SUPPORTING DEFORESTATION-FREE COCOA IN GHANA

IMPLEMENTATION PLAN

INTEGRATED LAND AND RESOURCE GOVERNANCE TASK ORDER UNDER THE STRENGTHENING TENURE AND RESOURCE RIGHTS II (STARR II) IDIQ

Contract Number: 7200AA18D00003/7200AA18F00015
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JANUARY 2019

This document was produced for review by the United States Agency for International Development. It was prepared with support from the Integrated Land Resource Governance Task Order, under the Strengthening Tenure and Resource Rights II (STARR II) IDIQ. It was prepared by Tetra Tech.

Cover Photo:	Tenure and Global Climate Change Program/Ghana
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Suggested Citation:	O'Sullivan, R., Freudenberger, M., Herrera, A., Moulianitaki, B., & Vaassen, T. (2019). *Supporting Deforestation-Free Cocoa in Ghana: Implementation Plan*. Washington, DC: USAID Integrated Land and Resource Governance Task Order under the Strengthening Tenure and Resource Rights II (STARR II) IDIQ.

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LIST OF ACRONYMS

CEL	Communications, Evidence, Learning
CFI	Cocoa and Forests Initiative
Cocobod	Ghana Cocoa Board
CREMA	Community Resource Management Area
CSR	Corporate Social Responsibility
ECOM	Ecom Agroindustrial Corp.
GCFRP	Ghana Cocoa Forest REDD+ Programme
GHG	Greenhouse Gas
HIA	Hotspot Intervention Area
IDIQ	Indefinitely Delivery/Indefinite Quantity
ILRG	Integrated Land and Resource Governance
LUP	Land Use Planning
MEL	Monitoring, Evaluation, and Learning
PIER	Private Investment for Enhanced Resilience
PRA	Participatory Rural Appraisal
SGP	Shared Goodness Promise
STARR II	Strengthening Tenure and Resource Rights II
TGCC	Tenure and Global Climate Change
USAID	United States Agency for International Development

1.0 INTRODUCTION

1.1 COCOA DEFORESTATION AND CLIMATE CHALLENGES

Ghana and Cote d'Ivoire together produce two-thirds of the world's cocoa. Cocoa plays a critically important role in the local and national economies, providing jobs, improved livelihoods and social welfare, expanded tax base, family and corporate income, and foreign exchange earnings growth. However, the long-term viability of cocoa farming is at risk in many parts of Ghana and Cote d'Ivoire due to climate change[1], and for many years smallholder cocoa has been the leading agricultural commodity driving deforestation in both countries. This deforestation increases greenhouse gas emissions and has a negative impact on biodiversity, soil fertility, water quality and quantity, affects local rainfall, and threatens farmer livelihoods. In response, the governments of both countries and commodity buyers have made specific commitments to reduce and eliminate deforestation from their supply chains through the creation of initiatives such as the Cocoa and Forests Initiative (CFI) and the Ghana Cocoa Forest REDD+ Programme (GCFRP) that will sell carbon credits to the Forest Carbon Partnership Facility.

Declining productivity of cocoa farms represents an additional challenge facing the West African cocoa sector. In Ghana, up to 40 percent of cocoa farms have low productivity and the Ghana Cocoa Board (Cocobod) has estimated that 700,000 ha of cocoa farms need to be replanted. There are several challenges to large-scale farm rehabilitation. Farmers and communities lack the funding, labor resources, and technical know-how to replant old trees using best practices to rehabilitate old cocoa farms to be higher yielding and more resilient. Many farmers also have insecure land tenure arrangements that prevent or discourage them from replanting old farms and need help to improve tenure security.

1.2 PREVIOUS WORK

From October 2016 – January 2018, the United States Agency for International Development (USAID) funded a pilot through the Tenure and Global Climate Change (TGCC) program to identify challenges and solutions to improving cocoa sustainability in Ghana. The pilot project was carried out with private sector partners Ecom Agroindustrial Corp. (ECOM) and the Hershey Company (Hershey). The work included extensive background research, consultation, and a field pilot in Nyame Nnae community in Asankrangwa, Wassa Amenfi West (see Figure 1) to demonstrate how to address several challenges including improving land tenure, tree tenure, and financing cocoa rehabilitation to improve cocoa productivity, which would ultimately hope to reduce pressure to expand production into remaining forests.[2]

1.2.1 IMPROVING TENURE SECURITY

The work to increase land tenure security captured and documented land and tree rights as practiced; it did not try to convert these customary rights into statutory rights. Three customary land rights templates were drafted based on these prevailing customary norms: (i) customary freehold; ii) *asideɛ*; and iii) *abunu*. The community boundaries of Nyame Nnae and a total of 190 individual cocoa farms

[1] *Predicting the Impacts of Climate Change on the Cocoa-Growing Regions of Ghana and Cote d'Ivoire* (2011), International Center for Tropical Agriculture.

[2] For more detail see *Improving Tenure Security to Support Sustainable Cocoa – Final Report & Lessons Learned.* A longer summary and link to the final report can be found here: https://www.land-links.org/document/tgcc-ghana-final-report-and-lessons-learned-improving-tenure-security-to-support-sustainable-cocoa/. Additional documentation produced by the project is available here: https://www.land-links.org/project/ghana-tenure-global-climate-change/

were mapped and digitized, with 37 percent of farms held by women. ECOM's extension agents were trained in tenure principles and provided with training materials and simple, laminated fact sheets to help them resolve land disputes, monitor, and assess tenure in their field work, and augment future trainings.

During the life of the intervention, the importance of clarifying landowner and tenant relationships through customary contracts emerged as equally important in tenure documentation terms as having a mapped document for the landowner. Clear dispute resolution structures were found to exist within the Asankrangwa stool, although community members were not always well informed about their rights. The team provided training on dispute resolution to community elders, emphasizing disputes and negotiations relating to cocoa farm rehabilitation and negotiated tenant farmer (*abunu*) arrangements. At the end of the project, 175 out of 190 farmers who received documentation (92 percent) thought it was worthwhile. Community members added that the process provided additional information on farm size and will help reduce conflict.

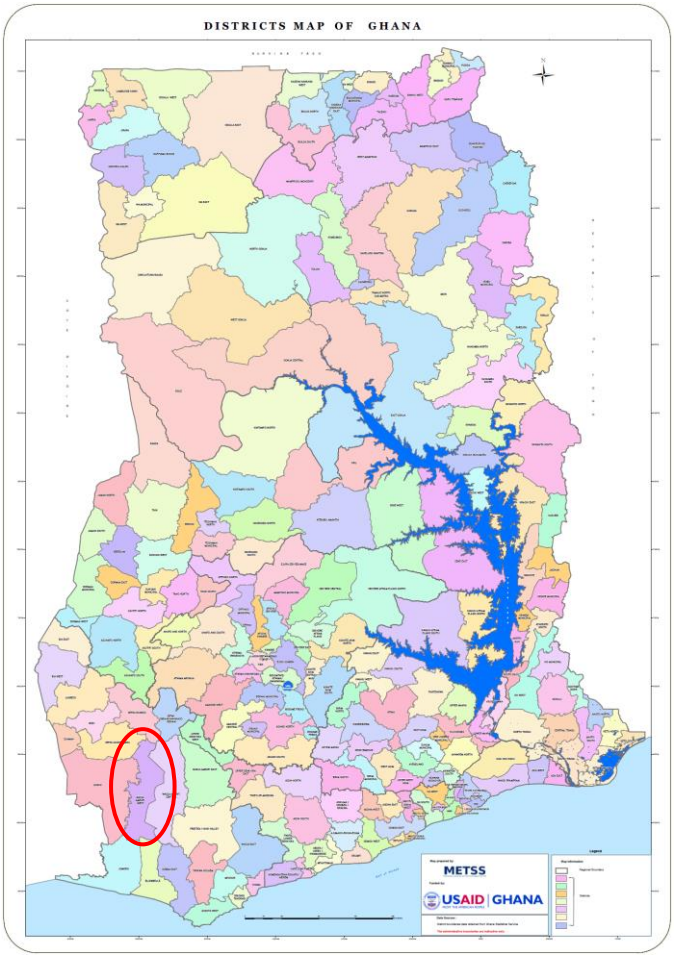

Figure 1: District map of Ghana with Wassa Amenfi West circled.
Source: USAID Ghanalinks.org

1.2.2 TREE TENURE

Current law vests rights to naturally occurring trees with the state, which expropriates all rights over timber exploitation and vests them in the government. During the pilot the Forestry Commission was developing and testing a new approach to vest farmers with rights to planted timber trees via a tree registration process. Despite this legal framework, it became clear that the community viewed tenure over trees and forest products through the lens of customary land rights, even if this differs from statutory law. The community did, however, distinguish customary rights over trees in general from timber trees, for which control is vested in the Forestry Commission by statutory law. In keeping with Ghana's forestry laws, the community viewed timber trees as being owned by the government.

The interplay between government policy and timber extraction creates perverse outcomes for maintaining trees in the landscape and for needed cocoa farm rehabilitation efforts: young timber seedlings (either planted or naturally occurring) are pulled up by customary land holders; land disputes emerge between tree planters and customary land holders; and there are disincentives to plant timber tree species with commercial value. While these conflicts were not directly observed within Nyame Nnae, the Forestry Commission is aware of challenges with the current law and policy and are developing a new policy on tree registration. Many aspects of the tree registration system proposed by the Forestry Commission were still in flux during the pilot. The system maintains the distinction between planted and naturally occurring trees, which causes confusion and scope for abuse, as failure to register planted shade trees may result in de facto treatment of such trees as naturally occurring and therefore subject to state expropriation. The administrative costs of registering trees are also steep.

The pilot team decided not to test the draft tree tenure registration process because it was still in flux and the team had reservations about the proposed policy changes, their long-term efficacy, and the potential to create confusion within the community. Unlike land which is fixed in place for perpetuity, trees incur periodic planting and cutting which require frequent updating of records which complicate monitoring aspects of tree registration. The system of tree registration proposed by the Forestry Commission is confounded by problems of infeasibility and unsustainability. It is infeasible as it will generate vast piles of tree registration documentation that have little likelihood of validating ownership. It is unsustainable given the resources required to monitor, administrate and enforce the system that would likely make it prohibitively costly to implement. A better solution is to transfer rights to naturally occurring and planted trees to customary landowners. Further analysis of tree tenure is found within the TGCC note *Tree Tenure and Benefit Sharing Policy in Cocoa Growing Areas of Ghana*.[3]

1.2.3 FINANCIAL MODEL FOR FARM REHABILITATION

Farm-level rehabilitation was carried out on a total of 50 ha spread over 71 self-selected farms and was financed by ECOM. Ten farms were within Nyame Nnae (farmed by four women and six men) and 61 (farmed by 12 women and 49 men) were spread across other cocoa communities across Ghana where ECOM operates.

To better understand how to finance rehabilitation, ECOM and TGCC developed a financial model for cocoa farm rehabilitation. Under the model, ECOM rehabilitates and manages all farm activities over three years while the farmer learns farm rehabilitation and management techniques and diversifies their income with cash crops. The farmer provides three acres of old cocoa trees to be cleared and has additional cocoa farms elsewhere, which will continue producing cocoa. Two of the three acres are replanted with cocoa, shade trees (if needed), maize, and plantains, and the third acre is planted with maize and plantains only. Two crops of maize and one of plantain are harvested per year. The models show that ECOM's rehabilitation and management costs can be repaid over three years, and a profit share or royalty payment paid to the farmer provides enough cash for the farmers to continue activities once ECOM no longer provides investment support.

1.2.4 OTHER FINDINGS AND GAPS IN WORK TO DATE

The work identified food security as an issue which needs to be factored into cocoa farm rehabilitation and crop diversification. More attention is also needed on gender and social inclusion. Due to funding and time constraints in the pilot, the additional steps of land use planning (LUP), connecting activities to GCFRP, and establishing monitoring protocols to track deforestation were

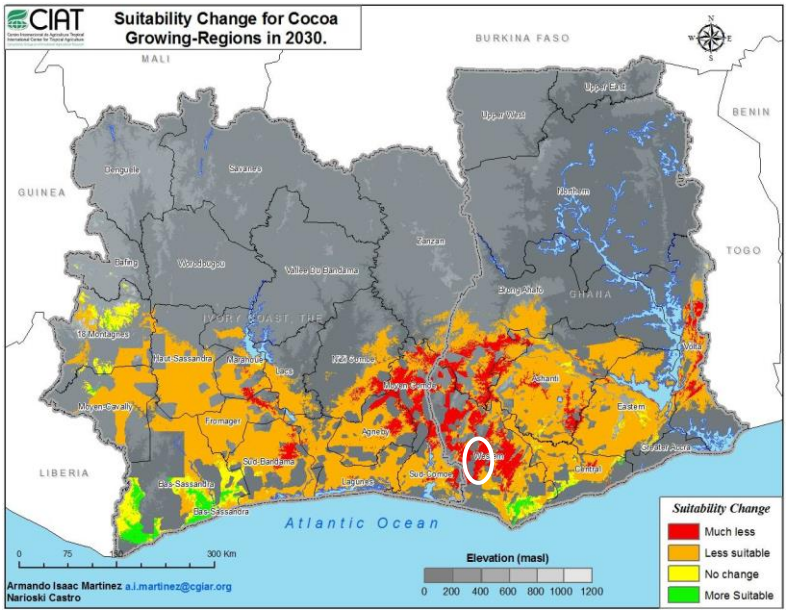

Figure 2: Suitability Changes for Cocoa Growing-Regions in 2030, with approximate location of Wassa Amenefi West circled
SOURCE: INTERNATIONAL CENTER FOR TROPICAL AGRICULTURE, 2011.

[3] The note is available at: https://land-links.org/wp-content/uploads/2018/03/USAID_Land_Tenure_TGCC_Tree_Tenure_Benefit_Sharing_Cocoa_Growing_Areas_in_Ghana.pdf

not piloted in Asankrangwa or Nyame Nnae. Scaling up requires identifying cost-effective approaches to improving farm tenure security at scale, along with re-examining long-term administration options for land documentation.

Scaling up will also require factoring in climate changes expected to occur within the cocoa forest zone, which was not considered during the pilot. Research by the International Center for Tropical Agriculture shows that large areas of cocoa growing areas will become less suitable for cocoa in the future (Figure 2), and recommends efficient shade management, farm diversification, drought-resistant cocoa species, and irrigation.[4]

1.3 IMPLEMENTATION PLAN DEVELOPMENT

The Integrated Land and Resource Governance (ILRG) task order under the Strengthening Tenure and Resource Rights II (STARR II) Indefinite Delivery/Indefinite Quantity (IDIQ) contract, managed by the USAID's Land and Urban Office, is supporting the continuation of the work started under TGCC. In November 2018, ILRG held a planning workshop with key project stakeholders to refine activities for the anticipated two-year bridge phase activity, clarify roles and responsibilities of actors, and define an activity timeline. A total of 29 participants (some of whom participated via webinar) engaged actively in discussions around four central themes:

1. Environmental and social dynamics of deforestation and cocoa, looking at the case of Wassa Amenfi West District;
2. Farm-level clarification and documentation of land and tree tenure rights;
3. Experiences, challenges, and future perspectives with land use planning in Ghana cocoa forest landscape; and
4. Farm-level rehabilitation of cocoa farms.

