Public-Private Partnership Design for Inclusive Cocoa Global Value Chains in Ghana

Prepared for: Curt Reintsma,
Food Security Partnerships Specialist
United States Agency for International Development (USAID)

Prepared by: Bahari J. Harris
Master of Public Policy Candidate
The Sanford School of Public Policy
Duke University
Faculty Advisor: Fernando Fernholz

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EXECUTIVE SUMMARY
Within 10 years, there could be a severe global shortage in the supply of cocoa, according to industry practitioners and other experts. Due to global population growth and the emergence of a growing global middle class, by 2025 the cocoa crop would need to increase by nearly 50 per cent to keep up with projected demand. A potential shortage of supply is a direct threat to the business model of lead firms – including cocoa grinders and processors, chocolate confectioners, and retail distributors.

But these international firms – the ones that will suffer the most if there is a shortage of cocoa supply – are helping create the market failure that is stifling sustainability. Functioning as a two-tiered consolidated oligopoly with a combined market share of approximately 89%, these firms enjoy the largest portion of value capture in the cocoa-chocolate global value chain (GVC). The smallholder cocoa producers, conversely, are trapped in low value-add segments of the GVC. In fact, most smallholder farmers survive on less than $1.00 per day per capita, on average in many cocoa exporting countries. In Ghana – the second largest producer of cocoa in the world – the government has accomplished little to help these smallholders upgrade and make cocoa an attractive sector for the next generation to inherit. The result – both in Ghana and around the world – is a lack of sustainability of the supply of cocoa. Demand is already beginning to outstrip supply.

POLICY QUESTION
As a result of these underlying circumstances, the United States Agency for International Development (USAID) has posed the following policy question:

Under what conditions could USAID, as a development agency, support and enhance potential public-private partnerships in order to improve the bargaining power (and financial wherewithal) of smallholder organizations and farmers in the context of the global value chain for cocoa in Ghana?

ASSESSMENTS / METHODS / ANALYSIS
Strategies for addressing the problem at hand were created via an in-depth examination of the current state of the Ghana’s role in the cocoa GVC. An assessment of current literature and key informant interviews in Ghana revealed supply-side bottlenecks, limiting structural issues, low-value added GVC traps, and deficits in both private and public sector interventions. The specific recommendations employed to answer USAID’s policy question were systematically crafted using a comparative case-study analysis approach. These case-studies both validated the literature review and key informant interviews, and revealed the necessary conditions for a potential public-private partnership (PPP) to thrive. The three cases – chosen due to their relevancy to the policy question and similarity to the sector – were: A pilot project to produce cocoa-by-products in Ghana; A study of the inclusive and sustainable features of the Juan-Valdez Coffee Shops in Colombia; and a case-study of a PPP set up to increase the income of tea-producers in Rwanda.

RECOMMENDATIONS
This Master’s Project stops short of recommending that the formation of a PPP is the correct intervention to make the cocoa GVC in Ghana more inclusive. That decision is ultimately up to the government of Ghana. Recent actions by the government in the agricultural sector, namely the Ghana Commercial Agriculture Project, do tend to indicate that Ghana is indeed amicable toward this type of intervention.

Should it turn out that Ghana chooses to pursue a PPP arrangement, each facet of the research and analysis undertaken as part of this Master’s Project points out that two parallel functions must be
addressed as part of the intervention: PPP design and objective. On the design side, the PPP should take into account the obstacles, risks and returns for all stakeholders in building institutions that would enhance Ghanaian smallholder cocoa producers’ participation at all value-added steps in the cocoa GVC, in the long-term. A critical pre-condition for successful implementation is to address the structural issues, such as land and property rights in the country. Of equal importance is the PPP’s objective. If the goal is to assist smallholders to have a more powerful, vertically integrated presence in the cocoa GVC, then certain power asymmetries and governance issues must be addressed head-on. Otherwise, almost any other intervention that produces value – especially value that is income-generating – will see that value and any associated power flow to downstream actors.

As such, if the Government of Ghana (GoG) invites in USAID as a development/donor agency assist in the PPP design and implementation, then the key findings of this report recommend that USAID offer its assistance in gradual stages commensurate with the level of preparedness of the key PPP stakeholders. Hence, USAID should take actions in the short-term (Now), in the medium-term (Next), and in the long-term (Later) to successfully implement a PPP in the cocoa GVC in Ghana.

- **Now** – USAID should carefully negotiate agreements with the GoG and take actions to help lay the policy foundation for a PPP to successfully thrive in Ghana. USAID should offer technical assistance about best practices that produce the landscape wherein PPPs can thrive. This action would have particular implications in legal framework, regulatory policy, and finance policy. To address some of the limiting structural issues, USAID should continue its work with the GoG and the World Cocoa Foundation to assist in strengthening land and property rights for smallholders, as well as helping unlock gender and inheritance constraints to enable the sector to thrive. Additionally, there would also need to be some industrial policy consultation on the necessary physical infrastructure to make the PPP plausible. This part assumes a full buy-in from key decision makers in the GoG. Finally, USAID should help the GoG decide how to create the conditions wherein the domestic private sector can be welcomed into a PPP arrangement.

- **Next** – Linking each of the three case studies, the single most important aspect of a successful inclusive PPP is the establishment of an agribusiness model whereby the smallholder (and/or collective) enhances his/her income through increased productive capability or an equity-share arrangement in one or more downstream functions of the GVC (e.g., grinding, processing, retail). In the case of becoming a private shareholder, the smallholder’s and/or collective’s share of equity invariably dilutes the shares of other downstream private or lead firm owners, and thereby shifts more GVC power to the smallholders. This is a key ingredient to a GVC becoming more inclusive and collectives gaining bargaining power. But it also calls into question the attractiveness of the arrangement to the private sector. Should a PPP be instituted, there would have to be careful consideration given to bidding, risk-sharing and mitigation procedures, contracting and ownership terms, and private sector investment and procurement expectations. Finally, to ensure the symbiotic relationship between the producer collectives and the private sector - whereby continuity of supply is guaranteed and the socio-economic edification of the collectives are maintained - USAID could partner to directly stimulate capacity building.

- **Later** – USAID could be instrumental in the successful execution and scaling of a PPP in the cocoa sector by recruiting both domestic and international private sector investors to the space, supporting as a developing agency for a limited period the smallholder collectives in managing their responsibilities, and helping to set up a method for measurement and evaluation of outputs and outcomes. The Rwandan Tea PPP case illustrates the learning curve smallholders initially exhibit in working with large lead firms and some of the conditions that could be used in the design of a PPP Agreement for Ghana. But the Juan Valdez case points out the economic development potential for smallholders, when integrated as participants and partial owners of a large enterprise, are able to capture some of the value added in the country and abroad. Thus, USAID could be instrumental and play a catalytic role in facilitating collaboration, increasing investment, and accelerating the sector’s economic and developmental growth.
INTRODUCTION

POLICY QUESTION
Under what conditions could USAID, as a development agency, support and enhance potential public-private partnerships in order to improve the bargaining power (and financial wherewithal) of smallholder organizations and farmers in the context of the global value chain for cocoa in Ghana?

PROBLEM STATEMENT AND STATEMENT OF INTENT
Ghana’s cocoa industry has a fundamental problem – it has the ability to create value (as demonstrated by its ranking as the second largest producer of cocoa in the world - 17% market share¹), but it does a poor job at capturing that value. Industry lead firms – the cocoa grinders/processors, chocolatiers, and retail companies that are located in some OECD countries - have captured a combined share of approximately 89% of the cocoa-chocolate market.² As such, these international firms essentially function as a two-tiered consolidated oligopoly and enjoy the largest portion of value capture as a result of this market failure. The smallholder cocoa producers, conversely, are trapped in low value-add segments of the cocoa global value chain (GVC). Up to this point, the Ghanaian government has accomplished little to help these smallholders upgrade and make cocoa an attractive sector for the next generation to inherit. The result – both in Ghana and around the world – is a lack of supply sustainability of cocoa. Demand is beginning to outstrip supply.

This Master’s Project attempts to respond to USAID’s (i.e., the client) policy question through examining the problems in the cocoa farming sector in Ghana using the global value chain framework and additional policy analysis tools. Following the analysis, the resulting policy recommendations focus on how USAID could assist particular cocoa GVC stakeholders in Ghana better address problems in the sector. Through enabling of key elements of public-private partnerships (PPP) and aligning the objectives of the corresponding partner organizations, Ghana may be able to more effectively achieve its developmental goals. Ghana has the potential to serve as a pilot to model for USAID for other strategic development programs globally.

BACKGROUND
Given the cross-sectoral nature of the policy question, it is important to frame the background of the issue from the perspective of its key players: USAID, Government of Ghana, smallholder producers, and the lead firms.
USAID and the Government of Ghana

USAID’s mission “highlights two complementary and intrinsically linked goals: ending extreme poverty and promoting the development of resilient, democratic societies that are able to realize their potential.” To help achieve its mission, the agency commissioned and funded the “Leveraging Economic Opportunities” (LEO) project through a 3-year grant specifically to support programming that fosters inclusive growth through markets, builds on the value chain approach to create “pathways out of poverty,” and focuses on linking smallholder-to-“lead firm” models to assist with inputs, extension advice, and business development and financial services.

The Government of Ghana has a vested interest in the policy question – especially from social and economic viewpoints. Propelled by cocoa, Ghana has enjoyed an agricultural sector growth of more than 5 per cent a year over the past 25 years. The industry accounts for 32.2% of the country’s export earnings, and 9.5% of its GDP. The growth and prominence of the cocoa sector has enabled it to achieve impressive reductions in extreme poverty and malnutrition. Creating an enabling environment for this sector is critical for Ghana to maintain its global economic position and continue to meet its sustainable development goals.

Smallholder Producers

The small-scale farming nature of Ghana’s cocoa producers and the consolidation of downstream value chain actors has capped the earning potential of Ghana’s 720,000 small-scale farmers at less than $1.00 per day per capita, on average. And the sector faces many sustainability problems. “There are production constraints that arise in part due to the lack of access to finance and credit, access to hybrid seeds and seedlings, and information on fertilizers.” There is also a livelihood constraint, given the increasing average age of the smallholder farmer. Youth can and do earn more money per day by moving to the cities to work. Due to the poor profitability of the cocoa sector, there is little interest for young people to pursue cocoa farming as a livelihood option. Finally, there are other structural issues such as land ownership and land use that must be taken into account.

Lead Firms

Scarcity is a basic economic concept that demands an investigation into the laws of supply and demand. In the agricultural sector, scarcity issues are a key concern in a world with a rapidly growing population. In the cocoa sector, this concern is acute – within 10 years, there will be a severe cocoa-supply shortage. As reported by the Bloomer Chocolate Company, “the math is simple: a mere 3 per cent growth in consumption would require the addition of nearly 1.8 million metric tons of cocoa by 2025 (See Figure 1 below). In other words, the cocoa crop would need to increase by nearly 50 per cent to meet projected demand.” A shortage of supply is a direct threat to the business model of lead firms – including cocoa
grinding and processing, chocolate confectionery, and retail distribution. Together, these firms have captured a combined total of approximately 89% of the value of the cocoa-chocolate market.\textsuperscript{11} Thus, if there is no significant global supply response – including in Ghana - the threat of a cocoa shortage is real.

Figure 1 – Forecasted Future of Global Cocoa Supply

![Cocoa Supply/Demand Graph](image)

As a key ingredient in many Western snack foods and confectioneries, as well as some cosmetics, the future sustainability of cocoa as a commodity is also relevant to the public at large. Given the current increased attention to fair trade and organic consumption, the economic viability of the cocoa sector and its social/ethical treatment of its farmers are also questions of public interest.

\textbf{Assessment of Literature}

Most cocoa GVC practitioners and researchers converge around one primary fact – there is a sustainability problem in the supply of global cocoa. However, there are varying opinions of how the industry arrived at this point or how to successfully navigate to a state where supply will keep up with demand. To address this variance, traditional GVC literature\textsuperscript{12,13} would suggest that an examination should take place in three areas: 1) identifying which supply-side bottlenecks are central to the inability of smallholders to produce enough cocoa to bring the global market to equilibrium; 2) determining the root cause of why Ghanaian smallholder producers are trapped in low-value added segments of the global cocoa value chain; and 3) uncovering how current interventions are insufficiently designed or equipped to substantially address the power-asymmetries and governance issues that block more inclusive development.
Supply-Side Bottlenecks
Traditional microeconomic theory explains that the five determinants of supply are resource prices, production technology, prices of substitutes, number of sellers, and seller’s expectation of future supply.\textsuperscript{14} The widely accepted rule of thumb is that as real or nominal prices paid for supply go up, quantity supplied by producers also increases. Hence, cocoa lead firm and government approaches to increasing supply have been to increase incentives (i.e., lower costs, increase yields) and correspondingly directly intervene in order to make the industry more attractive in order to attract more suppliers. For example, the World Cocoa Foundation’s CocoaAction plan aims to increase productivity of farmers by subsidizing the costs of cocoa farming inputs (i.e., production resources) such as fertilizers, disease-resistant high trees, and agricultural chemicals.\textsuperscript{15} Nigeria is following suit and like the WCF program is delivering free training to farmers in more productive farming techniques (i.e., production technology).\textsuperscript{16}

Although there are no substitutes to cocoa in the production of chocolate, there are livelihood factors that compete for the farmers’ attention and ability to supply cocoa. For instance, most smallholder producers are also subsistence farmers.\textsuperscript{17} Thus, their ability to supply cocoa becomes an opportunity cost in terms of their ability to access basic food and shelter, education, health, and other economic and social needs of their families. As a result, cocoa sustainability programs such as Cargill’s Cocoa Promise\textsuperscript{18} and Olam’s (formerly ADM) Grow Cocoa\textsuperscript{19} are intervening to tend to farmers’ social and other community development needs.

Besides addressing the lack of incentives, private and public sector interventions have also tied to stimulate the attractiveness of the sector. The Barrientos article (2008) pointed out that the average age of the Ghanaian smallholder producer is 55 years old. “Many farmers interviewed did not want their children to work in the cocoa sector, and young people with some education were more likely to leave cocoa for better remunerated work elsewhere.”\textsuperscript{20} Yet, as the Dominican study similarly bears out, when young people are involved in cocoa farming, they are more likely to be keener to introduce advanced, innovative farming practices.\textsuperscript{21} Since cocoa farming is a smallholder dominated industry, it is essential to attract and retain young farmers to ensure the long-term sustainability and growth of the cocoa sector.

Similarly important to sector-attractiveness and long-term sustainability is the issue of land ownership and inheritance. Ghanaian property ownership laws and “rental” cocoa farming arrangements are often ambiguous and open to the interpretation of local officials since there is no national standard.\textsuperscript{22} New farmers are often reluctant to enter the sector for fear that their farm business and/or the accompanying land or capital can be taken away either by law or through inheritance customs or lack of individual property rights.\textsuperscript{23} Recognizing this land issue as a limiting factor, the Nigerian Ministry of Agriculture is pursuing a state-sponsored initiative to allow farmers to expand to uncultivated savannah grasslands.
across the country. But even established farmers have trouble accessing the market in Ghana due to the government’s poor upkeep of infrastructure and communication. If productivity and sustainability are goals for the country’s cocoa sector, improving the roads, methods of transportation, and communication linkages between farmers and markets is mission critical. Very little is currently underway to address these issues.

Although efforts are underway to address market imperfections on both the incentive and attractiveness aspects of the cocoa sector, current interventions have fallen short to solve what the Blommer report rightly predicts as the “severe cocoa-supply shortage” that is a distinct reality in the near future. Future interventions - especially policy interventions - must focus on issues of imbalances and imperfections for all stakeholder across the entire supply global value chain. The Shaping Sustainable Value Chains article suggests a model for how to bring parity in the determinants of supply – focus on an appropriate application of the “sustainable supply chain governance model (SSGC).”

