



**Review of Smallholder Models: Liberia and Sierra Leone**

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## 1. Introduction

Worldwide 500 million smallholder farmers support a total of 2 billion people and smallholders are estimated to supply 70 percent of the world's food, including a significant proportion of agricultural commodity crops. In many countries production of agricultural commodities by smallholders is leading to expansion of production areas or changing practices in existing areas. This can be hugely beneficial, contributing to improved livelihoods and food security. However, production can also have negative social and environmental impacts, depending on the models of production adopted.

Many companies are also making commitments to producing and sourcing agricultural commodities responsibly, while at the same time needing to ensure that they contribute to local livelihoods and do not exclude smallholders from supply chains.

In many cases companies play a central role in encouraging or even driving the expansion of smallholder production through the provision of markets, financing or technical support, or through the development of formal outgrower or smallholder schemes. Therefore, they often have a strong influence on the type of production model used. So it is extremely important that there is an understanding amongst the companies about the implications of the approaches they use or support so that they can try to ensure that the best outcomes for smallholders and the environment are achieved.

There are many different models of smallholder production with different financing, land tenure, management, environmental and social aspects and livelihoods benefits. The different types of arrangements and organisation structures for smallholders can generally be distinguished into three different categories, including:

1. **Independent farmers or groups of farmers** – these are farmers who manage their own lands without any direct support from either government or private companies. Independent farmers have greater autonomy in the management of their farms, and are free to sell their products to any buyers either directly or through traders;
2. **Supported smallholders** – These are farmers who manage their own plantations with some support from government or the private sector. The basic concept is that the government agency or private company provides technical assistance and inputs of seed stock, fertilisers and pesticides, access to finance, etc. There generally is a verbal or written contract delineating the agreement, and part or all of production by these smallholders are sold to the company.
3. **Managed smallholders:** These are farmers, whose land is fully managed by the company. Generally, the management activities include land preparation, planting, maintenance and harvesting activities. All production on smallholder lands is typically sold to the company, and the costs of management are generally subtracted from the incomes received by the smallholders.

The actual challenges and level of intensity of the various issues faced by smallholders vary between type of smallholder, region and commodities. Moreover, in several countries and for some commodity crops effective models for smallholder development already exist and significant experience has already been made to address and overcome the many challenges and barriers faced by smallholders.

## **1.1 Objective of the study**

The objective of this study is to identify successful models or components of models for sustainable commodity crop production that can be adapted to specific contexts in order to scale up sustainable smallholder development.

To identify such successful components or smallholder production models SHARP wants to first establish a baseline of existing smallholder development models and analyse what each model delivers and why, as well as identifying the major challenges to its implementation.

One of the aims of this baseline study is to provide an overview of the work done to date, and identify areas where SHARP can complement and provide further support to.

The output from this study will be shared and form the basis for the discussion platforms on suitable models for smallholder development in West Africa that SHARP will organise. Subsequently stakeholders can have a dialogue on if and how components of existing models fit with and address their needs.

## **1.2. Scope of the study**

The purpose of the baseline study is to learn from existing commodity production models, specifically the components to successful implementation and the challenges faced with regards to responsible smallholder production. This in order for SHARP to be able to adjust and apply lessons learned about such successful models to smallholder production in West Africa. SHARP initially aims to assist smallholder development for the following agricultural commodity sectors: Oil palm; Rubber; Cocoa

The study should include other commodity crops in situations where successful cases of sustainable smallholder production already exist and could be relevant for the above listed crops. For example, there is ample experience with smallholder commodity crops like coffee and bananas in West Africa where lessons learned can be applied to oil palm or rubber.

SHARP aims to focus on how companies can build on and assist in adjusting and adopting successful components of smallholder models in order to support sustainable development for smallholders they are working with. Therefore, this study should aim to focus on those components of models where the private sector can play a role in providing support to smallholder development.

## Acronyms

ACDI/VOCA – Agriculture Cooperative Development International/Volunteers Overseas Cooperative Assistance  
BCC – Coffee and Cocoa Exchange (Bourse du Café et du Cacao)  
CBL – Central Bank of Liberia  
DRC – Dry Rubber Content  
FAO – Food and Agriculture Organisation  
FAOSTAT – Food and Agriculture Organisation Statistics Division  
FBO – Farmer Based Organisations  
GDP – Gross Domestic Product  
ICCO – International Cocoa Organisation  
IDA – International Development Association  
IFC – International Finance Corporation  
IITA – International Institute of Tropical Agriculture  
LD – Liberia Dollar  
LPMC – Liberia Produce and Marketing Corporation  
MAFFS – Ministry of Agriculture Forestry and Food Security  
MCGC – Millennium Cocoa Growers Cooperative  
MoF – Ministry of Finance (Liberia)  
MT – Metric Tonnes  
PFI – Private Finance Initiative  
RCPRP – Rehabilitation and Community-based Poverty Reduction Programme  
REDD – Reducing Emissions for Deforestation and Forest Degradation  
SCP – Smallholder Commercialisation Programme  
SHARP – Smallholder and Accelerated REDD Programme  
SHOPS – Smallholder Oil Palm Support  
SICOM – Singapore International Commodity Exchange  
SLEDIC – Sierra Leone Export Development and Investment Corporation  
STABEX – Stabilisation System of Export Earnings  
STCRSP – Smallholder Tree Crop Revitalisation Support Project  
UNDP – United Nations Development Programme  
USDA - United States Department of Agriculture

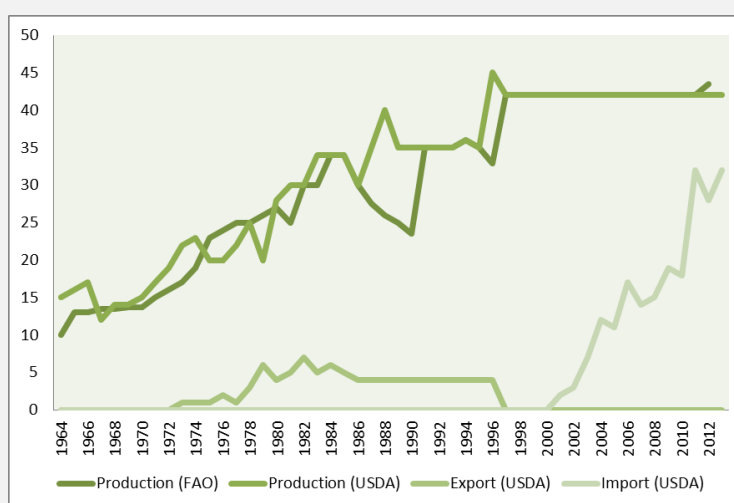
## 2. Overview of findings on the analysis of smallholder models in Liberia

The four main export commodity crops that have some level of smallholder based production in Liberia are Rubber, Cocoa, Coffee and Palm Oil. Production and export of all of these were severely disrupted during the Liberian civil conflict from 1989-2003. Post-conflict regeneration of the agriculture commodity sector has been slow with reliance on pre-existing and new plantation schemes.

### Production trend

- Describe the trend in commodity production in the country.
- What is the current production level, and is it projected to increase, decrease, or remain stable?
- If available, present info on how much?

#### OIL PALM

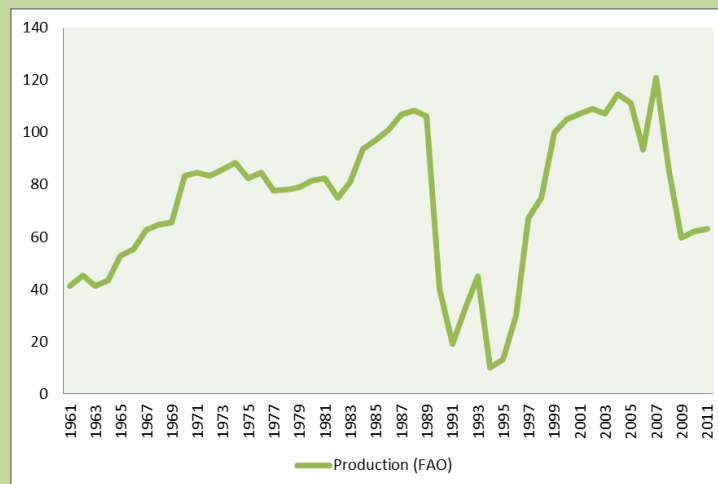


Liberia's crude palm oil (CPO) production was estimated at 30,000 metric tonnes (MT) in 2008 (IFC, 2008) and by 2010 country production was estimated at 42,000 MT (FAOSTAT). Using conservative yield estimates this equates to an estimated 35,000 hectares (ha) in Liberia under oil palm cultivation in 2010. It is estimated that half of this production is by 220,000 smallholders (SHOPS, 2013).

Liberia continues to be a net-importer of Palm Oil, with imports at c. 12,000 MT (Winrock International, 2011). However, with four large-scale plantations beginning operations (Sime Darby, Golden Veroleum Liberia, Equatorial Palm Oil and Maryland Oil Palm Plantation) production is set to increase sharply. The total maximum area under Oil Palm according to concession agreements is c. 600,000ha.

It should be noted that currently accurate data on palm oil production and in particular palm oil production by smallholders is hardly available. It has been recommended to do a baseline study in order to get more accurate data on palm oil production in Liberia, including smallholder production.

## RUBBER

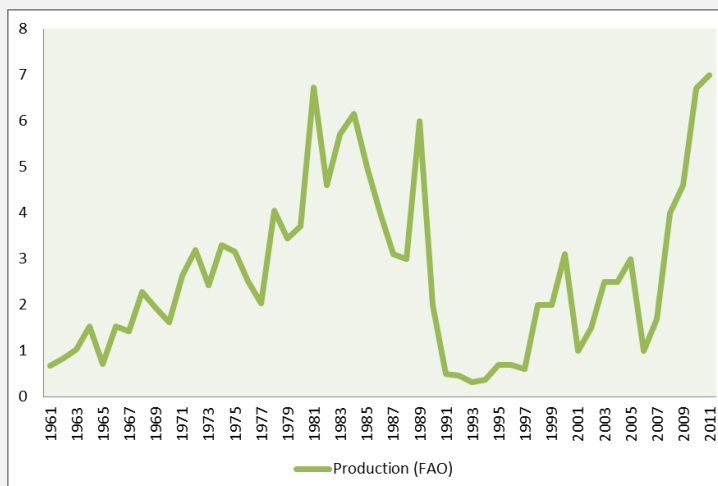


Rubber is Liberia's most important export commodity crop with 63MT produced in 2011 (FAOSTAT). Circa 200,000ha of land is under Rubber production, of which two thirds are medium and small-size private farms (<40ha) (IDA, 2012).

Rubber has been grown commercially since the establishment of the Firestone Plantation in 1926. By the 1950s eight plantations were in production. In the period between the mid-1960s and mid-1970s as rubber production and export earnings doubled, the contribution of Liberian farms rose from 21% to 36% of output with c. 4,000 farms established by the mid-1970s. (IITA, 2008)

Rubber accounted for more than 20 percent of the country's GDP and 90 percent of its total exports in 2005 (IDA, 2012).

## COCOA

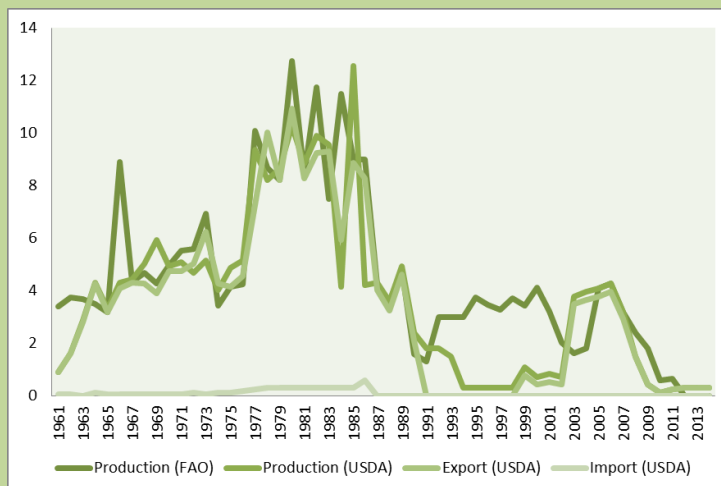


Official cocoa exports were circa 9,500 tons in 2010-11 and FAO statistics indicate growth in production.