The cross-cutting theme of gender integration and social inclusion was discussed throughout the workshop and was complemented by a presentation focused on that theme. Additional sessions included a summary of bridge phase evaluation design activities by the USAID Communications, Evidence, Learning (CEL) project and the USAID Climate Economic Analysis for Development, Investment, and Resilience project's parallel research on the dynamics of the cocoa economy.

The workshop was successful in generating a wide variety of recommendations for renovating cocoa plantations under the management of small farmers in the Wassa Amenfi West District in a manner leading to the reduction of deforestation of primary and secondary forests resources in the landscape. Various incentives were discussed to improve the adoption of new approaches to cocoa tree rehabilitation and the provision of land tenure security to small holder farmers.

The workshop recommendations inform the design of this implementation plan for a two-year "bridge" phase designed to generate evidence for USAID and private sector partners on areas with potential for privately financed scale-up. However, while the workshop identified a wide suite of possible interventions, expectations must be tempered by the budgetary limits of the public and private sector parties involved, and alignment of their timelines for action. For example, farm rehabilitation activities have direct costs of thousands of dollars per farm with long-term and potentially uncertain payback periods. This limits private sector investment in farm rehabilitation, which will not be viable until payback models are proven from ongoing pilots. The bridge phase will focus on refining these payback

[4] *Predicting the Impacts of Climate Change on the Cocoa-Growing Regions of Ghana and Cote d'Ivoire* (2011), International Center for Tropical Agriculture.

models, with the ultimate goal of the project to demonstrate viability of private sector investment. See the text box for more details on how the work aligns with USAID's *Private Sector Engagement Policy*.

Separate from ILRG, Winrock is implementing the Private Investment for Enhanced Resilience (PIER) project funded by the United States Department of State, Bureau of Oceans and International Environmental and Scientific Affairs. PIER supports solutions that encourage private sector investment in resilience to changing climate conditions in several developing countries, including Ghana. The focus of PIER is to demonstrate techniques that promote increased private investment and finance for the implementation of priority resilience actions identified in developing country strategic frameworks, such as National Adaptation Plans, Nationally Determined Contributions, and other national development plans. PIER aligns its technical assistance and advisory services by designing specific activities in collaboration with government, private sector entities, and other stakeholders to catalyze resilient investment in key economic sectors. Given the climate resilience benefits of farm rehabilitation services, PIER also intends to provide additional support to help refine and finance ECOM's farm rehabilitation services. Winrock and USAID have also begun discussions with the Partnership for Forests[5] program funded by the UK Department for International Development and the Department for Business, Energy and Industrial Strategy.

Alignment with USAID Private Sector Engagement Policy Operating Principles

Principle 1: Engage early and often. The implementation plan was generated through a co-creation process with the private partners and builds on two years of collaboration between USAID and these partners.

Principle 2: Incentivize and value private sector engagement throughout planning and programming. The proposed bridge phase uses collaborative implementation with private partners and is designed to create evidence and opportunities for co-investment.

Principle 3: Expand the use of USAID approaches and tools that unlock the potential of the private sector. A wide array of tools is envisioned, including technical assistance, grant funding, and exploring a first-loss guarantee.

Principle 4: Build and act on the evidence of what works and what does not in private sector engagement. The bridge phase builds on challenges already experienced in the field. It is designed to create evidence of viable business models – and their challenges – that can help Ghana's journey to self-reliance.

Source: USAID Private Sector Engagement Policy (2018), available at: https://www.usaid.gov/work-usaid/private-sector-engagement/policy

[5] See: https://partnershipsforforests.com/

2.0 OBJECTIVES

2.1 OVERALL OBJECTIVE

The goal of the partnership is to finalize (via a "bridge phase") and then scale up a financially viable farm rehabilitation and land tenure strengthening model for the Ghanaian cocoa sector that, in combination with land use planning, will result in reduced deforestation and GHG emissions and increased carbon sequestration in the cocoa landscape, increased cocoa farm productivity and resilience, diversified farmer incomes, and improved livelihoods. Working with the private sector to support viable business models will draw on the resources and expertise of private partners needed to help Ghana on its journey to self-reliance.

The overall theory of change for the public-private collaboration between the United States government and private sector partners is described in Figure 3 below.

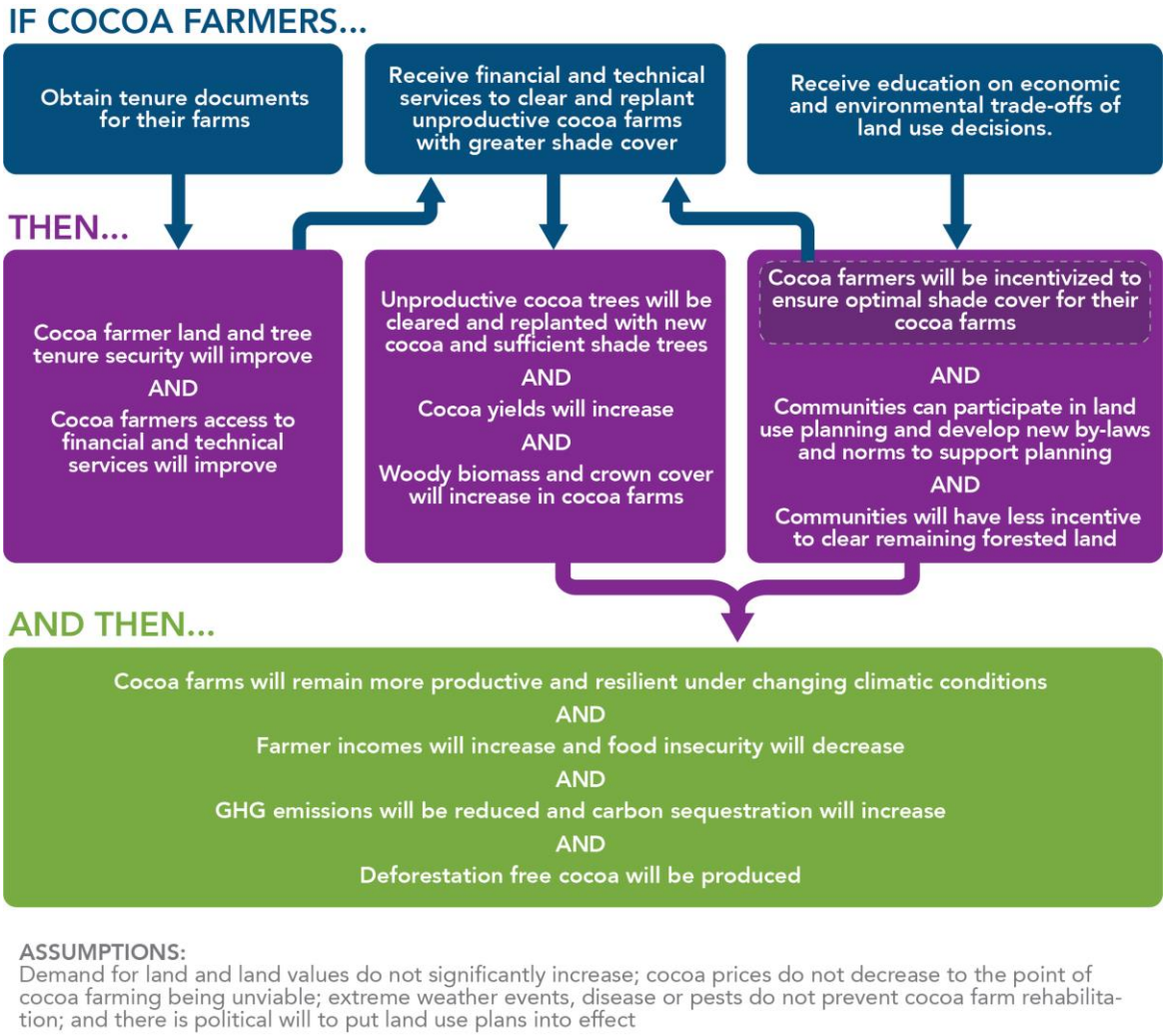

Figure 3: Public Private Partnership Theory of Change

Achieving this will produce benefits for smallholder cocoa farmers and help the government of Ghana and the private sector with CFI objectives and the government's international forest protection pledges.

See summary of CFI commitments, government and company actions, and alignment with the bridge phase in Annex 1.

This implementation plan describes the first two years of this partnership (the bridge phase), which will focus on further testing and refining three essential components of the theory of change:

1. A cost-recovery model for cocoa farm documentation services, which may involve ECOM's field officers. These services may not require significant donor investment during scale-up, though price points and potential subsidies to ensure the services are available to poorest farmers need to be understood and may require ongoing donor support to increase impact.
2. ECOM's Farm Rehabilitation Services, to develop a commercially viable model that can be offered to farmers at scale that increases cocoa yield, shade trees and carbon sequestration in the long term; and increases farmer income and resilience.
3. An approach to landscape-scale governance and land use planning at the village and district level in Asankrangwa that may be connected to the GCFRP (e.g. via recognition as a hotspot intervention area [HIA]) and ensure that GHG emissions from cocoa farms, secondary forests and primary forests are reduced, halted, or reversed (where feasible).[6] This does not generate a return on investment and is therefore expected to be fully donor supported during the bridge phase and scale-up.

The two-year bridge phase will result in a decision by partners whether or not they will scale-up the approach to achieve the overall objective and if so, the timeline and costs required to do so. Scaling up will require substantial private financing for farm rehabilitation and tenure security that may come from a combination of ECOM, Hershey, other companies, Ghanaian financial institutions, or international financial institutions, and donors. The bridge phase aims to reduce risks to this investment and identify options to further reduce risks during scale-up. As with any agricultural investment, substantial risks to recouping investments may remain. Scaled-up private investment into farm rehabilitation and improved tenure security will need to be accompanied by scaled-up donor investment into land use planning to strengthen land and forest governance and may include loan guarantee or other financial support from entities such as USAID Development Credit Authority and/or the Overseas Private Investment Corporation.

2.2 BRIDGE PHASE OBJECTIVES

The bridge phase will therefore focus on:

1. Refining and testing the business case and cost recovery options for household land documentation; and
2. Refining and testing the business case for rehabilitation services and quantifying its impact on cocoa farm GHG emissions in the short and long term;
3. Refining and implementing land use planning and district-level land and forest governance that is connected to rehabilitation services and land documentation and results in reducing deforestation and reducing, halting, or reversing GHG emissions associated with loss of tress

[6] GHG emissions from tree felling in cocoa farms can be halted or reduced when existing shade trees are protected and reversed when new shade trees are planted. GHG emissions from deforestation and forest degradation in secondary forests can be halted or reduced and reversed if they are not converted to cocoa farms and if carbon stocks are increasing via forest regeneration towards the equilibrium state. GHG emissions from deforestation and forest degradation in primary forest and the forest reserves are likely to be reduced or halted only, unless there is scope for reversal via the reduction of degradation pressures such as reduction in timber harvesting.

biomass, meeting USAID objectives, corporate commitments and Government of Ghana deforestation objectives.

This will include:

- Developing and testing implementation activities associated with rehabilitation and land tenure services around social, financial and governance conditions over two growing seasons. In terms of land rights this includes considerations related to affordability, availability, accessibility, efficiency, effectiveness, and sustainability, with a focus on access to vulnerable populations and land use planning. For rehabilitation, this may include remaining questions linked to agricultural practices to reduce seedling mortality and costs, selection of cash crops to increase income and reduce re-payment periods, applicability of soil testing, DNA testing for disease, and availability of insurance for crop protection. Across the full range of implementation, learning will identify financial, technical, and governance (enabling conditions) barriers to success and scale-up;
- Using implementation activities to revise financial models with associated conditions to achieve cocoa farm rehabilitation and documentation of land rights that could be scaled-up across Ghana's cocoa-forest landscape;
- Adapting existing approaches to land use planning and governance to work within cocoa growing regions in Ghana. This will include understanding HIA requirements under the GCFRP, suitability of using community resource management areas (CREMAs) for landscape governance in Asankrangwa, and capturing the roles and responsibilities of both customary and statutory authorities; and
- Based on results of the bridge phase, adapt upscaling model for landscape-level implementation, which is likely to include access to development finance (e.g. USAID Development Credit Authority, Global Development Alliance, Overseas Private Investment Corporation).

2.3 EXPECTED OUTCOMES OF BRIDGE PHASE

The expected outcomes for each of the three major project activities for the bridge phase are noted below in Section 4.

2.4 ASSUMPTIONS

There are a number of assumptions associated with these first two years of implementation. Assumptions are listed below in Section 4.

3.0 MANAGEMENT

3.1 USAID

The USAID ILRG program is a multi-year contract managed by the USAID Land and Urban Office based in Washington. The contract is implemented by an international consortium including the prime contractor, Tetra Tech, and core subcontractors, including Winrock. The Ghana activity is carried out as a field support activity as envisioned under the ILRG contract. The Land and Urban Office is responsible for required approvals, as well as coordination with USAID/Ghana. Caleb Stevens is USAID's Activity Manager for the Ghana work, reporting to the project's Contracting Officer's Representative, Sarah Lowery, who has formal approval authorities.

3.1.1 TETRA TECH

Tetra Tech is a contractor for USAID, implementing hundreds of multi-year projects across more than sixty countries in diverse sectors including: land tenure and property rights; environment and natural resource management; agriculture and economic growth; democracy and governance; energy, amongst others.

Tetra Tech is the prime contractor for the USAID-funded ILRG program and has overall responsibility for delivery of all work implemented by ILRG. Tetra Tech will act as the principle point of contact with USAID and provide technical oversight and quality control across all components and submit all deliverables to USAID. Matt Sommerville is the Chief of Party for ILRG; Mark Freudenberger is the Tetra Tech Task Manager for this work, as well as ILRG Resource Tenure Specialist. Tetra Tech will focus particularly on supporting the land use planning activities in the Wassa Amenfi West District.

3.1.2 WINROCK

Winrock International is a US-based non-profit organization focused on US and international development. Winrock's mission is to empower the disadvantaged, increase economic opportunity and sustain natural resources. Winrock manages a portfolio of more than 100 agriculture, environment and social development projects in over 40 countries.

Winrock is part of the consortium implementing USAID ILRG under Tetra Tech. Winrock is responsible for day-to-day management and coordination of activities. Under ILRG, Winrock is leading implementation of the component on land use planning and governance, providing input and support to the farm tenure component, and coordinating with ECOM on the farm renovation component.