Figure 2 – Network Determinants of Sustainable SCG Models

<table>
<thead>
<tr>
<th>Centrality of the Focal Organization</th>
<th>Supply Chain Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Transactional SSCG</td>
<td>Acquiescent SSCG</td>
</tr>
<tr>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Dictatorial SSCG</td>
<td>Participative SSCG</td>
</tr>
</tbody>
</table>

In the Ghanaian cocoa sector, where the supply chain density is high (as per the influence of the COCOBOD) and the centrality of the focal organization (in this case, the consolidated lead grinder and chocolatier companies) is also high, a participative SSGC is prescribed. For this model to be successful, the focal organization must be open to “balance, pacify, and bargain with” the social and environmental considerations of the producer-supplier partners to achieve long-term sustainability. In other words, this model will be characterized by a “multi-stakeholder, integrative, and flexible” governance structure that pursues “relational rents, stimulates joint innovative processes, and improves adaptability to changes.”

Low Value-Added GVC Traps
Almost all increases in commodity prices or consumer chocolate prices through the years has been captured by the lead firms in the cocoa processing and chocolate manufacturing sectors. The cocoa producer’s share, conversely has remained flat. Probably the most compelling way to measure this difference is to look at how the distribution of value of the final consumer price an average chocolate bar
over time.\textsuperscript{1} A 2007 estimate approximates the cocoa producer share of the cost of a bar of milk chocolate at 4%, compared to the processor/manufacturer share of 51% and retail share of 28%\textsuperscript{31} - advertising and shipping made up the balance. In 2013, the share was exactly the same for cocoa producers at 4% (See APPENDIX A), but percentages for processors increased to 57%, and the retail share went up by almost a quarter to a 35% total share of the final consumer chocolate bar price.\textsuperscript{32}

Thus, developing countries have seemingly become trapped in low-value added segments of the cocoa global value chain. According to World Bank (2008) estimates, developing country claims on value added in the cocoa sector steadily declined from around 60 percent in 1970-72 to around 28 percent in 1998-2000.\textsuperscript{33} In most cocoa-producing countries, the only function for its cocoa industry is to grow the cocoa pods, harvest the nibs, ferment them, dry the beans, bag and export them. Ghana – due to its COCOBOD – has the value-added bonus of quality control rights and terms of trade control (price minimums).\textsuperscript{34} But the majority of the value is added once the cocoa beans leave a producing country's shores and goes downstream to a country that processes it and eventually to a country where it is transformed into chocolate. If a country has the capacity (or better, if it creates the conditions for the domestic private sector) to keep more of the downstream steps in-country, it can capture more of the associated value through economic upgrading.\textsuperscript{35} Recognizing this as both an opportunity for foreign direct investment and as a way to advance their corporate social responsibility and sustainability initiatives in country, all three lead firm processors (i.e., Barry Callebaut, Cargill, and ADM) operate vertically integrated cocoa grinding/processing facilities in Ghana.\textsuperscript{36} Ghana has only has one national processor – the Cocoa Processing Company (owned and operated by the government-run Ghana Cocoa Board) – that only controls 15% of the total national processing market share.\textsuperscript{37} In fact, Ghana is utilizing less than 60% of its national processing capacity due to mismanagement, electricity availability, and infrastructure issues.\textsuperscript{38}

Perhaps the most serious “trap” for Ghana is the dynamics surrounding the economic interplay between the Ghana Cocoa Marketing Board (COCOBOD) and the country’s 720,000, highly fragmented smallholder cocoa producers. These farmers - all very easily susceptible to descents into poverty - each have an average plot size of less than two hectares.\textsuperscript{39} Average farming yields range from 400-500kg of cocoa per hectare, and are on a par with yields in Côte d’Ivoire (400kg/ha), Cameroon (380kg/ha) and Nigeria (320kg/ha). Since Ghana has a reputation for creating a higher quality cocoa bean, its producers should be able to capture that full value at the farmgate. Yet they do not – mainly due to COCOBOD arrangements.

\textsuperscript{1} One caveat: many chocolate firms’ are privately owned, so actual data is hard to determine. Therefore, all figures are estimates.
As mentioned earlier, the COCOBOD totally controls the cocoa market in Ghana. It sets the farmgate price, controls who is able to buy products from farmers (e.g., through licensed buying companies), and leads all global marketing efforts for export of Ghanaian cocoa.\(^{40}\) The COCOBOD attempts to incentivize production through guaranteeing prices to farmers for their cocoa – often higher than the world market price.\(^{41}\) And the licensed buying companies (LBCs) - a function of the COCOBOD\(^{42}\) - are willing to pay this higher price due to the higher cocoa bean quality. Since farmers have absolutely no competition amongst themselves, no substitutes for their products, and only serve one set of customers - the LBCs - there is no benefit or incentive to innovate. Moreover, the LBCs themselves are price takers and must meet a certain quotas for cocoa bean purchases. Essentially, the producers operate in a market that is essentially monopsonistic and almost devoid of any competitive supplier power. Farmers are captive.

Worst of all, Ghanaian cocoa farmers have no collective or representative voice on the COCOBOD. A survey taken of 205 cocoa farmers in 2007 revealed that only 1.5% of the sample were members of the Ghana Cocoa, Coffee, Sheanut Farmers Association – the local trade association.\(^{43}\) Lack of membership in these types of organizations further represent a lack of collective voice, which leads to a deficit in social capital, and eventually a position of powerlessness. The farmers, therefore, lack the power to influence the COCOBOD and the LBCs, and is thus able to command a higher price point for its cocoa.\(^{44}\) Additionally, they have little ability to upgrade within the GVC economically or socially since they lack governance authority. The farmers lack a basic and fundamental “right” that comes along with group membership – collective bargaining power. This bargaining power could lead to the ability of the farmers to negotiate for cheaper inputs, economies of scale, better services (e.g., utilities), lower taxes, and greater accessibility to transportation, infrastructure, and methods of communication. It could also lead to farmers being able to influence the farmgate prices set by the Ghana COCOBOD.

**Pro-Poor Design Deficits in Current Interventions**

Although valiant in their efforts to improve cocoa farmer productivity and sustainability, current popular interventions are insufficiency designed or equipped to substantially address the power-asymmetries and governance issues that block inclusive development. Unless and until value capture is more equally and intentionally distributed along the value chain, the value capture will almost always flow downstream to the lead firm producers.\(^{45}\)

One glaring mistake that all the aforementioned interventions miss is that they make the cocoa farmer the target of intervention and development, instead of an active participant in the creation of the
intervention strategies. The goal, after all, is to somehow empower the farmer to produce more cocoa, more consistently. And although some intervention services are “wrap-around” in that they address both economic and social needs, none of them address the fundamental reality that the Ghanaian smallholder cocoa farmer has very little or no power over the decisions that are made in the industry in which she operates; neither individual power nor collective power. Nor does the farmer own his land and any assets that might increase productivity and ultimately income. The ultimate incentive that is often missed in the more popular interventions involves helping the farmer become the owner of her assets and efforts.

Another popular intervention, helping farmers become fair-trade certified, though an effective marketing approach for the end-user, benefits the farmer very little. The certification process involves a third-party company that evaluates and assists smallholder collectives enter into the fair-trade cocoa-to-chocolate market. Typically, collective pays the certifier company to ensure that the cocoa is traceable, the working conditions for cocoa laborers are ethical, and that the cocoa is grown organically. Certification is only viable if consumers are willing to spend what it takes to afford the premium associated with, for example, the certified chocolate bar. And by the time the chocolate bar makes it to the consumer, the ability to affect the sale is completely out of the hands of the farmer. The brand retailer has the most influence in that transaction, and stands the most to gain. Since certified price premiums are contingent upon sales, if certified chocolate does not sell, then the farmer is left holding the proverbial bag. This is partly because “just one-third of the certified supply [is] actually sold as certified.”46 The data shows in 2012 of the 890,000 tons of certified cocoa available for sale on the market that year, only about 300,000 tons, or about 33%, actually sold under a certification label (See APPENDIX B).

Certification is not free. “Smallholders are not homogeneous and not all cocoa producers can access certification” due to barriers to entry.47 These barriers include cost, transportation, education, and yield.48 For those that do become certified, and in some cases do not receive their premiums, the results can be devastating since the costs to become certified are sunk. Ultimately, the focus must be put on addressing the governance and power asymmetry issues that keep farmers trapped in low value added segments of the cocoa GVC with very little bargaining power.

**Analysis of Policy Options and Potential Recommendation Framework**
The policy question presupposes that a public private partnership is indeed the intervention that will work to correct some of the incongruences in the cocoa GVC in Ghana. To reiterate:

> Under what conditions could USAID, as a development agency, support and enhance potential public-private partnerships in order to improve the bargaining power (and financial wherewithal) of smallholder organizations and farmers in the context of the global value chain for cocoa in Ghana?
Should it turn out that a PPP arrangement is the best approach for intervention, the body of literature up to this point dictates that any associated analysis should consider two parallel avenues: PPP design and objectives. On the design side, the PPP should take into account the obstacles, risks and returns for all stakeholders in building institutions that would enhance Ghanaian smallholder cocoa producers’ participation at all value-added steps in the cocoa GVC, in the long-term. As typical in a PPP arrangement, sustainability means that all parties benefit from an enlarged pie, which results from the incentives provided in the agreements.

Of equal importance is the objective of the PPP. If the goal is to assist smallholders to have a more vertically integrated presence in the cocoa GVC, then certain power asymmetries and governance issues must be addressed head-on. In other words, strategies around the following themes and questions must be formed:

- **Stakeholders**: Who are the potential stakeholders (e.g., smallholders, USAID, private-sector, Government of Ghana) and what are the roles of each in the PPP?
- **Incentives**: What types of contracts and resource flows would sufficiently incentivize each stakeholder?
- **Institution-building**: What specific types of institutions need to be constructed to guarantee accountability to PPP contracts, and ensure long-term net gain and sustainability to all involved stakeholders?

**METHODS/ANALYSIS**

To analyze and develop solid recommendations for the client, this MP incorporates a multi-dimensional analysis of comparative case studies. The findings from the cases will also be validated through key informant interviews (See KEY INFORMANT INTERVIEWS section). The criteria for cases selected for comparative analysis are six-fold: 1) Financial feasibility (incentives); 2) Estimated net economic gains for smallholders; 3) Sustainability issues; 4) Structural considerations; 5) Relevancy of arrangements; 6) Stakeholder and political feasibility and acceptance. For each case selected, a clear trend must be present that the invention each year relied less on intervening agency’s financial and/or in-kind support.

Since this analysis will be primarily qualitative (with some quantitative estimation to inform the rating where possible), an evaluation matrix will be used evaluate the strength of each case’s applicability and potential significance to the Ghanaian sector. The following section describes each of the six analysis criteria in more detail.
Cases Analysis Dimensions

Financial Feasibility / Incentives – Cases will be assessed on three dimensions: 1) Income – the propensity for the intervention to increase the income of smallholder producers (measured in $/farmer, percentage increase of household income since intervention’s inception, etc.); 2) Upgrading – the capacity of the partnership arrangement to enumerate which conditions are necessary for successful capture of value-added for smallholder producers within the GVC; 3) Beneficiaries – Case’s strength to identify key stakeholders and beneficiaries across all aspects of GVC arrangements (e.g. who they are and how do they benefit, for example, exporters, transporters, certifiers)

Net Economic Gain - Evaluation of arrangement’s ability to identify necessary conditions for smallholders to collectivize and thus gain bargaining power over their output (prices, conditions of purchase, warehousing, certification, financing, etc.) and to some extent inputs and within relationships with local regulatory authorities that lead to long-term industry sustainability.

Sustainability – Partnership arrangements will be evaluated on the following two dimensions: 1) Supply – Assessment of how likely the intervention is to ensure sustainability of supply for a relevant future term; 2) GVC Governance – Estimate case’s potential to address and materially change the nature of skewed power asymmetries between large lead firms and smallholder producers through shifting the governance structure of the GVC.

Structural Considerations – Interventions will be judged on how effectively they answer the following questions: 1) Property and Land Rights – How do property and land rights act as incentives or disincentives to long term investment and improvements in production and marketing techniques for agricultural smallholders? What lessons should be applied in Ghana in terms of policy decision making? 2) Gender and Inheritance – How do the partnerships address gender and inheritance issues as it relates to industry attractiveness? How should these inform Ghanaian smallholders; 3) Demographics - What are some of the age and other demographic trends that affect the case’s target sector and can inform Ghanaian cocoa farmers in a comparative perspective? What are the implications for a potential PPP?

Relevancy of Arrangements and Analysis – Analysis of how effectively the intervention utilized the key features of PPPs, project-level theory of change, nature of intervention and partnership mechanisms.

Stakeholder and Political Feasibility and Acceptance – Review of the ease of stakeholder adoption of the intervention and degree of difficulty of political and bureaucratic acceptance.
COMPARATIVE CASE STUDIES

CASE STUDY I - PILOT PROJECT TO PROCESS COCOA BY-PRODUCTS IN GHANA

Preface
Based on the Cocoa Research Institute Ghana (CRIG) Key Informant Interview (see KEY INFORMANT INTERVIEWS section below), it was obvious that the CRIG officials believed in the following hypothesis: The cocoa by-products market, with private sector investment, could have commercial viability. If so, the resulting increase in smallholder producer income generated by supplying a burgeoning cocoa byproducts market could have far-reaching implications. Specifically regarding sustainability, if farmers find profitability in supplying a burgeoning cocoa by-product market, then they will have an incentive to grow even more cocoa. Likewise, if smallholders own shareholder equity in a cocoa by-products industry, then they would have even more interest in increasing yield and passing down their profitable farms to their children.

Key Features of Project

Theory of Change – The Cocoa Research Institute of Ghana (CRIG) conducted a ten-year feasibility study (1993 – 2003) to both develop the technology and determine the commercial feasibility of transforming traditional cocoa waste products into economically viable value-added products. If viable, the project would have the immediate benefit of increasing smallholder farmer income, increasing rural employment, and thus reduce poverty. The project would also have the additional long-term, external benefit of expanding the “income generating capacity of the cocoa industry in cocoa producing countries through the development and transfer of appropriate technologies for the commercial processing of cocoa by-products.”

Design, Objectives and Outcome

Design – Over 13+ years of research performed by CRIG had proven that waste from cocoa pods and cocoa beans could be processed into commercially-viable by-products. For instance, cocoa pod husks could produce animal feed and potash. Cocoa sweetings (i.e., juice) could be transformed into alcohol, pectin, jelly, soft drinks, wine, vinegar, while substandard cocoa beans were useful for cocoa butter soap and other cosmetics. Based on this work, CRIG teamed up with the International Cocoa Organization (ICCO) and the Common Fund for Commodities (CFC) to pursue a project named “Pilot Plants to Process Cocoa By-Products in Ghana.” The project scope was to carry out ‘pilot-scale production and commercialization’ of the cocoa by-products.
Objectives – The primary objectives of the project were six-fold:
1. To identify and develop new products and by-products from cocoa
2. To develop and transfer technology for the commercial process of cocoa by-products
3. To promote farm-level processing and local use of by-products
4. To demonstrate the possibility of generating extra income to supplement farmers’ earnings
5. To extend resulting project benefits regionally to other cocoa producing countries and West Africa and growing regions other parts of the globe.
6. To enumerate the investment opportunities for private entrepreneurs and farmers’ cooperatives.  

Outcomes – The project had mixed outcomes. Foremost on the list of outcomes was the discovery that it is indeed technically possible to process cocoa waste into economically viable products. But the question came in the level of economic viability and associated profitability. For instance, it was determined that producing animal feed from cocoa pod husks would unlikely be economically feasible. Nevertheless, the same waste product (i.e., cocoa pod husks) could yield economically viable potash and soft soap. Moreover, turning substandard cocoa beans into cosmetics was both economically viable marginally profitable, as too were the production of liquors, pectin, jelly, marmalade, and soft drinks made from cocoa sweatings. Finally, the by-products with the highest levels of economic viability and profitability were the highly sought after cocoa wine and cocoa vinegar – also made from cocoa sweatings.

Stakeholders
Although not set-up as a PPP, the project took on the nature of one given it various potential stakeholders and the roles and commitment requirements for each. Three of those stakeholders are named below:

Government of Ghana – The government has a vested interest in bolstering the continued sustainability of the cocoa sector and realizing the financial gain of its smallholder cocoa farmers. As such, it instructed the COCOBOD and its subsidiary, CRIG, to undertake this project. Not only did CRIG invent the farmer-accessible by-product technology, it also beta-tested the by-products creation, and then market tested the individual by-products to determine demand.

