of mineral licenses by investors with little interest in land use planning - to the detriment of small-scale miners as well as local communities.

15. **Availability of financial resources and technical capacity at the decentralized level for sustaining good land use practices is limited.** For ASM, Ghana's long history of large and small-scale mining has allowed expansive institutional structures to develop; however, as an unintended consequence, bureaucratic complexities in the approval process have emerged, combining multiple national authorities, district authorities as well as traditional chiefs. Costly and bureaucratic registration processes pose a disincentive to license acquisition and formalization. The direct consequence of uncertain land access is short-termism, where immediate profits are prioritized over longer-term development impacts.

16. **Lack of regularization of ASM and its enforcement also results in indirect enduring impacts on the environment,** contributing to poor water and soil quality due to mining-related pollution and contamination. The regulatory framework governing artisanal and small-scale mining in Ghana must address existing gaps relating to regulatory, environmental, and technical compliance in the interest of community co-existence during and after mining activities have occurred. Regulatory and enforcement structures require further decentralization for effective oversight at local level, while traceability and reporting modalities must be improved to curb the illegal sale and export of sector output. Ineffective attempts of enforcement have resulted in very strained relations between small-scale miners and authorities. Trust and productive collaboration can only be re-established through positive incentive structures which include training, technology transfer, and facilitation of market channels, including reliable procedures for sale of gold.

17. **Weaknesses in multisectoral land management planning risk conversion to alternate, often competing, land uses for short term/ early returns;** these weaknesses also undermine sustainability of investments that target improved land management (for food production, cash crops, and land based livelihoods) and reduction of land degradation and deforestation in the long term. Data about mineral occurrences and mining operations have generally been absent from these land modelling exercises. This means that the ASM has been competing with or negatively impacting other productive uses of land and forests.

18. **Improved institutional and regulatory frameworks are critical for sustainable management of natural resources:** Ministry of Environment, Science, Technology and Innovation (MESTI) and Ministry of Lands and Natural Resources (MLNR) as well as their respective agencies are responsible for management of the natural resources and Ministry of Food and Agriculture (MoFA) - for agriculture. Yet there is lack of platforms that would allow tackling challenges and targeting communities collectively, with the same objective.

19. **Communities are not always actively involved in decision-making on natural resources management,** which provides a disincentive for sustainable management. Yet t**here are successful models of land and community based natural resource management** tested through ongoing initiatives in Ghana (such as community watershed management planning and a CREMA model) that can be widely replicated at scale.

20. **The Government of Ghana has in recent years initiated a number of sectoral reforms to address the challenges** in agricultural productivity, forest landscapes management, and sustainable small-scale mining. Draft legislations for formalization of Community Resource Management Areas (CREMA)[21] and regulatory framework on tree tenure have been developed and need to be formally adopted.

21. **Collaborative efforts between government agencies have led to better coordination of plans and strategies towards sustainable cocoa production at the national level.** Several initiatives (funded both by the private sector and by Ghana's development partners) are working in the cocoa supply chain to increase dialogue, improve productivity and returns to farmers, and reduce environmental degradation. The Government of Ghana (GoG) also supports initiatives to reduce cocoa frontier expansion by providing incentives for rejuvenating old cocoa plantations and bringing old cocoa fallows under more sustainable agroforestry-based cultivation. The collaboration between MLNR, Forestry Commission (FC) and Ghana Cocoa Board (COCOBOD) has resulted in a dialogue process that established the Cocoa Forest Initiative (CFI), a government partnership with more than 34 leading cocoa and chocolate companies to end deforestation and forest degradation driven by cocoa production in Ghana. More harmonization is needed in production and traceability of sustainable cocoa supply chains, as several different standards are in use.

22. **The GoG has initiated ASM regularization to enhance regulatory compliance.** In early 2017, GoG imposed a moratorium on both ASM licensing and production. As the moratorium was gradually lifted in 2017-18, two government initiatives were launched: (a) the Inter-Ministerial Committee on Illegal Mining (IMCIM) to coordinate an interagency response to curb informal operations and (b) the Multi-Sectoral Mining Integrated Project (MMIP) to build a comprehensive strategy for sustainable small-scale mining in conjunction with other livelihood options. The proposed project draws on priority interventions identified in the MMIP, while recognizing that the MMIP is broader in scope and requires a larger effort than that supported by the project in order to achieve its objectives.

23. **Civil society engagement and dialogue on the natural resource sectors, climate change, and the REDD+[22] process has been increasing.** In 2010, the Civil Society Review of the Natural Resources and Environment Sector was established to provide a forum for Civil Society Organizations' (CSO) inputs into the government's own review of the sector. The National Forest Forum is a platform to influence policy formulation, promote good governance, and sustainable forest management and reducing deforestation.

[21] A CREMA is a geographically defined area that includes communities that agree to manage land use and natural resources in a sustainable manner for production and conservation purposes.
[22] REDD+ stands for Reduced Emissions from Deforestation and Forest Degradation and the Role of Conservation, Sustainable Management of Forests, and Enhancement of Forest Carbon Stocks in Developing Countries.

24. **There is increasing awareness for cross-sectoral linkages for sustainable use of natural resources and their contribution to national and local economies**.[23] Approaches, policies and regulations that are seemingly designed for meeting sub-sectoral objectives cannot deliver on holistic management of natural resources when the challenges are cross-sectoral, and sectoral trade-offs are inevitable.

25. **There is also increasing recognition that Integrated Landscape Management can offer solutions to challenges that cut across several sectors**. Since 2008, the GoG has adopted a programmatic approach to address land degradation and the promotion of Sustainable Land Management (SLM) practices, through the Ghana Strategic Investment Framework (GSIF) for Sustainable Land Management (2011-2025). The GSIF recognised the need to move beyond single sector interventions to a more integrated approach by taking into account both the geographic and socio-economic aspects to connect forestlands (protected areas (PA) and forest reserves (FR), croplands, woodlands, and rangelands, to help secure a robust mix of interventions that promote primary and secondary ecosystem services.

26. **There is an opportunity to reverse the land degradation trend through an integrated landscape management approach** – one that focuses on agricultural productivity, sustainable small-scale mining, and sustainable forest and water resource management. Ghana has tested these approaches in select districts in the Northern Savannah Zone and has shown proof of concept of the integrated approach and results it can yield for community livelihoods and slowing the pace of degradation.

27. **The proposed Ghana Landscape Restoration and Small-Scale Mining Project will build on these early experiences of Integrated Landscape management by taking holistic action against land degradation.** Holistic management of natural resources, including land, forest, and minerals, at landscape level can address degradation and enhance livelihoods for populations that depend on them. Sustainable land use, production, and management practices will be inculcated and enhanced through provision of adequate support mechanisms, payments for ecosystem services, value-added agroforestry, appropriate ASM techniques and regulations, institutional capacity, and compliance monitoring.

28. **As part of COVID-19 recovery, support to improved productivity for agriculture (cocoa and food crops), ASM that delivers more sustainable benefits, and natural resource-based sustainable alternative livelihoods is directly relevant** for mitigating future risks while providing meaningful support to efforts aimed at preserving biodiversity in the target areas and reducing human exposure to zoonotic diseases. For example, studies show that reliance on bushmeat harvesting for income provides a safety net function and is higher in communities during post cocoa season, or where on-farm productivity is low.

Relevance to Higher Level Objectives

29. **This proposed project is fully consistent with the World Bank Group's (WBG) corporate goals** –

[23] Forest Smart Mining studies, FAP, Sustainable Land Management Sourcebook.

to end extreme poverty and to promote shared prosperity, with environmental, social, and fiscal sustainability. The project is also aligned with the recently updated **Ghana Systematic Country Diagnostic** (SCD). The SCD recognizes natural resources production and exports to be the backbone of Ghana's economy and the main driver of growth. A new **Country Partnership Framework** (CPF) 2020-2026 is under preparation - the project responds to the following challenges identified in the new CPF: a) strengthening natural resource management, b) raising agricultural productivity, and c) mitigating impacts from climate change. The project falls under draft CPF Focus Area 2: Enhancing Conditions for Diversified Growth and Quality Jobs and Focus Area 3: Promoting Resilient Development.

30. The project is consistent with the **World Bank Group COVID-19 Crisis Response Approach**,[24] in particular Pillar 2 (Protecting Poor and Vulnerable People) and Pillar 4 (Strengthening Policies, Institutions and Investments for Rebuilding Better) as it contributes to enhancing livelihoods of poor rural communities, resilient recovery, and rebuilding better.

31. **Notably, the Project will contribute to Ghana's set national voluntary Land Degradation Neutrality** (LDN) target.[25] Identified LDN hotspots include areas in Northern Savannah and Transitional regions, where the Project will be implemented. Northern Savannah Zone is also a priority zone for landscape restoration under Ghana's AFR100 commitment.[26] **Project support will also contribute to Ghana's progress on the 2020 Aichi Biodiversity targets** under the Convention of Biological Diversity and the objectives of Ghana's National Biodiversity Strategy and Action Plan.

32. **The project supports GoG's participation under the GEF-7 Food Systems, Land Use and Restoration (FOLUR) Impact Program,[27]** through programming Ghana's GEF-7 resources to implement multi-stakeholder integrated landscape management approaches to mitigate impacts on ecosystems and their services. Specifically the project will contribute to: a) promotion of sustainable food systems through improving yields of staple food crops and produce for the market, resulting in increased food security and resilience to shocks; b) promotion of deforestation-free commodity supply chains, through improving cocoa productivity, investments in climate smart cocoa farm approaches, decreasing cocoa-driven deforestation and related emissions; and c) landscape-level restoration for production and ecosystem services through improving agro-ecosystem goods and services, addressing direct drivers of habitat destruction to protect habitats and monitoring of impacts of restoration on ecosystems and their services.