Winrock also leads implementation of the Department of State-funded PIER project and has final responsibility for delivery of all work implemented by PIER. Winrock will act as the principle point of contact with the Department of State and provide technical oversight and quality control for all activities funded by PIER, which is focused on supporting ECOM's farm rehabilitation services. Michael Cote is the Project Director for PIER and Robert O'Sullivan is the overall project coordinator for all of Winrock's involvement in the bridge phase. Yaw Adarkwah Antwi will lead Winrock's field work and represent Winrock within Ghana during the bridge phase.

3.1.3 MERIDIA

Meridia is a limited liability company headquartered in Amsterdam (Landmapp B.V.) with a subsidiary in Ghana (Land Seal Ghana Limited) and activities in several other countries. Meridia is the leading rural and peri-urban provider of land documentation in Ghana since 2016 and has sold more than 5,000 land

rights documents to cocoa farmers in Ghana. Meridia was established to make the equitable distribution and use of land accessible to the entire population through a full-service approach that addresses each community's needs.

Meridia will be engaged under ILRG by Tetra Tech to conduct research and provide services that contribute to the component on farm tenure documentation. This will involve Meridia leading field work to map and document tenure rights of cocoa farmers, analyze and test service modalities and lead on content for high-level sessions with authorities and business case refinement. Joseph Okyere will be Meridia's point of contact within Ghana and Thomas Vaassen will be Meridia's corporate point of contact.

3.2 ECOM

ECOM Agroindustrial Corp. Ltd is a global commodity merchant and sustainable supply chain management company. ECOM operates in over 40 producer countries and focuses primarily on coffee, cotton, and cocoa, as well as participating in selected other agricultural product markets. ECOM's local Ghana subsidiary – AgroEcom Ghana Ltd – purchased approximately 13 percent (104,074 tons) of the total cocoa in Ghana during the 2015/2016 season, making it the nation's second largest purchaser of cocoa behind PBC – the state-owned subsidiary of Cocobod.

ECOM will lead the cocoa rehabilitation component of the bridge phase. This involves rehabilitation of up to approximately 150 acres of cocoa farms in Asankrangwa in 2019, focusing as many farms as possible within a shortlist of priority communities identified in November 2018. ECOM will continue piloting rehabilitation in other parts of Ghana (150 acres expected in 2019), with additional rehabilitation pilot farms anticipated in 2020. Ana Herrera, from ECOM's Sustainability Management Services, will be the point of contact for ECOM during the bridge phase, with field implementation led by Bismark Appiah-Kubi.

3.3 THE HERSHEY COMPANY

The Hershey Company was founded 125 years ago and was set up as one of America's first companies built with purpose, building upon its founder's legacy of "Shared Goodness." Milton Hershey was the original purpose-driven entrepreneur who linked the success of his company with supporting children in need through the Milton Hershey School. Hershey has evolved into the #1 chocolate manufacturer in America and fifth largest worldwide; Hershey's products are sold in over 60 countries.

In April 2018, Hershey announced its new sustainable cocoa strategy "Cocoa for Good," committing a half-a-billion-dollar investment by 2030 in innovative programs, together with its partners, with the aim of making cocoa-growing communities stronger. The holistic strategy addresses the most pressing issues facing cocoa growing communities, namely: poverty, poor nutrition, at-risk youth and vulnerable ecosystems. The strategy is currently supporting over 54,000 cocoa farmers and their families through farmer and co-op professionalization, including promotion of shade grown agroforestry and intensification, income diversification, access to land and finance, nutrition, quality education, women empowerment, child labor M&E systems as well as youth empowerment.

Hershey is a founding member of the World Cocoa Foundation and its strategic initiatives 'CocoaAction' and 'Cocoa & Forest Initiative' designed to drive sector and systemic changes at scale. The company-wide corporate social responsibility (CSR) policy is our global sustainability strategy "The Shared Goodness Promise" (SGP). "Cocoa for Good" falls within the Shared Business Pillars, crosscutting with Futures (children) and Environment (CFI). The CSR report can be found here. The infographic can be found here.

These existing initiatives will be leveraged during the bridge phase, with additional input from Hershey's staff focusing on the farm tenure component. Tawiah Agyarko-Kwarteng, Sustainable Sourcing Representative, West Africa will be Hershey's point of contact within Ghana and Beatrice Moulianitaki, Head of Sustainable Sourcing, will be Hershey's corporate point of contact.

3.4 BRANDING AND MARKING

USAID branding and marking requirements will be adhered to throughout this activity. Under ILRG, Tetra Tech and Winrock are acting as USAID implementing partners and as a result, Winrock and Tetra Tech corporate logos or identities are not to be used in any outward facing communications. Hershey and ECOM corporate logos may be used when following these companies co-branding guidelines. The work will at all times refer to USAID's partnership with Hershey and ECOM, even if the staff on the ground are hired by Tetra Tech or Winrock. Similarly, any work carried out through a subcontract, for example with Meridia, will be referred to as USAID's work under the ILRG program and not Meridia's work. At public meetings, the work will always be referenced as USAID and ILRG, and not Tetra Tech, Winrock, or Meridia.

ECOM and Hershey are free to produce and share their own materials on the project without reference to USAID's branding and marketing requirements other than acknowledging the collaboration with USAID and notifying USAID of public communications.

Publications and outreach materials produced under ILRG will contain the following language:

"*This [study/report/publications/website] is made possible by the support of the American People through the United States Agency for International Development (USAID.) The contents of this [study/report/publication/website] are the sole responsibility of [Tetra Tech/Winrock International/Meridia] and do not necessarily reflect the views of USAID or the United States Government*."

In the case of interviews or public outreach with an individual team member, it may be note that the individual works for Winrock or Tetra Tech but must state "under the USAID ILRG program."

Deliverables funded by the PIER project have different branding and marketing requirements. Products must include the American flag and be approved by Winrock before they are publicly released. Winrock will be responsible for obtaining any required input and approval from US Department of State prior to the release. Any deliverables co-funded by ILRG and PIER will be co-branded as USAID and US Department of State.

4.0 FIELD ACTIVITIES

4.1 OVERVIEW OF ACTIVITIES

4.1.1 LANDSCAPE GOVERNANCE AND COMMUNITY LAND USE PLANNING

ILRG will lead the component to develop an approach for landscape governance and land use planning. This will include applied research and analysis to identify in an iterative fashion with multiple stakeholders a land use planning approach relevant to the environmental and socio-economic contexts of Wassa Amenfi West District and particularly in the Asankrangwa Stool. It is anticipated that the socio-economic and environmental contexts of Asankrangwa are similar to other cocoa growing areas in the Western Region and other areas across the cocoa growing landscape.

The central objective of this activity is to define approaches and strategies for reducing deforestation in primary forests bordering the district and secondary tree stands held primarily on individual family lands. Participatory and inclusive land use planning is expected to focus on how to adapt existing government of Ghana approaches to spatial land use planning and decentralized governance in cocoa growing regions in Ghana. The land use planning approach must define the roles and responsibilities of both customary and statutory authorities, suitability of using a CREMA or other state-of-the-art community-based planning practices, while also taking into account the GCFRP managed by the Forestry Commission. The land use planning process must identify incentives for engagement with local communities, for without their adherence, the initiative will be no more than another "top-down" spatial planning exercise of little relevance to local actors. While ILRG will fund this research, development and testing, additional funding will be needed to fully scale-up this component.

4.1.2 COST-RECOVERY FARM TENURE DOCUMENTATION

Hershey and Meridia will work together to further develop and test the business case for farm tenure documentation. This includes examining issues of affordability, availability, accessibility, efficiency, effectiveness, and sustainability, with a focus on access to vulnerable populations and connections to land use planning. Options to reduce total costs to farmers, along with financing packages and payment recovery by ECOM, will be explored. ILRG will provide overall technical supervision of the work and USAID may provide technical assistance and/or contract with Meridia as a service provider through ILRG.

4.1.3 FARM REHABILITATION SERVICES

ECOM will lead refinement of their Farm Rehabilitation Services over two growing seasons (2019 and 2020). This may include testing different agronomy practices and cash crops to reduce seedling mortality and increase cash flow, new soil testing technology, DNA testing for disease, insurance for crop protection (if available), and a loan guarantee to support the bridge phase and subsequent scale-up. Across the full range of implementation, learning will identify financial, technical, and governance (enabling conditions) barriers to success and scale-up. ECOM will lead farm-level rehabilitation work including decisions on agronomy and crop selection, and technical assistance may be provided by ILRG and/or PIER.

4.2 ACTIVITY 1: LAND GOVERNANCE AND COMMUNITY LAND USE PLANNING

4.2.1 SUMMARY

Background: The Western Region Spatial Development Framework[7] establishes the general development agenda for the next 20 years. The plan specifies that at the district level, a local plan is to be prepared in collaboration with the regional town and the country planning department district assembly physical planning department. The document notes;

> "Much of the over 80% of land in the Region held under the customary ownership regime is now effectively devolved into ownership by individual families over which traditional authority control is weak. Further, the lack of cadastral maps delineating customary ownership, and disputes between traditional authorities over succession, may give rise to additional problems related to land transactions and land development. Some lands have had freehold status, in that they were sold as freehold to Government and others including during periods when this was sanctioned by law. Currently the sale of customary land freehold is not allowed ."

Wassa Amenfi West and Asankrangwa is part of the Western Region and has a high level of customary ownership. Land is predominantly held under two major land management regimes. Most of the land is managed privately by individuals or families under customary regimes that includes both landlords and tenants. This legal patchwork of rural land is mostly under cultivation as coco, other food crops and some secondary or fallow forests. Lands have also been cleared for artisanal gold mining, though the location and dynamics of this economy are poorly understood. The second major land governance category are clearly demarcated state forest reserves. Selective logging is allowed in these state forests. Satellite imagery shows encroachment is occurring but the drivers are unclear, and little is known about the surrounding community's use for secondary forest products.

Initial diagnostics by the USAID TGCC project and a rapid assessment by the USAID Communications, Evidence and Learning (CEL) project suggest that very little communally held land exists in the Wassa Amenefi West District and, more importantly, traditional authorities have little control over land use decision making on what is considered by the local communities as privately held land. The USAID CEL project, "Evaluation of the "Supporting Deforestation Free Cocoa in Ghana Project Bridge Phase: Scoping Trip Report" prepared by Lauren Persha, of NORC at the University of Chicago observed for the six villages that were visited during the rapid assessment in Asankrangwa Stool:

- "First, there is an apparent lack of an existing village-wide institutional structure for collective decision-making within villages (whether related to land use planning or otherwise). This presents some particular challenges for an envisioned land use planning approach and its ability to achieve tangible results at scale in the Bridge Phase time period. However, the scoping discussions in villages did find some rule-making precedents with respect to changing norms on forest resource use, which provides some basis for Land Use Planning (LUP) efforts.
- Second, the evaluation team observed high land cover and land use heterogeneity across quite small spatial scales, which may present some additional challenges for reliable carbon accounting across the landscape."

This creates challenges for land use planning. The Ministry of Land and Natural Resources promotes spatial land use planning from the national to the local level.[8] In 2015 the Ministry of Environment Science and Technology prepared the Western Region Spatial Development Framework, the first in the

[7] Western Region Spatial Planning Framework, http://www.luspa.gov.gh/files/Final_WRSDF_Edition.pdf

[8] National Land-use planning Strategy, https://www.ghanalap.gov.gh/files/NSDF-Final-Report-EXECSUM-Vol-III-Final-Edition-TAC.pdf

country. The vision for the region is summarized as, "a spatially balanced, diversified and environmentally friendly economy that brings sufficient employment and social services for its people and the nation, based on sustainable use of our natural resource endowment." As the framework notes,

> "The Region is Ghana's most well-endowed in terms of climate and natural resources, and has attracted high levels of investment over the past centuries. This investment has however not always been beneficial to the population and environment mainly due to inadequate planning. The recent oil and gas off-shore exploitation has now greatly increased the demand for land, and raised the pressure on already overstretched infrastructure as well as increased in-migration, with the attendant challenges. Development proposals are made without any consideration to the other projects that are being planned, or of their impact on existing uses of land, settlements or infrastructure. The result is an emerging chaotic development pattern that highlights the absence of spatial policy or adequately resourced governing institutions to co-ordinate and harmonise the ongoing development. The market has been left to allocate uses for land, without proper consideration as to their effects, and in most cases developments guide planning when it should be the other way around."

The lack of communal held land, lack of strong customary authority over land use decisions, and lack of strong statutory authorities all create challenges to traditional western approaches to land use planning. Paying compensation to land owners to give up some of their rights (e.g. the existing right to clear forest on their land) is costly and will not guarantee long term protection. If land use planning is to successfully result in protection and enhancement of forest carbon stocks and improvements in local livelihoods, local landowners and communities need to understand and internalize the short, medium, and long-term costs and benefits of forest protection, cocoa farm rehabilitation, tenure documentation, and the presence of artisanal gold mining. From here they need to develop plans and new social norms that benefit their long-term interests. In these types of situations where community managed land is largely non-existent and private land management practices prevalent, some type of zoning regulations are needed, practices that reduce freedom of private action. Communities themselves must define and enforce by-laws through inclusive social dialogue that in effect, will lead to restrictions in personal liberties to what is considered by the community as private lands. This is the essence of zoning, a land use management practice found throughout the world. In effect, no out-of-the-box solutions exist for these types of situations; land use zoning is a long, time-consuming, and thus costly endeavor for all actors.

Objective of activity: The purpose of this component is to develop and promote a community-based land use planning for Asankrangwa Stool in Wassa Amenefi West District of the Western Region that can be replicated in other parts of the Western District and will result in increased protection and enhancement of forest carbon stocks and is based on a combination of: i) education and empowerment of traditional land owners on the long term economic and environmental impact of land use decisions using the ECO Game; ii) customary norms and practices regarding forest conservation for spiritual and other traditional norms; iii) self-identified incentives, monitoring, and enforcement mechanisms; iv) engagement with customary and statutory authorities including local statutory planning authorities.

The long-term intent is for ILRG to facilitate the emergence of cost-effective land use planning processes that assist local communities to identify present land uses and come to community consensus for how to manage future land use arrangements in light of demographic and economic trajectories unfolding in the Western Region. Community-based land use planning involving the use of tools to generate inclusive public dialogue will assist local leaders to determine how to manage natural resources for present and future generations. Land use planning, and the associated zoning through the design and implementation of by-laws applicable to the District and the Stool will lead to new rules defining permissible uses of agricultural spaces, secondary forests, and sacred spaces. Spatial planning at the local level can also determine where to locate transportation axes, new settlements, and other public uses. The community

planning process should not only identify and clarify community priorities, but most importantly clarify community and district level by-laws needed to enforce compliance with community norms and priorities. While recognizing that community dialogue often identifies tensions, disputes, and sometimes outright conflict, the land use planning process must include pathways for managing these societal differences. While this land use planning process may appear to be long, and hence expensive, there are few short-cuts. The tools described below to generate social dialogue and community consensus are among the most cost-effective available, but also, replicable provided that the communities themselves obtain benefits from the expenditure of time and resources in these activities.