Smallholder Farmers – During the period of study, the farmer’s role was primarily to supply the raw ingredients for the cocoa-byproducts creation. They also received training on the technology once developed.
Private Sector – Calling them “entrepreneurs and investors,” the report recommends that this group of stakeholders conduct independent, future feasibility studies and take into the account the “local conditions and critical factors” surrounding the issues of collecting raw materials, process capacity utilization, and revenue security (i.e., sale price volatility).

Incentives
Since this was a pilot project conceived by the COCOBOD through its subsidiary CRIG as a turn-key service to investors and farmers, traditional thinking around PPP incentives are not exactly applicable in this case. If it were to take the form of a PPP, the project does mention or infer some incentives for each of its potential stakeholders that is worth noting.

Government of Ghana – Part of the primary mandate of CRIG is to research all the possible uses of Ghana’s second largest export, cocoa. Cocoa beans, which serve as the main ingredient in chocolate, only make up about 19% of the fresh weight of the cocoa pod. The other 81% is discarded as waste. The incentive or CRIG, therefore, was to test the technical and economic feasibility of technologies it invented to turn the by-products from the cocoa waste into a commercially viable enterprise. Furthermore, the success of the project would translate into further benefits for the cocoa industry in Ghana: stability and sustainability, productivity, and potential upgrading in the cocoa-chocolate GVC. As mentioned in the preface to this case study, if farmers find profitability in supplying a burgeoning cocoa by-product market, then they will have an incentive to grow even more cocoa. Likewise, if smallholders own shareholder equity in a cocoa by-products industry, then they would have even more interest in increasing yield and passing down their profitable farms to their children.

Smallholders – Opportunities for farmers and farmer cooperatives to earn additional income from producing and marketing the cocoa waste by-products.

Private Sector (Entrepreneurs and Investors) – There was not very much information about the potential incentives for the private sector apart from the positive returns (IRRs) associated with the production of certain cocoa by-products. In fact, the pilot ends with a recommendation that “interested entrepreneurs and investors should conduct their own feasibility studies” before investing.
In order for a full scale version of this pilot project to be viable, several institutional aspects will have to be in place:

**Supply / Farmer Cooperatives** - In order to generate ample volume of raw product to produce commercially, it is imperative that individual smallholder farmers pool their products. These scale economies are best produced in a cooperative society. The cooperatives would be responsible for organizing “central processing of raw materials” and successfully running a “profitable enterprise.”

**Sourcing Geography** – Proximity is king in this sector. Due to the perishability of some of the products, and the need to maximize capacity utilization of plants, processing plants would need to locate close to easily accessible sources of raw materials.

**Delivery Mechanisms** – The bulky nature of cocoa pod husks and their by-products combined with the sheer number of suppliers scattered across large geographic areas means that significant attention would need to be given to collection and delivery mechanisms. Special vehicles - possibly even tractors - would need to be acquired and scheduled on a regular basis to even reach farmers.

**Viable Business Environment** – The government would play a significant role in creating an environment conducive for an investor to come in and run a profitable venture among smallholders. For instance, the provision of basic infrastructure (i.e., drivable roads, adequate electricity and water, and access to the digital communication grid) would be imperative. Economically, there would need to be some thought given to protecting the new industry (tax havens and other incentives). Finally, since CRIG invented the technology for the farmers to use in the production of the by-products, the government would have to take a central role in the dissemination and the maintenance of that technology, as well as the proliferation and protection of any associated intellectual capital.

**PPP Analysis Matrix**
The sections that follow elucidate the salient features of the comparative case analysis matrix as described in the earlier *Methods and Analysis* section. To reiterate, the main idea is to rate features of the case at hand – here the *Project on Pilot Plants to Process Cocoa By-Products* - regarding its applicability and potential value-added significance to answer the original policy question. To that end, Figure 3 below gives an at-a-glance summary of the strength of each of the relevant evaluative criteria.
Financial Feasibility / Incentives (Very Good - 1) Income - the authors of the study describe the premium smallholder farmers receive for their supply of cocoa raw materials (i.e., waste) for by-product processing as an “enhancement” above the normal income received through typical channels for regular dried cocoa beans. In this case, the study recognizes that farmers would receive an enhancement of approximately 10% on average. The numbers could be much lower or higher, given the commercial value of the end-product. For instance, cocoa sweatings used in the production of industrial alcohol would only receive an enhancement of about 3%, while the same cocoa sweatings used in the production of wine and vinegar would garner an enhancement between 10% and 15%. The same holds true for substandard cocoa beans and cocoa pod husk. The higher the commercial value of the end by-product, the higher the enhancement for the cocoa raw material. See Appendix C for the gross margin analysis of selected cocoa by-products. 2) Upgrading – The basic assumption implicit in the case for how smallholders could “upgrade” their standing on a micro-level is through increased value capture of the cocoa pods that they already produce. As stated earlier, if only 19% of the cocoa pod is being used in the current commodity production, then smallholders ostensibly have another 81% of value to exploit. Nevertheless, there are several conditional pre-requisites that must be in place before any type of true upgrading could take place. First, the sourcing geography issue would have to be solved to ensure ample supply of raw material. Next, the income premium associated with supplying the production plants would have to be guaranteed to ensure local farmer participation in the enterprise. Linked to the enhancement are the market prices of the finished cocoa by-products. The pilot study stopped short of establishing “attractive and profitable” market values of the by-products for final sale. They instead intimated that further research would have to be conducted. Finally, upgrading is dependent upon the capital investments in plant and equipment and process systemic infrastructure to ensure full capacity
utilization to make the enterprises viable. The study assumed that each new small enterprise would require at least one year to even become established and would not reach 100% capacity until 5 years into the life of the business.63 3) Beneficiaries - As mentioned earlier, the case does a fantastic job of identifying the key stakeholders – Government of Ghana, smallholder producers, private sector, etc. – and explaining how they benefit across all aspects of the GVC.

Net Economic Gain (Fair - ☐) – In the pilot program study, CRIG named farmers collectives as potential investors in small processing enterprises, as operators of those enterprises, and as beneficiaries of such arrangements. Specifically, the study notes that “[farmer] co-operatives could organise central processing of raw materials collected from, or delivered by, their members, and successfully run a profitable enterprise.”64 They, however, never give an indications of how these cooperatives would go about carrying our these roles, what support they would have from the government, what place they would have in the larger ecosystem of cocoa production as overseen by COCOBOD, nor how they would be regulated if at all. To that end, although it is good for CRIG to think of the participation of smallholder farmers through cooperatives, the idea of these cooperatives gaining some sort of collective bargaining power as a result is unclear at best.

Sustainability (Good - ☑) – 1) Supply – The sustainability of supply of cocoa production is really dependent upon the economic viability and profitability of the enterprise. Ostensibly, if the by-product enterprise is economically viable, if there is full utilization of the processing plants, and if farmers were receiving their enhancement premiums, then it would be natural to assume that farmers would have adequate incentive to continue with the sustainable production of cocoa. The only mitigating factor here would be low capacity utilization of the processing plants due to the seasonality of cocoa. During the months of February, March, April, July and August – the cocoa off season – processing plants could potentially be idle. Fortunately, CRIG has determined that bananas, pineapples, and mangoes could be used as readily available substitutes for cocoa during the off-season form the production of the most profitable by-products (i.e., alcohol, pectin, and jelly). 2) GVC Governance – Although CRIG performed a five-year demand analysis on a domestic and export market scale, there was virtually no research done into the all-new GVCs the cocoa by-products enterprises would be entering. Thus, there is no indication of the operating strategies of other supplier countries or clusters, information flow and coding, switching costs, power asymmetries, or behavior of lead firms. A more robust GVC analysis combined with an investigation into South-to-South trading patterns (especially around potential nearly located regional buyers with similar taste preferences) should be performed.
Structural Issues Considerations (Poor - ⬤) – The study gave no treatment to structural issues surrounding the smallholder farmer community (e.g., property and land rights, gender and inheritance, or demographics). There is therefore no indication or guidance as to how these issues could act as incentives or disincentives for farmers to actively participate in an enterprise focused on cocoa by-products processing.

Relevance of Arrangements and Analysis (Fair - ⬤) – As mentioned earlier, CRIG’s Pilot Project was not set-up to be a public-private partnership. Nevertheless, it exemplified several features of a PPP in its approach to the various incentives of relevant stakeholders (see Stakeholders and Incentives section above). In order for there to be a more robust investigation into propensity of a PPP arrangements, there would have to be more research done into risk-sharing and mitigation, contracting and ownership terms, private sector investment and procurement expectations, edification and organization of the farmers’ collectives, and budgeting/value for money. The project-level theory of change and nature of intervention also seems strong. In starting with an agricultural product and associated process for by-product productions that are familiar to the farmers, the cocoa by-products business seems both accessible and practical. But if there is going to be a PPP set-up to help proliferate the industry, much more investigative work must be done.

Stakeholder and Political Feasibility (Excellent - ⬤) – This is the strongest feature of the project for several reasons. Foremost is that the initiative was started by a government agency. As a subsidiary of COCOBOD, CRIG’s position as the organizational lead in the investigation and initial commercialization of the cocoa by-products processing sector in Ghana is laudable. In the same way, the development of the new technologies associated with by-product process is critical since CRIG retains ownership and intellectual property rights. During my visit to Ghana, it was obvious that CRIG is still interested in sharing this technology with smallholders and training them on how to launch a by-products enterprise. Since the initiative started within the government, it seems plausible that it already has a certain degree of acceptance on the political and bureaucratic levels. Furthermore, both the research study report and my key informant interviews with the CRIG officials indicate that the government is still very interested in foreign and local investors entering the sector to help scale the pilot project. Also, there would almost be certain buy-in among smallholder farmers as suppliers, especially since the scheme will enhance their income. Therefore, if a viable public-private partnership to start a large-scale cocoa by-products enterprise in Ghana, it seems as if there would be almost unanimous buy-in among the Ghanaian government, the private sector (i.e., the entrepreneur investors), and the smallholder cocoa farmer community.
Case Study II - Juan Valdez Coffee Shops: Fair Trade as an Inclusive and Sustainable Business

Key Features of Project
Theory of Change – The Juan Valdez Coffee Shops were launched in 2002 as an initiative of the National Federation of Coffee Growers of Colombia (NFC) to strategically combat the international coffee crisis of 2001.\(^68\) If the NFC could successfully incorporate direct sales into its commercial model, then it would increase coffee producers’ profit and improve their overall quality of life.\(^69\) The commercial activity of the coffee shops have had two significant long-term benefits for the over 566K smallholder coffee producers it serves: 1) it has enabled a premium payment of 25% over the standard Colombian coffee commodity price and 2) it has allowed coffee producers to participate as owners of Procafecol, the parent company of Juan Valdez Coffee Shops, with up to 15.75% ownership shares.\(^70\) Thus, Colombian coffee growers are experiencing a partially inclusive, vertically integrated, fair trade global value chain.

Design, Objectives and Outcome
Design – Since the Juan Valdez Coffee Shops are majority owned by the NFC, it is important to understand a little about NFC’s history and organization. Founded in 1927, the NFC is a non-profit, non-governmental trade organization, and is recognized as Colombia’s primary coffee producers’ association.\(^71\) It is totally owned and controlled by coffee farmers in Colombia.\(^72\) As such, its primary functions are to strengthen the industry while assuring the well-being of Colombian coffee producers, and to improve the economic and social development opportunities to families of coffee producers.\(^73\) NFC’s mandate is huge and multifaceted, as is its organizational footprint (see Appendix D) for an explanation of each subdivision). NFC created Procafecol as a holding company in 2002 to manage the Juan Valdez brand (created in 1959) and the 100% Café de Colombia brand.

Objectives – Procafecol is owned by two primary groups of shareholders. NFC owns 83.46 percent of the company in common stock. About 15.75 percent – or about two million shares of preferred stock – are owned by just 20,000 smallholder Colombian coffee producers. Hence, the objectives of the firm’s activities represent the interests of its owners: 1) “to increase the visibility and recognition of Colombian coffee throughout the world [while] increasing the demand for, and income of, Columbian producers;” \(^74\) and 2) to reorient the brand by focusing on a direct sales to the consumer strategy through the Coffee Shops, globally.\(^75\)
Outcomes – The Juan Valdez Coffee Shops initiative has been wildly popular for the economic, social, and environmental triple bottom-line of its stakeholders. Economically, the project achieved its goal of selling directly to the end customer. In 2006, the case reports that over 11 million customers visited Coffee Shops across the globe – with over 57 shops in Colombia, Madrid, New York City, Philadelphia, and Washington, D.C.\(^7\) Sales revenue between 2005 and 2006 alone had grown by 88 percent to US$10.6 million.\(^7\) Notably in 2015, the sales revenue number had grown to $68.5 million.\(^7\) Socially, the Coffee Shops and Juan Valdez brand in retail stores promoted the inclusive participation of small producer communities. Specifically, these producers enjoyed a 25 percent price premium over the regular Colombian prices, enjoyed ownership capital gains through their 15.75 percent ownership in the company, and most notably enjoyed the social investments made by the National Coffee Funds, resulting from the royalties from the use of the brand.\(^7\) Environmentally, the consumer enjoyed added value through peace of mind that the coffee was sourced in an environmentally responsible way and that the coffee was grown organically and through a fair trade method.\(^8\)

Stakeholders

The case resembled a PPP by its mention of specific stakeholders, though it was not explicitly set up to be one. Instead of calling them stakeholders, the case refers to these groups as “Communities.” Three of those Communities are named below:

Grower’s Community – The smallholder growers are the focal point of the entire NFC strategy. They are the suppliers of the product, the recipients of the royalties and profits as shareholders, the beneficiaries of the programming and community development initiatives of the NFC, and they are the very inspiration behind the Juan Valdez brand and logo.\(^8\) As owners of NFC and Procafecol, they also represent the private sector.

Consumers Community – Naturally, the consumers are the beneficiaries of the high-quality product – the 100% Colombian Coffee. But more than that, the consumer is linked to the Juan Valdez Coffee Shop experience (service and brand), and the collateral benefit of being linked to the social, economic, and environmental value-added and positive externality of the company.\(^8\)

Catalyst Community – Interestingly, the case does not place major emphasis on the Colombian National Government, nor the bilateral and multilateral donors that help to fund some of NFC’s initiatives. Instead, the authors recognize the collective role these entities play as “catalysts.”\(^8\) It is essential to note here that NFC is not certified as a fair trade organization, although it does follow the standards of the
International Fair Trade Association. As a result, the organization asserts that the nature of the set-up of the Coffee Shops does lend itself to social development through positively impacting coffee-producing low income communities. The national social policies in place by the Colombian national government allow these benefits to freely flow to these communities.

Incentives
All three communities of stakeholders have a vested interest in making sure that NFC’s Juan Valdez Coffee Shops are a success. If the Juan Valdez Coffee shops are successful, there will be direct benefits to the Growers’ Community and both direct and indirect benefits to the Consumers’ Community and the Catalyst Community, which includes the Colombian Government. In the end, every stakeholder will enjoy the positive externalities of a stable and sustainable Columbian coffee GVC.

Grower’s Community – Growing coffee is a family tradition for the over 566K smallholder grower community across the nation. “For Colombians, coffee is not merely a bean, but part of their national identity.” This artisanal lifestyle is not only a source of pride, but also the largest source of rural employment in the country. Over 95% if coffee-growers do so on about five acres of land or less. The landscape where the coffee grows is very hilly and hard to navigate, which precludes the possibility of plantations or mechanization. This works to the benefit of growers, as it protects their mainly entrepreneurial, family-owned business format. It also ensures that their hand-picked coffee beans are of the best-quality in the world, which guarantees that they receive an “established minimum price” for their beans. Participation in the Juan Valdez Coffee Shops gives these farmers another 25 percent bump in price premium paid for their coffee. Altogether, this NFC-driven format incentivizes the farmer to remain motivated to not only produce coffee, but also pass along her extensive knowledge to future generations, which safeguards stability and sustainability within the sector.