Liberia remains a small exporter country as compared to Ivory Coast (about 1.5 million tons of exports per year) and Ghana (750,000 tons of exports per year).

A share of the national production is informally exported via Sierra Leone and Guinea while the country also re-exports beans coming from Ivory Coast (IDA, 2012).

**COFFEE**



By the end of mid-to-late 1980s coffee export earnings fell sharply – to less than US\$10m. Production is currently stagnant with 300T exported in 2012 according to USDA statistics.

Liberian coffee, without having an internal marketplace for the finish product, faces a large competitive international marketplace with extremely limited ability to enter let alone compete.

Independent smallholders

- Is this model found in this crop production? Yes, no and rough estimate about %
- What are some of the characteristics of this model in the region
- What components of this model have worked well?
- What have the identified challenges been

**OIL PALM**

With the relatively low production levels from plantations in the post-conflict era the majority of smallholders engaged in the sub-sector are independent. Small quantities of FFB have been purchased from smallholders (without contract) by Equatorial Palm Oil which has a 5-ton (t) mill operational at the LIBINC plantation and exported 1000t of palm oil in 2012 (pers comm. Geoffrey Brown, 20/2/13). This is the only mill in Liberia that is in operation to supply international markets. At a national level there is currently no significant collaboration between smallholders and companies.

Oil palm is an ubiquitous crop for smallholders in Liberia, produced from wild (natural) groves primarily for own-consumption, but also as a cash crop (cooking oil, soap), together with palm wine.

Subsistence and market cultivation of “wild red oil palms” of the Dura variety of *Elaeis guineensis* has been practiced throughout Liberia for many years. The fruit has been largely processed using labour intensive artisanal methods that produce crude “red oil” for local consumption and sale in Liberia and surrounding countries. Many of the traditional or pre-conflict Dura cropping systems are more heterogeneous and of lesser density than the export-oriented high-density Tenera hybrid. The Dura stands were an important component of food security, and provided an important source of subsistence and survival to Liberians during and after the conflict era.

The Dura fruit has a longer shelf life from harvest to processing, a fuller flavour profile and higher sale value, though significantly lower yields, than the modern Tenera plantation varieties which require a comparably higher level of labour and agrochemical inputs. All oil palm plantations that are currently under development will be utilising Tenera varieties.

	<p>Generally, the majority of palm oil produced by smallholders is consumed in the rural areas of Liberia and produced at a subsistence level. If surplus oil is available for sale, it is often purchased and consumed at the village level.</p> <p>Households with Oil Palm were estimated at 36,952 in the Liberian 2008 National Census. Active households can be estimated at 14,594 (following IITA 2008 survey findings).</p> <p>Some former state-owned plantations (17,000 ha) have been privatized while smallholder farms represent 75,000 ha (IDA, 2012).</p>
	<p><b>RUBBER</b></p> <p>Households engaged in Rubber production were estimated at 49,377 in the 2008 National Census.</p> <p>It is unclear from the literature what proportion of these households are independent but anecdotally it can be assumed to be significant. For example an IFC case study of Salala rubber plantation details that 75% of the companies rubber is sourced from third party sources. Since IFC's investment in 2008, Salala sourced more than 9,000 dry metric tons per annum from independent producers. The majority of these producers are smallholders based in Liberia's rubber belt. As per the Liberian Ministry of Agriculture Comprehensive Assessment report it is assumed that sales are on an ad-hoc basis without direct contracting to rubber companies (Liberia Ministry of Agriculture, 2007).</p> <p>Prices offered by Firestone are directly linked to the average price for Technically Specified Rubber (TSR) 20 observed at the Singapore International Commodity Exchange (SICOM) in the previous month, applying a standard 62 per cent dry rubber content (DRC) conversion factor. Other concessionaires/factories offer the same price dictated by Firestone, with deductions for transport according to the distance to the Firestone factory. Firestone operates buying points up to Lofa, Bong Nimba and even far east in River Gee and Maryland counties. This situation is likely to remain so in the next ten years, at least until Firestone and larger concessionaires start benefiting from their ongoing replantation programs they have embarked on a few years back and thus reduce their dependence from smallholders' supply (IDA, 2012).</p>
	<p><b>COCOA</b></p> <p>In 1987 the Ministry of Agriculture estimated that 20,000ha of land was dedicated to productive stands of cocoa. In 2008 households engaged in Cocoa production were estimated at 36,432 in the National Census.</p> <p>Historically, due to a lack of market infrastructure and fluctuations in international prices, markets for Liberian cocoa were stagnant (IITA, 2008). County Agricultural Development Projects (ADPs), financed by the World Bank, the African Development Bank and the European Union from the late 1970's to 1990, planted c. 35,000 ha of cocoa (29,500 ha in Nimba; 3,100 ha in Lofa; and 2,100 ha in Bong). These projects appeared to have centred on supporting independent smallholder production</p>
	<p><b>COFFEE</b></p> <p>Coffee was the first tree crop introduced as an export crop (together with sugarcane) in the mid-19<sup>th</sup> century (IITA, 2008). Area under cultivation expanded from 8,670 ha to 21,310ha between 1960s and 1980s.</p> <p>With downturns in coffee commodity prices and the opportunities for growing other more profitable agricultural commodities being high, the desire to grow coffee tree stands is limited.</p> <p>Households engaged in Coffee production were estimated at 26,359 in the 2008 National Census (note that this figure should be regarded as a higher estimate as a 2008 IITA survey reported that</p>

	<p>of 147 households who had a coffee farm, only 25% respondents indicated that they produce coffee for sale).</p>
<p>Supported smallholder groups</p>	<p>Is this model found in this crop production? Yes, no, rough estimate about %</p> <p>Post-conflict, the majority of support to small-holders has been through donor funded projects as opposed to schemes from either the state or private sector. These include multi-crop projects such as the Small Tree Crop Revitalisation Programme (World Bank) which includes Palm Oil, Cocoa, Coffee and Rubber or crop specific projects such as the Smallholder Oil Palm Support programme (SHOPS).</p> <p>ACDI/VOCA, a US-based economic development NGO, has a \$3.7 million Smallholder Oil Palm Support program (SHOPS) in Liberia to strengthen the palm oil value chain and drive rural economic growth. This 3-year initiative, funded by USAID, focuses on Bong, Lofa and Nimba Counties and is currently the only donor funded project focusing on oil palm in Liberia. It is envisioned that SHOPS has the potential to “fast track” improvements and increase productivity along the entire value chain of Liberia’s smallholder palm oil industry (ACDI/VOCA &amp; Winrock International, 2010). Currently there is no geographic or planned programmatic overlap between SHOPS and large-scale concession agreements. Presently SHOPS works with a network of over 60 actors involved in the oil palm trade throughout Liberia, including: individual and group processors; oil palm depots; group and individual traders. While crude palm oil is traded easily on the local market at favourable prices, due to the introduction of additional palm bi-products (PKO, palm kernel cake, etc), the project has recognised that there is a need to formalize the trade sector to improve trade linkages and usage and distribution of new products.</p> <p>In 2012 SHOPS (Winrock International, 2012b) reported the following progress to date: 23 Active nurseries producing a total of 52,100 oil palm seedlings; 128 Processing units sold (Freedom Mills); 101 Loan recipients receiving over \$59,000 USD in loans; 89 Enterprise generating profits; 3,117 Participants generating increased income; \$242,465 USD of private sector investment generated; \$893,985 USD of annual income generated.</p> <p>Lessons learned from the programme include (Winrock International, 2012a):</p> <ul style="list-style-type: none"> <li>• Financing for production activities (nursery, out planting) remains elusive and would likely require different loan structures and collateral;</li> <li>• Cooperatives, credit unions and community banks can provide an excellent path for microfinance institutions to profit from rural and agricultural lending and minimize risks;</li> <li>• Significant energy must be placed into financial management and record keeping trainings for credit unions and cooperatives;</li> <li>• Some cooperatives have proven some level of credibility and could began to scale up activities;</li> <li>• Activities with credit unions and coops should start small, provide good follow up and build upon success.</li> </ul> <p>The Small Tree Crops Programme began in 2000 in order to facilitate the improvement of smallholder agricultural systems based on tree crops in West and Central Africa. STCP is funded by a number of donors, including USAID, the US Department of Agriculture, the World Bank and the Danish International Development Agency. In 2005, USAID/Liberia invested in the STCP mechanism through an award to the Consultative Group on International Agricultural Research/World Bank Project (CGIAR). This took the form of a Grant Agreement for \$9,314,000 between USAID/Liberia and the International Institute of Tropical Agriculture (IITA), one of the 16 member organizations in CGIAR. This grant was implemented using largely World Bank procedures. IITA entered into a consulting agreement with the Canadian NGO SOCODEVI to build capacity for marketing access and income generation, and sub granted to Winrock International the oil palm processing sub activity (SHOPS, as detailed above).</p>

	<p>In 2011 a review commissioned by USAID (USAID, 2011) recommended that US funding to the programme should cease. The evaluation team’s primary findings included the following:</p> <ul style="list-style-type: none"> <li>• Liberia STCP management was weak at the national level but strong in the field;</li> <li>• The capacity of the Ministry of Agriculture has not been augmented to ensure the sustainability of support to farmers and school expansion.</li> </ul> <p>Project documents for a new phase of the Small Tree Crops Revitalisation Support Programme (IDA, 2012), with funding from the World Bank, estimate that a total of 4,900 tree crop smallholders are expected to directly benefit from the project, adding up to a total beneficiary population of around 26,000 (assuming 5.3 members per household on average). New plantings for the project will represent 18% of targeted acreage. In targeted counties, female-headed households holding cocoa, coffee, oil palm and rubber represent in average 15% of agricultural households.</p> <p>With regard to new plantings (only 18% of the targeted acreage), the project documentation states that it will take a proactive role to install women and youth as "new" cocoa/rubber farmers: the larger share (60%) of the new planting acreage would benefit primarily (min. 75%) to female-headed households and youth, while the remaining (40%) would benefit households holding insufficient tree crops in order to make their farm commercially viable. Based on these assumptions, the number of female-headed households and youth directly benefiting from the project is estimated at about 1,000 (20% of total direct beneficiaries).</p>
	<p><b>PALM OIL</b></p> <p>The latest iteration of the Small Tree Cops Revitalisation programme includes support to an outgrower scheme for Equatorial Palm Oil at their LIBINC plantation; the details of the implementation of this scheme are currently unclear. However, it will involve support to rehabilitating/replanting 600ha at smallholders’ farms and combine a grant element to finance the small tools package (rehabilitation) and fast yielding seedlings (replanting), and a long term credit to cover other inputs costs for replanting (fertilizers), while the farmer will contribute his/her labor to restore production or replant trees. The credit will be extended to smallholders by the concessionaire as in-kind. The project will finance the technical assistance provided by the concessionaire to smallholders as well as some farm access roads development (estimated at 20 km). With recent tensions between local communities and EPO which has culminated in a formal complaint to RSPO it is uncertain whether the project will be implementable at this site (UN, 2013).</p>
	<p><b>RUBBER</b></p> <p>Large-scale rubber plantations operating in Liberia include: Firestone – near Harbel, Margibi County; Liberia Agricultural Company (LAC) – near Buchanan, Grand Bassa County; Guthrie (now owned by Sime Darby) near Baha, Bomi County; Liberia Company (LIBCO) – near Cocopa, Nimba County; Salala Rubber Corporation – near Nienka, Margibi County; Cavalla (initially part of the Firestone concession) – near Harper, Maryland County; Sinoe Rubber Corporation (SRC) – near Greenville, Sinoe County. During the civil war, some of these plantations were abandoned or taken over by rebel forces. Poorly managed during that time, many plantations emerged from the civil war needing significant investment to restore operations. Firestone and LAC were relatively unscathed and have continued to be the two largest producers in the country, producing 3000-4000 and 2000 tons of rubber per month, respectively, in July 2007. In comparison, two smaller plantations - Guthrie and Cavalla –produced 4,000 tons each for the entire year of 2006 (Verite, 2013).</p> <p>Liberian rubber farmers are tied to concessions through contracts, although it is not clear from current evidence as to the proportion of farmers under contract or the structure of these. A case study by the IFC on the Salala Rubber Plantation gives some more details for that site (IFC, 2007):</p> <p>Salala provides in-kind support, technical assistance, and in some instances, credit to smallholder rubber producers.</p>