Approach: The USAID ILRG activity will support the local land use planning process in the Western Region Spatial Development Framework. ILRG will focus on the Asankrangwa Divisional Area which consists of over 40 communities spread out over approximately 75,000 ha and is the largest stool within Wassa Amenefi West District. ILRG will work with the regional town and the country planning department and district assembly physical planning department to develop a land use planning process and set of tools for ongoing land use planning in three phases. Admittedly, the roadmap for this community-based land use planning process must emerge out of an iterative debate between government authorities and the local communities. In effect, ILRG will promote design thinking and action by building trust with multiple stakeholders, social learning by multiple stakeholders about their own environmental and social situations, brainstorming on ways to promote cost effective land use planning, design prototype land use planning for testing in four target villages, and then eventually scaling up to the District and beyond. Throughout, sharing lessons learned with national and regional spatial planning authorities is essential, for these experiences must be scaled-up at some point to other cacao growing parts of the country.[9]

The approach is divided into three phases. The first phase will focus on data collection at the local, regional and national scales. The local data collection will use a participatory approach in 4 target communities that will include government staff in field work to increase capacity, ensure government by-in, and achieve cost-effective data collection. The approach will identify local development priorities and take account of the diverse needs of youth, women, and migrant settlers engaged in *abunu* farming. The regional and national data collection will focus on law and policy related to REDD+, forest governance, and land use planning via a combination of interviews and desk research.

The second phase will focus on analysis of findings from the first phase followed by development and testing replicable land use planning tools and approach that captures local, regional and national circumstances. The ECO Game will be the primary tool to educate and empower local communities and will be tailored to the cocoa growing regions during this phase. This phase will also develop the land use planning approach and accompanying training materials that take account of the diverse needs of youth, women, and migrant settlers engaged in *abunu* farming. Alongside the land use planning, an approach to GHG monitoring and reporting that is expected to be consistent with the Forestry Commission's REDD+ MRV and CFI reporting will be developed.

The third phase will focus on implementation and refinement of the land use planning approach and tools for subsequent replication. ILRG will aim to implement the LUP approach in 4 communities. This will inform subsequent replication and scale up after the bridge phase.

The three-phase approach will take account of the diverse socio-economic and environmental realities of the district and community commitment to the planned spatial allocations for present and future generations. The ECO Game is a proven tool developed in northern Ghana to facilitate community learning of their own realities and issues affecting community trajectories. Through the use of the

[9] For further information on the theory underlying this interactive approach, see the general principles of the Interaction Design Foundation: https://www.interaction-design.org/literature/article/5-stages-in-the-design-thinking-process

Participatory Appraisal tool box and the ECO Game, experience has shown that communities will engage in bottom-up planning by and for the local community. This is key as these actors must define the local level policies, district-level by-laws, and normative behaviors that effect how land will be used and allocated for the present and the future. At the core, the community-level planning process must work closely with traditional land owners to define these development priorities, yet take account of the diverse needs of youth, women, and migrant settlers engaged in *abunu* farming. Resource tenure issues must be addressed forthrightly.

The Western Spatial Development Framework recognizes this need for consideration of resource tenure issues. Even though the national and district level planning authorities lack the capacity to engage in extensive district and village-level land use planning, the framework opens up the door for focusing on how to take account of the resource tenure regime dominated by strong individual family ownership to deal with present and future realities. As the plan explains, "land tenure however remains a major hurdle in the land use planning and management exercise. Therefore, participation and communities' involvement at the early stages of planning will resolve a multitude of downstream issues, particularly at the structure plan and local plans levels ." To the benefit of the USAID ILRG project, the planning framework paves the way for community level engagement in plan formulation and implementation.

Expected outcome: A cost-effective, replicable and scalable community land use planning process, tools, and training materials will be developed and tested as will an approach for monitoring and reporting GHG emissions associated with land-use change. The cost effectiveness will be achieved in part by ensure the approach does not need to fully replicate all the steps in phases 1 and 2 of this activity. The land use planning process will: i) help to operationalize the national land use planning processes for Asankrangwa Stool in Wassa Amenefi West District of the Western Region; and ii) support forest conservation and enhancement of forest carbon stocks within the cocoa-forest landscape. Community land use plans and associated land use maps spelling out present and future land uses and associated zoning rules will be completed in at least four villages, with additional villages in the District to be considered based on funding. This is to ensure that approaches are piloted and refined prior to proposed roll out. Community dialogues around needed community zoning regulations and community by-laws will be incorporated into these plans. While the two-year pilot phase duration is too short to evaluate the longer term social and environmental impacts expected to come from implementing the planning processes, community monitoring mechanisms will be designed to allow customary authorities and district leaders to observe, encourage, and enforce community prescriptions for their land use plans.

Assumptions/conditions to be successful:

- There is a perceived need by the local communities and the district authorities for changes in land use or a need for action to prevent unwanted change.
- The different stakeholders involved must agree on the need for change and must be willing to cooperate in the planning process; local stakeholders must gain benefits from the land use planning process.
- There must be a clearly expressed political will and the ability to put agreed land use plans into effect; in other words, there must be a demand for changes in land use and a positive political framework to put agreed land use decisions into action.

TABLE 1. ACTIVITY 1 SUMMARY AND ROLES

ACTIVITY	ROLES				
	ECOM	HERSHEY	WINROCK	TETRA TECH	MERIDIA
Phase I: Data collection and research					
1.1: Community entry and data collection on customary norms	Support initial entry via extension agents		Lead	PRA diagnostic design and initial training	Input on tenure sensitization
1.2: District and national government engagement			Lead		
1.3: Development of draft LUP approach for phase 2	Review	Review	Lead	Technical input and review	Review
Phase II: Analysis, development and testing					
1.4: Community co-design of LUP approach	Review and input for synergies with other programs	Review and input for synergies with other Hershey programs	Lead	Review	Review
1.5: ECO Game customization	Review and help test	Review	Lead	Review	Input on tenure issues as needed
1.6: Finalize training materials and initial preparation			Lead	Review	Input as needed
1.7: GHG Reporting and Accounting Approach	Trained on methods. Provide farm shapefiles and results of biomass assessment		Lead		
Phase III: Implementation					
1.8: Community land and resource mapping and planning			Lead	Review	Collaborate on the translation of community maps to planning
1.9: Preparation and validation of community plans	Review and input for synergies with other programs	Review and input for synergies with other Hershey programs	Lead	Review	
1.10: Monitoring and enforcement			Lead	Review	

TABLE 2. ACTIVITY 1 TIMELINE, WITH PHASES INDICATED BY SHADING

ACTIVITY	2019				2020				2021
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
1.1: Community entry and data collection on customary norms		X	X						
1.2: District and national government engagement	X	X	X						
1.3: Development of draft LUP approach for phase 2		X	X						
1.4: Community co-design of LUP approach			X						
1.5: ECO Game customization			X	X					
1.6: Finalization of training materials and initial preparation				X					
1.7: GHG Reporting and Accounting Approach			X	X					
1.8: Community land and resource mapping and planning					X	X			
1.9: Preparation and validation of community plans						X	X		
1.10: Monitoring and enforcement							X	X	X

The work under this component is divided into three phases, each shaded separately in tables 2 above. The first phase is described in more detail; the outcome of phase I will refine and provide further details on activities under phases II and III.

4.2.2 PHASE 1: RESEARCH, COMMUNITY ENGAGEMENT AND ANALYSIS OF LAND GOVERNANCE

Objective: The USAID ILRG pilot bridge will initially develop an approach for land use planning for Asankrangwa stool in Wassa Amenefi West District of the Western Region that takes account of the previous initiatives of the national spatial land use planning process, customary norms, and traditional authorities. Initial participatory diagnostics focusing on land use governance strengths and challenges in the district must be initially carried out to understand how forest and land governance in Asankrangwa occurs and how to work with various stakeholders at multiple scales to design, plan, and enforce land use arrangements. This participatory diagnostic will also generate information needed to promote land use planning using the ECO Game developed and refined by Winrock. Prior to launching a land use planning process in Asankrangwa communities, a very clear roadmap will be prepared that spells out the steps, the stakeholders, and the intended outputs of each stage of the community land use planning process.

Timeline: 5 months.

Deliverables: i) Phase I report that describes land use planning and land governance approach; ii) work plan and budget for phase II; iii) finalized bridge phase indicators.

ACTIVITY 1.1: COMMUNITY ENTRY AND DATA COLLECTION ON CUSTOMARY NORMS

Objective: The USAID ILRG project will engage the four target communities of Nyame Nnae, Suresu Nkwanta, Yirase, and Domeabra to explain the work planned under the bridge phase, build on the report "Evaluation of the "Supporting Deforestation Free Cocoa in Ghana" Project Bridge Phase: Scoping Trip Report" prepared by Lauren Persha, NORC at the University of Chicago under the USAID Communications, Evidence and Learning (CEL) project, and collect more detailed information via a participatory diagnostic using participatory rural appraisal (PRA) tools on the illustrative topics below:

1. Land use pressures on secondary forest and forest reserves including conflicts around primary forests managed by Forestry Commission;
2. History of land use decisions, land tenure and customary arrangements including traditional farm fallow rotation cycles and management practices;
3. Types of customary tenure arrangements for cocoa farms in Suresu Nkwanta, Yirase, and Domeabra to determine if there are any differences with the customary rights identified in Nyame Nnae including tenure status of shade trees on cocoa farms;
4. Governance structures and social hierarchies (ethnicity, gender, and socio-economic categories) around land use and management including types of existing community level resource management regimes and enforcement mechanisms;
5. Tenure status of secondary forests and communal rights over non-timber forest products in secondary forests and on household lands;
6. Determination of community boundaries, tenurial niches, and bundles of rights within;[10] and mechanisms of village organization or governance within these boundaries;
7. Perceived tenure (in)security by different social categories and men/women;
8. Presence and ecological and social dynamics of artisanal gold mining;
9. Previous farm mapping or farm rights documentation projects;
10. Additional field data for ECO Game customization including experience with climate smart agriculture, climate and weather vulnerabilities, economic and cultural value of secondary and primary forests;

The key questions guiding the inclusive diagnostic taking account of the perspectives of traditional elders, youth, women, and migrant settler families will be shared with the USAID CEL project evaluation team as well as final results from the diagnostic in order to avoid duplication of information gathering. The diagnostic will also contribute to initial data collection and sensitization under Activity 2 on farm tenure.

Approach: The initial preparation followed by field work in the four communities and report write-up will be led by the Winrock and Tetra Tech team leads with input and participation by Meridia. This team will refine the participatory planning process using primarily time-tested Participatory (PRA) tools (i.e.,

[10] To remain open and objective, we assume that there may be tenurial arrangements unique to particular communities and not yet witnessed or understood from previous assessments. Ddifferent tenurial arrangements within the community boundaries. Not all land is assumed to be "privately" held and exclusively in the hands of clans. Some community common property areas may still remain (i.e: sacred forests)

transect walks, historical matrices, wealth ranking, institutional Venn diagramming, conflict ranking, semi-structured interviews) tested effectively in neighboring Côte d'Ivoire through the USAID Property Rights and Artisanal Diamond Development II project. While these participatory diagnostic tools may seem time-consuming, onerous, and thus costly, other development partners like GIZ, the French Coopération, and the non-governmental organization Namati have long used renditions of these tools with great effect. Building trust at the community level takes time, but once this is in place, innovative ideas on how to promote land use planning invariably emerge.

At the outset, an initial five days will be spent in the first village to practice the use of these powerful PRA data collection and diagnostic tools, but also generate with the team an in-depth field report. Subsequently, mini-diagnostics will be carried out in the remaining three villages. The participatory diagnostics will ensure that the diverse needs and opinions of youth, women, and migrant settlers engaged in *abunu* farming are captured, and will include representatives from the spatial planning authority and Lands Commission in order to build their capacity, ensure government engagement and buy-in, and ensure cost effectiveness by reducing the need for international consultants to collect data. Representatives from each of the four pilot villages will be fully incorporated into the teams. Teams carrying out the participatory diagnostics will be trained in the use of PRA tools by the experienced trainer, land use planner and gender expert, Ms. Sabine Jiekak, and mentored throughout the diagnostic phase. The participatory diagnostics will provide the information base needed to customize the ECO Game employed effectively by Winrock in northern Ghana for community education and empowerment for land use planning.

The field team will meet in Asankrangwa for a two-day classroom training in the PRA methodology, clarification of the objectives and tools to be used in the diagnostics, and definition of team roles and responsibilities. Through the use of these tools over the past decade by Tetra Tech in Guinea, Liberia, Côte d'Ivoire, and the Central African Republic it has been found that classroom training is needed to introduce the methodology and define clearly research objectives, but then apprenticeship practice is needed at the village level. The field teams will then conduct the participatory diagnostics in the four target communities but also meet with the district chiefs and sub-chiefs over a ten-day period. Team leads will write up the draft diagnostic report in Asankrangwa, but the consultant will deliver the final report soon thereafter.

Field work is expected to start in May (target date of May 13th) and continue for three weeks.

Team: The field team will consist of the following: Sabine Jiekak (Team Lead/PRA Trainer Tetra Tech), Martin Yelibora (Land Use Planning lead, Winrock International), René Dogbe (Alternative Dispute Resolution Specialist and Field Logistics, Winrock), Gabriel Sidman (GIS and ECO Game expert, Winrock), Lands Commission representative, Planning Authority representative, Meridia staff (see Activity 2.1), logistics support, data collection and community liaison (Edem Feglo, Winrock). In each village, the field team will incorporate into the diagnostic at least one designated village representative. Ms. Jikak, Yelibora and Sidman will participate throughout the initial village diagnostic and the associated write-up of the diagnostic report. Dr. Yaw Antwi (Field Project Director and Tenure Expert, Winrock) will participate in initial PRA training and government consultation in Asankrangwa only. This core team will also be the catalyst for further land use planning initiatives described below.

Home office oversight and support will be provided by Robert O'Sullivan and Alex Grais (Winrock). Mark Freudenberger will work closely with Sabine Jiekak to design the PRA training program and review the final diagnostic report.

Result: Villages informed about the scope of work in the bridge phase, village interest in participating in the next phase determined, village-level land use decision-making and deforestation pressures captured, scope of ECO Game customization understood. Findings will be written up to capture diagnostic findings and proposed approaches to land use planning. These will be incorporated as chapters and

Annexes to the Phase I ILRG report. Lessons learned from the diagnostics will be written up into a short brief that will be shared with the Land Commission, the Forest Commission, and the spatial planning authority to enrichen the debate on how to carry-out cost-effective community-based land use planning in cacao growing regions of Ghana.