Catalyst Community – The incentives for the catalyst community go hand-in-hand with the incentives for the Growers. This is especially true for the national government of Colombia. Coffee as an industry has a major impact on the economy of the country. For instance, coffee represents 16 percent of the national agricultural GDP. NFC is the largest exporter of coffee in the nation at approximately 30% share of the export market. Coffee is a national brand for Colombia – consumers most associate the nation with coffee production. Therefore, it is imperative that the government maintain a positive relationship with NFC. And as the largest rural-based non-profit organization in the world, the NFC is truly a force to be carefully reckoned in Colombia. The organization wields much influence and is a major source of the competitive and social stability of the industry. NFC has made multi-million dollar investments in
education, health care, and business development initiatives among its constituents. For the national
government, a stable coffee sector equates to a healthy economy. Therefore, the government’s
participation in the National Coffee Fund is a way to both stimulate the sector and maintain a minimum
standard of living for coffee growers.

Consumers’ Community – For the coffee consumer, taste is king. Through its Juan Valdez brand and
100% Café de Colombia marketing, NFC has for decades been successful in linking taste to geography,
thereby putting Colombia on the map. But with the increasing market power of Starbucks, coffee of
other national origins were brought to into focus. As a result, winning in the “coffee experience” with
the customer became the competitive edge brands sought. Using the Juan Valdez Coffee Shops as one of
its primary marketing channels, Procafecol strategically carries out its strategy to take Colombian coffee
“from tree to cup.” As such, company associates are trained as brand ambassadors that can both help
explain the social, economic, and environmental value proposition of the company and better help to
align the brand with customers’ personal values. Now, coffee consumers are incentivized by quality and
meaning, and the Juan Valdez brand specializes in both.

Institution-Building
Since the NFC has been in place for just under 90 years, it has become almost an institution unto itself in
Colombia. As such, much in the institution-centric functioning of the coffee sector in Colombia has been
abdicated to NFC to manage. For comparative purposes, the NFC carries many of the functions of the
COCOBOD in Ghana. Three of NFC’s critical institutions appear below (and in Appendix D)

- Coffee Grower’s Cooperatives – As of 2006, the case states that there were 38 cooperatives and
488 points of sale in Colombia. The NFC created these cooperatives to be “economic solidarity
organizations owned by coffee producers in which the principal function is to guarantee the sale
of coffee harvests at the best possible market price.”

- Cenicafé – Akin to the Cocoa Research Institute of Ghana (CRIG), Cenicafé is the research arm
of NFC. It specializes in coffee experimentation around cultivation, development of new genetic
varieties, and research in harvesting techniques.

- Extension Services – with an army of over 1000 technical extension workers, the Extension
Service’s primary mandate is the “well-being of the grower and his family, with the goal of
creating competitiveness and sustainability.” These workers are trained in agronomy,
production, quality control. The Extension Service also helps farmers with institutional support,
understanding the economics of coffee growing, accessing information systems, and the
dissemination of technological advances.
PPP Analysis Matrix

The sections that follow elucidate the salient features of the comparative case analysis matrix as described in the earlier METHODS AND ANALYSIS section. To reiterate, the main idea is to rate features of the case at hand – here the Juan Valdez Coffee Shops: Fair Trade as an Inclusive and Sustainable Business – regarding its applicability and potential value-added significance to answer the original policy question. To that end, Figure 4 below gives an at-a-glance summary of the strength of each of the relevant evaluative criteria.

Figure 4 - Juan Valdez Coffee Shop PPP Analysis Matrix

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Financial Feasibility / Incentives</th>
<th>Net Economic Gain</th>
<th>Sustainability</th>
<th>Structural Issues Consideration</th>
<th>Relevancy of Arrangements and Analysis</th>
<th>Stakeholder and Political Feasibility</th>
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<tbody>
<tr>
<td>Rating</td>
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**Financial Feasibility / Incentives (Excellent - ![Rating Icon])** – “The NFC is owned and controlled by Colombia’s coffee farmers.” As mentioned in the DESIGN section, earlier, this ownership characteristic cannot be underemphasized. It is what both makes the coffee farmer the focal point of the entire Colombia coffee global value chain, and also drives the farmers incentives to be consistently productive and therefore profitable. 1) *Income* – the authors of the Juan Valdez Coffee Shops case study make a very keen distinction in the 25 percent price premium paid to producers supplying the coffee shops downstream. They call this premium an “uncertified fair trade price” and mention that the premium is “four to five times higher than they would conventionally receive under fair trade schemes.” This is critical on two fronts. On the one hand, it means that the NFC has effectively figured out a way to remove the third party certifier from the fair trade equation and still command a premium better than what involving a certifier would bring. On the other hand, it speaks to NFC’s brand strength and their ability to ‘bake’ into their value proposition the ideas of organic and fair trade. This is truly unique in the market. 2) *Upgrading* – the affordable, preferential shares of Procafecol exclusively owned by coffee growers (up to 15.75 percent ownership) intrinsically links the coffee growers to the increased value capture of the benefits linked to the company’s upgrading activities in the marketplace in two primary ways. First, the shares came with the “assured annual return equivalent to fixed rate deposits for the first five years.” At only $8.5 USD per share, with a two share buy-in minimum, many farmers found ownership affordable and over 18,000 coffee growers have taken advantage by purchasing shares. Secondly, it encourages consumers that
want to be a part of an “inclusive and sustainable” business model to do so, and know that their purchase has a direct triple bottom line affect (economic, social, and environmental) on the community of growers as beneficiaries.\textsuperscript{103} 3) **Beneficiaries** - As mentioned earlier, the case does a brilliant job of identifying the key stakeholders – Growers’ Community, Consumers’ Community, and Catalyst Community – and explaining how they benefit across all aspects of the GVC. Perhaps the naming of the consumer as a stakeholder beneficiary in this manner is a nuance. But it functions as a way to recognize that the consumer can play a key role in the socially responsible development model of the firm and that the company can directly appeal to this sentiment in the consumer and position the product in such a way to gain brand loyalty.

**Net Economic Gain (Very Good - ☑️)** – On the success of the Colombian coffee model as compared to other countries, NFC Manager Gabriel Silva remarks “Other countries have opted for methods that don’t account for the ability to generate patience needed to achieve strategic results.”\textsuperscript{104} The NFC can be thought of as a collective of collectives, complete with strong collective bargaining power. It is also the major trade organization for coffee in Colombia, with primary goals to improve the economic and social well-being of producers’ families. As such, the organization has managed to gain government cooperation both over the factors that affect the output of coffee and to a major extent, the inputs. For instance, the ‘minimum price guarantee’ it offers to member farmers derives from a contract NFC has signed with the Colombian national government to collect and manage the taxes resulting from the export of coffee.\textsuperscript{105} Extra revenue generated when coffee exports are higher are banked and used to supplement coffee growers’ income when international prices are low. Protecting against volatility contributes to industry sustainability. Furthermore, through its ability to command economies of scale, NFC supports farmers through the distribution of productive inputs both through subsidized sales and renting.\textsuperscript{106} But perhaps most importantly, NFC pays attention to all the non-commercial factors – the social fabric of coffee regions (e.g. education, infrastructure, health care, financing) – that go into helping Colombian coffee producers to thrive.

**Sustainability (Excellent - ☑️)** – 1) **Supply** – The sustainability of the supply of coffee was directly threatened in Colombia and coffee producing countries by the collapse of the International Coffee Agreement in 1989. Its collapse set-off a ‘race to the bottom’ in the international price of the commodity, so much so that by 2001, the lowest price of the commodity in its almost two-century history was recorded.\textsuperscript{107} This international coffee crisis led the NFC to launch the Juan Valdez Coffee Shops concept. Its goal was not only to bring stability in the price of Colombian coffee, but also social and economic development in the low-income, rural areas that were hardest hit by the crisis.\textsuperscript{108} By incorporating direct
sales into its commercial model and focusing on the premium associated with superior quality specialized coffees unique to rural regions of Colombia, the company was essentially able to command higher prices in the marketplace. And since the NFC model directly links profitability to producer premiums and re-investments in their quality of life, sustainable coffee production has resulted. 2) GVC Governance – NFC has accomplished something that is very rare in the realm of global value chains. They have created a Hierarchy GVC governance structure, where the suppliers are NOT owned by the lead firm. In fact, it is just the opposite – the lead firm (i.e., NFC/Procafecol/JV Coffee Shops) are all owned by the suppliers, the coffee growers themselves. This vertically integrated governance structure is in direct contrast to the model originally envisioned by Gary Gereffi, et al. in their 2005 “The Governance of Global Value Chains” publication. In fact, the Juan Valdez Coffee Shops “operate with a vertically integrated fair trade chain” focused on social inclusion and economic sustainability of the producer (See Appendix E). In fact, the model represents an innovation on the market by “bringing the producer closer to the consumer’s cup.” By linking the two, the management of the Coffee Shops hope to “create a basic alliance between consumers and Colombian coffee producers” whereby customers are so tied to the both the quality and the social responsibility of the Juan Valdez brand, “that they demand it everywhere.”

Structural Issues Considerations (Good - O) – The literature gives limited treatment to structural issues that are salient in this comparative analysis to assist the inclusiveness of the cocoa GVC in Ghana. It does, however, speak to the role of women in the Coffee Shop business. In 2005, with the help of USAID, NFC started a “Rings of Hope” program to increase the participation and development of female artisans in the work of the Coffee Shops. These women produce heat insulating rings from natural fibers that are used in hot drink cup in the Coffee Shops. As the Coffee Shops scale up in the future, it is the hope of management to continue to involve rural, female led small and medium enterprises to produce these and other complimentary products.

Relevance of Arrangements and Analysis (Good - O) – Although not set up as a PPP, the Juan Valdez Coffee Shops arrangement is very instructional on how to go about achieving a theory of change through an intervention. To reiterate the theory of change stated earlier: If NFC could successfully incorporate direct sales into its commercial model, then it would increase coffee producers’ profit and improve their overall quality of life. The Coffee Shops function as the intervention through which the incorporation of direct sales will take place. But in order for the intervention to be successful NFC had to address the power asymmetries present in
any GVC, a task it has undertaken since 1927. As the authors point out, there are several critical success factors to addressing these asymmetries, including the following:

- Advocating for macro-economic and sector specific policies
- Structuring programs and projects for the development of the sector and cooperative agreements, at the national and international levels
- Financing activities for the development of coffee cultivation and the industry
- Assisting coffee growers increase their income, while defending their rights
- Creating a structure whereby coffee growers can own and thereby determine the activities of downstream roasting, processing, and retail activities

Although all are important, the final bullet is probably the lynchpin of them all. Mission critical to removing asymmetries and ensuring value chain activities actually create more value for the growers is allowing them to have a say so in how things are done. This is unique in most commodity GVCs’ – typically most of the value creation takes place once the commodity leaves a producing country’s shores, and the upstream producers have little to no determination in how the product is branded or marketed. So, the application in the case of Ghanaian cocoa is to make the smallholder producer the focal point both at the initial and terminal points of the GVC.

Stakeholder and Political Feasibility and Acceptance (Very Good) – Again, NFC has the benefit of time and the proof of an established track record to bolster stakeholder and political feasibility. But for the Colombian government to essentially give away so much of its economic oversight (i.e., tax collection and royalties investment determination) and governance authority over a major country export to a non-profit owned by coffee farmers, there must be an upside for the government. There is. NFC is essential to the provision of social, educational, and infrastructure projects. For example, over the past five to ten years, the NFC has invested more than $38M USD in education projects for families of coffee growers, aided over 110K rural individuals access the government subsidized healthcare system, and provided electrification to over 241K households. In this manner, NFC has transformed itself from simply having an export and organizing function, to having a role in economic and social development of entire regions. This is politically feasible as it saves the government money and resources in trying to serve the needs of the most remote citizens of the country. The arrangement is stakeholder friendly since it is driven and owned by the coffee growers themselves, and they experience the positive benefits. For such an arrangement to become successful in Ghana, there would have to be almost unanimous buy-in among the Ghanaian government, as they would be hard-pressed to give up their governance authority. There must also be rapid development among a large-scale cocoa-producers’ collective to garner both the trust and respect of the government and the producers themselves.
**CASE STUDY III - PUBLIC-PRIVATE-PRODUCER PARTNERSHIP CASE STUDY: RWANDAN TEA**

**Key Features of Project**

**Theory of Change**

In an attempt to rehabilitate its tea sector in less-developed rural areas of the country, the Rwandan government partnered with the International Fund for Agricultural Development of the United Nations (IFAD) to establish partnerships to support this effort. Two so called Public-Private-Producer partnerships (PPP) were set up in 2006 in Nshili, Rwanda and in 2009 in Mushubi, Rwanda. If the PPP could successfully assist smallholders to increase the green (tea) leaves productivity by adding value through a processing plant, then employment would increase, incomes would rise, and dividends to producers increase through their shareholdings. The spillover effects of increasing shareholder incomes would include better outcomes in health, housing and nutrition. Upgraded infrastructure and roads would also have a multiplicative effect as new business centers emerge in close proximity to the tea factories. The impact of the PPP on smallholders’ income is yet to be evaluated, since the government is simultaneously pursuing a new pricing policy in consultation with the World Bank. Notwithstanding, the net effects of this new policy are projected to increase smallholder income by almost 140%.

**Design, Objectives and Outcome**

*Design* – The design of the PPP is based on two separate partnership agreements signed in each of the two locales where the partnership was to take place. In Nshili, the general idea was to allow private investors to rehabilitate and manage a tea plantation that was previously owned by the government and to establish a tea factory supplied in part by smallholder producers. In Mushubi, the idea was similar – set up a factory and tea plantations managed by private investors and partially supplied by smallholder producers. The only difference is that in Mushubi, the tea sector was brand new. The two agreements were similar in that the private sector – in both cases, a private consortium of companies – would lease the land from the government, then build-own-operate the tea factory. The ownership of the tea factory was split: 85 per cent ownership share by the private consortium and 15 per cent by the shareholder cooperative at each site. The smallholders were represented by producer cooperatives at each site. These cooperatives, together with industrial blocs owned by the private consortium, supplied green leaves to the tea factory for processing.

*Objectives* – As post-conflict peace began to be restored and refugees return home in the mid-1990s, Rwanda developed its Vision 2020 strategy to diversify and develop its economy, address the then huge 70 percent rate of poverty, and assist the increased rate of post-genocidal female-headed households. The country’s Economic Development and Poverty Reduction Strategy (EDPRS) laid out the process...
whereby Rwanda’s economy would change from aid-dependent government run sectors to self-sustaining privatized (formerly public) industries. PPPs were viewed as the primary economic arrangement and vehicle for carrying out this economic transformation across the country. Since coffee and tea are Rwanda’s major exports, transitioning these industries were mission critical. As such, the primary objectives for Nshili and Mushubi PPPs were to address the challenges plaguing the tea sector: 1) low incomes for the smallholder tea growers; 2) low yield of green leaves; 3) lack of product diversification; 4) low value-add due to ineffective branding and packaging; and 5) poor marketing. By addressing these challenges, government officials also hoped to stimulate production and enhance quality.

**Outcomes** – The PPPs had mixed results. On the positive side, the arrangements began to build institutions and models for how the public, private, and producer communities could effectively work together. In many respects, this was all a ‘made-from-scratch’ initiative that had no previous country-specific foundation on which to build. Therefore, even though the PPPs only marginally moved the needle on many of their stated objectives, it was a start in the right direction. Even the failures became key learning points. For instance, not having a proverbial PPP ‘roadmap’ could be looked upon as a “fatal flaw” of the entire construct. In other words, there was no policy “detailing or formalizing the processes involved, the responsibilities of each party, risk-sharing arrangements, or lines of accountability.” There were several assumptions made at the onset of the PPP as a result. To correct this flaw, the Rwandan government drafted its first ever PPP law and policy framework in June 2014, almost a decade after privatization started in the tea sector.