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[24] World Bank 2020. Saving Lives, Scaling-up Impact and Getting Back on Track World Bank Group COVID-19 Crisis Response Approach Paper.

[25] Ghana's national LDN target by 2030 includes: (i) reforestation of 882.86 km^2 of converted forest; (ii) reduced conversion of 45,079.72 km^2 of remaining forest to other types of vegetation and halt all illegal mining activities; (iii) increasing soil organic carbon of degraded crop lands and rangelands from 1.2% to 2%; (iv) restoration and sustainable management of 4,593.39 km^2 of degraded shrubs, grasslands and sparsely vegetated areas for improved productivity and reduction of fires; and (v) improving productivity and soil organic carbon stocks in 18,475.96 km^2 of cropland.

[26] The three main pillars for the implementation of the AFR100 in Ghana include the following – all of which form part of activities under the PROGREEN support: (a) Forest Plantations Establishment (Includes commercial and smallholder plantations by government and private sector, seed orchards, woodlots, environmental plantings i.e. watershed planting, mined site restoration etc.); (b) Enrichment Planting (targeting mainly on degraded forest reserves, degraded agricultural landscape, degraded mountains and hilly areas and degraded Sacred Groves using mostly indigenous tree seedlings); and (c) Agroforestry [Trees-on-farm] – targeted at incorporating trees within agricultural landscapes.

[27] Blended Project number P172386.

C. Proposed Development Objective(s)

Development Objective(s) (From PAD)

to strengthen integrated natural resource management and increase benefits to communities in targeted savannah and cocoa forest landscapes

Key Results

To strengthen integrated natural resource management

1. Areas for which appropriate land use planning has been undertaken under spatial sub-basin plans – end of project target: 12,440,931 ha
2. Land area under sustainable landscape management practices (as an aggregation of the following practices) (ha) – end of project target: 2,947,667 ha
   - Area under conservation agriculture – end of project target: 110,400 ha
   - Trees in production landscapes outside of forests / agroforestry – end of project target: 16,000 ha
   - Area under collaborative, integrated and innovative management and with improved climate resilience (CREMAs) – end of project target: 1,712,553 ha
   - Area under improved catchment management – end of project target: 5,800 ha
   - Area under sustainable forest management – end of project target: 1,076,414 ha
   - Abandoned mine areas restored - end of project target: 2,000 ha
3. Licenses issued for ASM operations (number): baseline – 1,029; end of project target - 2,000
4. Environmental and social management system for ASM established and operational (yes/ no) – baseline – No; end of project target – Yes.

To increase benefits to communities

5. People in targeted areas with increased benefits as a result of the project – end of project target: 257,296,
   Including sustainable land management practices (number) – end of project target: 229,422
   Including alternative livelihoods (number) – end of project target: 27,080
   including female (number) – end of project target: 102,918
   including youth[28] (number) – end of project target: 37,143

D. Project Description

33. **Key design elements**. The project design has a two-fold focus to: (i) enhance landscape management and natural resource planning at decentralized levels that cuts across administrative boundaries, multiple sectors, and multiple land uses in the target sub-basins within the savannah and cocoa forest areas. The actions envisaged through such planning will be mainstreamed into and implemented through GoG Mid-term development plans (at district-level) to ensure synergies with government-led development planning, and (ii) scale-up land use specific interventions for land restoration, and food and cash crops production linked to livelihoods, both in the NSZ and the South-

[28] According to Ghana's national youth policy (2010), youth is defined as those between 15 and 35 years of age.

Central Region forest zones of cocoa forest landscapes.

34. **Component structures follow the planning and implementation of interventions** (policy and investments) with a view to improve landscape management. **Component 1** focuses on planning aspects relevant to landscapes, **Component 2** on policy dimensions of ASM with positive impacts for managing cross-cutting challenges across ASM/ forestry /agriculture landscapes. **Component 3** will support on-the-ground investments in agriculture, mining, and forest landscapes to reduce land fragmentation and optimize land use, and adoption of improved land use practices for sustainability of livelihoods and advancing integrated landscape management. Diverse incentive mechanisms linked to sustainable land and water management adoption on agriculture, forest and mining will be supported to encourage behavioral change towards more sustainable practices.

35. **The project will support a community-led integrated landscape approach** to improve management of forest and savannah ecosystems in the target areas and enhance resilience of ecosystems and populations dependent on them. The interrelationship among agriculture, biodiversity (including wildlife) conservation, mining and forestry, calls for a holistic integrated landscape approach to provide ecosystem services. Smallholder farmers' access to finance also needs to be improved and critical supply chain bottlenecks removed in the value chains by focusing on improved storage and post-storage processing for farm and tree crops (cocoa, shea and cashew), together with other income diversification opportunities. Efforts to formalize and train small-scale miners in environmentally smart mining as part of the landscape-wide management approach will contribute to a sustainable rural economy as well as mitigating current adverse environmental footprint. This will require strong multi-sectoral coordination at both the national and decentralized levels. The Project will support inclusion of additional agencies under the Ministry of Environment, Science, Technology and Innovation (MESTI), MOFA and Ministry of Lands and Natural Resources (MLNR), such as COCOBOD, Minerals Commission, Water Resources Commission, and Tree Crops Management Authority, to proactively engage in finding integrated solutions to landscape management.

36. **Analysis of longer-term COVID-19 impacts in target landscapes will continue to inform project implementation**. However, it is evident that as macroeconomic conditions worsen, the proposed interventions for strengthening the resilience of crop production and alternative livelihoods activities will help create safety nets for the most vulnerable rural communities, improving economic resilience of project beneficiaries, and contributing to the mid-term agenda for post-COVID recovery. The project will invest in improving water infrastructure on community land (through construction of dugouts) to ensure that communities do not have to go deep into the forests to water their livestock and needlessly expose themselves to zoonotic diseases. The informal nature of ASM and the low barriers to entry mean that there is a potential for increased ASM activity in response to the economic impact of the virus on the formal economy; project support to strengthening the regulatory side and the alternative livelihood activities mitigates some of the COVID-19 risks already foreseen. The project will contribute towards a medium to long-term economic and social development during post-COVID recovery phase, focusing on elements of job creation and increased productivity.

37. **Gender. The project's approach to mainstreaming gender considerations is fully consistent with**

the World Bank Group's Gender Strategy and the GEF Policy on Gender Mainstreaming.[29] As part of the project design, a gender gap analysis was conducted to provide insight into existing gender disparities in the target areas and to inform project design (Annex 3 of PAD). These key gaps relate to (a) weak participation in decision making; (b) lack of access to credit and other productive resources; (c) poor access to training and capacity building activities; (d) lack of ownership in NTFPs; (e) difficulties acquiring licenses for ASM; (f) control over alternative livelihoods; (g) an absence of appropriate skills for the use of equipment and technology including value addition activities to gold and agricultural outputs and, (h) higher and disproportionate risks to women's health. The project therefore places particular emphasis on greater involvement of women in participation in the planning and decision-making structures at community level (CWMTs) and Community Resource Management Committees (CRMC) and in the implementation of subprojects. The PDO indicator on beneficiaries of sustainable land management practices and alternative livelihoods activities is disaggregated to track percentage of women participants; the same applies to two Intermediate Results indicators in the project's results framework. Intermediate indicators for Component 3 also include specific indicators to measure the project's progress with women inclusion within community-level resource management bodies.

38. **The role of women in managing forests, trees, and agricultural landscapes has been carefully considered in project design.** Participatory consultation, activity planning, skills training and decision-making processes will be designed to accommodate participation of women and other disadvantaged groups, It will take into account women's concerns, differential access to resources and information. The selection of intervention locations and their formulation will be provided sustained attention during implementation. The selection of intervention locations and their formulation will be provided sustained attention during implementation to allow for flexibility in adapting to unanticipated situations.

39. **Women have always played key roles in different stages of the mining value chain in Ghana.** Statistics show that presence of women in the ASM sector is high. Women account for approximately 4 percent of the small-scale mining license holders, about 22 percent of the licensed artisanal and small-scale miners and about 50 percent of the *galamsey* population. Seven out of the 551 licensed gold buyers (1.3 percent), 75 percent of the small-scale salt mining workforce, and 80 percent of stone quarry workers are women.[30] Women tend to hold the lowest paying and more precarious jobs in mining, have less access to formal training, have less access to credit. Women also face sexual abuse and harassment, which in turn exposes them to a range of serious risks, such as the contraction of sexually transmitted diseases. In addition, women's health is disproportionately harmed because of lower levels of education, less access to protective equipment, and less access to information about safe working practices.[31] Women suffer injuries and body pains in the form of cuts, sprains and fractures from falling.[32]

40. **The project support will contribute greatly to strengthening economic and adaptive resilience**

[29] World Bank Group. 2015. "World Bank Group Gender Strategy (FY2016–23): Gender Equality, Poverty Reduction, and Inclusive Growth."
[30] Minerals Commission Ghana, 2014.
[31] See e.g. Arthur-Holmes, F., Busia, K.A. 2020. Household dynamics and the bargaining power of women in artisanal and small-scale mining in sub-Saharan Africa: A Ghanaian case study. Resources Policy, Art 101884; Kumah, C., Hilson, G., Quaicoe, I. 2020. Poverty, adaptation and vulnerability: An assessment of women's work in Ghana's artisanal gold mining sector. Area 52(3): 617-625; and Hilson, G., Hu, Y., Kumah, C. 2020. Locating female 'Voices' in the Minamata Convention on Mercury in Sub-Saharan Africa: The case of Ghana. Environmental Science and Policy 107: 123-136.
[32] Hinton, Jennifer. Communities and Small-Scale Mining: An Integrated Review for Development Planning. World Bank Group,

of participating households through improvements in landscape management and in the productivity of forests and landscapes. Making strategic shifts for better managed natural resources will improve the climate resilience by reducing risks to extreme vagaries of weather and climate change, improved food and water security, and sustainable income streams. This will be achieved, among others, through strengthening the asset base of rural farmers (including natural capital through improved soil fertility and financial capital through increased gains as a result of enhanced yields and value addition); increasing the diversity of smallholder farming systems (through the promotion of mixed cropping-livestock systems and diversification of crops including a focus on root and tuber crops); promoting equity and inclusion of vulnerable and marginal groups (especially women); enhancing local institutions (through establishment of community watershed management teams (CWMTs) and support to Village Savings and Loans Association (VSLA); and improving the availability of and smallholder access to climate information (through awareness and training/demonstration activities and knowledge exchanges).