ACTIVITY 1.2: DISTRICT AND NATIONAL GOVERNMENT ENGAGEMENT

Objective: Prior to launching the participatory land use planning process, the USAID ILRG project will inform the national, regional, and district planning authorities of its intent to support the District and village level land use planning process. This will be led by Yaw Antwi (Field Project Director and Tenure Expert, Winrock). After the PRA is completed, the project will share preliminary information collected during the village diagnostics with the planning authorities. The team will also explore how the diagnostic findings fit within the GCFRP HIA requirements, gain a better understanding of CREMA requirements, and how the REDD+ benefit sharing strategy may help the land use planning and governance approach.

Understanding Gold Mining: Collaboration with the USAID-Funded Artisanal Mining and Property Rights (AMPR) Project

The consultant responsible for guiding the participatory diagnostic, Terah DeJong, with financing from the USAID AMPR project, will conduct a preliminary one-week mission to Accra to meet with stakeholders associated with the gold artisanal mining economy and visit the Asankrangwa stool in Wassa Amenefi West during the week of March 27-April 6. Separate terms of reference will be prepared for this initial scoping trip and meetings with local authorities. The AMPR project will hire Yaw Antwi and René Dogbe to accompany him to the field to also make preliminary protocol and logistical arrangements for the PRA training and village level diagnostics.

Approach: Document review and interviews with government staff in Accra but also in Wassa Amenefi West District of the Western Region and Asankrangwa Stool. This will involve meetings with the Ghana Forestry Commission's Climate Change Unit in Accra along with the national spatial planning authority and Lands Commission. Yaw Antwi will lead introductory meetings in Asankrangwa as part of Activity 1.1 and Robert O'Sullivan will travel to Ghana for Accra meetings. Anna McMurray will assist with background research and writing.

Team: Yaw Antwi, Rene Dogbe, Robert O'Sullivan, and Anna McMurray (Winrock)

Result: Steps for statutory planning and current status understood, Hot Spot Intervention Area and benefit sharing requirements analyzed and timeline and applicability to bridge phase and post-bridge scale-up understood. Findings and recommendations written up as chapters of the phase I report.

ACTIVITY 1.3: DEVELOPMENT OF DRAFT LUP APPROACH FOR PHASE 2

Objective: Collate information from Activity 1.1 and 1.2 to develop an approach for land use planning and how to strengthen forest and land governance in Wassa Amenefi West District. The approach will include how to engage within the communities, Asankrangwa traditional authorities, statutory authorities (planning and forestry) and roadmap for testing and refinement during the Bridge Phase.

Approach: Synthesis of prior work and writing from Ghana and US home locations.

Team: Sabine Jiekak (Tetra Tech), Yaw Antwi (Winrock), (Winrock) Gabriel Sidman (Winrock), Robert O'Sullivan (Winrock), Anna McMurray (Winrock), Mark Freudenberger (Tetra Tech)

Results: Phase I report that contains key results and findings from phase I and describes a proposed approach for land use planning and governance within Wassa Amenefi West District. Phase II work plan and budget.

4.2.3 PHASE II: COMMUNITY CO-DESIGN AND FINALIZATION OF LUP AND GHG REPORTING APPROACH

Current phase II steps are indicative, and subject to change based on the findings from phase I. Phase II is expected to take approximately four months

ACTIVITY 1.4: COMMUNITY CO-DESIGN OF LUP APPROACH

The approach to land use planning and governance developed in phase I will be discussed and refined through consultative meetings with relevant statutory and customary authorities in Accra, Wassa Amenefi West District and the villages within this district. Co-design will focus on validating incentives and enforcement mechanisms acceptable within the communities, and may require engagement in Accra and bringing government staff from Accra to Asankrangwa for district-level meetings. The early engagement during phase I is expected to make government engagement in phase II easier. During this activity, design and replication issues such methods to engage larger numbers of communities at scale to avoid replicating the full PRA used in phase I (e.g. through engaging leaders, community representatives, and/or clustering communities for scaling), and testing the final approach in communities that did not participate in the phase I PRA will be addressed. The project team will work with the village communities and district-level authorities to identify the types of zoning regulations and by-laws that will be needed to enforce spatial planning priorities. While these rules will not be codified in any way during this phase, these initial discussions will become the core of activities during phase III below. Activities under phase II will be aligned with government engagement with the Lands Commission, the Office of the Administrator of Stool Lands, and Ghana Institute of Surveyors planned under Activity 2 below.

ACTIVITY 1.5: ECO GAME CUSTOMIZATION

The ECO Game is a learning tool designed by Winrock that educates players about the different impacts land management decisions can have on water, greenhouse gases, income, and the long-term potential for communities to thrive. It was developed under the USAID Ghana Agriculture and Natural Resource Management Program and is an effective way to introduce concepts about resilience and ecosystem services to rural communities. The ECO Game helps translate the results of scientific analysis that evaluated the impact different land uses have on water quality and quantity, climate, income, resilience, and biodiversity.

The ECO Game will be the primary tool used to educate and empower communities on the importance of forest conservation, increased shade cover for cocoa farms, value of farm rehabilitation and tenure documentation. This is needed to ensure community buy-in to land use planning. In the game players select from a set of land uses, each conveying specific sets of resources and resilience. Over several rounds players must survive natural disasters and other introduced events while maintaining enough resources supplied by the land use choices to meet household needs. Through game play, communities effectively learn about building resilience through these land decisions and broaden their understanding of the importance of sustaining ecosystem services including forest protection and enhancement of forest carbon stocks. Playing the ECO Game will educate participants on land use decisions and empower their participation in land use planning and management. Discussions emerging out of the ECO Game will feed into the design of community and district level by-laws and associated zoning regulations affecting private uses of the land.

The current version of the ECO Game is designed for northern Ghana. Additional information needs to be collected to finalize customization for Ghanaian cocoa farmers. This will involve additional data collection from the initial diagnostics described above, analysis of the information from the ECO Game lead, customization of the ECO Game to local realities, and testing in an initial village.

ACTIVITY 1.6: FINALIZATION OF TRAINING MATERIALS AND INITIAL LAND USE PLAN PREPARATION

Once the land use approach is finalized from the participatory diagnostics and ECO Game, initial village level planning will commence. This may include creation of a community LUP coordinating committee within villages who will be responsible for ensuring widespread participation in community resource planning activities. The Winrock consultant Martin Yelibora will serve as a resource person to the four communities, Asankrangwa Stool and the Wassa Amenefi West District.

Training materials needed for land use planning will be update or developed. Training materials may include training on alternative dispute resolution, community assessment tools for tree and land tenure, commonly used tools adapted to the local context to strengthen community involvement in natural resource management, adaption of the ECO Game to the southwestern cultural and economic context.

ACTIVITY 1.7: GHG REPORTING AND ACCOUNTING

Both the Government of Ghana, through the GCFRP, and the private sector partners, through CFI, have commitments to reduce emissions from deforestation and forest degradation related to cocoa production. Under this activity ILRG will report on GHGs from rehabilitation activities that occurred during the bridge phase. ILRG will also develop and apply methods to estimate emissions and removals associated with cocoa farm rehabilitation over the next 10 and 25 years. ILRG will also advise on how to track forest land use changes and report associated CO_2 reductions and removals during the bridge phase and into to the future, though it should be noted that ILRG does not anticipate observing GHG reductions from reduced deforestation due to land use planning activities during the bridge phase. Ongoing monitoring and reporting of GHGs from deforestation and carbon sequestration, including how this connects with GCFRP and CFI, will form part of the land use planning monitoring protocols to help track any deforestation over time.

This will require using data collected from ECOM's carbon stock data collection conducted in early 2019 and data the Forestry Commission used to develop their forest reference level for GCFRP to develop emission/removal factors for potential land-use transition in the study area (**T**).

TABLE 3. EMISSION FACTORS TO BE DEVELOPED DURING THE BRIDGE PHASE

Pre-Activity Land Use	Post-Activity Land Use
Non-rehabilitated cocoa farm	Rehabilitated cocoa farm
Non-rehabilitated cocoa farm	Bare land

ILRG will also discuss additional GHG reporting needs with Hershey and ECOM, such as i) estimating historic CO_2 emissions from farmers that ECOM and Hershey currently source their cocoa from; and ii) creating a methodological framework that can be used by ECOM, Hershey and other cocoa companies to help meet their CFI commitments.

4.2.4 PHASE III: PILOT VILLAGE-LEVEL LAND USE PLANNING

Current phase III steps are indicative, and subject to change based on the findings from phase I and II.

ACTIVITY 1.8: COMMUNITY LAND AND RESOURCE MAPPING AND PLANNING

Activities may include the following:

1. Playing the ECO Game in small groups in each community within the Wassa Amenefi West District chosen sites to ensure community education on costs and benefits of farm rehabilitation, tenure documentation and economic and environmental impacts of land use

decisions to inform and empower communities to actively participate in land use planning. Groups playing the ECO Game will be rotated around, ensuring participation of women, youth, elders, landlords and *abunu* tenants in small groups and in diverse groups.

2. Preparation of community level maps of current resource uses that builds on the base map completed in Activity 2, analysis of physical suitability of land to current or alternative use options, and list consequences (favorable and unfavorable) of current use and the alternatives informed by playing the ECO Game.

3. Organization of community meetings to discuss maps, land use options, and consequences. Community members will be divided into different groups for initial consultation (men, women, youth, elders), followed by a facilitated community wide meeting where the views and interests of each group is raised and discussed. The community-wide meeting will aim to get consensus on priority productive, forest protection, and other uses for each community along with agreement on incentives and enforcement mechanisms acceptable within the community.

4. Identification of community zoning requirements and community by-laws needed to enforce land use plan spatial use priorities.

ACTIVITY 1.9: PREPARATION AND VALIDATION OF COMMUNITY PLANS

Activities will be informed by the prior activity and are expected to include the following:

1. Draft formal community land use plans and community land use zoning maps for community validation within the Wassa Amenefi West District selected sites;

2. Present community zoning agreements and proposed by-laws to Wassa Amenefi West District council and stool/district chiefs;

3. Hold final consultation meetings with the community to validate final plans, use alternative dispute resolution processes to settle disputes;

4. Validate village land use plans with spatial planning authorities in the Western Region and at the district level; and

5. If the community reaches consensus, sign off community plans from local authorities.

ACTIVTY 1.10: MONITORING AND ENFORECMENT

This activity is expected to include design of a community monitoring protocol to assess the advancements and challenges of implementing the village land use plans.

4.2.5 DELIVERABLES TO USAID

Phase I:

1. Phase I report that describes land use planning and land governance approach, including connections with the GCFRP; and

2. Work plan and budget for Phase II and III

3. Finalized indicators for ILRG supported bridge phase.

Phase II (anticipated):

4. Report documenting finalized land use planning approach, and accompanying training materials;

5. Report on GHG accounting methodology and estimates, which are integrated into the GCFRP methods and
6. ECO Game customized for cocoa farming villages in Ghana.

Phase III (anticipated):

7. Community land resource map;
8. Community land resource plan;
9. Draft by-laws; and
10. Established monitoring protocols.

4.3 ACTIVITY 2: COST RECOVERY FARM-LEVEL TENURE DOCUMENTATION

4.3.1 SUMMARY

Background: Insecure land tenure prevents some farmers from rehabilitating their farms and disincentivizes long term investment. Insecure rights to shade trees disincentivize farmers from growing and maintaining shade trees that help cocoa farm productivity and health and sequester carbon. Work to date has focused on documenting existing customary land rights to increase land tenure security. Prior documentation was paid for by USAID with a high unit cost which limits efforts to scale-up. Reducing unit cost and developing payment schemes is expected to increase uptake. Meridia has an existing farm documentation service for farmers, and options to reduce unit cost and payment plans need to be explored. Background work on improving tenure security for land and shade trees is summarized in section 1 above, with additional background information available in earlier project reports.[11]

Objective of component: The objective of this component is to refine and test a commercially viable model for documenting farm tenure security and supporting land use planning that aligns commercial and participatory elements in the most effective way to tackle key barriers to affordability, accessibility, and scale. The model combines initial community wide base-mapping with individual sales of farm-level documentation and payment plans designed to increase affordability. The model should be highly inclusive and integrate the perspectives of traditional authorities, the Ghana Lands Commission, the private sector, and local communities. If feasible, the model should work for less wealthy farmers. If it is not feasible, barriers should be documented and subsidies or approaches to overcome barriers should be identified. In the long-term, the intent is for ILRG to promote a commercially viable and scalable farm tenure documentation approach that enables local communities to benefit from affordable farm tenure security (for the land, crops, and timber trees).

Approach: The approach combines field work along with government consultation, desk research and analysis to develop and test a tenure documentation service that involves creating a baseline dataset from which individual parcel documentation can be sold to farmers. Creating the base map should also facilitate land use planning in Activity 1. It should be noted that Nyame Nnae is not contiguous with the other communities, but that Suresu Nkwanta is contiguous with Yirase which in turn is contiguous with

[11] See: Roth, M., Antwi, Y., & O'Sullivan, R. (2017). *Land and Natural Resource Governance and Tenure for Enabling Sustainable Cocoa Cultivation in Ghana*. Washington, DC: USAID Tenure and Global Climate Change Program; Roth, M., Antwi, Y., O'Sullivan, R., & Sommerville, M. (2018). *Improving tenure security to support sustainable cocoa – Final report & lessons learned*. Washington, DC: USAID Tenure and Global Climate Change Program; and Antwi, Y., Roth, M., & O'Sullivan, R. (2018). *Tree tenure and benefit sharing policy reform in cocoa growing areas in Ghana.* Washington, DC: USAID Tenure and Global Climate Change Program.

Domeabra. Research will focus on developing, trialing, and analysis of payment plans, pricing models and service bundling to increase accessibility and affordability, including for the most vulnerable farmers. Field data and key learnings will be compiled into a clear and concise business case addressing the key barriers and showing a way forward for the cocoa sector and other stakeholders to secure cocoa farm-level land tenure in a systematic manner. This will build on Meridia's existing farm-level documentation package, called FarmSeal, which is based upon strong bottom-up practices of community entry, sensitization campaigns, vulnerable farmer inclusion, traditional leader engagement and dispute resolution.

A second set of activities is included as phase II activities that could be implemented in 2020 if funding allows: Engagement with traditional authorities and government, and refinement of the business case with an independent third party.

Expected outcome: The farm-level tenure security will be tested in the four targeted communities of Nyame Nnae, Suresu Nkwanta, Yirase, and Domeabra. Community baseline datasets and associated base maps will be completed for the four targeted communities. An estimated 1,360 farms will be mapped across the 4 communities, representing all cocoa farm plots in the communities[12]. The 190 farms were already mapped in Nyame Nnae during the pilot will not be re-mapped. Community boundaries and topological features will be incorporated into the maps. While the two-year bridge phase duration is too short to evaluate the longer term social and environmental impacts of the tenure documentation processes, a separate project evaluation could be used to capture longer term impacts with successive rounds of data collection. In the near-term perceptions of tenure security can be measured as can changes in responsiveness to farm rehabilitation services and changes in investments into cocoa farms. If funding is secured for phase II the traditional authority (Asankrangwa Stool) will be equipped with a system to access and monitor the farm rights and land records, which allows customary authorities and the District Forestry Commission to prevent land disputes, promote farm-level reforestation, and facilitate more productive use of cocoa farm land.