**Stakeholders**

The cases were launched as PPP arrangements and remained so through the relevant period of study (2003 – 2014). The PPPs in both localities had a very similar set-up, with layers of partnership in both the public and private sectors. As a public-private-producer partnership, the role of the producer is actually quite unique since in this arrangement, producers both have a public role and a private responsibility. Figure 5 below shows the broad set-up of the Nshili structure (with a footnote about the variations of the Mushubi structure):
Government of Rwanda (Public Sector) – The government of Rwanda played a critical broker role in the development of the PPP. Its policy to privatize the sector was the watershed event that started the confluence of events leading to the PPP. Apart from policy-making, the government of Rwanda also took the lead in developing certain institutions critical to the success of the PPP arrangement (See INSTITUTION-BUILDING below).

Tea Growers - IFAD/PDCRE/PRICE (Public Sector) – IFAD’s role has been both supportive and central in the development of the tea industry in Rwanda, especially among smallholder farmer producers. A few years prior to the launch of the PPPs, IFAD and the government of Rwanda partnered to form the Smallholder Cash and Export Crops Development Project (PDCRE). Running from 2003 – 2011, the objective of PDCRE was to assist smallholder growers in the development of their tea production, when helping them to form producer cooperatives. Post-2011, a new follow-on project was launched: Project for Rural Income through Exports (PRICE). Picking up where PDCRE left off, PRICE provided technical and financial assistance for tea growers, while also lending capacity-building support to the new producer cooperatives, and strengthening the then newly formed PPPs.
Tea Grower Cooperatives (Private Sector) – The government of Rwanda through the PDCRE initiative was successful in launching two farmer producer cooperatives in the tea sector. COTHENK was started in Nshili and COTHEGAB was started in Mushubi. The primary roles of the cooperatives were to help guarantee a steady supply of high quality green leaves to the processing factories in each locale, assist in the crop management training and business skills development of member farmers – with the help of external partners, and represent member farmers at factory board meeting and meetings with officials from the government.

Private Investor Consortiums (Private Sector) – Investments from the private sector were organized into two private consortiums (one per locale), each involving three business entities. In Nshili, the consortium was comprised of a foreign UK-registered company, a local entrepreneur, and a locally-registered company. In Mushubi, the consortium consisted of a locally-registered company, a local insurance company, and an investment firm. The diverse portfolios represented by each consortium are noteworthy, as are the opportunities granted to them based on the stipulations the PPP agreements. Each private investor would “lease land from the government to manage a tea plantation (known as an industrial bloc) and build and operate a tea factory. The government agreed to provide the necessary infrastructure (roads, electricity) to support the factory.”

Production Blocs / Suppliers (Private Sector) – The production of the green leaves supplied to tea factories for processing were provided by different producer entities. The ownership and finance structures, as well as the production limits were stipulated in the PPP agreements. Figure 6 below spells out the stipulations by entity:
### Figure 6 - Private Sector PPP Production Arrangement

<table>
<thead>
<tr>
<th>Location</th>
<th>Entity</th>
<th>Ownership</th>
<th>Financing</th>
<th>Production Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nshili</td>
<td>Industrial Bloc - Nshili Kivu Tea Plantation</td>
<td>Land leased from gov’t. Production business owned by private consortium</td>
<td>Private Consortium</td>
<td>731 hectares (ha)</td>
</tr>
<tr>
<td></td>
<td>Cooperative Blocs – COTHENK and PDCRE</td>
<td>Land grant from gov’t. Production business owned by cooperatives</td>
<td>Cooperatives (with help from IFAD)</td>
<td>447 ha</td>
</tr>
<tr>
<td>Nshili</td>
<td>Smallholders – Thé Villageois (TV)</td>
<td>Land and production business privately owned</td>
<td>Loan from Banque Rwandaise de Développement (BRD)</td>
<td>300 ha</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Total Nshili Production: 1478 ha</td>
</tr>
<tr>
<td>Mushubi</td>
<td>Industrial Bloc – Nyungwe Highland Tea Company</td>
<td>Land leased from gov’t. Production business owned by private consortium</td>
<td>Private Consortium</td>
<td>460 ha</td>
</tr>
<tr>
<td>Mushubi</td>
<td>Smallholders – Thé Villageois (TV)</td>
<td>Land and production business privately owned</td>
<td>Loan from Banque Rwandaise de Développement (BRD)</td>
<td>937 ha</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Total Mushubi Production: 1397 ha</td>
</tr>
</tbody>
</table>

**Incentives**

*Government of Rwanda* – For the national government of Rwanda, crafting a successful strategy for the tea sector will likely have an overall positive externality effect on the economic and social development of the county as a whole. Tea as an industry has a major impact on the economy of the country. For instance, along with coffee and minerals, tea accounted for 59% of total Rwanda exports in 2013. And investment in the sector is what helped to drive the recovery in agriculture in 2014 and 2015. As the government looks to further its Poverty Reduction Strategy to include raising export earnings, increasing agricultural production, and support non-farming activities in rural areas, a successful implementation of this tea-sector PPP will surely have collateral benefits.

To this end, the Rwandan government showed some signs of success and other signs of stumble in its efforts to adequately incentivize the other stakeholders in the PPP. For instance, the government took the proactive step of trying to hardwire into the land lease agreements interdependence between private consortiums running the tea factories and industrial blocs and their supplying partners – the cooperative bloc and Thé Villageois (aka the “TV” – individual smallholders bloc). It did so by limiting the amount of land that could be cultivated by the consortium (i.e., the industrial bloc) for productive plantation use. This ensured that “the yield from the industrial bloc alone would not be sufficient for the factory to

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ii Adapted from “Brokering Development: Enabling Factors for Public-Private-Producer Partnerships in Agricultural Value Chains Summary of Rwanda Case Study” by Jean-Marie Byakweli and Felix Nzeyimana. – pg. 5
function.” The arrangement did lead to increased cooperation between the relevant entities, but again had one major flaw. There were no formal written agreements between the consortium, the cooperatives, and the smallholders. With a void of formal linkages, official responsibilities, and lines of accountability, relationships became strained during the course of the PPP and the propensity for cross-functional, synergistic development was truncated. Furthermore, the interests of the smallholder farmers were mostly omitted from the PPP negotiations regarding the formation of the tea processing facilities since the farmers were not invited to the negotiating table.

**Tea Grower Cooperatives, Blocs, and Smallholder Suppliers** – For the individual smallholder tea producers, as well as the cooperatives, the expectation of increased income, increased access to land, and financing assistance were sufficient incentives for them to agree to participate in the PPP. But the major incentive – the ownership share in the tea factory in each locale – became the major draw and proverbial ‘game-changer.’ While the private consortium owned 70 per cent of the shares, and the government another 15 per cent, the cooperatives were guaranteed the remaining 15 per cent. As of the publication of the case study, the tea factory in Nshili had succeeded in making a profit and paying a RWF 45 million (approximately $58,000 USD) to COTHENK in 2013. Nevertheless the lack of a signed agreement between the private consortium tea factory owners and the cooperative in Nshili (and in Mushubi) provides an ever-present threat to the successful implementation of this ownership arrangement.

**Private Consortium Investors** – The government made a very attractive offer to the private sector in the form of three incentives: 1) land leasing for the tea factory building; 2) the opportunity for consortium to manage formerly government owned and operated industrial blocs; and 3) state-provided infrastructure enhancements (roads and electrification). These incentives meant that the initial investment by the private sector would be greatly reduced. Additionally, the offering of a majority share of the tea factory ownership as well as a non-competitive bid process made the deal even more lucrative for the consortiums.

**Institution-Building**

Much of the criticism surrounding the implementation of the Rwandan Tea PPP has been related to assumptions made about the maturity of the institutions supporting the PPP. For instance, four assumptions made the success of the PPP particularly challenging: 1) the capacity of cooperatives to formulate and run a successful business model; 2) the skill-related aptitude of the smallholders to achieve high productivity early on; 3) the competition of other agricultural activities for labor; and 4) the ability of cooperatives to begin loan repayments after three years. All of these assumptions point to the fact
that PPPs were new to Rwanda and correspondingly its policy, economic, banking, and agricultural environments. Nevertheless, there were several measures taken by the Rwandan government and IFAD to ensure the initial success of the tea sector PPP. Figure 7 below lays out some of those institution-development initiatives:

Figure 7 - Rwandan Tea PPP Institutional Development

<table>
<thead>
<tr>
<th>Benefactor</th>
<th>Beneficiary</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government</td>
<td>All PPP Stakeholders</td>
<td>Attracting private investors, Improving local infrastructure</td>
</tr>
<tr>
<td></td>
<td>Private Investors Consortium</td>
<td>Offering financial incentives, Negotiating long-term lease agreements</td>
</tr>
<tr>
<td></td>
<td>Smallholder Farmers</td>
<td>Providing extension services</td>
</tr>
<tr>
<td>IFAD</td>
<td>Smallholder Cooperatives</td>
<td>Facilitating and brokering relationships with the Rwandan government, Providing funding to develop cooperative institutional capacity, Providing funding to purchase each cooperative’s equity share</td>
</tr>
<tr>
<td></td>
<td>All PPP Stakeholders</td>
<td>Financed the feasibility study for the Mushubi tea factory, provided funded technical assistance to the gov’t, private investor, cooperatives and individual smallholders.</td>
</tr>
<tr>
<td></td>
<td>Smallholder Farmers</td>
<td>Helped negotiate the terms with the BRD and government on behalf of smallholders, included women smallholders as beneficiaries of PPP as a means to reduce rural poverty</td>
</tr>
</tbody>
</table>

All of these structures are critical to the successful implantation of PPPs in Rwanda. But, there are some very major missteps that the country has made along the way that it has learned from. For USAID, it is imperative to learn from both the breakthroughs and the breakdowns in order to help set-up something viable for Ghana.

PPP Analysis Matrix
The sections that follow elucidate the salient features of the comparative case analysis matrix as described in the earlier METHODS AND ANALYSIS section. To reiterate, the main idea is to rate features of the case at hand – here the Private Producer Partnership Case Study: Rwandan Tea - regarding its applicability and potential value-added significance to answer the original policy question. To that end, Figure 8 below gives an at-a-glance summary of the strength of each of the relevant evaluative criteria.
**Figure 8 – Rwandan Tea PPP Analysis Matrix**

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Financial Feasibility / Incentives</th>
<th>Net Economic Gain</th>
<th>Sustainability</th>
<th>Structural Issues Consideration</th>
<th>Relevancy of Arrangements and Analysis</th>
<th>Stakeholder and Political Feasibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rating</td>
<td><img src="Image" alt="Blue" /></td>
<td><img src="Image" alt="White" /></td>
<td><img src="Image" alt="White" /></td>
<td><img src="Image" alt="Blue" /></td>
<td><img src="Image" alt="White" /></td>
<td><img src="Image" alt="Blue" /></td>
</tr>
</tbody>
</table>

**Legend:**
- Excellent (Blue)
- Very Good (Light Blue)
- Good (White)
- Fair (Gray)
- Poor (Dark Blue)

**Financial Feasibility / Incentives (Very Good - ![Blue](Image)) – 1) Income –** Due to the repricing project the Rwandan government is undertaking with the World Bank, all the traditional ways of measuring income are in flux. Thus, it is difficult to ascertain just how much the income per farmer is increasing. Still, there are other proxy methods that can be employed to evaluate increase in household income since the PPP inception – notably in relation to ownerships of assets, new job opportunities, and development in health care and food security. Appendix F details some of these measures in anecdotal format. It is noteworthy here to express that the number of participants eating three meals a day in both Mushubi and Nshili has at least doubled (from four percent to nine per cent, and five per cent to ten per cent, respectfully).147 Furthermore, the amount of tea growers that now have health insurance has increased by 80 per cent or more in both locales.148 2) Upgrading – the shares of the tea factories exclusively owned by the tea cooperatives in Nshili and Mushubi (15 per cent ownership) intrinsically links the tea growers to the increased value capture benefits of the company’s upgrading activities in the marketplace. And with the factory on Nshili already paying a dividend, the COTHENK has been able to purchase a truck for the transporting of leaves from its cooperative bloc and thereby stop its dependency on the private consortium to do so.149 Nevertheless, the leadership of the PDCRE believes that the 15 per cent ownership stake is too low and does not give the cooperatives a significant enough ownership role to affect strategic decision making. They rather recommend a 40 or 50 per cent cooperative ownership structure.150 There was no indication if a provision for changing the level of ownership equity existed in the PPP contract, nor if a change was ever executed during the course of the concession period. 3) Beneficiaries – The PPP does an adequate job of identifying the key stakeholders – the government, smallholder tea growers, producer cooperatives, private sector consortiums – and explaining how they benefit across all aspects of the GVC. But, given the lack of contracts or written agreements – the PPP failed to make the relationships between these entities formal, accountable, or even binding in such a way to engender synergy.
Net Economic Gain (Good - ○) – The preceding PDCRE and PRICE projects do a fantastic job in setting up and maintaining the requisite conditions needed for tea growers to collectivize. And to a certain extent, the resulting cooperatives – COTHENK and COTHEGAB – do have a limited amount of collective bargaining power. For instance, the case points out that the tea factories provide the cooperatives with subsidized inputs, technical support, transportation services, and logistical support. Still, by owning shares in the tea factories, the cooperatives should have yet even more influence over their output decisions (including pricing) than they would without this arrangement. But they do not, and feel the pinch of not truly having an equal seat at the table. Until their influence is felt in local and national-level decision making (e.g., participating in price negotiations and policy processes), these smallholders will continue to not feel empowered.

Sustainability (Good - ○) – 1) Supply – Due to the “legacy of poor practices prior to privatization” in the sector, the nuisance of a high vacancy rate directly threatened the sustainability of supply for the tea sector in both Nshili and Mushubi. Specifically, the combination of the use of low yield bush clones, high altitude, low ability of the soil to retain water, and limited use of fertilizer due to logistical problems with procurement, the green leaf bushes experienced vacancy (i.e., an extremely low yield in the early years of production). Of course, this vacancy rate was unanticipated, but threatened the bank financing agreements that expected payments to start after the first three years of production. Low-yield translated to low profit margins, and the threat of default loomed. Several renegotiations ensued. 2) GVC Governance – The Rwandan government’s brilliant idea to direct intervene in the upstream portion of procurement in the global value chain – where the tea factories had to rely on the cooperative bloc and Thé Villageois (aka the “TV” – individual smallholders bloc) for its margin – effectively gave “all partners a shared incentive to make the PPP work.” This shared incentive, furthermore, is what essentially shifted the GVC governance structure. Whereas before, the procurement of green leaves from smallholders was performed according to auction prices, this new structure challenged that arrangement. The GVC shifted from a Market to a Relational GVC structure. In this manner, there is mutual dependence, more power symmetry, and closer dialogue that must take place. Nevertheless, and again, the lack of transparency of a contract has led to tensions and mistrust between the parties, which threatens effective coordination. This aspect was mentioned frequently, but left unresolved in the case.
**Structural Issues Considerations (Excellent - ☑)** – The Rwandan Tea PPP seemed to consider structural issues in just about every aspect of the project design and implementation. Property and land rights, gender, and demographic issues were all addressed by the PPP arrangement. Some of the key accomplishments are given below in Figure 9.