The company provides smallholders with 1,000 rubber tree stumps for every 20 metric tons of raw rubber they sell to the company. In 2010 this amounted to over 350,000 stumps. Salala has also provided additional inputs in-kind such as fertilizer, cutting knives, formic acid, rubber tapping containers, wires and rice for distribution to labourers (all at cost). Farmers have the option to pay in cash or on credit. When credit is extended to smallholders, repayment is deducted from the price they receive upon delivery of raw rubber to Salala. However, credit is extended only on a limited basis to suppliers who are reliable, long-standing partners because the company does not have enforcement mechanisms, such as contracts, to fall back on in the event a borrower does not pay.

Salala has also established a rubber tapping school. Through the tapping school, smallholder farmers receive quality improvement training and technical skills. Salala's quality enhancement team teaches farmers how to protect rubber from external contamination, for example, and shows them the correct ratios for mixing acid with wet rubber to make it congeal. Smallholders also receive guidance on how to tap rubber from a tree, when to tap it for the first time, how to build coagulation tanks, and how to organize tapping activities on a farm. Several hundred farmers have received agronomy support from Salala's quality enhancement team.

Support to smallholder rubber farmers is also proposed under the Small Tree Crops project with one concessionaire (SRC) and one large Liberian farm (MARCO) (IDA, 2012): Only high input models would be promoted. Under such models, each participating rubber farm would be developed according the same technical standards as the concessionaire/large estate. While farmers would provide their own labor, replanting and new planting would require the financing of inputs (high quality budded stumps, fertilizers) through a long term credit (approximately 10 to 12-year duration with a 7 to 8-year grace period during the immature period) and a start-up grant of US\$ 270 per hectare covering about 30 percent of total development costs until maturity, excluding labor. The grant would allow for reducing the credit requirement and therefore the debt exposure and related risks, for both the borrower (the participating farmer), the PFI and GoL. Land preparation costs could in some case be partially offset by the selling of old rubber trees for charcoal production or through the intervention of Buchanan Renewables (BR) Ltd., which fells old rubber trees on behalf of farmers/concessionaires and buys the stumps for producing rubber wood chips for export mainly to European markets.

As for the oil palm out grower scheme, the long term credit line financed by IDA would cover the planting/replanting input costs (exclusive of farm labor) for the duration of the project, after which the MoF/CBL committed to finance the remaining disbursements from its own resources. Credit disbursement to farmers would be in-kind through inputs provided by the rubber concessionaires/large estate. Costs of inputs delivered to participating smallholders (rubber stumps, fertilizers) would be built into each farmer account. Credit recovery would be ensured through deductions at source, by the concessionaire, from the sales proceeds of the rubber procured from smallholder borrowers, to be repaid progressively to the CBL (or the agreed PFI). The GoL would assume the foreign exchange risk and the larger share of the credit risk, the PFI assuming the remaining credit risk.

#### **COFFEE**

The sole support to Coffee and Cocoa smallholders appears to be through the STCRSP (IDA, 2012) The project will adopt a value chain approach with investments in all steps of the cocoa and coffee value chains (production, storage, bulking, processing, financial products development, etc.) that will facilitate cocoa and coffee Farmer Organisation's certification (FLO, Rain forest, UTZ Certified) and access to preferential markets. It will be implemented in about six districts in three of the country's main cocoa/coffee producing counties (Nimba, Bong, Grand Geddeh) and will target approximately 6,000 hectares of cocoa (5,000 hectares of rehabilitation; 1,000 hectares of new planting) and 1,500 hectares of coffee farms (rehabilitation). Cocoa would be rehabilitated according to two different models: medium and high input. Both models encompass the use of pesticides, whereas the high input model also provides for the use of specialized cocoa fertilizer to boost production. The project would support: (i) selection of potential beneficiaries, including carrying out family/community land use rights validation, and for new planting, assisting smallholders in boundary demarcation and land surveying; (ii) co-financing agricultural inputs for

	farm development through start-up grants; (iii) establishment and strengthening of FOs at section, clan and district levels and enhancing their abilities to provide services to their members (quality promotion, storage, bulking, and primary processing); (iv) the capitalization of cocoa/coffee FOs through equity matching grants; (v) facilitating cocoa/coffee smallholders' and their FOs' access to adapted financial services; and (vi) rehabilitation of feeder roads (indicatively, 50 km in total).
	<b>COCOA</b> See above
Managed farmer groups	<b>Is this model found in this crop production?</b> <b>Yes, no; rough estimate about %</b>
	<p><b>OIL PALM</b></p> <p>With concerns over the productive capacity of smallholders, this had been mooted as the favoured model by some of the recently signed Oil Palm concessionaires in Liberia. However, this model is currently not yet implemented in any form in Liberia for palm oil.</p> <p>In the context of new oil palm development the distinction between independent and supported smallholder is important. Independent smallholders are defined as self-organized and self-financed groups that have the freedom to choose how they use their land, which crops to cultivate, and are not bound by any particular mill or association. Supported smallholders are defined as entities that are structurally bound by contract, credit agreement, or planning to a particular mill and are often not free to choose which crop to grow (Pesqueira &amp; Glasbergen, 2013). In the context of the recent Liberian contracts between the government and palm oil plantation companies, Supported Smallholders are referred to as Outgrowers.</p> <p>All recently signed oil palm concession agreements require companies to support the development of Outgrower schemes and combined these could cover an area of up to 100,000 ha. However the specific form which these take is yet to be decided and could range from supported schemes that include written contracts guaranteeing sales and price through to a collective land scheme by which communities (identified by the state) receive a share of profits based on the equity value of land that has been rented to a plantation company. Importantly all concession contracts leave the impetus for Outgrower development with the Government of Liberia, which may lead to slower progress on this front than is hoped for by some parties.</p> <p>The Outgrower programs of recent concession agreements promise to be the best channel of support from multi-national companies to rural development in terms of technology transfer and market access. But responsibility for leading the development of these schemes lies with the Government of Liberia which is yet to make any notable progress in this regard.</p>
	<b>RUBBER</b> Lack of Data for managed farmer groups
	<b>Cocoa</b> No
	<b>COFFEE</b> No
Government support or policy	<b>Is there any specific government support or policy specifically for smallholder production?</b> <b>If so, please describe how and what.</b>
	Historically, agricultural development in Liberia was dominated by the policy to attract foreign investment, to establish rubber and then timber concessions. Foreign exchange earnings and employment undoubtedly contributed to growth but the trajectories of individual tree crops was determined by the nature of the holdings (smallholder versus concession or plantation) and the

vulnerability of each sector to cyclical prices induced the government to seek to diversify production and install parastatal arrangements. (IITA, 2008).

Support to Smallholders in Liberia has been an oft stated goal of the Government of Liberia and donors. However, since the cessation of the conflict there is yet to be a significant increase in any export commodity. For example the Ministry of Agriculture's Food and Agriculture Policy and Strategy (2008) states the following policies:

#### Oil Palm Policy

- Increased production and productivity of palm oil, especially among smallholders, to facilitate rapid increase in rural incomes, employment, export earnings and public revenues;
- Enhancing Liberia's preparedness as an exporter in the oil palm sector, based on its comparative advantage in production, strategic location and the rising demand for Oil Palm in the world;
- Increasing foreign exchange, job creation, income generation and widening the revenue base in the industry through value addition and other interventions.

#### Rubber Policy

- Rehabilitation and revitalization of the rubber sub-sector, taking into consideration the current global demand for rubber and opportunities for local value addition, to raise incomes and improve livelihoods for large numbers of smallholders of the crop;
- Ensuring that rubber is used as a means of transitioning the mass of subsistence farmers into commercial agriculture via out-grower schemes.
- Encouraging downstream activities through use of appropriate investment incentives.

#### Coffee and Cocoa Policy

- Increased production and productivity of Coffee, Cocoa, and Oil Palm in order to add to rapid increase in rural incomes, employments, export earnings and public revenues;
- Enhancing the participation, particularly competitiveness of small scale - private sector agents, in processing and other value addition activities and marketing via support to small holder schemes.

The new STCRP project would indicate that there is an attempt to break the deadlock that has arisen between the private sector and the state for the establishment of oil palm smallholder schemes.

The Liberia Produce and Marketing Commission pricing policies prior to the conflict has been cited as a significant limiting factor to smallholders, particularly for coffee and cocoa (IITA, 2008). The LPMC monopoly marketing and pricing policy was established in the LPMC law: "the LPMC will buy produce...and pay prices to producers, fixed periodically on the basis of world market prices after deducting expenses for freight, insurance, handling, warehousing, shipping, and any other charges incurred (i.e., Government inspection fee) and 10 percent of the fob value to cover overhead expenses and remuneration." (IITA, 2008).

Export and purchase price data during the 1970s show that the price paid for these crops reflected changes in world market prices, but that the margin between the export and purchase prices for coffee and cocoa is wider than that of palm kernels, and for a number of years the purchase price was 50% less than world market price. (IITA, 2008)

Whilst the LPMC passed on changes in world prices, the purchase prices were in fact fixed buying prices for designated agents; the actual farm-gate prices were discounted further by 47 traders' margins and local transport costs. Moreover, LPMC's high management and administration overhead costs, and profit margins, have been criticized. Though there had been a disincentive effect insofar as the LPMC had kept farmgate prices low in relation in world prices, the smallholder response was to increase the harvested area during the 1980s.