Assumptions/conditions to be successful:

1. There is a perceived need for improved land tenure security through documentation of customary rights.
2. There are observable barriers for community members (vulnerable groups) to access and afford the documentation service in its current shape.
3. The different community stakeholders involved must agree on the need for change and must be willing to cooperate in the planning, community mapping and farm-level data collection activities.
4. There must be a clearly expressed political will and interest to simplify registration of customary farm-level tenurial rights.
5. Additional funding is identified for phase II activities.

[12] This estimate is based on an assumption of 200 farmers per community, with each farmer having the national average of 1.7 farm plots.

TABLE 4. ACTIVITY 2 SUMMARY AND ROLES

ACTIVITY	ROLES				
	ECOM	HERSHEY	WINROCK	TETRA TECH	MERIDIA
2.1: Community entry, data collection and sensitization campaigns	Field trainers support Meridia on ground	Support sensitization campaign with Hershey's CocoaLink[13]	Joint planning; participation in land tenure sensitization; assist with templates	Review	Lead
2.2: Development of payment modalities and service bundling for farmers	Support the identification and targeting of farmers	Provide input for criteria and fees modeling for vulnerable farmers		Review	Lead
2.3: Farm and tree mapping, data collection, document production and delivery	Field staff to support as needed		Assist in planning and liaising with key local stakeholders	Review	Lead
2.4: Engagement with traditional authorities and government			Joint lead on convening high-level sessions	Joint lead on high-level sessions	Lead on high-level session content and stool database
2.5: Business case refinement with independent third party	Review and provide input	Lead	Review and provide input	Review	Provide input on field intelligence and learnings

TABLE 5. ACTIVITY 2 TIMELINE, WITH PHASES IDENTIFIED BY SHADING

ACTIVITY	2019				2020				2021
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
2.1: Community entry, data collection and sensitization campaigns	X	X							
2.2: Development of payment modalities and service bundling for farmers	X	X	X						
2.3: Farm and tree mapping, data collection, document production and delivery		X	X	X					
2.4: Engagement with traditional authorities and government					X	X	X		

[13] CocoaLink provides information via voice and SMS text messages. See additional discussion and reference under activity 2.1.

2.5: Business case refinement with independent third party					X	X			

The work under this component is divided into two phases, each shaded separately in table 5 above. The first phase is budgeted in this implementation plan. The activities described under phase II are not currently budgeted and are contingent on additional funding being identified.

4.3.2 PHASE I: BUSINESS CASE DEVELOPMENT, MAPPING AND DOCUMENTATION

ACTIVITY 2.1: COMMUNITY ENTRY, DATA COLLECTION, AND SENSITIZATION CAMPAIGNS

Objective: The USAID ILRG project will engage the four target communities of Nyame Nnae, Suresu Nkwanta, Yirase, and Domeabra to explain the work planned under the bridge phase and collect information via a participatory diagnostic for both land use planning and tenure documentation. Details of this initial engagement are described in Activity 1.1.

In addition to the work described under Activity 1.1, community-level data collection will be performed to develop accurate maps of the four communities that include: i) dotted line indication of community boundaries for land use planning and subsequent base map development (as shown by community leaders); ii) topological features such as roads and rivers; iii) general zoning of areas for residency, farming, forests, commercial/industrial and traditional/governmental/communal land use; iv) points of interest such as schools, medical facilities, religious sites, boreholes and water sources, cocoa depots and purchasing stations, etc. In addition, high-resolution imagery will be collected on the residential centers of each community, either from recent satellite orthophotos or from drone flights. Taken together, these datasets will be rendered into community maps that will be made available in print to the community as a tool for sensitization, decision-making, land use planning and planning of the land tenure documentation work. To the extent that base map costs can be recovered by subsequent sales of farm tenure documentation, this could help with cost recovery of land use planning. Alternatively, if government or donor funding supports base map development for land use planning purposes, this could reduce individual parcel document costs.

A number of community members will be involved in the data collection work as para-surveyors. A training and compensation package will be designed for these individuals, who will then receive guidance from experienced mappers to gain skills and knowhow of mapping topological features, parcels, and shade trees.

To help with initial outreach and engagement, existing digital content explaining land rights documentation services will be adapted for usage on the CocoaLink platform developed by Hershey. CocoaLink is part of Hershey's Learn to Grow program that delivers information on good farming practices, fertilizer usage, farm safety, labor practices, health, pest and disease prevention, post-harvest handling and crop marketing. The information is delivered at no cost through voice and SMS text messages and data is collected to monitor and evaluate program effectiveness.[14]

Approach: The initial preparation followed by field work in the four communities will be led by the Meridia team. The field team will meet in Asankrangwa for planning, training, clarification of the objectives and tools to be used in the diagnostics, and definition of team roles and expectations. The field teams will conduct the participatory diagnostics, para-surveyor training and data collection in the four target communities as part of the initial rural assessment described in Activity 1.1. This will include

[14] For more information see: https://www.thehersheycompany.com/en_ca/responsibility/good-business/creating-goodness/cocoa-sustainability/cocoa-link.html

meetings with the district chiefs and sub-chiefs during this period, followed by data cleaning and base map creation. The Meridia team will remain in the field for approximately two more weeks following completion of field work under Activity 1.1 for this additional field work. Meridia field operations are anticipated to be run from their field office in Wasa Akropong, which is approximately a two-hour drive from the target communities.

Field work is expected to start in late April and continue for approximately 4 weeks in total.

Team: The field team will consist of: Richard Ankomah (Field Project Manager, Meridia), Field Project Management Assistant (Meridia), Community Mappers and Data Collectors (Meridia), LUP Community Entry and Sensitization (Winrock). The field team will be supported in the home office by: Thomas Vaassen (Team Lead, Meridia), Joseph Okyere (Tenure and Community Expert, Meridia), Johannes Eberenz (GIS Expert, Merida), Data Team (Meridia), and Ama Kwapong (Logistics Support Liaison, Meridia). Winrock will provide home office oversight of deliverables (Alex Grais, Robert O'Sullivan).

Result: Villages informed about the scope of work in the bridge phase, village interest in participating in the further sub-activities on land and tree tenure, village level land tenure arrangements, traditions and status captured, para-surveyors trained, community maps designed and produced, sensitization handbook and digital content drafted.

ACTIVITY 2.2: DEVELOPMENT OF PAYMENT PLANS AND SERVICE BUNDLING FOR FARMERS

Objective: The main obstacles to scaling up affordable and accessible land rights documentation for cocoa farmers are: i) accessibility of the service for vulnerable groups; and ii) financing and payment for the documents. The objective of this activity is to refine, and field test payment plans that work for most (if not all) farmers who want to purchase tenure documentation. This includes both land tenure documentation and optional add-on shade tree registration. To understand financial constraints of vulnerable groups additional sensitization will be conducted to develop and test price points and discount packages. To overcome payment challenges for all farmers, variations in down payments, repayment terms, repayment mechanisms (e.g. through ECOM and/or mobile money payments), bundling land rights documents together with ECOM's farm rehabilitation or farm management services will be developed and tested in the field. Meridia will also consult with the African Cocoa Initiative Phase II project and their work on increasing the provision of financial services in support of the cocoa value chain. Activities will be performed across the four communities to analyze uptake and efficacy of different options to address the two barriers and any unintended impacts.

Approach: Meridia will start by setting criteria for vulnerable groups and running outreach and sensitization campaigns. These will be combined with the sensitization work carried out under Activity 1.1 and 2.1. The sensitization campaign will collect field intelligence needed to conduct modeling and develop subsidization profiles for vulnerable groups and packages to bundle land tenure with farm rehabilitation. These models will then be tested across the four communities and results analyzed. This sub-activity is concluded with a report that provides the necessary input for the business case refinement in Activity 2.5.

Team: The field team will consist of: Richard Ankomah (Field Project Manager, Meridia), Field Project Management Assistant (Meridia), Community Mappers and Data Collectors (Meridia). The field team will be supported in the home office by: Thomas Vaassen (Team Lead, Meridia), Joseph Okyere (Tenure and Community Expert, Meridia), Johannes Eberenz (GIS Expert, Meridia), Ama Kwapong (Logistics Support Liaison, Meridia), Financial modeling analyst (TBC; Meridia). ECOM staff will provide input where needed, and Winrock will provide home office oversight of deliverables (Alex Grais, Robert O'Sullivan).

Result: Successful sensitization campaign for vulnerable groups conducted, options to increase accessibility of the service by vulnerable groups identified, pricing options and payment modalities tested,

and sufficiently detailed field intelligence captured to feed into the business case refinement exercise, bundling of land tenure with farm rehabilitation trialed in the field.

ACTIVITY 2.3: FARM AND TREE MAPPING, DATA COLLECTION, DOCUMENT PRODUCTION AND DELIVERY

Objective: Collect a full data profile on all cocoa farms for all four communities. This includes technical mapping and legal interviewing that results in a comprehensive baseline dataset for the bridge phase. Shade tree mapping and registration with the Forestry Commission will also be conducted for all mapped cocoa farms in the communities, and cost estimates developed for ongoing data management by the Asankrangwa stool traditional authorities.

Approach: This activity will be performed by Meridia field agents alongside the trained para-surveyors from the community. Cocoa farmers from the community will be further sensitized and encouraged to purchase the FarmSeal land tenure document. This second round of sensitization will build on the initial explanations of the FarmSeal documentation carried out in Activities 1.1 and 2.1. Those farms where farmers do not opt to purchase the document at the time of the field work will still be mapped and interviewed, and the farmers will still be able to purchase the documents at a later time. To reach the highest levels of participation, farmers will be incentivized to make themselves available on time with small token payments and relevant local authorities and farmer leaders will be invited to be active participants in the sensitization sessions. Informed by the work on payment plans and bundling, Meridia will map all shade trees as part of the base map data collection. Shade tree mapping will be incorporated into the parcel mapping as part of a single farm visit. As part of Activity 2.2 Meridia will determine pricing for tree registration, including automatic inclusion in the documentation package or as an "add on". When purchased by the farmers, shade tree registration forms will be generated, printed, and presented to the district Forestry Commission in Asankrangwa for stamping and registration.

The team will also meet with traditional authorities to scope costs for two different options for ongoing data management by the traditional authorities. The first option is to set up Android tablets with an app that allows access to the tenure documentation data and training the Asankrangwa. Stool members in the use of the app. The second is implementation of more comprehensive land administration system for the stool (the Ghana °Ground platform).

Team: The field team will consist of: Richard Ankomah (Field Project Manager, Meridia), Field Project Management Assistant (Meridia), Community Mappers and Data Collectors (Meridia). The field team will be supported in the home office by: Thomas Vaassen (Team Lead, Meridia), Joseph Okyere (Tenure and Community Expert, Meridia), Johannes Eberenz (GIS Expert, Meridia), Tautvydas Nalivaika (Data Engineer, Meridia), Data Team (Meridia), Ama Kwapong (Logistics Support Liaison, Meridia), Shade Tree Registration Expert (to be determined), Alex Grais (Winrock).

Result: Baseline dataset covering all farms in the four communities, FarmSeal documents issued, completed shade tree registration for all mapped farms in the communities.

4.3.3 PHASE II: ENGAGEMENT, REFINEMENT AND OUTREACH

Current phase II steps are indicative and not yet funded. They are subject to identifying additional funding, and subject to change based on this funding.

ACTIVITY 2.4: ENGAGEMENT WITH TRADITIONAL AUTHORITIES AND GOVERNMENT

Objective: The overall objective of this sub-activity is to improve the regulatory and policy environment for securing and maintaining land and tree tenure in the project area as well as Ghana at large. This activity may consist of three key objectives: i) harmonize customary terms applied to cocoa

farm tenure documentation (typically called indenture terms) in Asankrangwa with the intent of contributing this terminology to national debates around the issue for a number of prominent cocoa-growing traditional areas; ii) advise Lands Commission, Office of the Administrator of Stool Lands, and Ghana Institute of Surveyors on practical regulations that will help register cocoa farm site plans and indentures; and iii) deliver a simple maintenance platform to help the Asankrangwa Stool maintain farm tenure data during and after completion of the bridge phase.

Approach: In order to utilize the key lessons learned from the land tenure documentation work in Asankrangwa, a combination of one-on-one meetings with government agencies and traditional authorities along with a set of higher-level sessions can be carried out. Winrock field staff could work with Meridia during the one-on-one meeting and Winrock and Tetra Tech could take the lead in convening high-level meetings with input from Meridia on content. Subject to funding specific activities could include: i) convening a high-level session with traditional authorities to harmonize cocoa farmland tenure terms (potentially in collaboration with COLANDEF); ii) convening a high-level session with Land Commission to discuss simplified, and affordable cocoa farm land registration; iii) setting up two Android tablets with an app that allows access to the tenure documentation data, training the Asankrangwa Stool members in the use of the app and/or implementation of more comprehensive land administration system for the stool such as Ghana °Ground. Ghana°Ground is a customizable Land Administration System for Customary land secretariats in Ghana, which enables administration of landholdings, execution of transactions and maintenance of records. It is compliant with the ISO Land Administration Domain Model standard[15] and can be easily integrated into systems at the Ghana Lands Commission. Ghana°Ground uses a revenue generating model that allows a pay-as-you-go approach for land transactions, providing revenue to the land authority and also ensures payment for the operators of the system. Ghana°Ground is jointly developed and implemented by Meridia and Innola Solutions.

Learnings and outcomes will be captured into an overall report.

Team: The team composition will be Discussions with Meridia are underway at this time, but the team composition may include: Thomas Vaassen (Team Lead, Meridia), Joseph Okyere (Product and Sector Expert, Meridia), David Boafo (General Council and Land Rights Lawyer, Meridia), Samuel Larbi Darko (Director of Survey, Meridia), Kwasi Nyarko (Surveying Lead, Meridia), Richard Ankomah (Field Project Manager, Meridia), Evelyn Nartey (Reporting, Meridia), Yaw Adarkwah Antwi (Field Project Director and Tenure Expert, Winrock), Alex Grais (Winrock), and Tetra Tech staff.

Result: Asankrangwa Stool equipped with digital tools for maintaining access to parcel data, high-level sessions convened and buy-in gained from its participants towards the stated objectives.

ACTIVITY 2.5: BUSINESS CASE REFINEMENT WITH INDEPENDENT THIRD PARTY AND INDUSTRY OUTREACH

Objective: The objective of this activity is to refine the business case for the service model for land tenure documentation in Ghana that takes into account the particularities of the cocoa industry, clearly outlines the key challenges and how to overcome them, and shows the way forward for the sector to secure land tenure for all Ghanaian cocoa farmers over the coming decade.[16]

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[15] For more information on the ISO standard see: https://wiki.icaci.org/index.php?title=ISO_19152:2012_Geographic_information_-_Land_Administration_Domain_Model_(LADM)

[16] The term "refinement" is purposefully chosen to indicate that much work has already been done overf the last few years by Meridia and others to gather expertise and generate momentum on this subject. The role of the 3rd party is not to replicate efforts and perform field studies, but rather to synthesize the available learnings into a clear and concise narrative and approach that can be adopted and implemented by the industry.