**Figure 9 - Rwandan Tea PPP Structural Issues Improvements**

<table>
<thead>
<tr>
<th>Structural Issue</th>
<th>Goal</th>
<th>Ex-Ante Baseline Status</th>
<th>Ex-Post Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Tenure (i.e., use, control, and transfer)</td>
<td>Increase access to land a security of tenure</td>
<td>Land not officially registered with titles</td>
<td>Land registered under law with certificate (Nshili - 352 farmers owning 310 ha; Mushubi - 966 farmers owning 937 ha)</td>
</tr>
<tr>
<td>Property / Assets</td>
<td>Strengthen the construction wherewithal of tea growers’ homes</td>
<td>No baseline figures</td>
<td>No. households with tile roofs +29% No. households with grass roofs +88% No. brick-built houses +120%</td>
</tr>
<tr>
<td>Gender</td>
<td>Increase involvement of women in production and decision-making</td>
<td>No baseline figures</td>
<td>Women are now directors on coop boards or members of management teams in both COTHENK and COTHGAB.</td>
</tr>
<tr>
<td>Demographic</td>
<td>Focus on rural areas for the launch to PPPs to increase employment options</td>
<td>40 per cent of labor force in Nshili and Mushubi migrated seasonally for work</td>
<td>No seasonal out-migration for work. In fact, other rural poor for other areas around the country come to Nshili and Mushubi for work.</td>
</tr>
</tbody>
</table>

**Relevance of Arrangements and Analysis (Fair - ☐)** – The Rwandan PPP presented a situation that can be summed up by a metaphor. All the right puzzle pieces were on the table, but the final picture was not seen, so the puzzle was assembled improperly. In this case, a PPP was the correct model to apply to the complex problem at hand, but without the benefit of experience or a set of policies to guide its implementation, many aspects were missing or misapplied. For instance, there was no clearly defined theory of change at the project’s onset, there was not PPP law or policy on the government books, no risk-sharing agreement, no clearly defined concession period, little involvement of key stakeholders (namely the tea growers themselves), and no contingency planning in case something goes wrong (such as the vacancy and bank loan issue).\(^\text{157}\) Probably worse of all was the lack of risk-management / risk-sharing. Risk-sharing is one of the hallmarks of PPPs for a reason that should not be ignored. Risk that is truly shared means that no one entity bears all the risk at any point in time (as did the farmers with the potential loan default). Finally, there was little attention given to the longevity or the sustainability of the PPP from a smallholder and value chain point-of-view. As the authors point out, “there are no processes for ensuring that cooperative leaders gain business experience and skills required to occupy a stronger position in the value chain, which would bring additional benefits for their members.”\(^\text{158}\)
Stakeholder and Political Feasibility and Acceptance (Very Good - ☑) – The considerations surrounding stakeholder and political feasibility and acceptance could actually make or break both the project and the entire consideration of using PPPs as a vehicle for implementing privatization. The propensity is there to make this and other similar projects very successful. But if the premise of Rwandan policy reform remains to “stimulate economic recovery and decentralize services and budgets to district level, emphasizing community participation in the planning and implementation of development programs,” then the community participation and policy aspects of PPP design must be strengthened. In other words, policy-makers should become proactive in their pursuit of policy models and legal templates that will help them codify the essential elements that will fully enable sustainable PPPs. Finally, the piece about community participation cannot be ignored. If the PPPs are expected to have long-term transformative benefits, then their implementation cannot be conceived fully at a desk or behind the computer. Their primary stakeholders must be in on the ground floor of planning and development of the PPP, as well as included in some sort of training and capacity-building arrangement.

SUMMARY OF COMPARATIVE CASE STUDIES
Although each case has its relative strengths, there is a clear comparative leader identified in each of the criteria categories used for analysis. For instance, the Juan Valdez case clearly has a comparative advantage vis-à-vis the other two cases. As an example of an almost fully integrated, mature GVC, Juan Valdez dominates the financial feasibility/incentives, sustainability, net economic gain, and relevancy of arrangements categories. It should nevertheless be mentioned that all three cases show promise in the financial feasibility/incentives categories due to their distinctive constructs. The Rwandan Tea PPP’s ability to effectively tackle structural issues as part of the contractual arrangement gives is an advantage in the corresponding category. Likewise, since the cocoa by-products pilot project originated from the GoG, and would heavily rely in the government in a PPP arrangement for technology training and distribution, the project clearly has a relative advantage in the stakeholder and political feasibility category. In the next two sections of the analysis, the key informant interviews will validate and underscore the necessity of exemplars in each category, while the recommendations section will draw in aspects of each case’s strength and link common threads throughout the cases and interviews.
Figure 10 below shows a side-by-side depiction of the unique strengths of each case.

**Figure 10 - Side-by-Side Case Analysis**

<table>
<thead>
<tr>
<th></th>
<th>Case 1 Cocoa By-Products</th>
<th>Case 2 Juan Valdez</th>
<th>Case 3 Rwandan Tea</th>
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</tbody>
</table>

**LEGEND:**

- Excellent
- Very Good
- Good
- Fair
- Poor
KEY INFORMANT INTERVIEWS

Overview
I was fortunate to be able to travel to Ghana from December 2015 – January 2016 to perform key informant interviews with several relevant individuals representing different aspects of the Ghana cocoa sector (see Appendix G for List of Interviewees). The interviews were held over the course of three separate days in three different cities and regions of the country (see Appendix H for Map of Interview Locations). Some of the interviews were individual one-on-ones, others were held as focus groups. For an “At-a-Glance View of the Analysis of the Key Informant Interviews,” please see Figure 11, which appears on page 51.

Ghana Cocoa Board – COCOBOD
As stated earlier, the Ghana Cocoa Board (COCOBOD) helps to mediate the interests of fragmented producers, ensures the quality of Ghanaian cocoa exports, and historically has helped the country command higher farmgate prices in the global market. The COCOBOD is comprised of five subdivisions: Cocoa Research Institute of Ghana (CRIG), Seed Production Division of COCOBOD (SPD), Cocoa Health and Extension Division (CHED), Quality Control Company, and Cocoa Marketing Company (CMC). Each of these divisions have individual mandates which together help advance the mission of COCOBOD.

The interview was with Dr. Noah Amenyah, Public Affairs Manager for COCOBOD. The hour-long, one-on-one interview - that was held in his office - centered around the current state of the cocoa industry in Ghana and his position on its future. Given his executive role in COCOBOD, Amenyah also was very instrumental in setting up the other key informant interviews.

Theory of Change and Current Intervention
During the conversation, Dr. Amenyah’s theory of change around cocoa sustainability and its price stability became very clear. When probed to name the main problem in the Ghanaian cocoa market that is preventing the country and its farmers from upgrading, Amenyah responded:

“There are health and nutritional benefits of cocoa. We should continue to promote the consumption of cocoa so that [Ghanaians will] know the benefits. We can also add value to the cocoa to make it yield a lot more and stabilize its price, so that it is a commodity that we are both consuming [domestically] and selling its surplus abroad.”

Amenyah’s comments prompted further research into which current intervention efforts the COCOBOD is undertaking to achieve the change it desires. Amenyah and other COCOBOD officials made a series of announcements in 2013 about a COCOBOD-led campaign to encourage the local consumption of cocoa in
That same year, the COCOBOD launched two major initiatives. First, it commissioned the National Cocoa Consumption Committee to help create awareness around cocoa and to help correct a seemingly negative trend whereby Africa, which accounts for 70 percent of the world’s total cocoa production, only accounts for about 3 percent of the total world consumption. In fact, “Ghana’s cocoa consumption rate stands at 0.5 per cent kilos per capita although it is the second largest producer of the crop in the world.” The second initiative to boost cocoa consumption was the launch of a week-long National Cocoa Festival in September 2013 to bring together all stakeholders in the cocoa industry to exhibit their products. Ideally both initiatives would help build demand around the health benefits of cocoa, specifically its “flavanol [that] provides multi-benefits to the body, including the production of nitric oxide in the body and this reduces blood pressure and minimizes the risk of developing cardiovascular diseases.”

If successful, according to Amenyah, this current effort “would reduce the dependence on the world market for the sale of our cocoa, as there would be enough consumption base here in Ghana.” Amenyah’s argument highlights the high barrier to entry costs potential manufacturers face due to low consumption in the market. He goes on to say that if consumption increases, “the higher demand would elicit much more investment into production, and the higher supply would drive down [market entry] prices.”

**Analysis** – The idea to increase the country’s upgrading potential or make the productive capacity of cocoa in Ghana more sustainable through stimulating consumption is uncertain at best. The plan relies on several assumptions about the increased user adoption rates of consumption based on educational awareness of cocoa’s health benefits. Correspondingly, the plan also assumes the potential attractiveness of the sector to elicit more investment. While the plan does put emphasis on identifying potential value chain beneficiaries, and by nature is a government initiated project, it has the rapid potential for stakeholder acceptance and political feasibility. Nevertheless, it virtually ignores structural issues, any GVC governance issues around sustainability, and the identification of necessary conditions for net economic gain of smallholders. Moreover, if the plan put as much emphasis on potential financial incentives (or income increase) for smallholder producers as it does for potential investors and cocoa product consumers, then it would perhaps be more holistically viable. Finally, Amenyah’s representation of the intervention strategy of COCOBOD totally and purposely omits any dimension of trade or upgrading within the cocoa GVC.
Potential PPP Intervention
During the interview, Dr. Amenyah was asked to evaluate a PPP project plan for the regional market feasibility of a Ghanaian chocolate bar. The basic idea pitch is to allow a smallholder collective to own equity in a new company wherein lead firms – also shareholders – participate to both produce and market the bar that utilizes the Ghana Cocoa Processing Corporation as its main processor/grinder. On a scale of 1 (worst) – 10 (best), Dr. Amenyah gave it a 10-out-of-10!

When asked how he would design the administration of the PPP in terms or stakeholders and their roles, Dr. Amenyah touched on smallholders, potential consumers, and the role of lead firms and potential country-level donors/international development institution. Specifically, Amenyah commented on the need to lead firms to train local smallholder entrepreneurs on how to cater to the tastes of foreign consumers. He also emphasized the need to “manufacture these products according to the quality requirements of the buyers.”

Donor institutions and international development organization’s role would be to help the smallholder collectives maintain the productive capacity to sustainably make the products and thereby yield higher incomes. The government would naturally be in the middle of this arrangement through helping form the requisite contracts and risk-sharing agreements, and maintain the infrastructure necessary to bolster the PPP.

Regarding incentives, Amenyah noted the need for a “win-win” situation. In other words, the government would gain through taxes. The lead firms, who are paying for the training of the smallholders in the PPP, would be remunerated through their equity share. The smallholders in the PPP arrangement would gain through the premiums associated with being the primary suppliers of the niche product, and the dividends associate with being shareholders. Dr. Amenyah was not very keen on the idea that chocolate would be the only product of the PPP, based on the associated complexities of chocolate-making in Ghana. However, he did mention the idea of cocoa by-products, a currently non-lucrative sector. “Someone will have to put in the investment to bring out the best out of the hidden parts of the cocoa,” Amenyah mentioned, “so that we can benefit from it.”

The final part of the discussion delved into the specific types of institutions that would need to be strengthened and/or constructed to guarantee accountability as part of the PPP contracts, and ensure long-term net gain and sustainability to all involved stakeholders. Dr. Amenyah mentioned that the Cocoa Research Institute’s involvement would be “very important” as would the Seed Production Division. To maintain internal productive capability, the current practice of the COCOBOD to give smallholders input supplies would have to continue. But since these inputs – mainly fertilizers and chemicals – are all currently imported, their cost borne by the COCOBOD is ever-increasing due to the volatility of Ghanaian exchange rates. Therefore, strengthening the internal productive capacity of the
Analysis – In a little under 15 minutes, Dr. Noah Amenyah was able to propose all the salient features to making a value-added cocoa product PPP functionally viable. In doing so, Dr. Amenyah was able to point of the critical dimensions that would make the project financial feasible to all its stakeholders (e.g., income, upgrading, and beneficiaries). He also endorsed the net economic gain for the stakeholders through collectivizing. Then he was also to visualize how the sustainability of supply would be guaranteed through institution-building and strengthening. Although the discussion did not really approach any real structural issues considerations, it did bring out the relevancy of the partnership arrangements. Finally, from his 10-out-of-10 rating, it is obvious that he would see the PPP having the ready political and bureaucratic acceptance.

Assinman Young Cocoa Farmers Association
The Assinman Young Cocoa Farmers Association (AMCOFA) based in Assin Foso, Central Region is an anomaly in Ghana. In a country where the average age of the farmer is 55 and a small percentage of smallholder cocoa farmers actually belong to a trade association, AMCOFA stands in stark contrast.176 The organization is young, vibrant, and growing. Its members are excited about cocoa farming and very hopeful for the future. And its leader, Samuel Torbi, has been hailed as a national role model after winning the 2013 National Best Young Farmer Award.177 The organization started officially just under a year ago – April 20, 2015. But unofficially, the organizing effort among young farmers in the Central Region has been ongoing for years. The organization is comprised of approximately 14K farmers, ages 18-40, across the Central Region.178 The mission is simple – to improve the plight of the young farmer through education, financing, labor, and resource support.179

The interview was a focus group meeting with Mr. Samuel Torbi – AMCOFA General Secretary, Mrs. Abba Torbi, wife of Mr. Torbi, and various officers and members of the AMCOFA leadership. The two-hour focus group interview was held in the main office of AMCOFA in Assin Fosu, and centered on the current state of the cocoa industry in Ghana, the current work of AMCOFA, their achievements to date, the challenges faced by their members, and their hopes for the future. The interview was preceded by a four-hour tour of Mr. Torbi’s cocoa farm and other farms in the Central Region.
Theory of Change and Current Interventions
The Assinman Young Cocoa Farmers Association does not have a website nor any full-time paid staff. All of its members are cocoa farmers, and it very recently received official recognition as an official cooperative society in Ghana (See Appendix I). Its theory of change is expressed in the very nature of the organization’s existence – the ability to collectively bargain. When the focus group was probed about how membership in AMCOFA has helped its member farmers, three different members responded that “when we come together, we get more.” The more they were referring to was better funding options and financing terms from the bank, more goods and services from COCOBOD, and more viability in the marketplace.

AMCOFA’s current interventions are two-fold. First, they have used their collective strength to ascertain a large loan underwritten by two bank loans. This loan of 9.3 billion GH went to help purchase ‘midst-blowers’ for the dispersion of insecticides. For the first year, the loan rate was at an astronomical 35%. But after AMCOFA was able to ensure on-time, in-full payments for the first year, the loan rate was negotiated down to 27% for the remaining 9 months. Samuel Torbi, in an interview with Ghana periodical The Daily Graphic, summed up the importance of having access to capital as a cocoa farmer:

Before someone can engage in farming, he needs capital. It is the reason some of our youth are not engaging in farming. The labour cost alone is not easy because you cannot use only your strength. Our grandfathers and fathers are weak and have huge cocoa farms that have been left and need attention but there is no money to rehabilitate those farms.

AMCOFA’s second major intervention is indicative of another major reflection on the collective strength of the farmers in the cooperative. One of the respondents in the focus group remarked, “there used to be mistrust among farmers, now they can learn each one from each other.” This idea of trust and working together is inclusive; it has even empowered women connected to the cocoa farming collective through a concept called Enobwa. Torbi explained it below:

We want the women to benefit from the association. Women are not strong enough. We men go and weed for them, etc. They can do the planting themselves. This is teamwork – they fetch the water and they cook for you. Men can also gift land to women to empower them. [With land,] she can have her own money. She is the business owner. And she can pass the land down to her daughters.

Analysis – “At first, [farming] was not a business, now it is a good business. It is lucrative.” This sentiment expressed by one of the AMCOFA focus group respondents really sums up the essence of the organization’s ability to recruit and incentivize young farmers. Through its collective bargaining strength, AMCOFA has made financing cheaper, and the availability of inputs more certain. In doing so, it has helped to augment the income of its member farmers and has the propensity to help them with
their overall net economic gain. The charismatic strength and role model influence of Samuel Torbi cannot be underestimated in the overall AMCOFA model. Because of his adoption of “good agronomic practices he currently produces an average of 1,891.5 kg of cocoa per hectare” on his farms.\textsuperscript{186} This statistic – almost three times above the average smallholder farmer\textsuperscript{187} – speaks to the ability of Mr. Torbi and the AMCOFA to help farmers increase the sustainability of supply on their farms. And any increased strength of the collective threatens the overall power asymmetries that currently exist in the Ghanaian cocoa GVC. The government of Ghana and COCOBOD are interested in seeing the AMCOFA model scale to other parts of the country and has asked the collective to mentor eight other producer collective associations.\textsuperscript{188}

Regarding structural issues, AMCOFA has managed to do what no other COCOBOD-related organization has managed to do. Through the ‘enobwa’ concept, it has addressed gender issues and through its mere existence, has managed to address the demographic issues related directly to age. “There is a prestige effect to being in the cooperative,” mentioned one of the respondents.\textsuperscript{189} Central Region Chief Farmer, Mr. Nana Kwesi Ofori, in an appeal to a gathering of farmers to commemorate the one-year anniversary of AMCOFA, made an appeal to the youth in the audience. “He advised the youth to stop migrating to the cities to engage in menial jobs and called on them to rather seize the opportunities in the COCOBOD’s Youth in Cocoa Farming Programme,”\textsuperscript{190} of which AMCOFA is a member-organization.