According to Pay-Bayee (2005), "when LPMC resumed operation in 1997/98 it could not operate through the established channels – cooperatives to farmers. Additionally, in the face of deterioration of its own facilities – storage, burners, graders, etc – as well as extreme financial

	<p>difficulties, its functions were reduced to “regulatory” activities, and it could neither purchase nor export cocoa. With the near demise of LPMC, there are five exporters of cocoa, the extent to which LMPC collaborates or even oversees the operations of these businesses is not clear. In 1990, Liberia’s membership with the ICCO was suspended, and the exports of cocoa and coffee were de facto transferred to Lebanese and other business houses. Presently, there are five such exporters, each with several agent/buyers and subagents (IITA, 2008)</p> <p>The LPMC continues to regulate prices, particularly for cocoa. Minimum buying prices are agreed at the beginning of each harvesting season between licensed exporters and the LPMC (for example US\$ 1.7 per kg for Grade I cocoa in 2010-11). (IDA, 2012).</p>
<p>Pressing Issues</p>	<ul style="list-style-type: none"> <li>• Provide a brief description if and how smallholder production is organised for each crop.</li> <li>• What are the main pressing issues?</li> <li>• Any pressing social or environmental related issues in smallholder productions?</li> <li>• Is the government involved or facilitating?</li> <li>• Interesting case studies or lessons learned that can be presented?</li> </ul>
	<p><b>CROSS-COMMODITY</b></p> <p>Many informal farmer groups exist and are primarily focusing on farm labour exchange. There are few formal Farmer Organisations involved in marketing, quality promotion and providing linkages with buyers and financial institutions. Strengthening their capacities would be of paramount importance, particularly for the cocoa and coffee value chains where no strong private players with processing capacity exist, as is the case in the rubber and oil palm sectors.</p>
	<p><b>PALM OIL</b></p> <p>Issues and Constraints identified by the Liberia Ministry of Agriculture in 2008 remain (Liberia Ministry of Agriculture, 2008):</p> <ul style="list-style-type: none"> <li>• Most of the palm trees are old and of outdated varieties. As a matter of urgency, there is a need to rehabilitate existing plantations and introduce newer varieties;</li> <li>• Actors in the inputs markets (seedlings, fertilisers, pesticides) are inadequate and insufficient to address the inputs needs in the Oil Palm sector;</li> <li>• Value addition is limited to primary processing into Crude Palm Oil, the oil extraction rate from a fresh fruit bunch varies from 17 to 27% for palm oil (FAOSTAT) and can be assumed that with current production methods Liberia producers would be at the lower end of this scale;</li> </ul> <p><b>Variety of Oil Palm under production</b></p> <p>Important distinction between the production of Dura palm oil by smallholders which is favoured by local markets as opposed to the plantation Tenera hybrid which will be planted by all concessions and whatever configuration of smallholder is selected.</p> <p><b>Access to mills (for any scale of production)</b></p> <p>Processing oil palm kernels into palm oil is a laborious process with artisanal methods. Even, if the village has a dedicated processing area where a drum of kernels can be pounded, boiled, and cleaned, the process takes a full day to complete with several individuals working at the same time.</p>
	<p><b>RUBBER</b></p> <p>A series of issues and constraints were identified by the Liberia Ministry of Agriculture in 2008 (Liberia Ministry of Agriculture, 2008):</p> <ul style="list-style-type: none"> <li>• Uncertainty over ownership and governance has affected tree crop plantations in terms of attracting new investment needed to replant and re-install processing capacity;</li> <li>• Many subsistence farmers are replacing coffee with rubber and planting new trees on public or disputed land in an effort to establish de-facto ownership;</li> </ul>

	<ul style="list-style-type: none"> <li>• Most of the trees on both private farms and foreign owned concessions have reached or are nearing the end of their productive life, and need to be replaced;</li> <li>• While the large rubber concessions have maintained production from their old tree stocks, production from privately owned farms has drastically fallen because many were either cut down to produce charcoal or severely damaged by “slaughter tapping” techniques which were used by occupying fighters;</li> <li>• Rubber stocks on most of the small farms on which the majority of the newly planted rubber can be found consist of unimproved germ plasm in contrast to industrial estates; and</li> <li>• Value addition is limited to primary processing of latex and coagulum, except for rubber wood for which a processing facility was recently established</li> </ul> <p>See Annex 1 for further constraints in the rubber value chain.</p>
	<p><b>COCOA</b></p> <p>Ensuring adequate cocoa fermentation, drying, storage and transport are key features to maintain cocoa beans quality. Support provided so far demonstrated that farmers can produce a large share (over 90 per cent) of grade I cocoa when applying proper fermentation and using solar drying. However, quality deterioration often arises in later steps of the value chain, particularly at storage (inadequate warehouses) and during transport (when cocoa bags are not well protected against rain). Moreover, Liberian cocoa beans have long been discounted for lower quality on the international market (discount of GBP 100 per ton) or were sold as Fair Average Quality (FAQ). This situation is slowly changing. Some exporters are making efforts to promote quality. As a result of training and international prices awareness, calculations show that farmers supported by the above-mentioned projects or NGOs receive about 60% of the cocoa international price, which is quite standard in the industry. (IDA, 2012)</p> <p>The IITA has provided a detailed set of constraints to smallholder cocoa farmers, these are listed in Annex 2.</p>
	<p><b>COFFEE</b></p> <p>Constraints to Coffee farmers are similar to those of Cocoa farmers and have remained practically unchanged since the cessation of conflict. E.g. Farmers are hindered by a deficient transportation structure, lack of knowledge concerning prices and quality standards, limited credit resources and legal protection from corruption and fraud (Pay-Bayee 2005).</p>

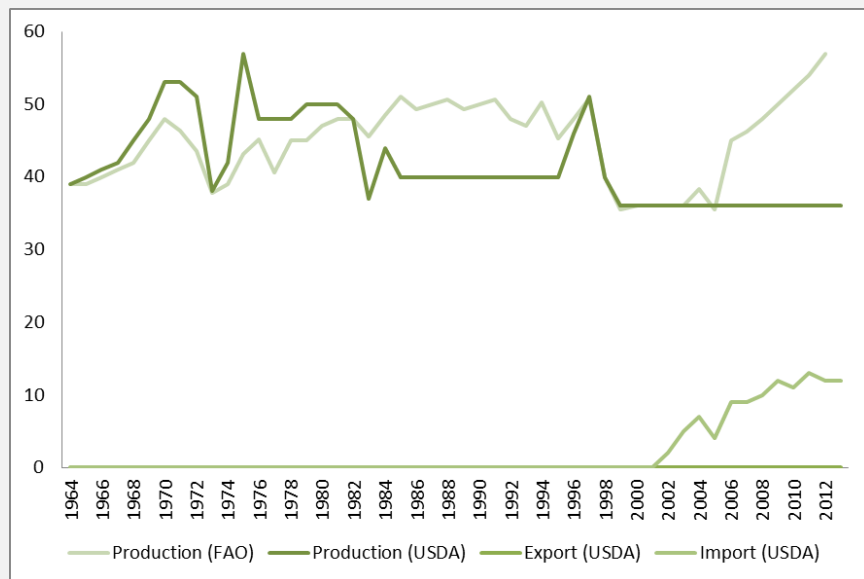
### 3. Overview of findings on the analysis of smallholder models Sierra Leone

Key export crops that are produced in Sierra Leone are cocoa, coffee, oil palm, ginger and cashews. In the sixties and seventies Sierra Leone was a major exporter of Cocoa, Coffee, oil palm kernel, rice and piassava. Exports in all agricultural commodities were severely impacted by the 11 year civil war which ended in 2002. Since then there has been a modest recovery in exports, driven by donor aid and private investment (Government of Sierra Leone, 2010b).

Production trend

- Describe the trend in commodity production in the country.
- What is the current production level, and is it projected to increase, decrease, or remain stable?
- If available, present info on how much?

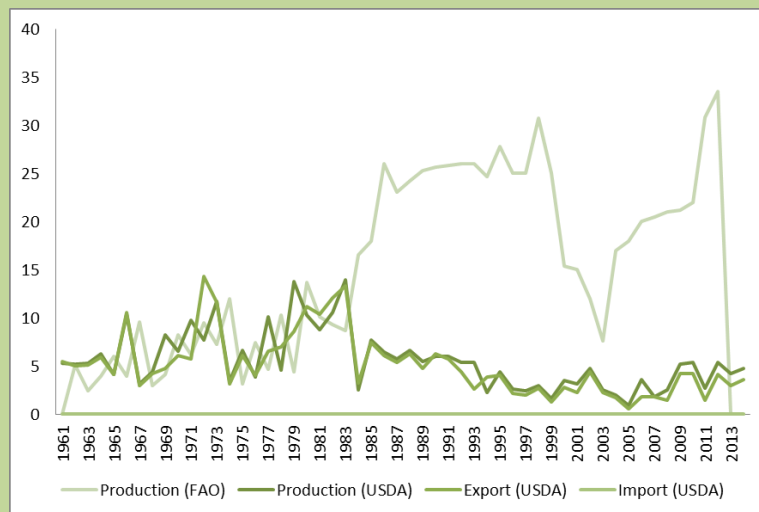
#### OIL PALM



Pre-war Sierra Leone exported Palm Oil to the EU and US. The estimated area of land under palm oil production varies widely from 50,000 ha (Government of Sierra Leone, 2010a) to 232,000ha (ALLAT, 2013). Plantation palm oil is thought to cover 20,000ha (Government of Sierra Leone, 2010b). In 2012 production of Crude Palm Oil was estimated at 57,000MT with an additional 12,000MT of imports (FAOSTAT).

From the early sixties on to the mid-eighties, a total of 13 oil mills were established in the country to process oil palm fruits for the estates and outgrowers. None of these mills are currently operational and processing is done using smallholder equipment and traditional processing methods. There is a privately owned functional palm kernel mill at Wellington which processes palm kernel oil and palm kernel cake for animal feed and soap production (Government of Sierra Leone, 2010b).

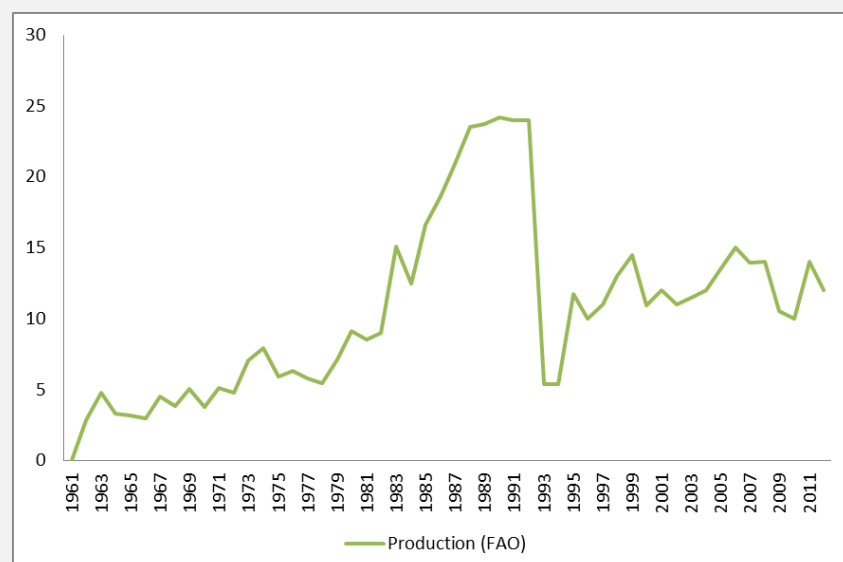
## COCOA



In the pre-war years, exports of Cocoa reached 12,000 MT. With an export value of \$11.36m Cocoa accounted for 85% of agricultural earnings in 2007 (Government of Sierra Leone, 2010a). Diverging from FAO and USDA figures Government estimate for Cocoa production were 18,000 mt in 2008 (Government of Sierra Leone, 2010b).

Cocoa is grown extensively in the Eastern Province of Sierra Leone using mostly the low yielding Amelonado varieties which are over 60 yrs old. Cultivation is done mainly by small holders and during the war period, many of the estates were neglected which affected production levels and the quality of produce exported. In 2004 it was estimated that 149,000 ha was under Cocoa cultivation (ALLAT, 2013). In 2010 it was estimated that 25,000 ha of cocoa needs to be replanted and 17,000 ha can be rehabilitated (Government of Sierra Leone, 2010b).

## COFFEE



Coffee is largely grown in the Eastern Province and parts of the Southern Province of Sierra Leone. Although levels of production are recovering these are still below those of pre-war levels. In 2004 an estimated 344,000ha of land was under Cocoa cultivation (ALLAT, 2013), with production at 12mT per annum in 2011 (FAOSTAT).