Approach: Sub-activities 2.3 and 2.4 will provide necessary field intelligence and learnings that will guide the third party to develop the business case and present learnings in business language for key stakeholders in the sector. The business case will be drafted over a number of iterations, in between which World Cocoa Foundation members and other key stakeholders in the sector will be approached and consulted for feedback and input.

Team: Beatrice Moulianitaki (Hershey), Tawiah Agyarko-Kwarteng (Hershey), Thomas Vaassen (Meridia), Joseph Okyere (Product and Sector Expert, Meridia), Alex Grais (Winrock), Robert O'Sullivan (Winrock), Mark Freudenberger (Tetra Tech), third Party Expert (independent consultant).

Result: Refined business case presentation and supporting materials, reports from the consultative sessions with industry stakeholders.

4.3.4 DELIVERABLES TO USAID

1. Digital baseline dataset and (printed) community maps for the 4 communities;
2. Payment modalities and service bundling analysis and learning report;
3. FarmSeal documents for all community farmers who signed up (1,360 farms will be mapped and documents available for purchase); and
4. Approved shade tree registrations with the Forestry Commission.

4.4 ACTIVITY 3: FARM REHABILITATION SERVICES

4.4.1 SUMMARY

Background: ECOM has been testing a new farm rehabilitation service since 2017, with initial support on a financial model provided by USAID through the TGCC program. Early field trials have shown that more work is needed to refine and improve the model, including agronomics to ensure it is a financially viable service. See background section to the implementation plan for more details, along with earlier reports produced under the USAID TGCC program.

Objective of activity: The objective of this activity is to test and refine ECOM's farm rehabilitation services to identify a financially viable model that can be scaled-up across Ghana.

Approach: ECOM will continue testing farm rehabilitation across the cocoa growing region in Ghana and focus additional efforts in Asankrangwa to connect the farm rehabilitation services to farm tenure and land use planning components of the bridge phase.

Expected outcome: Financially viable and scalable farm rehabilitation service model developed.

Assumptions/conditions to be successful:

- Sufficient eligible farmers are interested in farm rehabilitation services in Asankrangwa to continue testing the services
- Financial viability of the farm rehabilitation service model is dependent on i) field results showing costs do not exceed return; ii) risks can be appropriately mitigated; and iii) sufficient numbers of farmers are willing to engage in service for a fee rather than wait for free Cocobod-funded rehabilitation.

- Pursuit of a loan guarantee is dependent upon the results of financial modeling and loan-guarantee conditions being acceptable to all parties.

TABLE 6. ACTIVITY 3 SUMMARY AND ROLES

ACTIVITY	ROLES				
	ECOM	HERSHEY	WINROCK	TETRA TECH	MERIDIA
3.1: Community entry and sensitization	Lead				
3.2: Farm inspection, selection, and approval (150 acres)	Lead				
3.3: Carbon stock assessment training and farm establishment	Participate in training, lead farm establishment		Lead carbon stock training		
3.4: Production of high performance cocoa seedling	Lead				
3.5: Agroforestry and shade management	Lead		Support via PIER		
3.6: Farm upkeep	Lead				
3.7: Financial modeling	Co-lead		Co-lead with PIER support		
3.8: Project monitoring and coordination	Lead				

TABLE 7. ACTIVITY 3 TIMELINE

ACTIVITY	2019				2020				2021
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
3.1: Community entry and sensitization	X								
3.2: Farm inspection, selection, and approval (150 acres)	X								
3.3: Carbon stock assessment training and farm establishment	X								
3.4: Production of high performance cocoa seedling	X	X			X	X			
3.5: Agroforestry and shade management	X				X	X			
3.6: Farm upkeep		X	X	X	X	X	X	X	X

3.7: Financial modeling	X	X		X	X		X	X	
3.8: Project monitoring and coordination	X	X	X	X	X	X	X	X	X

4.4.2 ACTIVITY 3.1: COMMUNITY ENTRY AND SENSITIZATION

Objective: Sensitize target communities to farm rehabilitation services and identify initial farmer interest.

Approach: The first set of critical activities include farmer sensitization (together with Meridia) to gauge farmers' interest before the formal registration process. Efforts will focus on at least 15 communities to reach this target, with a focus on Nyame Nnae, Suresu Nkwanta, Yirase, and Domeabra. The initial list of communities includes Amoamang, Attobrakrom, Domeabra, Donkorkrom, Gonukrom, Kramokrom, Koduakrom, Kwabeng, Nkrankrom, Nsabrekwa, Nyame Nnae, Sureso, Sureso Nkwanta, Tinagyeikrom, and Yirase.

Team: ECOM field staff will lead the work, with oversight by Bismark Appiah-Kubi.

Result: Communities are aware of farm rehabilitation services and selection criteria.

4.4.3 ACTIVITY 3.2: FARM INSPECTION, SELECTION, AND APPROVAL

Objective: The objective of this activity is to register farmer's participation in ECOM's farm rehabilitation services, with a target of 150 acres within the Asankrangwa district.

Approach: ECOM will assess farmers who sign up during the sensitization activities based on the following criteria:

1. Farmers selected should have gone through at least one year of ECOM training;
2. Site slope should not be above three percent;
3. Farmers should be prepared to cut cocoa for complete rehabilitation;
4. Farmers should have the capacity to repay the investment and be willing to pay it off with proceeds from the farm;
5. The site cannot be mangrove, swampy, or water-logged;
6. Farmers with multiple farms shall be considered as an added advantage;
7. Farms should be over 25 years old with a focus on highly unproductive farms (i.e., farms producing below 200 kg/ha);
8. The plot/site should not be in the middle of a forest and should be at least 30m away from any natural reserves; and
9. The farmer has the right to cut and replant the cocoa farm;

Once interested farmers pass the initial selection process based on the criteria, ECOM will provide farmers with a formal onboarding process explaining the farmer rehabilitation plan for the farm and sign an agreement with the farmer. The agreement contains the detail of the plan explained to the farmer during onboarding. Registration activities will be completed by February 2019. This will be followed by farm soil testing activities for cocoa swollen-shoot virus and diseases on the 150 acres.

Team: ECOM field staff will lead the work, with oversight by Bismark Appiah-Kubi.

Result: 150 acres of farms registered for farm rehabilitation services

4.4.4 ACTIVITY 3.3: CARBON STOCK ASSESSMENT TRAINING AND FARM ESTABLISHMENT

Objective: The objective of this activity is to train ECOM field staff on how to collect farm data to assess carbon stocks using standard operating procedures, followed by establishment of selected farms.

Approach: Winrock staff will travel to Ghana to train ten ECOM field staff on standard operating procedures for carbon stock assessments. This will be followed by ECOM being responsible for the following tasks:

1. Collecting field data on farms before they are cleared to allow estimation of above ground carbon stocks.
2. Treatment of selected farms infected with cocoa swollen-shoot virus;
3. Land clearing and cutting of trees;
4. Removal and aggregation of farm debris;
5. Complete burning of farm debris;
6. Application of aboricides on remaining farm debris;
7. Monitoring of farm situation; and
8. Testing of farm and soil samples for DNA of the virus to validate treatment success.

These tasks will be carried out by a combination of ECOM field staff working alongside farm owners and may include hiring labor for specific tasks.

Team: ECOM field staff will lead the work, with oversight by Bismark Appiah-Kubi.

Result: Farms cleared and ready for planting

4.4.5 ACTIVITY 3.4: PRODUCTION OF HIGH PERFORMANCE COCOA SEEDLING

Objective: The objective of this activity is to test production of cocoa seedlings to improve seedling survival rates.

Approach: ECOM will carry out the following tasks under this activity:

1. Filling of potting media (soil and soilless media);
2. Seeding of potting media;
3. Application of soil amendments and watering of nursery; and
4. Nursery management and upkeep.

ECOM will also consult with the African Cocoa Initiative Phase II work on increasing production and use of quality cocoa planting materials.

Team: ECOM field staff will lead the work, with oversight by Bismark Appiah-Kubi.

Result: ECOM has developed methods to produce high performance cocoa seedlings with high survival rates.

4.4.6 ACTIVITY 3.5: AGROFORESTRY AND SHADE MANAGEMENT

Objective: The objective of this activity is to refine and field test the agronomics of a resilient and economically viable agroforestry model that allows repayment of ECOM's costs in a timely manner.

Approach: ECOM will take the lead on this activity, and carry out the following tasks with support from Winrock and PIER as noted:

1. Define agroforestry model, with support from a consultant funded by PIER
2. Select shade tree variety
3. Selection of cash crops
4. Filling of potting media
5. Construction of germination beds for the cash crops and seeding the beds
6. Germination and transplanting to potting media
7. Application of amendments (both soil and soilless amendment)
8. Nursery management
9. Transplanting of seedlings

Team: ECOM field staff will lead the work, with oversight by Bismark Appiah-Kubi. Winrock will hire a consultant under PIER to work with ECOM on the agroforestry model.

Result: Identification of shade tree species, shade tree density and suitable cash crops for an economically viable and resilient cocoa agroforestry model for cocoa farm rehabilitation.

4.4.7 ACTIVITY 3.6: FARM UPKEEP ACTIVITIES

Objective: The objective of this activity is to maintain the cocoa farms as they become established to ensure successful rehabilitation and collect revenue to repay ECOM's costs.

Approach: ECOM field staff will be responsible for overall farm upkeep. This will include working alongside farm owners and may include hiring labor for specific tasks. Tasks will include weeding, insect and pest control, fungus control, fertilizer application and mulching activities, replacement of dead seedlings and suckers, and harvesting and sale of food crops. USAID will not fund any fertilizer or pesticide purchases.

Team: ECOM field staff will lead the work, with oversight by Bismark Appiah-Kubi.

Result: Rehabilitated farms are well-maintained and managed, and cocoa agroforestry system is established. Sufficient food crops are grown to support farmers and repay ECOM's services.

4.4.8 ACTIVITY 3.7: FINANCIAL MODELING

Objective: The objective of this activity is to refine the business case and long-term financing approach for farm rehabilitation services. This includes: i) the farm-level financial model; and ii) financing the farm rehabilitation service portfolio of farms.

Approach: Winrock will hire one or more consultants under PIER to work with ECOM on both aspects of financing. Work to refine the farm-level financial model will use field data collected by ECOM. It will build on the financial model initially developed by USAID under TGCC and subsequently refined

further by ECOM and Winrock. Work on financing the farm rehabilitation service portfolio will include exploring options to reduce ECOM's financial risks, including exploring a loan guarantee from USAID Development Credit Authority.

Team: Winrock consultants working with ECOM staff, with Robert O'Sullivan of Winrock providing oversight of the consultants.

Result: Farm-level financial model refined and tested with field data. An approach to financing the farm rehabilitation services explored, and subject to commercial viability. With all the necessary approvals a loan guarantee may be executed.

4.4.9 ACTIVITY 3.8: PROJECT MONITORING AND COORDINATION

The Tetra Tech and Winrock teams will jointly monitor project implementation. For management purposes, the team holds biweekly calls between the two home office staff and brings in the private sector partners as needed for more in-depth discussions. Biweekly coordination calls with USAID started under the pilot phase will continue into the bridge phase.

4.5 ACTIVITY 4: REPORTING AND OUTREACH

4.5.1 SUMMARY

Regular reporting will be prepared for USAID (quarterly and annual) as part of ILRG reporting. In addition, short communication pieces will be developed during the bridge phase to document and showcase the innovative work conducted through this public private partnership. We will aim to leverage platforms such as LandLinks, Tropical Forest Alliance (TFA) 2020, the World Cocoa Foundation Partnership Meeting, and Innovations@Winrock[17] to present results and lessons learned to a wider audience of private and public sector actors.

TABLE 8. ACTIVITY 4 SUMMARY AND ROLES

ACTIVITY	ROLES				
	ECOM	HERSHEY	WINROCK	TETRA TECH	MERIDIA
4.1 Documentation and Reporting	Inputs	Inputs	Lead	Inputs and Review	Inputs
4.2 Leveraging Existing Platforms	Support	Support	Lead	Support	Input

TABLE 9. ACTIVITY 4 TIMELINE, WITH PHASES INDICATED BY SHADING

ACTIVITY	2019				2020				2021
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
4.1 Documentation and Reporting	X	X	X	X	X	X	X	X	X
4.2 Leveraging Existing Platforms				X				X	

[17] https://www.winrock.org/innovation-at-winrock/

4.5.2 DOCUMENTATION AND REPORTING

The bridge phase's technical content, such as the community entry sensitization campaign handbook and the GHG reporting methodologies and results, will be included as chapters with the Phase I report and the Final Report. Both these documents will comprehensively present the methods, achievements and lessons learned during the bridge phase and serve as important references as this work continues to evolve.

The project will also produce semi-annual blogs and submit them to platforms such as LandLinks and ClimateLinks to show case our innovative approaches. Finally, our achievements will be documented through USAID ILRG's quarterly and annual performance reports to ensure consistent reporting on work conducted. This information that will be shared on the Development Experience Clearinghouse (DEC), while adhering to the agreed upon non-disclosure agreement.

4.5.3 LEVERAGING EXISTING PLATFORMS

We will identify two fora to present the tangible achievement and lessons learned during the bridge phase to a wider audience of public and private sector actors. This may include platforms such as TFA 2020, the World Cocoa Foundation, UNFCCC conferences, Innovation Forum conferences, and/or Innovations@Winrock webinar series. Participation may be via webinar or in-person presentation at a conference or workshop. Travel will be included as part of the LUP phase 2 and 3 budget if funds allow. If funding is unavailable for travel, ILRG will focus on DC based and online opportunities to share findings and results. ILRG will collaborate with Hershey and ECOM where opportunities allow.

5.0 MONITORING AND EVALUATION

ILRG has an overall project monitoring, evaluation, and learning (MEL) plan, which was recently approved by USAID. As part of the deliverables under phase I of Activity 1 on land use planning the ILRG team will refine the list of proposed indicators for this activity. An initial indicative list of indicators is included below. ILRG will work with partners to set targets based on the final activity design. Care will be taken to avoid duplication of effort around data collection and analysis, as private sector partners also collect monitoring and evaluation data. Where possible indicators will be aligned with, and targets added to the "Bridge Phase 2019 – 2020" column of the CFI Industry Action Plan (Annex A), as requested by Hershey. All M&E data will be shared with the CEL project in a timely manner.