41. **The proposed Project will be implemented in the Northern Savannah Zone (which includes the Guinea Savannah and the Sudan Savannah ecological zones) and the Cocoa forest landscape (which includes the Forest and Transitional ecological zones (in the central-south areas of the country).** Project target areas include 13 sub-basins in the Northern Savannah Zone and Forest and Transition Zones of Ghana (see table 2.1). It is important to note that, geographically, the GEF investments will support activities in the Pra River Basin only (in the Southern Zone); and the PROGREEN investments will focus on the Western Wildlife Corridor Area (and specifically five administrative districts: Builsa South, Kassena-Nankana, Sissala East, Sissala West, and Wa East).

Table 2.1. Project Sub-Basins

Sub-Basins in NSZ	Area (ha)	Sub-Basins in Cocoa Forest Landscape	Area (ha)
Kulpawn	964,163	Afram	1,055,012
Nasia	536,043	Obosum	268,370
Red Volta	36,372	Pra	2,328,427
Sissili	530,217	Tano	871,063
White Volta	2,922,139	Volta Lake	120,505
Black Volta	1,496,768	Pru	821,987
		Sene	489,865

42. **Activities** at the district level will target 28 rural districts as per table 2.2. – the target districts were selected based on their location within biological corridors and land degradation and illegal mining pressures. Districts in the Northern Savannah Zone have been prioritized based on their potential to intensity successful impacts achieved under the ongoing SLWMP. Districts in the Transitional Forest Zone have been prioritized based on feasibility of success based on results from ongoing initiatives and in alignment with the focus of FOLUR on the Cocoa landscapes. Specific intervention areas for implementation of project activities within these districts will be selected using criteria developed during the project preparation and included in the Project Implementation Manual. The target areas for capacity building of sustainable mining practices will be determined on the basis of baseline assessments and

2005.

studies in the early stages of project implementation.

Table 2.2. Project target districts

Project Regions	Project Districts
Ashanti	1. Adansi South (Pra River Basin)
	2. Asante Akim South (Pra River Basin)
	3. Atwima Mponua (Tano River Basin)
	4. Bosome Freho (Pra River Basin)
	5. Juaben Municipal (Pra River Basin)
	6. Sekyere Afram Plains North (Afram River Basin)
Bono East	7. Sene West (Sene River Basin)
Central	8. Assin North (Pra River Basin)
	9. Twifo Ati Morkwa (Pra River Basin)
Eastern	10. East Akim (Pra River Basin) (ASM)
	11. Kwahu Afram Plains North (Afram River Basin)
	12. Kwahu South (Pra River Basin)
	13. Kwahu East (Pra River Basin)
	14. Kwahu West (Pra River Basin)
	15. Kwahu Afram Plains South (Obosum River Basin / Afram River Basin)
North East	16. Mamprugu Moagduri (Nasia River Basin)
	17. West Mamprusi (Nasia River Basin)
Savannah	18. Sawla-Tuna-Kalba (Black Volta River Basin)
	19. West Gonja (Black Volta River Basin)
Upper East	20. Builsa South (Sisili River Basin)
	21. Bawku West (Red Volta River Basin)
	22. Kassena-Nankana (Sisili River Basin)
	23. Talensi (Red Volta River Basin)
Upper West	24. Daffiama-Bussie-Issa (Kulpawn River Basin)
	25. Sissala East (Sisili River Basin)
	26. Sissala West (Kulpawn River Basin)
	27. Wa East (Kulpawn River Basin)
Western	28. Prestea-Huni Valley (Pra River Basin) (ASM)

***** The project will also support SSM activities in select municipalities in key mining areas.

Component 1. Institutional Strengthening for Participatory Landscape Management[33] (US$14.21 million, including IDA US$10.66 million equivalent, GEF US$2.51 million, PROGREEN US$1.04 million)

29. The component aims to strengthen the planning and policy framework by carrying out spatial planning and implementation, policy support, and capacity building, working with administrative and technical agencies located within the regions and districts that are within the 13 target sub-basins in the project area. Support is included for integrated landscape management planning that accounts for multisectoral uses and also plans for adaptation measures to address climate risks and fostering

[33] Institutional strengthening of governance and partnerships includes key agencies and stakeholders that are relevant to integrated landscape management and overall delivery of the PDO.

partnerships to support the adoption of sustainable landscape management approaches at scale within project areas. This component will also enhance multipurpose land and water management models at the national level through the acquisition of remote sensing data and geological surveys which will allow the production of updated maps with additional layers of information. It will also support the development of spatial planning tools for mapping, including consistent remote monitoring over time, and monitoring impacts and effective monitoring of sustainable cocoa production.

Sub-component 1.1: Integrated landscape management planning (US$6.11 million, including US$3.28 million equivalent from IDA, US$2.3 million from GEF, and US$0.53 million from PROGREEN)

30. This subcomponent will support integrated landscape planning in 13 sub-basins (**Error! Reference source not found.**) to improve the management of natural resources and land use, including for enhanced food security. The subcomponent will include the following activities: (a) supporting subnational[34] multi-stakeholder coordination platforms on land-use planning by bringing in the existing Basin Management Board of the various basins where the project is operating, (b) developing spatial planning tools, and (c) developing and facilitating integrated land-use plans. The development of these plans is critical for ensuring that land resources are used and managed in a way that enhances absorptive and adaptive capacity to climate change, promoting resilience broadly at the landscape level.

31. It will also support the development of spatial planning tools for mapping analysis and monitoring impacts. These tools could include Forest, Cocoa and ASM Monitoring Systems,[35] Tree registration/counting/carbon accounting system, relevant databases and maps, participatory mapping tools, and so on. The objective of developing these tools is to help inform decision-makers on what is happening in the landscape so that they can make more effective decisions on planning and monitor the land-use plans to help ensure enforcement and manage the risks of competitive/illegal land uses that threaten food security and habitat fragmentation. An important element of capacity building for the responsible government agencies will be assured under this activity, for sustainability of results and systems.

32. It will also support effective monitoring of sustainable cocoa production through the use of this improved Forest Monitoring System to ensure compliance with the cocoa standards; this will include training of the COCOBOD and FC staff as well as decision-makers. This activity will help ensure that the footprint of forest loss and degradation due to cocoa development is being reduced and adequately monitored. This will address an existing need to harmonize efforts by diverse partners operating in the landscape and monitor compliance with agreed standards of sustainable cocoa production.

Subcomponent 1.2: Enabling environment for restoration activities, sustainable production, and value chains within the landscape (US$1.52 million, including US$0.8 million equivalent from IDA, US$0.21 million from GEF, and US$0.51 million from PROGREEN)

33. This subcomponent will strengthen the enabling environment for innovative measures in sustainable production (including adaptation measures to address climate risk) and value chains and scale

[34] Subnational levels include regional and district levels.
[35] Under the REDD+ project, RMSC was supported to set up a Forest Monitoring System. The proposed project intends to continue supporting this system by expanding monitoring to different land uses such as the cocoa forest landscapes, other major commodities (such as shea butter and bamboo), and ASM sites.

up restoration activities to support resilient landscapes and livelihoods. The subcomponent will include the following activities: (a) supporting relevant policy measures and incentives, including research on land restoration/land conservation and update of guidelines on micro-watershed management and planning; (b) supporting advancement of relevant guidelines, manuals, and standards; and (c) supporting/establishing partnerships for multi-sectoral and integrated land-use action planning.

Subcomponent 1.3. Airborne geo-physics and geological surveys (US$6.58 million, all IDA)

34. As part of the Government's effort to improve the understanding of the national geology and subsoil resources, this subcomponent will support geological investigations to analyze geomorphological trends, mineral occurrences, and interlinkages between different land and resources uses. These investigations will inform the trade-offs between competing land uses as well as the feasibility of land restoration. Moreover, investigations will also identify economically viable mineral reservation areas for small-scale miners. Currently, about 150 areas covering 5,400 km^2 have been designated for ASM. However, there is a need to conduct a detailed investigation to ensure the areas are viable and that environmental impacts are manageable before licensing to prospective applicants. Currently, only nine of these areas have been explored, and those that proved positive were demarcated to small-scale miners. A minimum of 3,000 km^2 of land will be prospected geologically over the period of the project. This activity would be a key criterion for reducing the degradation of land by informal miners and, thus, contributing to climate change mitigation potential of the project. Identification and allocation of lands suitable for small-scale mining will steer clear of forested lands with high-carbon value and will, thus, help prevent deforestation and eventually result in mitigation benefits thanks to avoided deforestation. Climate impacts will be fully considered to ensure the durability of the intervention.