But one structural issue that has alluded AMCOFA has to do with land and property rights. Land issues are massive in the Central Region, in fact all land in Ghana is owned by the state. Ownership/lease/use is at the chief’s discretion. Since the Central Region is one of Ghana’s primary cocoa growing regions, the local chiefs are not interested in selling large tracts of profitable land. Thus, the prevalence of sharecropping is high, and acts as a disincentive to pursuing farming as a full-time profession.

\textbf{Proposed Intervention}
The Assinman Young Cocoa Farmers Association is currently seeking to become certified as a FairTrade association by applying through FLOCERT, a FairTrade certification and compliance organization.\textsuperscript{191} The hope of AMCOFA is to use the FairTrade certification to achieve two goals. First, it hopes that the 6 per cent to ten per cent premium it expects to receive as a result of selling higher priced certified cocoa will help augment the incomes of farmers and help give them a way to manage future shock risks. There is a deep, commonly held belief among AMCOFA farmers that the free government distribution of inputs (i.e., seedlings, chemicals, and fertilizers) are going to be discontinued if/when political regime change
takes place. With an impending presidential election this year (December 2016), regime change is indeed possible.

The second goal is that AMCOFA hopes that certification will galvanize member farmers’ loyalty to the cooperative. Underlying the desire to gain farmer loyalty is the fear that AMCOFA will lose its legitimacy as a producer organization and “collapse,” according to Torbi. To date, the cooperative has been able to help in shoring up the consistent flow of agricultural inputs, educational initiatives for the farmers, and accessibility to lower-than-market-rate finance loan options. Now, with the threat of regime change, it needs another tactic to substantiate its existence.

The interview then turned into a deeper investigation of which stakeholders would need to be involved, how incentives would be distributed, and which institutions would need to be strengthened in order for the FairTrade arrangement to be successful for AMCOFA. Regarding stakeholders, Torbi and the other focus group members insisted that the only three relevant stakeholders would be the FLOCERT authorities, AMCOFA, and the smallholders. “The government has nothing to do with this. There is no contract. FairTrade premiums go straight to the farmers.” Regarding incentives, and again in a framework where fair trade premiums go directly to the farmer, this is a way for “farmers to help themselves since [free] government inputs are going away.” In terms of institution-building, the only institutional strengthening considered was the cooperative itself and the effort to get it officially recognized with the Registrar of Cooperative Societies Ghana. Apart from registration, the only other concern would be to pay the “one-time cooperative registration fee of €538.

**Analysis** – For all the aforementioned reasons spelled out in the earlier PRO-POOR DESIGN DEFICITS IN CURRENT INTERVENTIONS section of this document (see page 9), the idea to pursue FairTrade certification is ill-advised for AMCOFA. Nevertheless, the assertive and independent stance of AMCOFA’s leadership is admirable. They want to take an active part in solving their own issues. They also exhibit keen future-oriented thinking when it comes to risk management for what they correctly perceive as an imminent problem. Nevertheless, for AMCOFA to think that COCOBOD is totally not going to be involved in this certification arrangement demonstrates a fundamental misunderstanding of COCOBOD’s regulations regarding certified cocoa. In reality, COCOBOD will be involved at the sourcing end by needing to set up and manage a completely separate channel and warehousing process for certified cocoa (as it has done for decades with Kuapa Kokoo, a FairTrade producer cooperative and LBC). On the payment end, the payment of the earned premiums associated with certified cocoa
(which are government regulated) would be paid into a COCOBOD-linked trust fund for the provision of social amenities. Distribution terms would be left to the discretion of AMCOFA.¹⁹⁶

As for strengths of the plan, if successful it would have the potential of increasing farmers’ income, but the annual certification fees (not currently accounted for in the AMCOFA plan) would have to be taken into consideration.¹⁹⁷ These fees could run AMCOFA approximately €2K - €4K per year.¹⁹⁸ The plan’s potential deficits include an uncertain net economic gain for the producer collective, no direct link to addressing the structural issues associated with certification, not effectively incorporating all the salient partner stakeholders in the program design, and a potential oppositional political and bureaucratic stance toward the project.

**Cocoa Research Institute of Ghana – CRIG**
The Cocoa Research Institute of Ghana (CRIG) based in Tafo, Eastern Region, Ghana has a vision to be “a global leader in research into cocoa and the other mandate crops of CRIG (e.g., Coffee, Shea, Kola and Cashew).”¹⁹⁹ In every aspect of its work, CRIG is both motivated and constrained by its mandate: “to investigate the pest and disease problems of cocoa, coffee, shea, kola, and cashew in order to maintain production in West Africa, soil fertility and good agricultural practices, with the view to increasing yield and farmers’ income.”²⁰⁰ Guided by this mandate, the organization has made far reaching advancements and breakthroughs in the cocoa sector including:

- Development of early bearing and high yielding cocoa hybrid trees
- Eradication of the swollen shoot cocoa tree disease
- Short term control of a severe type of Black pod disease
- Production of pectin, alcohol and alcoholic beverages, animal feed, jelly, soap and cosmetics as by-products from cocoa wastes²⁰¹

The interview was a focus group meeting with Dr. George Opoku, Deputy Executive Director-CRIG, Mr. Richard B. Armah, Public Affairs Officer, Mr. Peter Atta-Boakye, Scientific Information Division Head, and Dr. Mercy Asamouh, Social Sciences Research Manager. The hour-long focus group interview was held in Dr. Opoku’s office and centered on the work of CRIG, their achievements in the cocoa sector, and their current work. The interview was followed by a tour of the facility. The tour had stops at the on-site cocoa farm, the outdoor cocoa disease museum, and the cocoa by-products production facility.

**Theory of Change and Current Intervention**
The in-person interview reflected what CRIG says on its website regarding its theory of change – If CRIG can develop “sustainable, demand-driven, commercially oriented, cost-effective, socially and environmentally acceptable technologies [then it] will enable stakeholders to realize the overall vision of
the cocoa industry and that of the other mandate crops." The overall vision of the Ghanaian cocoa industry, as expressed by the COCOBOD vision, is to “maintain Ghana’s premium quality cocoa”

The slate of CRIG's current interventions all align with the organization's objectives:

1. Provide the farmer with a package of improved planting materials and husbandry practices/technologies for optimal yield and high economic returns.
2. Conduct demand-driven research into, and develop techniques for the processing of mandate crops.
3. Conduct research into and develop new products (including by-products and other residues or waste parts other than traditional ones) from mandate crops to diversify farmers' income.
4. Establish strong linkages with the Extension Services for effective transfer of research findings, new technologies and agronomic practices to farmers.

The portion of the conversation dedicated to current interventions focused on the first objective, while the investigation into a potential future intervention focused on the third objective.

The relationship CRIG has with the cocoa farmer can be described as interdependent. In other words, the farmer depends on CRIG to research and discover the best, most sustainable and economically viable planting and agricultural cultivation techniques while CRIG relies on the adoption of the farmer in order to scale its solutions. As mentioned earlier, one of the major breakthroughs of CRIG over the current era is the development of early bearing and high yielding cocoa hybrid trees. This basically cut the seed to market fruit bearing time in half – from 5-6 years to 2-3 years. Of course, this has had direct implications for the farmer – both in terms of sustainability of supply and as a financial incentive - and increased their propensity to adopt planting these hybrid trees. Additionally, farmers experience CRIG's influence through the package of input interventions – fertilizers, pesticides, fungicides, and woodicides. The benefit to farmers is two-fold – on the one hand they actually receive the inputs free of charge. Additionally, they receive education and training on the appropriate use of the inputs through CRIG's partner, CHED (Cocoa Health and Extension Division).

Although these interventions save the farmer about 1500 GH to 2000 GH per acre per year, the adoption rate of the entire package of interventions over a three-year period is just under 10% nationally. The lack of holistic adoption (wherein farmers pick and choose which inputs and interventions to adopt), has mostly to do with the variety of constraints the smallholders face. For instance, farmers with multiple farms in different areas face additional transportation costs when applying the benefits across his/her portfolio of farms. There is also lack of sensitization and motivation on the part of a typically aged farmer. Still another block is the competition for labor. There is both an opportunity cost of education if the farmer instead uses his/her children as labor sources. Furthermore, there is a competition for labor, due to small scale ‘illegal’ mining in the rural areas and direct competition for day laborers from the very lucrative rubber tree industry – especially in the Western Region. Finally, some farmers – especially
owners of sharecropping farms – are considered to be absentee and represent a bottleneck of adoption in the system. The sharecroppers have no incentive to adopt, on behalf of the landlord, principally since the sharecropper is only entitled to 1/3 of the fruitfulness of the sharecropped land. This sharecropping difficulty yet again echoes a central theme that plagues the structural issues smallholder farmer in Ghana – land access and property rights.

Analysis – As the headquarters for all cocoa-related research in Ghana, the employees of CRIG fully understood the immense and critical space it occupied in the cocoa ecosystem in Ghana. Its activities directly affect the financial feasibility of the farmer to remain profitable and to potentially upgrade in this space. The fact that inputs are given away at no cost by regulatory authorities in Ghana’s cocoa industry speaks to the concern CRIG and COCOBOD have for the net economic gain of the farmers and the sustainability of supply for the cocoa sector as a whole. CRIG’s social science research also reveals that structural issues around property, land rights, and demographics (i.e., age) have much to do with the success of farmers in the cocoa business. The nature of CRIG’s involvement with farmers both in the field and in the laboratory speaks to the relevancy of intervention arrangements it employs to actively pursue its theory of change. Finally, the factors around stakeholder adoption of CRIG’s intervention strategies have a lot less to do with politics or bureaucracy and more to do with the social and economic realities of life as a smallholder farmer in Ghana. To put it mildly, CRIG is holistically important to the state of the cocoa sector in Ghana.

Potential PPP Intervention
To reiterate a point made earlier regarding a CRIG ‘breakthrough’ achievement, the organization created the technology to produce pectin, alcohol and alcoholic beverages, animal feed, jelly, soap and cosmetics as by-products from cocoa wastes. Since the specifics regarding the scientific, agricultural, economic, and social ramifications were thoroughly covered in the comparative case study about cocoa by-products starting on page 13 of this document, this section will not cover those items. Instead, this section will investigate the extent of the interest at CRIG to transform this scientific breakthrough into a PPP commercial venture with private sector investors, public sector infrastructure change agents, and smallholder farmer producers/shareholders.

During the tour of the cocoa by-products production facility, Mr. Armah responded to two critical questions, revealing some very interesting insight. The first question was an inquiry into why CRIG had not yet scaled the by-products venture. Armah’s response is below:
[CRIG] has been given a core mandate to sustain cocoa in Ghana only. We are not permitted to produce [by-products] in commercial quantities. Instead, we keep producing at a very small scale to create awareness. This awareness creation is done all over the world. We go to exhibitions, fairs, and other functions to display to potential investors.\textsuperscript{214}

Naturally, the follow-up question to this point was an inquiry into the reasons why there has not been more investment in the cocoa by-products sector. Again Armah’s response is below:

[Investors] come and go. We even wanted the government to take it up to help the youth. We are waiting for the youth cooperatives to form and ask us for our partnership. We provide you with all the technology and training to get started. You can buy the patency from us. We are ready to do a partnership collaboration.\textsuperscript{215}

\textit{Analysis} - By far, this was the most emotionally and intellectually confounding part of the CRIG interview and tour. How could a potentially lucrative business venture just sit on the shelf? The answer has mostly to do with the CRIG’s limiting mandate. In keeping with the history presented in the case study around the initial development of the byproducts initiative, if CRIG were permitted to incubate the initiative even further, some critical questions around true market revenue pricing and target customers could have been answered. Perhaps the most difficult issue that remains to be solved is how to organize and collectivize farmers. In order to take advantage of the financial incentives regarding income premiums and upgrading, the farmers would have to be in smallholder collectives with the savvy to successfully steward financial ownership, dividends investment, and management decisions. Notwithstanding, the bright points of a PPP in this space are found in the potential to strengthen the sustainability of cocoa supply and while enter into new GVCs (cosmetics, food and beverage, etc.). If designed properly, the PPP can both help address gender issues by directly appealing to the ingenuity of women and help motivate aged farmers implement something that would also inspire the next generation of farmers. Of course, a firm theory of change would need to be developed, but there would be sufficient political and bureaucratic buy-in, since the initiative started in CRIG.
SUMMARY OF KEY INFORMANT INTERVIEWS

Figure 11 below demonstrates that the current intervention of CRIG in the Ghanaian cocoa industry is significant and should be continued. The proposed interventions of COCOBOD and CRIG show the most promise of inclusively strengthening the cocoa GVC in Ghana. Perhaps areas of synergistic overlap between the two should be explored.

Figure 11 - At-a-Glance Analysis of the Key Informant Interviews

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<th>Assinman Cooperative</th>
<th>CRIG</th>
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<td>Proposed Intervention</td>
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<td>Stakeholder &amp; Political Feasibility</td>
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Legend: ✓ - fully addressed; ✓ - partially addressed; ✗ - not adequately addressed
RECOMMENDATIONS

In Ghana, there is the political mandate, the economic need, and to an increasing degree, the financial investment for agricultural public-private-partnership arrangements. The mandate is clearly present in two political initiatives – the Ghana Food and Agriculture Sector Development Policy and the Medium-Term Agriculture Sector Investment Plan. Both of these government policies are aimed at modernizing Ghana’s agricultural sector. USAID (in a multi-lateral partnership with the World Bank) is already helping to fund these initiatives through a $150M fund tied to implementing the Ghana Commercial Agriculture Project (GCAP). GCAP’s objective is to boost productivity at the farmgate level, and enhance value-addition thereafter of staple crops - rice, maize, soybeans, and vegetables. GCAP has also received matching grant funding, specifically to help fund “agricultural processing and marketing, industries and small-scale entrepreneurial farming.” Given Ghana’s inability to economically support itself in this very important sector, the demonstrated economic need for collaboration also exists.

Therefore, it seems plausible that the Government of Ghana (GoG) would continue to both welcome and request the assistance of USAID in any intervention to support and enhance its poor smallholder farmers in potential inclusive public-private partnerships in the cocoa sector. But the question of sequence lingers. To move forward, the recommendation is for USAID to take actions now to help lay the policy foundation for a PPP, next to help with the actual capacity planning and set-up of a PPP, and later in the successful execution and scaling of a PPP in cocoa sector.

NOW

Assuming that USAID is invited into a PPP arrangement by the GoG, USAID must be proactive in offering technical assistance about best practices in creating the landscape wherein PPPs can thrive. This action would have particular implications in legal framework, regulatory policy, and finance policy. To address some of the limiting legal frameworks around salient structural issues, USAID consult with GoG in helping to shape land and property rights, as well as unlocking gender and inheritance issues to help enable the sector to thrive. Of course, USAID should enter into this space in a posture of humility and cultural sensitivity. Land and property issues typically carry many personal ownership and nostalgic attachments and can often have political implications. With this in mind, USAID should approach these issues in a deliberate manner, and using an incremental step-by-step approach.

It is promising to note that USAID is already working on the land and property rights issue through a partnership with COCOBOD and the World Cocoa Foundation. Together, these partners are conducting a “baseline survey aimed at better understanding tenure arrangements and constraints among cocoa farmers” and its results will be used to “further inform future cocoa value chain management.
decisions.”221 The ultimate goal of the partnership is to “to collaborate with the private sector to influence responsible agro-forestry practices and productivity gains” while also meeting development objectives related to “land tenure, food security, and economic growth.”222

Additionally, there would also need to be some industrial policy consultation on the necessary infrastructure to make the PPP plausible. It is encouraging to note that the Government of Ghana has already enacted a National Policy on Public-Private Partnerships in Infrastructure and Public Service Delivery. The legislation covers salient features of PPP such as risk management, contracting, bidding, concessions, PPP agreement types, institutions and procurement.223 Through a policy consulting program similar to the Country Development Cooperation Strategy (CDCS) USAID has set-up with the Democratic Republic of Congo,224 the agency can assist in transitioning Ghana’s current PPP policy to be applicable to the agricultural sector.