TABLE 10. LIST OF PERFORMANCE INDICATORS AND TARGETS

Standard Indicator	Indicator Description	Target	Comment
EG.13-1	Number of people trained in sustainable landscapes supported by USG assistance	250	Target comes from ECO Game, land use planning, and ECOM farmer training
EG.13-2	Number of institutions with improved capacity to address sustainable landscapes issues as supported by USG assistance	2	Asankrangwa Stool and the local planning authority
EG.13-3	Number of laws, policies, regulations, or standards addressing sustainable landscapes formally proposed, adopted, or implemented as supported by USG assistance	1	Set of proposed by-laws associated with land use planning
EG.13-4	Amount of investment mobilized (in USD) for sustainable landscapes as supported by USG assistance	TBD	To be discussed with ECOM, Meridia, Hershey, ILRG, and PIER
EG.13-5	Number of people receiving livelihood co-benefits (monetary or non-monetary) associated with the implementation of USG sustainable landscapes activities	TBD	Meridia will map over 1,000 farms, but need further discussion on how many we expect may purchase documents
EG.13-6	Greenhouse gas (GHG) emissions, estimated in metric tons of CO2 equivalent, reduced, sequestered, or avoided through sustainable landscapes activities supported by USG assistance	TBD	Team needs initial carbon stock data and number of rehabilitated farms to estimate
EG.13-7	Projected greenhouse gas emissions reduced or avoided through 2030 from adopted laws, policies, regulations, or technologies related to sustainable landscapes as supported by USG assistance	TBD	Team needs initial carbon stock data and number of rehabilitated farms to estimate
ILRG 1a	Number of people with legally recognized and documented tenure rights to land or marine areas, as a result of USG assistance.	TBD	Meridia will map over 1,000 farms, but need further discussion on how many we expect may purchase documents
ILRG1b	Number and proportion of people who perceive their tenure rights to land or marine areas as secure, as a result of USG assistance.	TBD	Meridia will map over 1,000 farms, but need further discussion on how many we

			expect may purchase documents
ILRG 2	Number of specific pieces of land tenure and property rights (LTPR) legislation or implementing regulations proposed, adopted, and/or implemented positively affecting property rights of the urban and/or rural poor as a result of United States government (USG) assistance	TBD	Overlaps with EG.13-3 and the anticipated LUP by-laws could be counted under either

ANNEX A: COCOA AND FORESTS INITIATIVE INDUSTRY ACTION PLAN – GHANA

COCOA AND FORESTS INITIATIVE INDUSTRY ACTION PLAN (CFI) - GHANA				
Ghana – Framework Language				
Forest Protection and Restoration Commitments	**Company Actions**	**Target Indicators**	**Bridge Phase USAID, 2019-2020**	**Ghana National Implementation Plan Actions**
1. There will be no further conversion of any forest land (as defined under national regulations and using methodologies such as High Carbon Stock (HCS) and High Conservation Value (HCV) approach) for cocoa production as of 1 January 2018.	1.1 Conduct farm mapping within supply chain to ensure cocoa is not being sourced from forest land	# and % of farms mapped		1. Up-to-date maps on forest cover and land use for these areas 2. In-depth study of cocoa farms in on- and off- reserve areas, including socio-economic data on cocoa farmers and their communities in those areas
	1.2 Conduct deforestation risk assessments in all sourcing areas.	# hectares included in deforestation risk assessment		
2. There will be no production and sourcing of cocoa from National Parks, Wildlife Sanctuaries, and Wildlife Resource Reserves, except from farms with existing legal status, as of 1 January 2018.	2.1 All farms found in protected areas will be reported to the Ministry of Land and Natural Resources			18. Development of operational guidelines for resettlement and livelihood restoration
	2.2 A system will be adopted and published for excluding farmers in the supply chain with cocoa production in protected areas.	% of cocoa is traceable to farm-level		17. Assessment and mitigation of social impacts and risks

3. A differentiated approach for Forest Reserves will be adopted by Government by 31 December 2018. It will be based on the following categories and will specify the number of hectares, timeline, roles and responsibilities, budget and fund-mobilization strategy for each category: - Category 1: The less degraded Forest Reserves (classified as condition 1, 2, and 3 in the national system) will be managed under a strict protection status by 31 December 2019, which will exclude cocoa production and sourcing, timber extraction, or other types of productive and extractive activities. Signatory companies will stop sourcing cocoa from these forests as of 31 December 2019. Category 2: In the more degraded Forest Reserves (classified as condition 4 and 5 in the national system), cocoa production and sourcing will continue for a period up to 25 years (the cocoa tree lifecycle) through the Modified Taungya System (MTS). Government will sign contracts with farmers that include tree benefit sharing arrangements, targeted restoration and reforestation programs with the end goal of progressively restoring the forest to a healthy intact state, and cessation of cocoa farming (but allowing some sustainable economic use of the forest, including non-timber forest products).	3.1 End sourcing from all farms identified within Category 1 Forest Reserve areas by 31 December 2019.			3. Acceleration of land and tree tenure reform to retain naturally regenerated trees on off-reserve farmlands and the farming landscape 4.Establishment of a national register of farms and trees 6.Review of management plans for Category 1 and 2 Forest Reserves 7. Strengthening of forest law enforcement and governance
	3.2 Support farmers in Category 2 Forest Reserve areas in their restoration and reforestation programs	# hectares of Category 2 Forest Reserve areas restored		

4. In highly degraded off reserve forest lands (which are held under the customary land ownership sector), cocoa production and sourcing will continue, supported by substantial investment and adoption of best practices in climate smart cocoa and MTS.	4.1 Train farmers in off-reserve forest lands in CSC production including cocoa agroforestry systems	# of farmers trained in CSC best practices # farmers that have adopted CSC best practices		9. Enhancement of public-private collaboration at local and global levels
	4.2 Train farmers in Modified Taungya System (MTS)	# of farmers trained in MTS # farmers that have adopted MTS		
5. In all these areas, a multi-stakeholder landscape approach will form the basis for the interventions, with an initial focus on the six Climate-Smart Cocoa Hotspot Intervention Areas (HIAs) as defined under the Ghana Cocoa Forest REDD+ Program (GCFRP). The process starts with establishment of consortiums of key stakeholders, followed by development and implementation of integrated landscape management plans with a strong focus on climate-smart cocoa initiatives.	5.1 Join one/several HIA(s) in the cocoa-sourcing area	# of HIA(s) joined in the cocoa sourcing area		9. Enhancement of public-private collaboration at local and global levels
	5.2 Implement GCFRP CSC Good-Practice Guidelines with farmers within the HIAs	# farmers within HIAs that have adopted CSC best practices		
6. Up-to-date maps on forest cover and land-use for these areas, socio-economic data on cocoa farmers and their communities in these areas, and detailed operational guidelines covering forest management in Category 1 Forest Reserve, and the mixed-use approach in Category 2 Forest Reserve, will all be developed and publicly disclosed by Government by 31 December 2018, with input as relevant from the private sector, civil society organizations, and other stakeholders. In particular, this will include the development of a national registry of any farms with legal status in Forest Reserves.	6.1 Share maps and data with appropriate government bodies			1. Up-to-date maps on forest cover and land use for these areas
	6.2 Participate in the development of operational guidelines for Category 1 and 2 Forest Reserves			

7. Land and tree tenure reforms, and benefit sharing arrangement to incentivize land owners and users to retain naturally regenerated trees on off-reserve farmlands and in the farming landscape of MTS will be accelerated by Government. This will include approval of the Community Resource Management Area (CREMA) mechanism, which will help secure land owners and users' rights to manage and derive economic benefits from forest resources.	7.1 Support farmers with tree registration	# of trees registered on cocoa farms		3. Acceleration of land and tree tenure reform to retain naturally regenerated trees on off-reserve farmlands and the farming landscape 4.Establishment of a national register of farms and trees 10. Promotion of investment in long-term productivity of high-quality cocoa
	7.2 Support cocoa farmers to acquire land (tenure) documentation	# and % of farmers in supply chain with secure land titles		
8. Public sector forest law enforcement and governance will be strengthened, including awareness raising campaigns, capacity building of forest institutions and community policing, stronger surveillance and monitoring, and application of stronger sanctions for infringement, covering forest encroachment and degradation from agriculture, logging and galamsey, as of 1 January 2018.	8.1 Promote and participate in awareness-raising campaigns to educate farmers on forest law enforcement and tree tenure provisions	# farmers reached at awareness events		3. Acceleration of land and tree tenure reform to retain naturally regenerated trees on off-reserve farmlands and the farming landscape
9. Public-private collaboration to mobilize new sources of funding for forest protection and restoration, and to incentivize farmers' adoption of environmentally sustainable cocoa production will be developed. Key opportunities include inter alia, support for innovative financial mechanisms (such as payments for environmental services, carbon finance, and public-private trust funds), implementation of MTS and phased approach to land-use change, alternative livelihoods for cocoa farmers affected by land-use change, development of shade-grown cocoa systems, climate-smart cocoa production.	9.1 Mobilize finance for forest protection and restoration such as: new financing mechanisms (to be specified), contribution to conservation funds, development of payments for environmental services (PES) schemes.	Amount of $ mobilized towards forest protection and restoration		8. Mobilization of new sources of funds
		# of hectares with forest protection and restoration financing		
		# of farmers participating in PES contracts		

10. Public-private collaboration, in partnership with local and global experts, will be enhanced to identify good practices and technical guidance for forest conservation and restoration, shade grown cocoa, and MTS in Forest Reserves.	10.1 Support distribution and planting of multi-purpose trees for on-farm restoration via mixed agroforestry	# of multi-purpose trees distributed for on-farm planting		10. Promotion of investment in long-term productivity of high-quality cocoa
		# hectares cocoa agroforestry developed		
	10.2 Support distribution and planting of native trees for off-farm restoration (reforestation)	# native trees planted off-farm		
		# hectares of forest area restored		
	See Company Action 4.2			
Sustainable Production and Farmers' Livelihoods	**Company Actions**	**Target Indicators**	**Bridge Phase USAID, 2019-2020**	**Ghana National Implementation Plan Actions**
11. Promote investment in long-term productivity of high quality cocoa in environmentally sustainable manner and grow "more cocoa on less land," through intensification of farming practices, provision of improved planting materials, introduction of yield-enhancing methods, training in good agricultural practices, crop protection, and crop nutrition and soil fertility. Continued land tenure reform to strengthen farmers' land and property rights, and development and capacity building of farmers' organizations, are critical enabling factors for sustainable agriculture development.	11.1 Distribute improved cocoa planting material	# improved seedlings distributed to farmers		10. Promotion of investment in long-term productivity of high-quality cocoa
	11.2 Establish and/or provide cocoa nurseries with improved cocoa planting material	# of nurseries with improved cocoa seedlings		
	11.3 Train farmers and producer organizations in the latest Good Agriculture Practices (GAPs)	# of farmers and organizations trained in GAPs		
	11.4 Support cocoa farm rehabilitation	# of hectares of cocoa rehabilitated		
12. Develop implementation plans, including mapping of exact areas to intensify establishment of shaded cocoa landscapes in line with the Ghana Cocoa Forest REDD+ Programme (GCFRP), with the promotion of Climate Smart Cocoa and the national Climate Smart Cocoa Standard in environmentally suitable areas, with a first focus on Climate Smart Cocoa Hotspot Intervention Areas (CSC HIAs).	12.1 Promote the Climate Smart Cocoa Standard *Inclusive of Indicator 4.1*	# of farmers adopting CSC		11. Development of implementation plans for cocoa intensification

13. Promote sustainable livelihoods and income diversification for cocoa farmers, including diversification, agricultural inter-cropping, development of shade-grown cocoa, and other income generating activities designed to boost and diversify household income.	*See Company Action 10.1*	# of multi-purpose trees distributed for on-farm planting		10. Promotion of investment in long-term productivity of high-quality cocoa 11. Development of implementation plans for cocoa intensification
		# hectares cocoa agroforestry developed		
	13.1 Promote farm-level crop diversification	# and % of farmers applying crop diversification		
14. Promote financial inclusion and innovation to deepen farmers' access to working capital and investment funds required for production and cocoa farm rehabilitation and renovation.	14.1 Promote expansion of farmer savings	# and % of farmers in supply chain with a savings account		12. Promote financial inclusion and innovation
		# and % of farmers participating in VSLA groups		
	14.2 Offer financial products to farmers	# and % of farmers offered a financial product		
15. Improve supply chain mapping, with 100% of cocoa sourcing traceable from farm to first purchase point by 31 December 2019. Private sector and Government will develop a joint action plan that maps out key principles, steps, and milestones to achieve this step, encompassing all national and international traders, by 30 June 2018. Government will adopt regulations that require verifiable traceability from farm to first purchase point by end-2019, and ensure compliance by national and international traders thereafter. Signatory companies are putting in place verifiable monitoring systems for traceability from farm to first purchase point, operational policies and control systems that effectively monitor the associated risks, including high quality verification, by 31 December 2019.	15.1 Conduct mapping to identify and collect cocoa farm boundaries polygon data	# and % farms mapped within supply chain		13. Improving cocoa supply chain mapping and traceability
	15.2 Implement traceability system to farm level in 100% of supply chain by end-2019	% cocoa supply traceable from individual farms to first purchase point		
Social Inclusion and Community Engagement	**Company Actions**	**Target Indicators**	**Bridge Phase USAID, 2019-2020**	**Ghana National Implementation Plan Actions**

16. Full and effective information sharing, consultation, and informed participation of cocoa farmers and their communities who are affected by proposed land-use changes under the Framework.	16.1 Organize cocoa community consultations on the implementation of the Frameworks for Action	# of communities with consultation sessions and # of participants per community (male/female & <40yrs)		14. Promotion of information sharing, consultation, and participation of cocoa farmers and their communities who are affected by proposed land-use changed under the Framework
17. Promote community-based management models for forest protection and restoration, including engagement of local communities and farmers in awareness raising campaigns on the status of protected areas and the critical role that forest plays in climate regulation.	17.1 Establish and/or support community-based natural resource management (CBNRM) programs for forest restoration/protection in cocoa communities	# of cocoa communities with active forest restoration and protection program		15. Establishment and strengthening of community structures
		# of hectares under CBNRM		
18. Development of action plans for forest protection and restoration, and sustainable agricultural intensification that are gender and youth sensitive.	18.1 Develop forest protection & restoration and agriculture intensification action plans that are gender and youth sensitive	# of cocoa communities with gender-focused programs		16. Development of gender- and youth- sensitive programs
		# of cocoa communities with youth-focused programs		
19. For the approach in Forest Reserves, Government will assess and mitigate the social impacts and risks of proposed land-use changes on affected cocoa farmers and their communities, and ensure provision of alternative livelihoods and restoration of standard of living of affected parties, in line with global standards.				
20. Government will prepare operational guidelines covering resettlement and livelihood restoration of any affected parties by 30 June 2018, with input as relevant from private sector, civil society organizations, and other stakeholders, in line with global standards.	20.1 Support the development of operational guidelines on resettlement and livelihood restoration			

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