Component 2. Enhanced governance in support of sustainable ASM (US$16.88 million equivalent, all IDA)

35. This component aims to strengthen the regulatory framework for ASM, with a focus on modernizing regulatory instruments and building the capacity of key government agencies involved in ASM regulation and compliance monitoring (most prominently MC, FC, and EPA) as well as district management committees. It will also support ASM formalization through: (a) registration of SSM licenses, (b) streamlining ASM administration, and (c) enhancing district capacity to manage ASM. Once the updated regulatory framework has been established, this component will also invest in improving the capacity of ASM operators, by providing training on sustainable and forest-smart mining techniques and enterprise skills, supporting establishment of cooperatives, and promoting market links to help ASM gold miners get better value for their output. Improvements in governance, capacity, and skills supports under this component will directly contribute to climate change mitigation response of the project.

Subcomponent 2.1. Regulatory strengthening and formalization of ASM (US$8.32 million)

36. The objective of this activity is to support the design and rollout of a robust mining operations' monitoring and inspection system. It will consist of three sub-objectives: (a) assess and develop the regulatory framework and guidelines governing E&S compliance and control mechanisms, (b) develop standard report templates and support selective inspections of ASM operations in accordance with regulations, and (c) establish mechanisms and tools for monitoring ASM operations through a database management system which will facilitate standardized and systematic control and reporting of operations.

37. The activity will also provide capacity building to officers in the FC, the EPA, and the MC in the monitoring and management of social and environmental impacts from ASM. These topics will include, among others, (a) water management, (b) management of hazardous products and waste, (c) community consultation, (d) health and safety, and (e) mine rehabilitation. The activity will strengthen institutional partnerships, coordination and data development around ASM's forest impacts and encourage forest protection and restoration, particularly at the licensing and decommissioning stages.

38. The subcomponent will also support community outreach, public education, and awareness creation on the revised ASM regulatory framework to foster understanding and full compliance with sector guidelines. Activities will also aim to promote broad stakeholder consultations in the drafting of legal and regulatory instruments required for ASM formalization and modernization. To complement the development of strong environmental impact legislation, policy dialogues will also engage stakeholders on community-centered forest risk mitigation incentives. This will help strengthen resource and environmental governance in the ASM sector.

39. The subcomponent will finance modernization of the licensing system to allow registration of SSM license holders as well as inclusion of a new medium-scale license category. An important objective under this subcomponent will be to facilitate women's access to mineral licenses in order to promote female entrepreneurship in ASM, as restrictions in access to land for mining have been raised as a specific concern during project consultations. To achieve this, technical solutions must be developed to enable decentralized registration at the regional and district offices. This will require the acquisition of both software and hardware as well as training of MC officials and the DMCs. One objective will be to promote female entrepreneurship and facilitate women's access to mineral licenses. The project activities to register informal miners will also designate mining activities within specific land areas. This formalization will contribute to better enforcement of protected forest arears and enhanced riverbank protection as well as mitigate forest degradation. FC and EPA will be equipped with digital monitoring and reporting systems. Regulation and training on water and effluent discharge management will enhance adaptive capacity of ecosystems and communities.

40. Outputs will include revised legal and regulatory instruments to reflect the changing nature of the ASM industry in Ghana. It is also anticipated to develop a modernized mineral cadaster system to register all types of mineral licenses from small-scale to large-scale operators, including geographic information system-based software to project and locate license holders.

41. ***Subcomponent 2.2. Training and technology transfer (US$5.68 million).*** The objective of this subcomponent is to build local-level capacity in sustainable ASM techniques and sector oversight management. This will incorporate capacity-building support to ASM operators as well as district mining officers of the MC, EPA District Officers and members of the DSMCs to enable them to discharge their duties effectively and efficiently. Training of ASM operators will include aspects of climate-smart and forest-smart mining, such as reduction and management of mine waste, reduced clearance of vegetation, and post-mining restoration of degraded land, and build capacity of the small-scale miners on natural / climate risk and disaster response. This is expected to also mitigate erosion and improve streamflow management around abandoned mine sites. Resulting revegetation will also have climate mitigation benefits. The project will prioritize skills development and support to women, the youth, and other vulnerable groups. This will help them start and operate businesses that create value along and outside of the ASM value chain.

42. The subcomponent will aim to promote sustainable ASM operations, focusing on improved operational procedures and practical application of global best practices. The subcomponent will support establishing an ASM business support center (Incubation Center) to provide advisory, training, and technical services for ASM business as well as the establishment of a pilot center of excellence (Mining Demonstration Center) demonstrating best practice ASM processes. The scope of services envisaged under this subcomponent will include, among others, (a) mercury-free processing, (b) training on enterprise skills and forming business entities, (c) regulatory compliance, (d) environmental management and mine rehabilitation, (e) technology transfer, (f) health and safety, and (g) social responsibility. The Demonstration Center will facilitate continuous capacity building for ASM operators, mining engineers, and extension service agents, among others. Activities through the Demonstration Center will prioritize the practical demonstration of sustainable and environmentally friendly mining practices (managed in a way that minimizes the environmental and climate footprint) mercury-free gold extraction, and the adoption of safe and appropriate local technologies. The subcomponent will additionally include limited production and deployment of improved and affordable mercury retorts (colloquially called *Sika Bukyia*) in ASM gold extraction and processing for improved gold recovery.

Subcomponent 2.3. Traceability of ASM production and value addition (US$2.88 million)

43. This subcomponent will aim to establish multi-stakeholder partnerships to strengthen ASM supply chains and improve market access to ASMs for greater value creation. The project will also invest in strengthening traceability of ASM output as a means to increase profit retention and enhance benefit-sharing of the value created. The PMMC will acquire additional assaying equipment to meet the expected increase in demand for testing and assaying. This equipment will encompass X-ray machines for analysis of the mineral composition as well as fire assay equipment, precision scales, and associated software. It is also envisioned that software applications will be developed for online tracking of sales and transfers between registered miners, traders and buying centers to trace products from source of origin to end destination.

44. An elaborate outreach and training campaign will be supported to inform and educate ASM operators about the trading patterns and registration procedures for producers and merchants. It is also envisioned that clusters and cooperatives of miners will be developed; these will require training to simplify ASM operators' access to the trading networks. The activity will improve awareness of the forest impacts associated with ASM supply chains and support strategies to minimize forest risks in ASM production, supply chain and market standards and mechanisms. The project will reduce the demand for fuelwood since it will incentivize artisanal and small-scale miners to switch amalgamation and mineral processing to formal processing centers which are more energy efficient. This will replace home-based amalgamation using fuelwood to more efficient technology used by the PMMC.

Component 3: Sustainable Crop and Forest Landscape Management (US$60.28 million; including IDA US$38.26 million equivalent, GEF US$9.14 million, PROGREEN US$12.88 million)

45. This component aims to link improved food production and ecological integrity through investments in production and forest landscapes through the promotion of climate-smart agriculture, conservation, and restoration activities. Activities are aligned with the FOLUR and PROGREEN frameworks to promote sustainable food systems and agriculture value chains.

46. This component will support sustainable practices in production landscapes for key food crops; value chains for key commodity crops, including cocoa, shea nut, and cashew; value addition for food crops; sustainable water and land management interventions, including silvo-pastoral and riparian vegetation establishment activities income generation and income diversification at the community level with a view to integrated natural resource management in target cocoa, savannah, and forest transition zone landscape; and regular monitoring of these interventions. It will also support investments into forested landscapes within PAs and their buffer zones, both to improve effectiveness of their management and to enhance ecotourism opportunities therein; improved management of FRs and their buffer zones, including reforestation, regeneration, and wildfire management; support to community-driven forest conservation in off-reserve areas within the biological corridors, including under the CREMA arrangements; and support to sustainable livelihoods of target communities that would reduce consumptive pressures on forests and, hence reduce emissions from deforestation and forest degradation. In view of the growing significance of mining as a driver of forest loss and impacts of mining on waterways, the component will also support appropriate forest landscape restoration opportunities and reclamation of mined out areas as well as provide alternative livelihoods support to miners to help them create sources of income to replace mining.

47. Investments under this component are expected to result in improvements of carbon pools and enhanced resilience of target landscapes. SLWM investments, especially in the NSZ, will help address water scarcity issues and reduce water stress, to address the risks of climate change induced droughts. Scaling up the interventions within production and forest landscapes is based on the lessons learned from SLWMP (in the NSZ) and ongoing work in the FIP (in the cocoa forest landscape).

48. In the production landscapes (SLWM), the GEF investments will focus on sustainable cocoa management and production in the cocoa forest landscape (specifically the Pra River basin in the Moist Semi Deciduous Forest ecological zone); PROGREEN will finance interventions with the focus on cashew value chains within the Western Wildlife Corridor in the Savannah zone.

49. In the forested landscapes, the GEF investments will focus on support to the FR activities and community (CREMA) management of the wildlife corridors in the cocoa forest landscape; PROGREEN will finance investments in the identified target FRs and community (CREMA) management of the wildlife corridors in the Western Wildlife Corridor (especially CREMA sites 3, 4, 5, 6, and 7, where CREMA structures' establishment will be supported by the project).