	<p><b>OTHER:</b></p> <p><b>Cashews</b></p> <p>In 2005, about 3,600 hectares of cashew trees existed, mostly in the Northern and Western parts of the country. At this time production levels were estimated at 500 mt (DTIS, 2005) and were predicted to increase to c. 600 mt by 2010. In 20120 the Sierra Leonean Government launched an initiative to promote cashew cultivation country wide through a public-private partnership in which over 300,000 planting materials have been distributed to farmers and small holders around the country for cultivation. However, there are currently no exports of raw or processed cashew as sufficient volumes have not been produced to warrant exports or investments in processing (Government of Sierra Leone, 2010b)</p> <p><b>Ginger</b></p> <p>Ginger production started in Sierra Leone in the 1930's. It is a traditional spice crop grown in the south and northern regions of the country notably in Moyamba and Kambia Districts. Quite recently ginger production has spread to parts of Tonkolili, Port Loko and Bombali Districts. From the mid-thirties unto the late seventies, Sierra Leone was a leading producer and exporter of ginger to the United Kingdom (UK). However, between the eighties and 2000, ginger production fell considerably. Between 2003 and 2004, ginger production was revived in the country by the Ministry of Agriculture Forestry and Food Security (MAFFS) resulting in the export of c. 40mt of ginger to the Netherlands for the first time since 1984 (Government of Sierra Leone, 2010b).</p>
<p>Independent smallholders</p>	<ul style="list-style-type: none"> <li>• Is this model found in this crop production? Yes, no and rough estimate about %</li> <li>• What are some of the characteristics of this model in the region</li> <li>• What components of this model have worked well?</li> <li>• What have the identified challenges been</li> </ul> <p>Smallholder crop and livestock production in Sierra Leone is at the moment mostly operating at subsistence level. Farm-size generally ranges from 0.5 to 2.0 ha. Bush fallow farming predominates in the rain fed (upland) areas. It is estimated that this type of agriculture occupied 60 percent of the arable land. Traditional upland bush fallow farming is characterized by short periods of land cropping (one to three years) using restored soil fertility alternating with long fallow periods; heavy manual labour; and mixed and sequenced planting of 5 to 15 different crops (Government of Sierra Leone, 2011).</p>
	<p><b>OIL PALM</b></p> <p>Yes, as with Liberia Palm Oil is produced extensively in Sierra Leone and is the source of cooking oil for most households. It is grown in all districts with the majority of production for subsistence or local trade.</p> <p>In the seventies, high yielding Tenera hybrids were introduced in estates and among smallholders. The oil palm estates have largely reached the end of their useful economic life and there is need for replanting of the oil palm estates. The eleven year civil war also resulted in the neglect of the oil palm estates and numerous smallholdings around the country and consequently a drop in oil palm fruit yields and palm oil and kernel nut production. Fresh Fruit Bunch extraction rates should be assumed to be low at c. 17%</p> <p>Many of the oil palm estates have reverted to the land owners who do not have the resources to rehabilitate and manage them. However there is an increasing number of international companies beginning plantation development which include: SOCFIN – 6500ha (<a href="http://www.socfinal.lu/">www.socfinal.lu/</a>), Sierra Leone Agriculture Ltd (41,000ha), Geoff Palm (<a href="http://www.geoffpalm.com">www.geoffpalm.com</a>) and African Lion Agriculture Ltd (<a href="http://www.rspo.org/en/member/3237/african-lion-agriculture-limited">http://www.rspo.org/en/member/3237/african-lion-agriculture-limited</a>). As with concessionaires in Liberia these companies have faced national and international criticism (ALLAT, 2013; The Oakland Institute, 2011). One extreme situation took place in the Malem Chiefdom where landowning families have protested since 2011 against SocFin (leasing 6,475 ha for oil palm and rubber). Locals claim not to have been informed nor participated in any of the negotiations for the 50 year lease which has been agreed (JRC-IPTS, 2012).</p>

	<p><b>COCOA</b></p> <p>In Sierra Leone, cocoa bean is grown on 148,665 ha mainly in the Eastern Region. 53,401 ha are planted in Kailahun, 36,364 ha in Kenema and 36,437 in Kono. Cocoa bean yields are reported to be between 100 - 200 kg/ha in 2004. Cocoa covers the smallest area under cultivation with less plantation area than coffee (344,658 ha) or oil palm (232,912 ha). Before the war, the production was above 20,000 t per year. After a severe depression during the time of civil unrest and war, the production has recovered to 19,000 t in 2009 (GIZ, 2012).</p>
<p>Supported smallholder groups</p>	<p>Is this model found in this crop production? Yes, no, rough estimate about %</p> <p>In Sierra Leone, around 5 percent of all farmers have currently access to inputs (fertilizers, improved seeds, etc.). Agro-processing is also largely underdeveloped in the country, and is rarely managed by farmers or farmers' organizations. Marketing/commercialization is also hampered by: (i) the low quality and standardization of farmers' products; (ii) rare formal contracts between farmers/FBO and the private sector, (iii) scarce technical and economic support to farmers/FBOs; (iv) poor Infrastructure (storage, roads) (Government of Sierra Leone, 2011).</p> <p>As with Liberia the majority of support to smallholders currently comes from donor funded projects as opposed to private sector projects. For example, the Smallholder Commercialisation programme (SCP) will support Smallholder farmers with less than 2 hectares and experiencing severe hunger period and food insecurity (<a href="http://www.gafspfund.org/content/sierra-leone">http://www.gafspfund.org/content/sierra-leone</a>). They will receive productive packages including seeds and fertilizers, as well as training, extension services, and enhanced access to storage facilities, to credit and to market. The main mechanisms to channel this support and build their capacities will be the grassroots farmer-based organizations. This project envisages that these FBOs will represent their interests and increase their bargaining power (Government of Sierra Leone, 2011). In a similar project design to the STCRSP in Liberia the SCP aims to rehabilitate 10,000ha of tree crops (cocoa, coffee and oil palm).</p> <p>The SCP will also implement a set of models: Agro dealer Model (40 dealers established to provide inputs to at least 10,000 smallholder farmers); Contract Farming (rehabilitation of 3,800ha cocoa, 1,200 ha coffee and 3000 ha oil palm) – only smallholders would be targeted and organised through Farmer Based Organisations.</p>
	<p><b>PALM OIL</b></p> <p>Two private sector companies operate with a significant smallholder component:</p> <p>Goldtree, is based on a primarily outgrower model of 30,000ha of existing mature smallholder oil palm plantings with a nucleus estate of 800 ha. This is not a stipulation of contract as per the Liberian context there are plans for expansion of the plantations. In 2012 a new 20-30 tonne per hour processing mill at Daru was completed. The mill also has a palm kernel oil extraction plant and a packaging and packing plant a central management and outgrower support function (further detail is required from the company on the forms of support that are given to smallholders).</p> <p>Ned Oil Ltd, based in Yele operates a 3MT per hour Palm Oil mill which was established in 2008. This directly employs 50 staff and has a nucleus farm of 62ha. The bulk of Oil Palm fruits (98%) come from 1040 supported smallholders that are located within a 10 mile radius of the mill. Ned Oil provides seedlings, training and interest free loans (repayable in a year term) to smallholders. Loans are repaid through a direct 30% deduction from any sales made by smallholders to the mill. Further CSR support is provided through road maintenance and a farmers health programme (Ned Oil, 2012).</p> <p>In addition a firm based in the Netherlands, Natural Habitats, which currently has operations linked to small holder palm oil in Ecuador (and receiving support from Solidaridad) has shown interest in establishing supported smallholder palm production in Sierra Leone. The Sierra Leonean project is currently in a pre-assessment phase (<a href="http://www.natural-habitats.com">www.natural-habitats.com</a>).</p>

	<p><b>COCOA</b></p> <p>The SPC (2011) highlights two private sector Implementing Partners were contracted by the Rehabilitation and Community-based Poverty Reduction Programme (RCPRP) to organise and supervise the rehabilitation work of smallholders and to provide support services: (i) Millennium Cocoa Growers Cooperative (MCGC), which was supported under the STABEX tree crops project implemented by Welthungerhilfe. MCGC is also reported to work closely with Dynagrow, a subsidiary of UK listed DynaCorp Investment Ltd (Dynagrow, 2013). Welthungerhilfe contributed to STABEX by training the farmers, supporting them in post-harvest handling, buying and marketing the harvest. MCGC has started exporting cocoa and coffee under the fair trade label; and (ii) BioUnited, an enterprise, which has successfully entered the cocoa market in Sierra Leone, efficiently organising 26,000 smallholder cocoa farmers and being the first in Sierra Leone to export organic cocoa to Europe. After rehabilitation, cacao yields were increased by 31 percent, the percentage of bad beans was reduced from 30 to 9 percent and the average income of the smallholder farmers increased by 81%.</p> <p>In 2008/09 Barry Callebaut supported Biolands' efforts to replicate its farmer-centric business model in Sierra Leone. Some 40,000 farmers registered to participate in the organic program under the established business entity Bio United till 2010/11. They were able to increase their yield from 290 tonnes of cocoa in 2008 up to 1,300 tonnes in 2009/10. Barry Callebaut's next goal is to increase the cocoa production by Biounited in Sierra Leone to 700 tonnes within the next year (AECF, 2011; Barry Callebaut, 2009).</p> <p>The two enterprises were able to pay the farmers substantially higher prices (25 percent) than "classical" traders. These higher prices generated an average increase of income of the households from cocoa and coffee by 81 percent between May 2008 (USD 236/measure) and October 2009 (USD 427/measure). The overall increase cannot be attributed only to project interventions but also to an increase in world market prices, from which the cacao producers benefited. The money paid to farmers has forced traders to increase their prices in project supported villages. The return from labour for cocoa was USD3.50/man day and for coffee USD1.50.</p>
<p>Managed farmer groups</p>	<p><b>Is this model found in this crop production?</b>  <b>Yes, no; rough estimate about %</b></p> <p>Currently there is no evidence of this model for any of the three commodities under consideration.</p>
<p>Government support or policy</p>	<p><b>Is there any specific government support or policy specifically for smallholder production? If so, please describe how and what.</b></p> <p>The Government of Sierra Leone's "Agenda for Change" makes several relevant broad commitments (Government of Sierra Leone, 2010a):</p> <p><b>Increasing agricultural productivity</b> (intensification and diversification), in particular among the rural poor smallholders, who constitute the poorest segment of society, through a variety of support measures along the entire agricultural value chain, from pre-planting to marketing. This will include: the use of agricultural equipment; the establishment of supply chains for inputs such as fertilizers, integrated pest management and high yielding seed varieties; irrigation facilities; and the enhancement of agro-processing marketing and distribution.</p> <p><b>Promoting commercial agriculture</b> through private sector participation: Commercial agriculture will be promoted by creating an enabling environment that is attractive for the private sector to invest. Post-harvest storage facilities will be facilitated in the form of storage, drying floors, rice mills, threshers, animal feed mills and abattoirs through loans and cost-sharing arrangements. Access to rural credit will be improved through establishment of community banks and financial services associations. Feeder roads and community markets will be rehabilitated and/or constructed to facilitate movement of goods to market places. Farmer-based organizations are to</p>

	<p>be reformed and trained in order to build their capacity to engage in commercial agriculture and link to the market economy.</p> <p><b>Improving agricultural research and extension delivery systems:</b> National Agricultural Research and Extension policies, strategies and programmes are to be formulated within one year. Implementation of these will improve the quality of extension services provided to farmers and therefore allow them to improve their productivity.</p> <p><b>Promoting efficient and effective sector resource management systems,</b> including the establishment of a database for agricultural statistics as well as creating a sector coordination mechanism, in order to strengthen sector policy formulation, planning, monitoring and evaluation, and resource management.</p> <p><b>Mainstream cross-cutting issues in agriculture:</b> Workshops and sensitization campaigns will be held in order to educate farmers about important issues such as self-sufficiency (e.g. no dependency), gender, youth employment, farmer health (including HIV/AIDS) and environmental sustainability.</p>
Pressing Issues	<ul style="list-style-type: none"> <li>• Provide a brief description if and how smallholder production is organised for each crop.</li> <li>• What are the main pressing issues?</li> <li>• Any pressing social or environmental related issues in smallholder productions?</li> <li>• Is the government involved or facilitating?</li> <li>• Interesting case studies or lessons learned that can be presented?</li> </ul>
	<p>CROSS-COMMODITY</p> <p>Strongly echoing the issues detailed for Liberia, challenges to the agriculture sector that were identified in the Sierra Leone National Agriculture Development Plan 2010-2010 included the following:</p> <ul style="list-style-type: none"> <li>• Expert Crisis;</li> <li>• Declining Soil Fertility;</li> <li>• Low Technological input;</li> <li>• Poor Agricultural Infrastructure;</li> <li>• Lack of Value Chain addition;</li> <li>• Input and output marketing;</li> <li>• Access to finance/credit;</li> <li>• Structure of farmers based organisations; and</li> <li>• Access to land.</li> </ul>

## **4. Review of African Case Studies for Existing Smallholder Models/Projects**

Referenced case studies are detailed in the table overleaf. Of those reviewed, fifteen were found to meet one or more of the following 5 SHARP objectives:

- Increase Yields,
- Empowerment,
- Sustainable Livelihoods,
- Market Integration; and
- Environmental Benefits.