Finally, USAID should help the GoG decide how to create the conditions wherein the domestic private sector can be encouraged to grow and be welcomed into a PPP arrangement. At a current Ease of Doing Business ranking of 114th out of 189 countries (third quartile) as ranked by the World Bank Group, Ghana has a lot of room for growth regarding strengthening the public policies and the institutions that are attractive to domestic industry growth and foreign direct investment.225 Central to PPP discussions should be the size and scope of private sector involvement. If the PPP intervention is intended to scale to reach farmers across the country, then perhaps industry lead firms should be welcomed as part of the PPP creation process. Notwithstanding, the voice of the smallholder should not be ignored in the private sector conversations – a hard lesson learned by the Rwandan Tea PPP. Representatives from existing and potential smallholder producer collectives should be at the bargaining table. Including smallholders would create the collateral benefit of potentially gaining widespread social buy-in and political support.

**Next**

Across the three case studies analyzed as part of this Master’s Project, there was a congruent factor that linked each intervention. In each case, there was some form of agribusiness that generated additional value above and beyond the typical commodity agricultural cycle of (planting, harvesting, and exporting). The value-addition either happens through some extra productive capability of the smallholder producer (e.g., cocoa by-products, “Rings of Hope” Juan Valdez women-led initiative), or through the smallholder producer owing an equity share in one or more downstream functions of the GVC (e.g., grinding, processing, retail). And these downstream functions have the promise of equity return (and/or premium payments). It is important to note that this equity share arrangement typically
dilutes the share of other downstream, private or lead firm owners, and also shifts more power to the 
smallholder due to increased control of GVC policies and processes.

Given this environment, to maintain private sector buy-in, it would be also critical for USAID to help 
Ghana formulate concession agreements, contracts, and leases that would be attractive to large lead 
private sector firms. Again learning from the Rwandan Tea PPP, these Ghanaian PPP arrangements 
would have to adequately address how risk and return would be managed, private sector investment and 
procurement expectations, and contracting and ownership terms. Should the project proceed forward as 
a public-private partnership, bidding procedures and PPP administration protocols would have to be 
formed. In the case of a prolonged concession period of a major capital investment, the GoG would need 
to guarantee reliable infrastructure (roads, electricity, etc.). USAID, through a program similar to the 
one it has in Kenya – the Agriculture, Business, and Energy initiative – could also offer grants in 
providing feasibility market studies about new or innovative value-additive cocoa products or processes 
that would help attract the private sector.

There were two other parallel modalities exhibited in the case studies, where USAID could partner with 
smallholder collectives in Ghana. First, the ability of the smallholder to make the agricultural production 
of the commodity happen smarter, faster, and cheaper was prevalent across the cases and the key 
informant interviews. Farmer collectives must have the know-how to help its members apply innovative 
or modern agricultural techniques. They must also have the collective bargaining power to demand 
cheaper inputs and favorable financing options to help fund on-farm operations (labor costs, input costs, 
technology costs, etc.). Equally important was the second commonality – the ability of the smallholder 
collective to ensure the continuity of supply, and the ability to transform the equity return or premium 
payment into socio-economic value-add for the smallholder grower community, additional productive 
capacity, education or health care support, or other peripheral resources. This presupposes some 
business and management acumen among the collectives. Business acumen includes the ability to 
manage risk and negotiate contracts – both with the banking and the private sector.

To build the innovative and business skillset of the collectives, USAID could consider one or more of the 
following four approaches. First, USAID, perhaps in partnership with a private sector sustainability or 
corporate social responsibility solution, could provide capacity-building for shareholding farmer 
cooperatives to have the wherewithal – competence, organization, and financial means – to successfully 
run a profitable enterprise. Similar to the Rwandan case, USAID could as another option seek out IFAD 
to be involved in the process of strengthening smallholder collectives. Thirdly, USAID could partner 
with ACDI VOCA in the development of the Farmer-to-Farmer Initiative in Ghana. This initiative builds
“the capacity of farmers, farmer organizations, rural agribusinesses, agricultural service providers, extension providers, trade associations and rural finance providers to become commercially viable participants in domestic and regional economies—and even the global economy.”

This program leverages seasoned farmer volunteers from all over the world to come to a target country and share the best practices and knowledge about global value chain methodology with younger farmers. As a fourth option, the GoG in collaboration with USAID, could also invite the Food and Agricultural Organization of the United Nations (FAO) into a partnership to help establish an “enabling environment” that will help improve smallholders’ livelihoods.

FAO specializes in assisting governments create consultation frameworks “conducive policies, transparent legal frameworks and economic incentives” to promote policy-related dialogue between government and producer organizations (PO) and cooperatives. Ultimately, “these consultation frameworks aim to ensure the representation and voice of POs and cooperatives in decision making processes.”

Later

Once the foundation is laid and the PPP is ready to be implemented, USAID could be instrumental in helping to support the arrangement by recruiting private sector investors to the space, supporting the smallholder collectives in managing their responsibilities, and helping to set up a method for measurement and evaluation of outputs and outcomes. The lessons learned from IFAD’s involvement with the Rwandan Tea PPP are applicable with adaption to Ghana’s case. With young, inexperienced smallholder producer collectives working with more powerful downstream firms, there will be a major learning curve to manage. But there are also very transformational development and scaling opportunities to exploit in the process. USAID has deep experience in this type of cross-functional PPP support as evidenced by its Somalia Partnership for Economic Growth (PEG). Through PEG, USAID “facilitates collaboration between local governments and the private sector to accelerate economic growth, increase investment, and generate productive employment across Somalia.” A similar functioning partnership program would be highly recommended for the Ghanaian cocoa sector.
Appendix

A - Distribution of Value Along the Cocoa-Chocolate Value Chain

![Distribution of Value Along the Cocoa-Chocolate Value Chain](image)


B – Volume of Certified Cocoa Produced and Sold by Certification Scheme, 2012

<table>
<thead>
<tr>
<th>Certification Scheme</th>
<th>Production</th>
<th>Sale</th>
<th>% Sold as Certified</th>
</tr>
</thead>
<tbody>
<tr>
<td>UTZ certified</td>
<td>534,614</td>
<td>118,641</td>
<td>22%</td>
</tr>
<tr>
<td>Rainforest Alliance</td>
<td>405,000</td>
<td>205,784</td>
<td>51%</td>
</tr>
<tr>
<td>Fairtrade International</td>
<td>175,900</td>
<td>68,300</td>
<td>39%</td>
</tr>
<tr>
<td>Organic*</td>
<td>103,554</td>
<td>77,539</td>
<td>75%</td>
</tr>
<tr>
<td>Total</td>
<td>1,219,068</td>
<td>470,264</td>
<td></td>
</tr>
<tr>
<td>Total Certified (Adjusted for multiple certifications)**</td>
<td>890,000</td>
<td>300,000</td>
<td>33%</td>
</tr>
</tbody>
</table>

*Figures for 2011*

**Almost one-third of total certified production represented overlapping certification. As reported by the individual certification schemes, certified production approximately accounted for 30% of global cocoa production. Adjusted production levels of certified cocoa amounted to 22% of global production.*

C – Assumed sale prices of raw materials and by-products (at 2001 prices) used in Cocoa By-Products Feasibility Analyses

<table>
<thead>
<tr>
<th>Product/Material</th>
<th>Unit</th>
<th>Sale Price (US$) (a)</th>
<th>Raw Material Conversion Factor</th>
<th>Material Cost (US$) (b)</th>
<th>a/b</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh CPH (husk)</td>
<td>ton</td>
<td>7.0</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Potash</td>
<td>ton</td>
<td>440</td>
<td>63</td>
<td>440/ton</td>
<td>1</td>
</tr>
<tr>
<td>Dry CPH Pellets</td>
<td>ton</td>
<td>44</td>
<td>6.25</td>
<td>44/ton</td>
<td>1</td>
</tr>
<tr>
<td>Pig feed</td>
<td>ton</td>
<td>90</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Rabbit feed</td>
<td>ton</td>
<td>90</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sweetings</td>
<td>Litre</td>
<td>0.19</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Gin/Brandy</td>
<td>Litre</td>
<td>3.28</td>
<td>10</td>
<td>1.9/litre</td>
<td>1.73</td>
</tr>
<tr>
<td>Alcohol (technical 86%)</td>
<td>Litre</td>
<td>1.05</td>
<td>20</td>
<td>3.8/litre</td>
<td>0.28</td>
</tr>
<tr>
<td>Wine*</td>
<td>Litre</td>
<td>11.27</td>
<td>1</td>
<td>0.19/litre</td>
<td>59.32</td>
</tr>
<tr>
<td>Vinegar*</td>
<td>Litre</td>
<td>2.82</td>
<td>1</td>
<td>0.19/litre</td>
<td>14.84</td>
</tr>
<tr>
<td>Pulp juice (Soft drink)*</td>
<td>Litre</td>
<td>0.28</td>
<td>1</td>
<td>0.19/litre</td>
<td>1.47</td>
</tr>
<tr>
<td>Jelly</td>
<td>450 g  jar</td>
<td>1.42</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Cakes*</td>
<td>kg</td>
<td>0.14</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Biscuits*</td>
<td>kg</td>
<td>0.21</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Cocoa butter soap</td>
<td>110g</td>
<td>0.35</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Potash soap</td>
<td>300g bottle</td>
<td>0.85</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Cocoa butter pomade</td>
<td>100g bottle</td>
<td>0.56</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Discarded beans</td>
<td>kg</td>
<td>0.25</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

The above table indicates that the assumed sales prices used in the project were probably not very realistic for most products. The ratio of the sales prices and material costs, which is indicative of the gross profit margin, was one for the cocoa pod husks-based enterprise. Except for wine and vinegar which had high profitability margins, other products in the cocoa sweetings enterprise had a low gross profitability. This shows that the promotional sale prices used for the feasibility analyses were not very realistic. It is, therefore, necessary to re-examine sales prices of the final products to try to achieve better profitability of the enterprises.
Different specialized organizations with a variety of tasks within the coffee sector simultaneously form part of the NFC. Among them are the following:

- **National Coffee Fund**: An account in the National Treasury, created in 1940 and administered by the NFC, where obligatory contributions from the sector are deposited to be distributed to specific destinations. This mechanism has permitted the consolidation of the commercial function in order to meet the requirements of international agreements and for the defense and stabilization of coffee growers’ incomes, as well as for the development of a series of policies that favor growers.

- **Almacafé**: A logistical service company which exercises four functions: supports the guarantee of coffee purchases; provides logistical support to the NFC for commercialization, export and domestic consumption; threshes, roasts, grinds and packages coffee, and provides quality control for exported coffee. Among its assets is a roasting facility for the production and packaging of the coffee destined to the Juan Valdez® Coffee Shops.

- **Coffee Growers’ Cooperatives**: In 1959 the NFC created and, since then, has promoted cooperatives. These are economic solidarity organizations owned by coffee producers in which the principal function is to guarantee the sale of coffee harvests at the best possible market price. In 2006 there were 38 cooperatives and 488 sales points in Colombia.

- **Cenicafé**: Created in 1938, under the framework of the IX Coffee Congress, and, until 2006, has developed more than 1,000 projects in experimentation of coffee cultivation, from genetic studies to create new varieties, to research about harvesting, quality and the benefits of coffee, oriented to Colombian coffee producers and consequently to consumers.

- **Fundación Manuel Mejía**: Created by the coffee sector in 1980, its mission is to train coffee producers, their families and community in an integrated manner and to contribute to grower’s wellbeing, competitiveness and sustainability. It has also proposed itself to be a quality, sustainable organization for the development of education in the coffee sector.
E – Juan Valdez Coffee Shops Fair Trade Chain Business Model
### F – Rwandan Tea PPPP Development Outcomes (Anecdotal Evidence of Income Increase)

<table>
<thead>
<tr>
<th>Development outcomes</th>
<th>Baseline (2006) survey</th>
<th>Outcomes</th>
<th>Evidence and attribution to PPP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Food security:</strong> Access to food all year round (without needing to borrow money or food to meet basic consumption needs)</td>
<td>Limited food production due to poor soil productivity and lack of income. In 2004, the number of people having 3 meals/day was 4% in Mushubi and 5% in Nshili. Animal products consumption was limited.</td>
<td>Food production increased in Nshili and Mushubi. By 2010, number of people having 3 meals increased to 9% in Mushubi and 10% in Nshili. Focus group discussion in Mushubi and Nshili confirmed greater access to food and more diversity through (i) improved production and (ii) local food purchase on markets. President of COTHEGAB cooperative (also a medical technician) confirmed a decrease in underfives with protein deficiency in tea-growing households.</td>
<td>Increased income from tea enabled farmers to invest in soil productivity (fertiliser, seeds, lime, etc.), and animal production provides manure which improved productivity. Tea growers managed to acquire dairy cows and small animals in both Nshili and Mushubi (goats, pigs, chickens, etc.) or to access meat and milk through local purchase.</td>
</tr>
<tr>
<td><strong>Assets:</strong> Household income (measured in terms of access to or ownership of key assets such as electricity, forms of transportation, communication devices or types of cooking fuel)</td>
<td>In 2006, no data on number of houses with tile roofs and constructed with bricks. No households owning a radio: 44% in Mushubi and 50% in Nshili.</td>
<td>In 2010, the number of households with roofs covered by tiles had increased by 29% while those with grass roofs had decreased by 88%; those with brick-built houses had increased by 120% in tea-growing sites. In 2009, the number of households owning a radio: 91% in Mushubi and 66% in Nshili.</td>
<td>Evidenced through PDCRE Impact Assessment of 2010 and focus group discussions at Nshili and Mushubi in July 2014.</td>
</tr>
<tr>
<td><strong>Wellbeing:</strong> Perceptions of wellbeing among farmers and other community members</td>
<td>Health: no universal medical coverage available in Nshili and Mushubi. Water facilities non-existent. No electricity.</td>
<td>By 2010, 84% of tea-growers in Mushubi and 80% in Nshili were affiliated to medical health insurance (Mutuelle de Santé). Water facilities developed. Number of smallholder tea growers with houses connected to electricity grid increased in Nshili and Mushubi.</td>
<td>Smallholder houses connected with electricity grid in Nshili and Mushubi is higher than houses belonging to non-tea growers in both sites.</td>
</tr>
<tr>
<td><strong>Land tenure issues:</strong> access to land and security of tenure</td>
<td>Land was owned but not officially registered with titles. Land administered under both customary and national law. Number of hectares owned cooperatives in Nshili = 0.</td>
<td>COTHENK cooperative, in Nshili, owns 447 ha. Land registered under law with certificate, in 2014, 310 ha. in Nshili owned by 352 members and 937 ha. in Mushubi owned by 966 members. So land tenure better protected than before.</td>
<td>937 ha of TVs financed by BRD and managed by 966 individual TV in Mushubi. 310 ha. of tea plot financed by BRD and managed by 352 individual TV in Nshili. 447 ha. granted by the government, owned and managed by COTHENK (2,560) supported by PDCRE.</td>
</tr>
</tbody>
</table>
G - List of Key Informant Interviewees

<table>
<thead>
<tr>
<th>Person(s)</th>
<th>Affiliation</th>
<th>Location</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Noah Amenyah</td>
<td>Public Affairs Manager, COCOBOD</td>
<td>Accra, Greater Accra Region</td>
<td>Very Instrumental in setting me up with subsequent interviews</td>
</tr>
<tr>
<td>Mr. &amp; Mrs. Samuel Torbi, et. al (Focus Group)</td>
<td>Youth Smallholder Farmers</td>
<td>Assin-Foso, Central Region</td>
<td>Founder of the Assinman Cooperative Cocoa Farmers and Marketing Union, Ltd.</td>
</tr>
<tr>
<td>Dr. George Opoku, Dr. Mercy Asamoah, Mr. Richard B. Armah, et. al (Group Interview)</td>
<td>Deputy Director, Cocoa Research Institute Ghana</td>
<td>Talo, Eastern Region</td>
<td>Bought several cocoa by-products after the facility tour</td>
</tr>
</tbody>
</table>

H - Map of Interview Locations
I - AMCOFA Official Cooperative Certificate of Registration
EndNotes

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