Subcomponent 3.1: Planning, capacity, and implementation of SLWM in target micro-watersheds (US$30.38 million, including US$16.53 million equivalent from IDA, US$6.83 million from GEF, and US$7.02 million from PROGREEN)

50. This subcomponent will invest in creating capacities of districts and rural communities for sustainable micro-watershed and land-use planning aimed at achieving better management of natural resources, sustainable food production practices (including such cash crops as cocoa and cashew) and in the implementation of SLWM and sustainable food production practices. The project will support development of participatory community watershed management plans in up to 582 communities (each such plan covers a micro-watershed of approximately 2,000-3,000 ha). These communities will be selected based on the following criteria: (a) level of land degradation, (b) no litigation in community, (c) for cocoa – cocoa degradation issues/ moribund farms, (d) communities with rivers that are tributaries of the main

river systems, (e) community level commitment towards adoption of SLM, (f) experience with other projects, and (g) existence of organized groups. Some of the best-communities currently supported under the SLWMP will be retained for support under the GLRSSMP, based on Required materials, equipment, and trainings will be provided to extension teams on the ground from the District Departments of Agriculture and COCOBOD (the latter will specifically target improved cocoa management systems. COCOBOD will support engagements with cocoa community-based organizations, lead cocoa facilitators, and cocoa farmers).

51. This subcomponent will strengthen extension and service provision network for scaling-up SLWM and sustainable cocoa technologies and facilitate and coordinate training programs for extension service providers of the implementing agencies (largely MOFA and COCOBOD) based on their training needs. Training will be provided on climate-smart agriculture, good agronomic practices, micro-watershed management, fire management, pest and disease management, and so on. Responsible staff will be provided with logistics support (transportation) and required training materials (such as extension manuals). Establishment of demonstration plots and peer exchanges will also be supported.

52. It will also provide investments for the implementation of SLWM activities on the ground in agricultural landscapes. The subcomponent will support sub-projects for improved food production for smallholder farmer groups, targeting different crop types and agroforestry intercropping, to help diversify income streams of the farmers and to contribute to their food security. In addition, the project will support the implementation of community-level sub-projects. Specific activities will depend on the identified community needs but will fall under the following categories: (a) silvo-pastoral activities will support farmer-managed natural regeneration (FMNR) and establishment of woodlots; (b) establishment and management of rangelands; (c) restoration of riparian vegetation; and (d) water management investments, such as weirs and dugouts. SLWM investments will contribute to climate change adaptation, through enhancing food security of participating communities and also contribute to climate change mitigation, through improving soil health and increasing soil and vegetation carbon sinks. The project will provide required inputs to the identified farmers and communities in kind, not in cash; these will be procured by the PCU.

53. The subcomponent will invest in improvements in cocoa production through a multi-pronged approach in the target landscape. These investments will support introduction of improved (heat-and drought-tolerant, and disease-resistant) planting materials; replacement of old trees and improving soil fertility (through replanting of up to 2,000 ha of moribund cocoa farms affected by the swollen shoot disease)[36]; integrated pest management and cocoa spraying, in addition to diversification of crops through support to sub-projects as described above. This comprehensive support aims to enhance productivity of the cocoa farms and increase economic benefits for the farmers.

54. On average, 22 communities per district will be targeted for investments under this subcomponent, to a total of up to 582 communities.

[36] The districts selected are: New Edubiase, Juaso, Nyinahin, Twifo Praso, Assin Fosu, and Nkawkaw. Selection of farmers for project support will follow these criteria: (1) the age of the farm is over 30 years; (2) the farm is not infected with Cocoa Swollen Shoot Virus Disease (CSSVD); and (3) the farmer is willing to assist in the establishment and maintenance of the farm.

Subcomponent 3.2: Value addition, market access, and income diversification (US6.5 million, including US$3.83 million equivalent from IDA, US$1.30 million from GEF, and US$1.37 million from PROGREEN)

55. This subcomponent will support the provision of small post-harvest structures, improve market access, and promote value addition of selected cash crop commodities (cocoa [in the Transition zone] and cashew and shea [in the savannah zone]) which have been identified as priority commodities for the project; other commodities may be identified and added later on. The objective of this activity is to provide farmers with the necessary quality and leverage to compete in markets and further improve their livelihoods. This activity will aim to improve marketability and quality of the products through the provision of training that is tailored to existing supply chains and market buyers. In addition, to help professionalize farmer associations, the project will support the conversion of associations into formal cooperatives to improve their access to larger markets, where possible, mostly for cocoa and cashew. In this context, the activities will be conducted through COCOBOD and its association with the CFI. Improvements in value chains will have both climate change mitigation and adaptation benefits, as the production systems will be adapted to changing climatic conditions while improvements in processing will reduce wastage of natural resources.

56. It will also promote gender-inclusive alternative livelihoods by investing in the implementation of natural resources-based livelihoods activities to reduce pressures on the forests and to create income-earning opportunities besides the farming activities, with a specific focus on supporting women's groups/associations to ensure women's equal participation in economic activities and access to markets. The project support will ensure that products readily available to the communities can be used for value addition, such as baobab leaves processing, beekeeping, soap making, dairy processing, snail rearing, poultry and rabbit rearing, groundnut processing (oil and paste production), production of bamboo handicrafts, and so on, to enhance community livelihoods and food security. The project will provide inputs required for activities (such as processing equipment) and required technical assistance and training, to ensure adequate quality for market access. The project support will give special consideration to gender-sensitive issues that could impede women's abilities to participate effectively in economic activities and devise ways to overcome these issues.

57. In addition, up to 180 communities will be trained on and supported in the establishment of VSLAs. The groups will be trained on the basics of FM, such as bookkeeping, and will be provided with VSLA savings boxes and other required equipment.

58. This subcomponent will also support the provision of performance-based payments to farmers electing to participate in the scheme through establishing tree cover in the catchment areas. Because of limited agricultural revenue during the tree maturity period and a lack of access to seedlings, farmers are unable to easily transition into tree farming. As part of the inputs (Subcomponent 3.1), the project will provide mango tree seedlings to farmers to augment their current land uses: agricultural production of maize, groundnut, and rice. Contingent on 75 percent of trees surviving after one year (based on field verification), the project will pay performance-based cash incentives to participating farmers. This approach was already piloted under the SLWMP and has proven to be a successful incentive to promoting tree cover in agricultural production landscapes.

Subcomponent 3.3: Forest management planning and investments in and around forest reserves (US$7.85 million, including US$4.88 million equivalent from IDA, US$1.01 million from GEF, and US$1.96 million from PROGREEN)

59. The subcomponent will aim to secure the integrity of forest areas to ensure sustainable forest management. It will contribute to augmenting the supply of important native species within the target forest ecosystems while also creating incentives and employment opportunities and markets for native tree seed stock as well as for communities and farmers to engage in the planting and preservation of native tree species, rather than encroachment into forests. This subcomponent will include the following activities:

(a) Improved management of 22 target FRs (11 in the NSZ and 11 in the cocoa forest landscape), including the development of forest management plans (FMPs) where needed and the implementation of priority forest protection and restoration activities, based on the developed FMPs. Such activities will include enrichment planting (over 2,300 ha in total), establishment of nurseries for indigenous tree species, fire prevention and awareness activities, and equipping of FC field teams for effective protection and monitoring of FRs.

(b) Engagement with admitted settlements and farm owners[37] to limit their farm expansion, based on the developed FMPs and reserve settlements commissioner's report (referred to in the FMPs). This will include (i) sensitization and awareness creation on forest protection and management of admitted farms, admitted settlements, and forest fringe communities; (ii) consultations with admitted farm owners and registering and documenting ownership and boundaries of admitted farms; (iii) establishment of admitted farm and admitted settlements boundaries through surveying, mapping, and replacing missing, broken, and defaced FR boundary pillars; and (iv) carrying out, through community engagement, of planting of FR boundaries and buffer zones, including through the use of the Mixed Taungya System.

(c) Support to livelihoods activities in buffer communities, channeled through (reconstituted and revived) Community Forest Committees[38] in collaboration with District Assemblies. The project will support, as required, the establishment and reconstitution of the Community Forest Committees and provision of livelihoods support (for example, woodlots, beekeeping, and poultry rearing, in accordance with the pre-identified list of livelihoods options) to these

[37] This activity will be undertaken in FRs in the Cocoa Forest Landscape, as FRs in the Savannah zone have no admitted farms/settlements.

[38] The concept of Community Forest Committees emanates from the principles of collaborative Forest Management defined as "partnership in sustainable renewable natural resource management and development to ensure equitable sharing of rights and responsibilities and benefits to improve livelihood of all segments of society" and the Forest and Wildlife policy of 1994 (updated in 20212) which seeks to ensure the conservation & sustainable development of nations forest and wildlife resources for maintenance of environmental quality and perpetual flow of optimum benefits to all segments of society. Community Forest Committees are typically present in fringe communities of FRs, are self-elected community representative groups, and typically include representatives of major or primary identifiable groups or stakeholders within the community, ranging from seven, nine, or eleven persons.

buffer communities to reduce pressures on PAs and enhance protection of the forest resource.

Subcomponent 3.4: Management of wildlife protected areas and biological corridors (US$7.51 million, including US$4.98 million equivalent from IDA and US$2.53 million from PROGREEN)

60. This subcomponent will invest in target wildlife PAs and biological corridor areas to strengthen their on-the-ground management, develop ecotourism opportunities in selected wildlife PAs, engage communities in the management of these areas, and support their ability to benefit from the sustainable management of forest and wildlife resources through the devolution of management rights under the CREMA arrangement and support to natural resources-based livelihoods.

61. Activities under this subcomponent will be implemented in Gbele Resource Reserve, Mole NP, and Digya NP and fringe communities around these PAs, and fringe communities around Kogyae Strict Nature Reserve, as well in the CREMA areas in target wildlife corridors (Western Wildlife Corridor, Digya-Kogyae Wildlife Corridor, and Eastern Wildlife Corridor). Support under this subcomponent will contribute to the creation of a contiguous management zone of the forests between PAs.