A significant gap in the projects and models that were included in the Africa review was a rigorous link to environmental as well as economic sustainability.

Of all cases reviewed robust examples for the West African region were lacking in comparison to those for southern and eastern Africa. Of the cases, 7 used contracts on engagement with smallholders and 8 were reliant on donor funds over a limited time period. A notable example is the Nununa Federation of Women Shea Butter Producers in Burkina Faso which merged multiple co-operative groups into a member-shareholder federation.

Only three of the case studies, which had a climate/carbon finance element, included incentives not to deforest or had an explicit link to improved environmental stewardship. Two of these projects were in Ghana with the third in Kenya. The Ghana cases, particularly the Rainforest Alliance TREES programme requires further investigation by the SHARP programme.

These findings underline the important role that the SHARP programme will be able to fill in developing implementable models that include more explicit linkages within smallholder schemes to environmental management.

#	Project	Country	Type	Components		Barriers		Types of Solution	Incentives to produce sustainably		Forms of Incentives	Reference(s)
1	Potatoes for Nando's in Kampala, Uganda	Uganda	Contract	Increase Yields	Y	Poor production technologies and agronomic practices and therefore low yields	Y	Support given to farmer groups by CIAT to improve consistency of potato quality	Incentives not to deforest	N		Aliguma, L., Magala, D., & Lwasa, S. (2007). Regoverning Markets - Small-scale producers in modern agrifood markets: The case of the Nyabyumba United Farmers Group in Kabale district.  ODI. (2013). Leaping & Learning Case Studies.
Empowerment				N	Limited access to training	Y	Improvement to production was via pre-existing farmer field schools	Premium price for certified products	N			
Sustainable Livelihoods				N	Lack of awareness of environmental benefits/ deforestation issues	N		Access to certain benefits	N			
Market Integration				N	Limited or no access to loans/finance	N		Funding	N			
Environmental Benefits				N	Access to market information and prices	Y	Direct trading relationship was established with Nandos restaurants in Kampala – founded on initial market chain analysis		N			

2	High-quality Coffee	Rwanda	Donor Supported	Increase Yields	N	Poor production technologies and agronomic practices and therefore low yields	Y	Donor support for the distribution of inputs, supporting associations, replanting coffee and construction of wet-mill stations - these offered both jobs (4000) and essential in the production of speciality grade coffee.	Incentives not to deforest	N	<p>Jones, C., &amp; Webber, M. (2010). Value Chain Strategies for Market Repositioning - Rwandan Coffee. In Building Competitiveness in Africa's Agriculture: A Guide to Value Chain Concepts and Applications (pp. 105–138).</p> <p>ODI. (2013). Leaping &amp; Learning Case Studies.</p>
Empowerment	N	Limited access to training	Y	Technical assistance and training provided by international donors alongside the implementation of government "National Coffee Strategy"	Premium price for certified products	N					
Sustainable Livelihoods	N	Lack of awareness of environmental benefits/ deforestation issues	N		Access to certain benefits	N					
Market Integration	N	Limited or no access to loans/finance	N		Funding	N					
Environmental Benefits	N	Access to market information and prices	Y	No overcome low national export prices (below cost of production in 2001) this initiative sought to shift coffee production from bulk commodity to speciality grade; Quality control measures introduced; promotion of the Rwandan brand internationally		N					

3	AGRA Breadbasket Programme	Ghana	Donor Supported	Increase Yields	N	Poor production technologies and agronomic practices and therefore low yields	Y	Fertiliser and quality seed purchased through Agri-dealers (with credit enabled by NGO); Agro-dealers trained by AGRA to expand reach	Incentives not to deforest	N	ODI. (2013). Leaping & Learning Case Studies.
				Empowerment	N	Limited access to training	N		Premium price for certified products	N	
				Sustainable Livelihoods	N	Lack of awareness of environmental benefits/ deforestation issues	N		Access to certain benefits	N	
				Market Integration	N	Limited or no access to loans/finance	Y	Farmers required to have >1ha land to access credit facilities; AGRA is guarantor for bank loans; inputs paid for at harvest time; payment in kind accepted; if low yields AGRA forego payment	Funding	N	
				Environmental Benefits	N	Access to market information and prices	N	AGRA partnered with SFMC and other agro-purchasing ventures to enable farmers to access better prices		N	
4	One Acre Fund - maize and beans	Kenya	Contract	Increase Yields	Y	Poor production technologies and agronomic practices and therefore low yields	Y	Inputs provided under contract to farmers. Tripling of maize yields reported in some locations.	Incentives not to deforest	N	ODI. (2013). Leaping & Learning Case Studies.
				Empowerment	Y	Limited access to training	N	Farmer groups are formed around women's groups (250 per group - local field officer assigned to each group; 20 field officers report to field manager; field managers report to District manager)	Premium price for certified products	N	
				Sustainable Livelihoods	N	Lack of awareness of environmental benefits/ deforestation issues	N		Access to certain benefits	N	
				Market Integration	N	Limited or no access to loans/finance	Y	NGO provides start-up costs and funds expansion (no exit strategy)	Funding	N	
				Environmental Benefits	N	Access to market information and prices	N	Concentrates on household production		N	

5	Blue Skies Pineapples and 'joint effort enterprise'	Ghana	Contract	Increase Yields	Y	Poor production technologies and agronomic practices and therefore low yields	Y	Farmer training and improved inputs through a farmer cooperative of 80 farmers; Equipment and inputs paid through interest-free hire purchase scheme	Incentives not to deforest	N		Vermeulen, S., & Cotula, L. (2010). Making the most of agricultural investment: A survey of business models that provide opportunities for smallholders. IIED.  ODI. (2013). Leaping & Learning Case Studies
Empowerment	N	Limited access to training	Y	see above	Premium price for certified products	Y	Blue Skies (agro-processing company) funded certification (GlobalGAP, Soil Association Organic & Fairtrade); higher price offered and farmers under contract					
Sustainable Livelihoods	N	Lack of awareness of environmental benefits/ deforestation issues	N	Access to certain benefits	Y	Funds from Fairtrade plus, Blue Skies and a Dutch retailer funded boreholes in co-operative villages						
Market Integration	N	Limited or no access to loans/finance	Y	Blue Skies do not offer access to credit for smallholders but do pay price premium and more promptly than other buyers	Funding	N						
Environmental Benefits	N	Access to market information and prices	Y	Poor level of information available on prices -		N						

6	Small-scale Cashew Processing plants	Mozambique	Independent	Increase Yields	N	Poor production technologies and agronomic practices and therefore low yields	Y	Introduction of small-scale semi-mechanised processing units for cashews that enable direct export which has given a higher price to small-holders (compared to exporting unprocessed nuts)	Incentives not to deforest	N	Chipembere, A. R., Reilly, C. O., & Laumans, Q. (2010). SNV Case Study: Cashew for Higher Income and Improved Living Conditions in Mozambique's Rural Areas.  ODI. (2013). Leaping & Learning Case Studies.
				Empowerment	N	Limited access to training	N		Premium price for certified products	N	
				Sustainable Livelihoods	N	Lack of awareness of environmental benefits/ deforestation issues	N		Access to certain benefits	N	
				Market Integration	Y	Limited or no access to loans/finance	N		Funding	N	
				Environmental Benefits	N	Access to market information and prices	Y			N	
7	Agribusiness Cluster	Rwanda	Donor Supported	Increase Yields	N	Poor production technologies and agronomic practices and therefore low yields	N		Incentives not to deforest	N	ODI. (2013). Leaping & Learning Case Studies.  Schrader, T. (2009). Rwanda Rural Entrepreneurship Promotion Initiative (IPER): experiences, lessons and challenges.
				Empowerment	N	Limited access to training	Y	Training provided for business plan development = 20 producer organisations accessed €1,000,000	Premium price for certified products	N	
				Sustainable Livelihoods	N	Lack of awareness of environmental benefits/ deforestation issues	N		Access to certain benefits	N	
				Market Integration	N	Limited or no access to loans/finance	N		Funding	N	
				Environmental Benefits	N	Access to market information and prices	Y	Enabling information sharing between trainers who work with groups of farmers to improve production, access to inputs and finance (i.e. Improving the quality of extension/farmer support services); Project supports the development of supply-chain 'clusters' working through facilitators from local NGOs and organising workshops with actors along the supply chain to identify issues and solutions		N	

8	Service Provider and Producer Organisation	Togo	Contract	Increase Yields	Y	Poor production technologies and agronomic practices and therefore low yields	Y	SN partnered with Togolese agricultural research institute (ITRA) to certify seeds, give technical support to smallholders	Incentives not to deforest	N	ODI. (2013). Leaping & Learning Case Studies.  Pernot, M., & Romémont, A. De. (2007). Regoverning Markets - Small-scale producers in modern agrifood markets: Promoting service provider and producer organisations : A case study of Soja Nyo.
Empowerment				N	Limited access to training	Y	ITRA gives training in quality procedures	Premium price for certified products	N		
Sustainable Livelihoods				N	Lack of awareness of environmental benefits/ deforestation issues	N		Access to certain benefits	N		
Market Integration				Y	Limited or no access to loans/finance	Y	SN granted VAT exemption by the Government; Seed provided to farmers on credit by SN	Funding	N		
Environmental Benefits				N	Access to market information and prices	Y	Soja Nyo (SN), a service provider and producer organisation, created to include smallholders in Soya supply chain; Small-holder organised into 'Tontines' that negotiate annual contract prices with SN on behalf of the membership (c. 15 farmers per Tontine); contracts are not legally binding Tontines that underperform are removed from the project and good performers receive small bonuses; shares of SN are distributed amongst staff (30%), Tontines (23%) and CIDR (47%)		N		

9	Nununa Federation of Women Shea Butter Producers	Burkina Faso	Co-operative	Increase Yields	N	Poor production technologies and agronomic practices and therefore low yields	Y	Nununa Federation formed through the merging of existing smaller co-operative groups through the interest of L'Occitane in bulk purchasing. A result 6 producing centres were built for Shea butter production which rose from 8 to 300 tonnes. Production centres reduced the members costs and these improvement were in parallel with the construction of a shea butter processing plant	Incentives not to deforest	Y	Shea is an indigenous tree	Konate, L. (2012). SNV Case Study - Creating Competitive Market Models Burkina Faso: the case of Nununa Women's Shea Butter Federation.  ODI. (2013). Leaping & Learning Case Studies.
				Empowerment	Y	Limited access to training	N		Premium price for certified products	N		
				Sustainable Livelihoods	N	Lack of awareness of environmental benefits/ deforestation issues	N		Access to certain benefits	N		
				Market Integration	N	Limited or no access to loans/finance	Y		Funding	N		
				Environmental Benefits	N	Access to market information and prices	Y			N		
10	A Rocha: Climate Steward Tree Planting Programme	Ghana	Independent	Increase Yields	?	Poor production technologies and agronomic practices and therefore low yields	Y	Distribution of free seeds (maize, soya) and free seedlings (native spp.)	Incentives not to deforest	Y		CCAFA. (2012). Smallholder agriculture carbon projects in Ghana: benefits, barriers and institutional arrangements.
				Empowerment	N	Limited access to training	N		Premium price for certified products	N		
				Sustainable Livelihoods	N	Lack of awareness of environmental benefits/ deforestation issues	N		Access to certain benefits	Y	Payments for clearing land; Non-monetary compensation for maintaining planted trees over 20 years e.g. bee hives; agreed through contract and only available to those with land title	
				Market Integration	N	Limited or no access to loans/finance	N		Funding	N		
				Environmental Benefits	Y	Access to market information and prices	N			N		

11	Rainforest Alliance: TREES Programme	Ghana	Contract	Increase Yields	N	Poor production technologies and agronomic practices and therefore low yields	Y	Contracts with farmers who agree to become Sustainable Agriculture Network (SAN) certified for Cocoa production (farmers agree to SAN practices, RA provides seedlings and training)	Incentives not to deforest	Y	Project started as an avoided deforestation project; farm sites bound two forest reserves	CCAFS. (2012). Smallholder agriculture carbon projects in Ghana: benefits, barriers and institutional arrangements.	
				Empowerment	N	Limited access to training	Y	see above	Premium price for certified products	Y	SAN		
				Sustainable Livelihoods	N	Lack of awareness of environmental benefits/ deforestation issues	Y	Cocoa project is a subset of a REDD+ pilot	Access to certain benefits	N			
				Market Integration	N	Limited or no access to loans/finance	N		Funding	Y	Additional funds for personal protective equipment and potentially certification from Olam		
				Environmental Benefits	N	Access to market information and prices	N			N			
12	ADM - SERAP Programme (Socially and Environmentally Responsible Agriculture Practices)	Cote d'Ivoire	Outgrower	Increase Yields	Y	Poor production technologies and agronomic practices and therefore low yields	Y	ADM uses a co-operative "graduation" scheme. When Co-operatives have proved to be a reliable partner for two or three years of business, they gradually become eligible for technical training and extension services provided by ADM. Cocoa beans from smallholders enrolled in the SERAP scheme have on average contained 20% less moisture. Scheme has reached an estimated 30,000 smallholders (out of 2 million Cocoa smallholders in W Africa)	Incentives not to deforest	?	No details	ADM. (2011). ADM: Our Commitment to Sustainable Cocoa.  Felgenhauer, K., & Wolter, D. (2008). Outgrower Schemes – Why Big Multinationals Link up with African Smallholders.	
				Empowerment	N	Limited access to training	Y	see above	Premium price for certified products	N			
				Sustainable Livelihoods	N	Lack of awareness of environmental benefits/ deforestation issues	?	This is an element of the scheme but no reports on impact	Access to certain benefits	N			
				Market Integration	N	Limited or no access to loans/finance	Y	Access to finance available as part of SERAP scheme.	Funding	N			
				Environmental Benefits	N	Access to market information and prices	N			N			

13	Western Kenya Smallholder Agri Carbon Finance Project (45,000 ha)	Kenya	Donor supported; Farmer's Groups and individual contracts	Increase Yields	N	Poor production technologies and agronomic practices and therefore low yields	Y	Encourages Sustainable Agricultural Land Management (SALM) practices under VCS; minimum tillage, leaving crop residues on fields, livestock enclosures, composting manures, composting on fields, planting nitrogen fixing plants; additional interventions include water harvesting regimes, crop rotations, integrated pest management and provision of certified seed	Incentives not to deforest	Y	Farmers able to participate in the scheme if they are able to sequester 0.5 metric tonnes/year of CO2.	<p>CCAFS. (2012). Institutional innovations in African smallholder carbon projects: Western Kenya Smallholder Agriculture Carbon Finance Project.</p> <p>PWC. (2011). Making climate finance work for smallholder farmers in Sub-Saharan Africa.</p>
				Empowerment	N	Limited access to training	Y	One Agroforestry field officer assigned to each of the project's 27 focal areas (1 focal area=12 villages); is expected to enrol 400 farmers per annum	Premium price for certified products	N		
				Sustainable Livelihoods	N	Lack of awareness of environmental benefits/ deforestation issues	N		Access to certain benefits	N		
				Market Integration	N	Limited or no access to loans/finance	Y	Additional credits for reducing GHG emissions through limiting burning and application of inorganic fertilisers	Funding	N		
				Environmental Benefits	N	Access to market information and prices	N			N		

14	Enabling Rural Innovation		Donor/Research	Increase Yields	N	Poor production technologies and agronomic practices and therefore low yields	Y	Yields increased at Malawi field site during course of project (sustainability questionable)	Incentives not to deforest	N		<p>Kaaria, S., Sanginga, P., Njuki, J., Delve, R., Chitsike, C., &amp; Best, R. (2004). Enabling Rural Innovation in Africa: An Approach for Empowering Smallholder Farmers to Access Market Opportunities for Improved Livelihoods.</p> <p>Mapila, M. A. T. J., Kirsten, J. F., &amp; Meyer, F. H. (2011). Agricultural rural innovation and improved livelihood outcomes in Africa. In CSAE 25th Anniversary Conference 2011: Economic Development in Africa (pp. 1–20).</p>
				Empowerment	Y	Limited access to training	Y	Training attendance increased during course of project (again sustainability questionable)	Premium price for certified products	N		
				Sustainable Livelihoods	N	Lack of awareness of environmental benefits/ deforestation issues	N		Access to certain benefits	N		
				Market Integration	N	Limited or no access to loans/finance	N		Funding	N		
				Environmental Benefits	N	Access to market information and prices	Y	ERI approach integrates specific strategies to encourage and promote participation by the poor and women, and builds their capacity to effectively engage in markets in a more sustainable manner through enabling access to technical and market information for farmers decision making. Farmer led planning for crop selection as opposed to being commodity driven		N		
15	Kenya Fresh Flowers Project - Ethical Agent	Kenya	Contracted farmers; Donor supported pilot for commercial uptake	Increase Yields	N	Poor production technologies and agronomic practices and therefore low yields	N	Pre-existing water harvesting and SALM for food security crops	Incentives not to deforest	N		<p>IIED. (2012). The Ethical Agent: fresh flowers in Kenya.</p>
				Empowerment	N	Limited access to training	N	Pre-existing extension officers and monthly producer meetings	Premium price for certified products	Y	Project used Rainforest Alliance certification	
				Sustainable Livelihoods	N	Lack of awareness of environmental benefits/ deforestation issues	N		Access to certain benefits	N		
				Market Integration	N	Limited or no access to loans/finance	Y	Pre-existing weekly payments to bank accounts of contracted smallholders	Funding	N		
				Environmental Benefits	N	Access to market information and prices	Y	Using an ethical agent to enable a Small/Medium sized enterprise to gain access to higher value cut flower value chains (from Dutch auctions to UK Supermarket); initial pilot failure after 15 weeks - new buyer found in US		N		

## 5. Conclusion

The identification and reporting of successful smallholder models has been proven to be challenging for both Liberia and Sierra Leone. Although a decade has elapsed since the cessation of civil conflict in these neighbouring West African countries the long term impact on their export agriculture/ tree-crops sectors should not be underestimated. Both countries are characterised with a rural economy highly dependent on subsistence fallow agriculture, limited access to markets, unresolved tensions regarding land tenure, recent large-scale investments by multi-nationals and a decade of donor investments which have exhibited a limited ability to endure through time. Environmental, social and economic development concerns have broadly been broached in isolation.

In Liberia smallholders have remained active in the rubber sector, a significant factor of which has been the resilience of Firestone and other large-scale producers. Yet rubber with a history of extremely poor labour conditions, minimal regard for the environment and unfavourable land deals and tax regimes would make this a questionable model to follow. However, there is evidence that successes can be achieved through both private sector engagement as with the cocoa sector in Sierra Leone and through donor funded projects as with SHOPS in Liberia.

Smallholders engaged in export crop commodities are unlikely to succeed unless supported through non-state entities and international investments and unless they are able to exhibit more equitable returns for the people and the environment for either Liberia or Sierra Leone. This situation, although challenging, offers the potential of a high degree of impact from the SHARP programme.

In regards to recent Oil Palm concessions, these are either owned invested in or follow the practice of south-east Asian companies. Issues on the ground in the recent years that highlight the gap between corporate assumptions and the reality of practice in Liberia and Sierra Leone should serve as a reminder to the risk of the adoption of blue-print models for smallholder organisation and operations. In Liberia outgrower schemes are a contractual element for Oil Palm concessions and quite simply the state, civil society, rural people and the companies need a better fundamental understanding of the implications.

The challenge will be the instigation of models that:

- 1) are contextually sensitive in a region that unlike Malaysia or Indonesia has not been exposed to agricultural commodity production at scale in recent years;
- 2) encourage environmental, socially and economic sustainability in situations where the risk of long-term investment is high and the pattern of donor funded solutions have been typically of a short-term immediate nature;
- 3) take account of local market demands for Dura Palm Oil;
- 4) enable robust linkages to commodity chains (either nationally or internationally).<sup>1</sup>

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<sup>1</sup> Detailed examples from Ghana and Cote d'Ivoire, which are out of the bounds of this report, will be the next step in this process.

## 6. Recommendations

- Scope

The oil palm sector in both Sierra Leone and Liberia stands out against other export commodities in terms of scale, potential rate of change, contractual obligation (in Liberia) and local and international interest. It is recommended that it is the focal crop for the SHARP programme, at least in the short-term.

- Awareness

Due to the issues surrounding recent practice of Oil Palm concessionaires, which is compounded by the unsavoury history of some older plantations there lies an implicit tension between companies and their would be smallholders. Through regular public fora, engagement with existing working groups (e.g RSPO National Technical Working Groups<sup>2</sup>) and bilaterally SHARP would be able to institute the improved understanding and implementation of oil palm smallholder schemes.

- Complementarity

Ambitious projects for small tree crops are underway in both Liberia and Sierra Leone (STCRP and SCP respectively), yet both appear to lack firm linkages to markets or meet the need of voluntary standards (i.e. RSPO). SHARP needs to establish and maintain links to both current senior programme staff and contact points within the World Bank, EU delegation and USAID.

- Environment

Regard for the environmental impacts and sustainability of export crops has been alarmingly lacking from the commodities and projects that have been reviewed for this report. For Liberia as contracts between the government and concessionaries state that RSPO Principles and Criteria must be followed. SHARP has considerable potential in guiding the implementation of environmental best practice for smallholder, both for on-farm management and concerning broader issues such as the need for careful placement of smallholder schemes so as to avoid pre-identified areas of High Conservation Value. Additionally, although a sensitive issue<sup>3</sup>, carbon markets (e.g. Plan Vivo) may yet prove to be a practicable solution to sourcing additional finance for extant smallholder schemes. For a Liberian update SHARP should contact the chair of the National REDD+ Technical Working Group.

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<sup>2</sup> Efforts in enabling multi-stakeholder working groups have been longer standing in Liberia, most recently with the RSPO National Technical Working Group. However, the Sierra Leone RSPO National Technical Working Group was recently formed in late 2013. It is likely that both NTWGs will be forming smallholder sub-working groups in the first half of 2014. These working groups will be good point of contact and node for the dissemination of information and guidelines that are developed through the SHARP programme.