62. Activities within PAs will include (a) preparation of management plans[39] through a stakeholder process; (b) boundary maintenance; (c) provision of field equipment and basic infrastructure to support park monitoring (this would include construction of tracks and trails and satellite camps for rangers); (d) habitat enhancement activities (such as construction of dugouts/water points for animals and fire management activities); (e) human-wildlife conflict management; (f) research (including equipping and operation of a field research center at Mole NP); (g) operation of the Management Information System and Tracking for flora and fauna monitoring; (h) conservation education and public awareness in and around PAs—targeting communities and existing practices that affect the PAs (hunting, illegal extraction of wood, and so on); and (i) infrastructure investments in fringe communities to reduce their reliance on PAs, such as community dugouts around Gbele Resource Reserve (in three identified communities) and shea nut drying facilities for women groups. In areas with ecotourism potential around Mole NP, the project will support undertaking of feasibility studies and invest in development of ecotourism opportunities by building basic park tourism infrastructure (such as entrance posts, picnic sites, and bird hides).

63. In addition, this subcomponent will support engagements with admitted settlements and farm owners in Digya NP, based on the developed FMP and reserve settlements commissioner's report (referred to in the FMP). This activity will include the same actions and follow the same protocols as the engagement with admitted farmers and settlements by FSD under Subcomponent 3.3.

64. This subcomponent also includes collaborative resource management around target PAs and in the biological corridors, working through a CREMA model. The project will support the establishment of and investments in priority activities identified in CREMA management plans / action plans in approximately 24 CREMAs for improved corridor management within the targeted areas of the project. This will include 11 CREMAs (6 already established under SLWMP plus 5 new) in the Western Wildlife

[39] Mole NP and Digya National Park do not have current management plans (latest management plans for these areas date back to 2006 and 1994, respectively). The management plan of Gbele Resource Reserve will expire in 2023.

Corridor, three CREMAs in the Eastern Wildlife Corridor, three CREMAs in the Gbele Resource Reserve fringe communities, two CREMAs in the Mole NP fringe communities, two CREMAs in the Digya NP fringe communities, two CREMAs in the Digya-Kogyae Wildlife Corridor, and a CREMA at Lake Bosomtwe (in the Pra River Basin). Identification of specific CREMAs and their boundaries will be informed by the feasibility studies.

Subcomponent 3.5: Reclamation of mined out sites and alternative livelihoods (US$8.04 million, all from IDA)

65. The subcomponent aims to promote reclamation and rehabilitation of mined-out areas and prevention of forest loss due to mining. Activities will include mapping, prioritization, and characterization of mining degradation in the targeted areas of the project and site sampling and assessment of potential clean-up approaches and techniques, which will inform site-specific rehabilitation plans. Monitoring of ASM activities through the improved Forest Monitoring System that will be enhanced under Component 1 will also support this activity.

66. Under this subcomponent, the project will also set up demonstration sites of appropriate rehabilitation approaches for a small number of selected abandoned mine sites as part of the integrated landscape management plans and FMPs, with a total area of approximately 2,000 ha. These activities will be closely coordinated with parallel activities under the FIP. The objective of the activity would be to create awareness of rehabilitation and economic potentials of abandoned mine sites among relevant stakeholders and promote adoption of these practices. For reclamation (of up to 2,000 ha), the major engineering works required for the reclamation will include the following: (a) soil tests, (b) cutting and haulage of fill materials to top up to the required ground elevations, (c) earthworks which will involve spreading of stockpile of sandy/laterite waste rock into pits, (d) spreading of topsoil, (e) raising of cover crops, (f) tree planting (phytoremediation), (g) field maintenance, and (h) M&E. Priority areas have been identified in the Prestea-Huni-Valley district (Western Region) and in the mining areas around Kyebi in the East Akim district (Eastern Region). Local communities will be involved as workforce to the greatest extent possible to provide revenues and included in decision-making to create ownership and sustainability of the initiative. Land rehabilitation is expected to improve soil health and restore forested land.

67. Importantly, the project will promote alternative livelihoods to mining, to boost income generation and income diversification in the mining communities. The project will support baseline studies to tailor support to existing demand and design and deliver skills-based training, to enable a comprehensive livelihoods strategy. These alternative livelihoods activities will focus on climate-resilient and sustainable alternative livelihoods that will prioritize efficiency of resource use and waste reduction.

Component 4: Project Monitoring and Knowledge Management (US$8.39 million, including US$6.2 million equivalent from IDA, US$1.11 million from GEF, and US$1.08 million from PROGREEN)

68. These costs do not include project preparatory financing received by the MLNR from IDA (US$3 million equivalent).

69. This component aims to support robust project management and implementation (including financial, internal audit and procurement management, M&E, E&S risk management, supervision, implementation and monitoring of the GRM, monitoring implementation of the Gender Action Plan, and

so on), better communication outreach and dissemination, appropriate stakeholder engagement, and adequate knowledge management. This component will have two subcomponents, each led by a respective PCU, at the EPA and the MLNR.

Subcomponent 4.1. Project Monitoring and Knowledge Management (EPA PCU) (US$5.39 million; IDA US$3.2 million equivalent; GEF US$1.11 million, PROGREEN US$1.08 million)

70. This subcomponent, led by the EPA, will finance technical and operational assistance for day-to-day management and implementation of the project. Specific activities will include the following:

(a) Project management and monitoring by the PCU, including services of two technical officers, capacity building for the project management team in fiduciary aspects, cost of field supervision, including by the fiduciary teams, cost of internal and external audit, purchase and maintenance of office equipment and logistics, monitoring, incremental operating costs, and costs related to meetings and field supervision of the PMP and the PSC. Costs of annual review and planning meetings as well as project midterm and completion reports will be also included here.

(b) E&S risk management and monitoring, including costs of training and awareness creation on E&S aspects, costs related to E&S due diligence and permits, purchase of the personal protective equipment, operationalization and maintenance of a functional GRM system, monitoring of the Gender Action Plan implementation, and cost of E&S audits as may be required.

(c) Knowledge management and impact evaluation, including development and implementation of the knowledge management plan (some of the already identified activities will include international and national learning activities on cocoa [under FOLUR] and cashew, such as knowledge exchanges and study tours [international and local]), project impact evaluation, and development and implementation of the communication strategy.

Subcomponent 4.2. Project Monitoring (MLNR PCU) (US$3.0 million equivalent, all IDA)

71. This subcomponent, led by the MLNR, will finance technical and operational assistance for day-to-day management and implementation of the project. Specific activities will include the following:

(a) Project management and monitoring by the PCU, including services of PCU consultants (project coordinator, M&E specialist, technical mining specialist, gender specialist, stakeholder engagement specialist, environmental specialist, procurement specialist, and FM specialist), cost of field supervision, including project oversight by the MLNR, training on M&E and data verification, capacity building for project staff, cost of FM, including installation and operation of the accounting software, cost of internal and external audit, purchase and maintenance of office equipment and logistics, incremental operating costs, and costs related to meetings and field supervision of the PSC. Costs of mid-year and annual review meetings with M&E schedule officers of the IAs, quarterly performance review meetings with the PCU, project midterm and completion reports, and participation in international conferences will be also included here.

(b) E&S risk management and monitoring, including costs of training and awareness creation on E&S aspects/project E&S instruments, costs related to E&S due diligence and permits, training of ASM firms and cooperatives on setting up and maintaining the Environmental and Social Management Systems, monitoring of the Gender Action Plan implementation, and implementation of the gender equality strategy, including gender trainings for IAs, PCU staff, and the Ghana National Association of Small-Scale Miners.

Component 5. Contingent Emergency Response Component.

43. A Contingent Emergency Response Component (CERC) with zero allocation will be created and made implementation-ready to allow the GoG to respond quickly in case of an eligible emergency. The mechanism will be defined in a specific CERC Operational Manual that will clearly outline the triggers, eligible expenditures, procurement thresholds, and procedures for using part of IDA resources of the project to respond quickly in the event of an eligible emergency.

Legal Operational Policies

	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

Summary of Assessment of Environmental and Social Risks and Impacts

44. The project will be implemented in the Northern Savannah Zone (North East, Savannah, Upper East, Upper West Regions) and the South-Central zone (Western, Eastern, Central, Bono East, and Ashanti Regions). The project's landscape approach is centered around 13 sub-basins, for which integrated planning will be undertaken at the project start and management and monitoring platforms will be maintained throughout the project.

45. In the Northern Savannah Region, the project area will fall mainly within the Guinea and Sudan Savannah Zones of Ghana. Project activities will focus on the sub-watersheds of two Volta River tributaries flowing into the country from Burkina-Faso in order to concentrate impacts and affect outcomes at the sub-watershed level. The Kulpawn-Sisilli and the Red Volta sub-watersheds have been prioritized due to sustainable land and water management needs, high poverty and presence of biodiversity corridors. In Northern Ghana, the project will support conservation and restoration activities in the Gbele Resource Reserve (GRR), Mole National Park (MNP), Digya National Park (DNP), and Kogyae Strict Nature Reserve and fringe communities around these protected areas as well in the Community Resource Management Areas (CREMA areas) in target wildlife corridors (Western Wildlife Corridor, Digya-Kogyae Wildlife Corridor, and Eastern Wildlife Corridor). The GRR, DNP and MNP are permanent estates reserved for the preservation of forest and wildlife resource. Through support to CREMAs, the project will contribute to creation of a contiguous management zone of the forests between protected areas.

46. The Gbele Resource Reserve is home to diverse mammal species (antelope, hartebeest, bushbuck, waterbuck, savannah duikers, warthogs baboon, patas, green monkey, etc.). There is also a very rich

birdlife with about 194 species. Digya National Park supports at least six primate species, including black and white colobus, elephants and a variety of antelopes. Manatee and clawless otter are also reported to be present in the Park. Mole National Park is the largest national park in Ghana and has the widest range of wildlife. The park is home to over 93 mammal species, and the large mammals of the park include elephants, hippos, buffalo, and warthogs. The park is considered a preserve for antelope species including kob, defassa waterbuck, roan, hartebeest, oribi, the bushbuck, and two duikers, the red duiker and yellow-backed duiker. The park is also home to Olive baboons, black-and-white colobus monkeys, the green vervet, and patas monkeys are the known species of monkeys resident in the park. The Western Wildlife Corridor provides link between the MNP and Nazinga Reserve in Burkina Faso for easy movement of wildlife species. The fauna in the corridor includes the African elephant, buffalo, roan, oribi, common duiker, buffon kob, hartebeest, waterbuck, bushbuck, baboon, patas monkey, squirrel, python, cayman, green monkey and the African elephant. It is identified as one of the few remaining elephant ranges in Ghana. The Eastern Wildlife Corridor stretches from the Kaboré Tembi National Park in Burkina Faso through the border with Ghana, extending down along the Red Volta River through the Red Volta East and West Forest Reserves. It continues through Morago East and West Forest Reserves to the Gambarga Scarp and eastward to conservation areas in Togo along the White Volta and Morago Rivers. The area enclosed by the proposed Digya – Kogyae Wildlife Corridor (DKWC) protect vital ecosystems such as the Afram and Nene Rivers and their tributaries while providing a natural and safe passageway for several wildlife species between the Digya National Park and the Kogyae Strict Nature Reserve in the Transitional belt of Ghana. Some of the notable wildlife species that are either resident in the corridor or make seasonal movement between the two PAs include the African elephant, buffalo, waterbuck, baboon, patas monkey and several species of reptiles, amphibians and avifauna.

47. In the South-Central Region, the project area will be located within the Forest and the Transitional ecological zones where the Pra basin is located, one of the most intensively used basins in Ghana for settlement, agriculture (including cocoa), logging and mining. The total Pra Basin area is approximately 23,200 km2 and it extends through almost 55 percent of Ashanti, 23 percent of Eastern, 15 percent of Central, and 7 percent Western Regions of Ghana. The Pra Basin falls within the Upper Guinean rainforest, which has been recognized as a global biodiversity hotspot due to a high presence of endemic species. The project will support activities that will promote sustainable ASM practices in selected ASM enclaves in the Eastern, Western, and Ahafo, and Ashanti Regions of Ghana. The selected enclaves are forested areas with some sensitive natural ecosystems. The Eastern Region is recognized for its forest ecosystems with high species diversity, high levels of endemism and great hydrological importance. The Western Region occupies the largest portion of the richest biodiversity area of the country, and the Ahafo Region is also characterized by high diversity of flora and fauna. Nationally, the Ashanti region, which covers more than half of the Basin, is the second largest producer of cocoa beans in Ghana and an area with substantial active ASM.

48. **Overall, the project will have positive impacts as it will promote land restoration for improved food and ecosystem services in the targeted Savannah, cocoa and degraded landscapes.** It will also promote the sustainable management of natural resources and support the livelihoods of local communities depending on those natural resources through practices that integrate conservation needs and development priorities.

49. **Results chain:** Reliance on low-value commodity production and unsustainable land use practices

makes people particularly vulnerable to climate change, and many communities of the project are locked into a cycle of poverty and resource degradation. The project's "Theory of change" (see project appraisal document and Annex A GEF endorsement request) captures the root causes and its approach for the adoption of sustainable landscape management practices and formalization of sustainable ASM to enhance agricultural development and food production through better land use, forest restoration, and strengthening supply chains within the food systems. The medium and long-term project outcomes are expected to contribute to multisectoral land-use management planning in target sub-basins and community level that takes into account all uses; reduced deforestation and erosion and enhanced water provision; sustainable value chains for key cash crops; increased agricultural production; successful scale up of piloted interventions; reduced loss of biodiversity; increase in rural employment and incomes; and development of ASM that is environmentally, socially, and economically sustainable.

50. **GEF Incremental reasoning:** Significantly, the GEF financing for the project is aligned with the GEF-7 focal area objectives and is programmed under the FOLUR.[45] It aims to advance the global environmental sustainability agenda by demonstrating integrated models of sustainable commodity production, biodiversity conservation and landscape restoration. Existing initiatives in the cocoa forest landscapes follow the implementation approach through the Hotspot Intervention Areas (HIA) whose aim is to promote climate-smart agriculture, including intensifying cocoa production, for increasing yields and improving smallholder livelihoods through strong participation of smallholder farmers.[46] Working directly with communities and the private sector actors, these models can be adapted and replicated across cocoa forest landscapes in nearby regions of Ghana, as well as globally for cocoa and a range of other globally relevant commodities. Overall, the proposed interventions in the cocoa forest landscapes will be aligned with the FOLUR's theory of change that emphasizes support to sub-basin development planning and landscape management approach which links to food production, biodiversity conservation, and restoration of degraded lands. The added-value of GEF financing would be to support zero-deforestation cocoa production in the targeted cocoa forest landscapes within the Transition Zones through COCOBOD and by working closely with the Cocoa Forest Initiative. Support would include promoting sustainable cocoa practices such as hand-pollination, shaded cocoa (trees on farms), mulching, rehabilitating moribund cocoa farms, improved seedlings, etc. Activities would be informed by the ongoing FIP and DGM project. The objective here is to avoid extension of cocoa farms into forests, while increasing productivity and enhancing quality of cocoa beans, as majority of cocoa beans are meant for export.

51. **The environmental risk classification is proposed as substantial.** The substantial rating is based on the fact that Component 2 of the project: Regulatory strengthening and formalization of sustainable ASM is intrinsically linked to the government's initiative, the Multi-sectoral Mining Integrated Project (MMIP) which poses historical or potential legacy issues which are likely to have extended sector-wide implications.

52. Overall, the project is expected to have positive environmental impacts by restoring degraded forest landscapes, reclaiming degraded mined-out sites, improving ecosystem services, improving livelihood of rural communities and supporting regulatory reform and formalization of the Artisanal Small-scale Mining (ASM) sector. The project has an overall objective of improving / greening current practices related to subsistence agriculture, management of riparian/ watershed areas, forested areas within and between gazetted areas, and small-scale mining in target areas, through adequate trainings, extension, and investments in restoration of natural resources. The project is also designed to protect sacred lands

and groves within the project areas.

53. However, some environmental risks can be envisaged and will be associated with activities such as construction and rehabilitation of waterholes, dugouts and CREMA facilities, alternative income generation initiatives, agriculture and agroforestry activities, rangeland establishment and management, cocoa intensification practices, woodlot establishment, enrichment planting in forest reserves and off-reserve, and reclamation of abandoned ASM sites. Project activities involving construction and rehabilitation will include site clearing, soil excavation and civil works that could lead to air and noise pollution, loss of vegetation and fauna, habitat disruption, soil disturbance and erosion, generation of solid waste, risks of occupational health and safety of workers, risks to community health and safety, and risks to cultural heritage. At this stage, the specific sites have not been identified. Once the specific sites are selected, the Borrower will ensure that all sites are screened and any additional environmental assessments that may be required are carried out and the mitigation measures implemented to reduce the direct, indirect and the residual impacts of these activities. The impacts associated with these risks will be localized and are not likely to be significant and there is low probability of serious adverse effects to human health and/or the environment. The impacts can easily be prevented and/or mitigated in a predictable manner. In addition, the project will utilize established capacities, protocols, manuals, and monitoring mechanisms developed under the previous / ongoing Bank-supported interventions. The project will ensure that waste generated by these works will be disposed of at approved sites according to the national laws and regulations. The project will also ensure that mitigation measures such as dust suppression and vehicle maintenance will be applied to minimize the impact of air emissions during construction/rehabilitation.

54. Agriculture and agroforestry activities will likely involve the use of agricultural inputs such as pesticides which is expected to be low but could lead to soil contamination, and poisoning of non-target organisms as well as adverse health effects to humans. To avoid the risks associated with the use of pesticides, the project will provide training to farmers on safe use of approved pesticides similar to ongoing practices under the SLWMP. The project will aslo ensure that the use of pesticides will be limited to activities outside protected areas.

55. **The social risk classification is proposed as substantial.**

56. Overall, the project is expected to have positive social impacts on people as the interventions will improve community management of natural resources, diversify income streams of farmers, improve livelihoods, food security, enhance women's access to land and markets, increase access to finance for investments in land and promote social inclusion. Further, the project will also promote reforms and indirectly address related social challenges particularly in the ASM sector given the nature and conditions of work for women, children and migrants in artisanal small-scale mining value chain in Ghana.

57. Project activities relating to the establishment of rangelands and construction of CREMA facilities may be associated with permanent or temporary physical and economic displacement resulting from land acquisition, restrictions of access to and expansion of farms in forest reserves and parks; or voluntary land donations. Other social risks may be associated with confrontation between forest and wildlife guards and forest reserves and national parks fringe communities when forest land boundary demarcation, existing regulations and plans that restrict access and land use rights in protected areas are enforced. Conflicts

involving farming communities on one hand and Fulani pastoralists on the other, have also been reported in the project areas due to limited grazing areas during the dry season. Again, human- wildlife conflicts occasionally occur due to scarcity of water during the dry season.

58. Project activities proposed to improve the ASM sector in Ghana including reclamation of mined out sites and delineation of areas with potential mineral deposits may inadvertently lead to displacement of land users, encroachers and illegal prospectors and miners. Child labor and poor labor conditions in cocoa plantations in forest landscapes and reclamation sites are also potential risks. Although the social exploitation and abuse / sexual harassment risk is rated as low for the project using Gender Based Violence risks assessment tool, the project's present opportunity to advance gender inclusion in the forest landscape management and landscape management and small scale mining sector and this is well articulated in the project Gender Action Plan and well mainstreamed into project design, also building on the lessons from the ongoing Ghana SLWMP (P098538) and G-FIP (P163745) in particular.

E. Implementation

Institutional and Implementation Arrangements

59. Implementation is aligned with existing government agencies and their mandates.

60. The national-level project structure comprises the **Joint Project Steering Committee (PSC),** respective **Project Coordinating Units (PCU)** on mining and land restoration, and the **Implementing Agencies (IAs)**.

61. The Project will be guided by a **joint Project Steering Committee (PSC)** co-chaired by MLNR and MESTI and comprising all implementing agencies relevant to both sectors to improve coordination. The PSC will operate as the primary policy decision-making body for the project, with overall oversight responsibility for project administration and joint project activities. Technical level **Project Management Platform** will provide a forum to deliberate on technical issues concerning project implementation; it will include project focal persons from the IAs and other technical institutions relevant for project implementation. The National Sustainable Land Management Committee (NSLMC) (as a standing committee of the Government of Ghana) will serve as the technical advisory function for the project landscape restoration activities.

62. The **Project Coordinating Unit on Mining (PCU-Mining)** will fall under the leadership of MLNR and will be responsible for project coordination, fiduciary management, and supervision of implementation, as appropriate. The PCU-Mining will consist of a Project Coordinator (PC-Mining), who will be the administrative head of the mining sub-project and other relevant staff. The PCU-Mining will coordinate closely with all Implementing Agencies of mining-specific project components and coordinate directly and regularly with the PCU-LR.

63. The **Project Coordinating Unit – Landscape Restoration (PCU-LR)** will be housed within the EPA Headquarters with a full-time coordinator, and other relevant staff, and will amongst others, to manage and coordinate operations of implementing agencies, preparation of workplans and reporting. The PCU-Mining will coordinate closely with all Implementing Agencies of LR project components and coordinate

directly and regularly with the PCU-Mining.

64. **Implementing Agencies (IAs)** will assume direct responsibility for implementing the various components and activities of the project. IAs will liaise with the respective PCUs to prepare an implementation workplan and budget, provide input into the procurement plan, draft terms of reference, and oversee the procurement process. IAs are also responsible for executing their respective work programs, tracking project expenditures and monitoring project results. The key implementing agencies will include (i) on **landscape restoration -** MOFA, EPA, COCOBOD, Wildlife Division of the Forestry Commission, Forest Services Division (FSD) of the Forestry Commission; (ii) on **mining –** MC, GGSA, Lands Commission, Ghana EITI, and PMMC.

65. The project will also engage with **technical service providers** as required and appropriate, in accordance with the work plans, in support of training, extension, and value-chains activities.

66. At the sub-national level:

- Within the two project target landscapes, the **Local Steering Committee** (LSC) will be the project oversight body responsible for strategic policy decisions. There will be two LSCs: one for the Northern Savannah Zone project areas and one for the Cocoa forest landscape regions.

- At the technical level in each landscape, EPA will provide coordination and technical support through two Technical Coordination Offices (TCO), based at the Regional EPA offices in Bolgatanga (covering the Northern Savannah Zone) and Ashanti Region (covering the Cocoa forest landscape). The TCOs will: (a) help coordinate micro-watershed planning under subcomponent 3.1. and other cross-sectoral field activities; (b) develop a Memorandum of Understanding with each project district on SLWM activities and complementary investments; (c) implement the SLWM performance verification mechanism under subcomponent 3.4; and (d) implement environmental monitoring activities for the project.

- The **District Planning and Management Committees** (DMPC) will be responsible for coordinating project implementation at the district level. The DPMC is chaired by the District Chief Executive assisted by the District Coordinating Director who is the Technical and Administrative Head of the District Assembly. Membership of DPMC includes representatives of Implementing Agencies at the decentralized level on both sides of project (LR and SSM). They shall be responsible for project implementation, data generation, processing, archiving and transmission to the regional and national offices, preparation of work plans and budgets at the district level (where necessary) and monitoring and technical backstopping on project interventions. They will support project activities at the operational/community level and in ASM Designated Areas. The DMPCs will lead participatory processes related to preparation of community watershed management plans at the micro-watershed level.

- Specifically for ASM, the District Small-Scale Mining Committees (DSMC), which are statutory bodies for ASM under the Minerals and Mining Act, shall be responsible for project oversight and policy decisions on small-scale mining operations within the mining districts.

- Actual implementation of activities will be led by specific implementation agencies in accordance with their regular mandates.

Monitoring and Knowledge Management

67. **Monitoring Arrangements**: The project coordinating unit has developed the detailed M&E plan for the project as part of the Project Implementation Manual (PIM) emphasizing on the collection mechanisms, processing, analysis and dissemination of data on progress, effects, impacts and lessons drawn from the project. The project will use an online-based geonode open-source spatial database to back up the monitoring and evaluation system. The system will allow the project implementers at all levels to upload vetted field data for additional analysis and visualization. The PCUs will be in-charge of developing and routinely updating the M&E plan and, activities will be implemented by specialized staff within the PCUs, including a dedicated M&E Specialist. The M&E team will be overall responsible for data collection, collating, analysis, and reporting as part of the semi-annual and annual reporting to the World Bank, GEF, PROGREEN and other relevant stakeholders, including its obligations under the FOLUR impact program. The project results framework has been designed to capture targets aligned with the frameworks from the three funding sources. For some indicators, data collection will entail field/household surveys, complemented with other observation tools, such as satellite observation. Technical support/guidance as needed will be secured during implementation. Given the prevailing COVID-related constraints, that may limit effective on the ground access in some of the selected project areas, solutions in the field of remote sensing and geospatial analysis will be leveraged for monitoring and evaluation purposes when feasible. A project MTR and ICR will be undertaken with consultants hired by the PCU. Project funding will be provided for capacity development on results monitoring. The project will update GEF core indicators at beginning, midterm, and project completion.

68. **Knowledge Management:** Knowledge sharing, learning and building partnerships is part of the project's knowledge management approach which is budgeted and mapped to component 4 of the project. Broadly KM activities will aim to build broader capacity and ensure wider stakeholder engagement in the policy work supported under Components 1 and overall project coordination with the FOLUR. A detailed knowledge management and communication plan will be developed at project start. As a child project under the FOLUR, the project will engage with the FOLUR Global Platform to share lessons learned outward and bring lessons, investment and good practice to Ghana. To achieve transformation in food systems and commodity production practices at a global scale, the country level efforts and global efforts need to work together. The project's knowledge management approach will include developing/disseminating training guidelines and promotion material on landscape restoration and sustainable cocoa production practices and enhance effective communication (videos, guidelines) to share project results and experiences, that can assist in leveraging future financing and also ensure that knowledge from the project are transferred into the government's action plans and framework for wider scale-up nationwide.

Innovations, Sustainability and Scale up

69. **Innovations:** The project will reflect the overall innovative nature of the FOLUR IP as a whole, by moving beyond conventional "mainstreaming" approaches focused on individual crops, farming systems

of ecosystems, to address the synergistic links between food systems, markets & value chains, livelihood systems, and landscapes in an integrated and holistic manner. The project will focus on innovation by (a) promoting collaborative management of conservation and production landscapes, (b) promoting an integrated landscape approach for multiple benefits based on forest products, agriculture, conservation, mining, and the jobs and livelihoods from these, and (c) leveraging private investors to partner with government and villages on commodity crops. More specifically through (i) Fostering networks & linking farmers and value chain actors to establish viable business models; (ii) Sub-basin management plans linked to the MTDPs of respective District Assemblies for long term sustainability; (iii) Incorporating innovative decision-support tools for selected value chains to assess results (e.g. Global Forest Watch suite of tools); (iv) Fostering partnerships through platforms (monitoring restoration and cocoa-driven deforestation); and (v) Promoting social inclusion through civil society/community engagement (including gender equality). Overall, within the context of Ghana innovation lies in the various efforts to ensure the sustainability of the interconnectivity between conservation and production, to move in a direction where the uptake of sustainable practices continue to maintain the needed momentum.

70. **Sustainability and Scale up:** Sustainability is central to the design of this project. The project's mainstreamed and decentralized execution structure with the core structure of the Project Management Unit at national and district levels fully made up of the Government institutions reflects national ownership and long-term institutional durability. The project also promotes buy-in by stakeholders in the targeted areas resulting in effective outreach, scaling out and sustainability. Further the project will establish a multi-stakeholder coordinating body which will serve as a platform for thematic discussions, sharing of information and supporting the implementation of key activities, thus enhancing the replication potential. Capacity building activities during the life of the project for the various institutions responsible for the execution of the project will help deliver and sustain their continued efforts as part of their designated functions and roles in the relevant ministries, after project completion. Notably, the focus on enhancing the capacities of national and district level institutions, and of farmers will allow to continuously innovate in order to adapt to evolving environmental and climatic conditions. By involving both public and private sector actors as relevant during project implementation, for capacity building and technical assistance, the project will support the potential for scale up. The uptake and impacts of the project interventions will be further enhanced through a gender-sensitive sustainable livelihoods approach to support farming households and communities across the targeted areas. Environmental sustainability will be enhanced through all project activities which are designed to deliver local and global environmental benefits.

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