<sup>3</sup> For example in its contract Golden Veroleum Liberia holds carbon rights within its concession(s)

## References<sup>4</sup>

### Liberia & Sierra Leone

- AECF. (2011). AECF Case Study Bio-United Ltd, Sierra Leone.
- ALLAT. (2013). Who is Benefitting? The social and economic impact of three large-scale land investments in Sierra Leone.
- Barry Callebaut. (2009). Barry Callebaut Corporate Responsibility. Retrieved October 20, 2013, from <http://www.barry-callebaut.com/2118?faq=9438>
- GIZ. (2012). Agricultural Finance in Sierra Leone.
- Government of Sierra Leone. (2010a). Sierra Leone National Agriculture Development Plan 2010-2030.
- Government of Sierra Leone. (2010b). Sierra Leone National Export Strategy, (June).
- Government of Sierra Leone. (2011). Sierra Leone Smallholder Commercialisation Programme Project Design Document.
- IDA. (2012). Liberia - Smallholder Tree Crop Revitalisation Support Project - Project Appraisal.
- IFC. (2007). Salala Rubber Corporation - Case Study.
- IFC. (2008). Review of the Oil Palm Sector in Liberia.
- IITA. (2008). Tree Crops to Ensure Income Generation and Sustainable Livelihoods in Liberia.
- JRC-IPTS. (2012). Rural poverty reduction and food security: The case of smallholders in Sierra Leone.
- Liberia Ministry of Agriculture. (2007). Comprehensive Assessment of the Agricultural Sector - Vol 1.
- Liberia Ministry of Agriculture. (2008). Liberia Food and Agriculture Policy and Strategy.
- Ned Oil. (2012). NedOil Limited: The Best of Both Worlds.
- Pesqueira, L., & Glasbergen, P. (2013). Playing the politics of scale: Oxfam's intervention in the Roundtable on Sustainable Palm Oil. *Geoforum*, 45, 296–304. doi:10.1016/j.geoforum.2012.11.017
- SHOPS. (2013). Liberia – Smallholder Oil Palm Support (SHOPS). Retrieved December 01, 2013, from <http://www.acdivoca.org/site/ID/Liberia-Smallholder-Oil-Palm-Support-program/>
- The Oakland Institute. (2011). Understanding Land Investment Deals in Africa: Sierra Leone Country Report.
- UN. (2013). Liberia Panel of Experts Annual Report.
- USAID. (2011). Evaluation of the Liberia Sustainable Tree Crops Program (STCP).
- Verite. (2013). Rubber Production in Liberia: An Exploratory Assessment of Living and Working Conditions, with Special Attention to Forced Labor.

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<sup>4</sup> All articles referenced or accessed for this report are available in pdf format.

Winrock International. (2011). SHOPS Baseline Study.

Winrock International. (2012a). Smallholder Oil Palm Support (SHOPS) Program.

Winrock International. (2012b). Smallholder Oil Palm Support (SHOPS) Program Fact Sheet.

## **African Small-holder Case Studies/Models**

ADM. (2011). ADM: Our Commitment to Sustainable Cocoa.

Aliguma, L., Magala, D., & Lwasa, S. (2007). Regoverning Markets - Small-scale producers in modern agrifood markets: The case of the Nyabyumba United Farmers Group in Kabale district.

CCAFS. (2012a). Institutional innovations in African smallholder carbon projects: Western Kenya Smallholder Agriculture Carbon Finance Project.

CCAFS. (2012b). Smallholder agriculture carbon projects in Ghana: benefits, barriers and institutional arrangements.

Chipembere, A. R., Reilly, C. O., & Laumans, Q. (2010). SNV Case Study: Cashew for Higher Income and Improved Living Conditions in Mozambique's Rural Areas.

Felgenhauer, K., & Wolter, D. (2008). Outgrower Schemes – Why Big Multinationals Link up with African Smallholders.

IIED. (2012). The Ethical Agent: fresh flowers in Kenya.

Jones, C., & Webber, M. (2010). Value Chain Strategies for Market Repositioning - Rwandan Coffee. In *Building Competitiveness in Africa's Agriculture: A Guide to Value Chain Concepts and Applications* (pp. 105–138).

Kaaria, S., Sanginga, P., Njuki, J., Delve, R., Chitsike, C., & Best, R. (2004). Enabling Rural Innovation in Africa: An Approach for Empowering Smallholder Farmers to Access Market Opportunities for Improved Livelihoods.

Konate, L. (2012). SNV Case Study - Creating Competitive Market Models Burkina Faso: the case of Nununa Women's Shea Butter Federation.

Mapila, M. A. T. J., Kirsten, J. F., & Meyer, F. H. (2011). Agricultural rural innovation and improved livelihood outcomes in Africa. In *CSAE 25th Anniversary Conference 2011: Economic Development in Africa* (pp. 1–20).

ODI. (2013). Leaping & Learning Case Studies.

Pernot, M., & Romémont, A. De. (2007). Regoverning Markets - Small-scale producers in modern agrifood markets: Promoting service provider and producer organisations : A case study of Soja Nyo.

PWC. (2011). Making climate finance work for smallholder farmers in Sub-Saharan Africa.

Schrader, T. (2009). Rwanda Rural Entrepreneurship Promotion Initiative (IPER): experiences, lessons and challenges.

Vermeulen, S., & Cotula, L. (2010). Making the most of agricultural investment: A survey of business models that provide opportunities for smallholders. IIED.

## Key Additional Documents

CCAFS. (2012). Smallholder agriculture carbon projects in Ghana: benefits, barriers and institutional arrangements.

Dalberg. (2012). Catalyzing Smallholder Agricultural Finance.

GIZ. (2012). Growing Business with Smallholders.

Havemann, T., & Muccione, V. (2012). Mechanisms for agricultural climate change mitigation incentives for smallholders.

Oya, C. (2012). Contract Farming in Sub-Saharan Africa: A Survey of Approaches, Debates and Issues. *Journal of Agrarian Change*, 12(1), 1–33. doi:10.1111/j.1471-0366.2011.00337.x

Ton, G., Grip, K. De, Klerkx, L., Rau, M., Douma, M., Friis-hansen, E., ... Wongtschowski, M. (2013). Effectiveness of innovation grants to smallholder agricultural producers: An explorative systematic review.

World Bank. (2011). Making the Grade: Smallholder Farmers, Emerging Standards, and Development Assistance Programs in Africa.

World Bank. (2011b). National Outgrower Programme for Liberia Options Paper.

## Articles Accessed

### Liberia

Liberia Case Study – Documents accessed and read

Balachandran, L., Herb, E., Timirzi, S., & Reilly, E. . (2012b). Everyone must eat? Liberia, Food Security and Palm Oil. In *Global Land Grabbing II*.

Dalton, G., & Wiles, P. (1965). History, Politics and Economic Development in Liberia. *The Journal of Economic History*, 25(4), 569–591.

EC. (2011). Food security Fighting hunger through improved rice culture in Liberia.

English, A. (2008). *Determinants for Liberian Farmgate Cocoa Prices*.

FAO. (2005). Agricultural Policy and Food Security in Liberia Agricultural Policy and Food Security in Liberia.

FFF. (2013). Forest & Farm Facility (FFF) Launching mission to Liberia.

FFI. (2010). Liberia Sustainable Palm Oil Field Visit.

Hardman & Co. (2012). Equatorial Palm Oil Shareholder Report.

Hilson, G., & Bockstael, S. V. A. N. (2011). Diamond Mining, Rice Farming and a “Maggi Cube”: A Viable Survival Strategy in Rural Liberia? *Journal of International Development*, 23, 1042–1053. doi:10.1002/jid

IDA. (2012). Liberia - Smallholder Tree Crop Revitalisation Support Project - Project Appraisal.

IFC. (2007). Salala Rubber Corporation - Case Study.

IFC. (2008). Review of the Oil Palm Sector in Liberia.

IFC. (2013). RSPO National Interpretations Good Practice Guidance.

IFDC. (2013). Connecting Liberia’s Value Chain Links. Retrieved August 19, 2013, from [http://www.ifdc.org/Nations/Liberia/Articles-\(1\)/Connecting-Liberia-s-Value-Chain-Links/](http://www.ifdc.org/Nations/Liberia/Articles-(1)/Connecting-Liberia-s-Value-Chain-Links/)

IITA. (2008). Tree Crops to Ensure Income Generation and Sustainable Livelihoods in Liberia.

International Development Association. (2012). Liberia Smallholder Tree Crop Revitalization Support Project Appraisal Document.

Liberia Governance Commission. (2008). Regional Consultative Meetings on Land.

Liberia Ministry of Agriculture. (2007). Comprehensive Assessment of the Agricultural Sector - Vol 1.

Liberia Ministry of Agriculture. (2008). Liberia Food and Agriculture Policy and Strategy.

Liberian Land Commission. (2012). Land Inventory and Land Management Planning in Sinoe County.

Radelet, S. (2007). Reviving Economic Growth in Liberia. *Center for Global Development Working Paper*, 133.

Republic of Liberia. (2007). Comprehensive Assessment of the Agriculture Sector.

Republic of Liberia. (2007). Comprehensive Assessment of the Agriculture Sector: sub-sector reports.

Republic of Liberia. (2009). Liberia Agriculture Sector Investment Program (LASIP) Report.

Republic of Liberia. (2010, November). Liberia Poverty Reduction Strategy. *The American Political Science Review*. doi:10.2307/1947032

Republic of Liberia. (2012). The Agenda for Transformation: Steps Toward Liberia Rising 2030.

SDI. (2012). Uncertain Futures: The Impacts of Sime Darby on Communities in Liberia.

Solà-Martín, A. (2011). Liberia: security challenges, development fundamentals. *Third World Quarterly*, 32(7), 1217–1232. doi:10.1080/01436597.2011.596749

SOMO, & Green Advocates. (2011). Burning Rubber: Buchanan Renewables Impact on Sustainable Development in Liberia.

Tarway-Twalla, A. K. (2013). Agricultural Productivity, Climate Change and the Entrepreneurship of Smallholder Farmers: Case of the Central and Western Regions of Liberia.

Ten Kate, K., von Hase, A., Maguire, P., & Victorine, R. (2013). Background Paper for RSPO-Forest Trends Compensation Workshop.

UNDP. (2010). Priorities and Challenges of Adaptation to the Impacts of Climate Change – A Focus on the Liberian Agricultural Sector.

USAID. (1985). Proceedings of the Liberian Agricultural Seminar 1985.

USAID. (2011). Evaluation of the Liberia Sustainable Tree Crops Program (STCP).

Verheye, W. (2010). Growth and production of rubber. In *Encyclopedia of Life Support Systems*.

Verite. (n.d.). Rubber Production in Liberia: An Exploratory Assessment of Living and Working Conditions, with Special Attention to Forced Labor.

Winrock International. (2010a). Increased Productivity and Profitability of Liberia's Smallholder Oil Palm Sector.

Winrock International. (2010b). Smallholder Oil Palm Support (SHOPS) Program Fact Sheet.

Winrock International. (2011). SHOPS Baseline Study.

Winrock International. (2012). Smallholder Oil Palm Support (SHOPS) Program.

World Bank. (2011a). Liberia Smallholder Tree Crop Revitalization Support Project Information Document.

World Bank. (2011b). Liberia Smallholder Tree Crop Revitalization Support Project PID Concept Stage.

World Bank. (2011c). National Outgrower Programme for Liberia Options Paper.

## Sierra Leone

AECF. (2011). AECF Case Study Bio-United Ltd, Sierra Leone.

Africa Young Voices. (2013). Linking Smallholders Farmers to Markets – The role of the Sierra Leone Produce Marketing Company. Retrieved August 19, 2013, from <http://africayoungvoices.com/2013/04/linking-smallholders-farmers-to-markets-the-role-of-the-sierra-leone-produce-marketing-company/>

Agriculture 4 Development. (2013). Freetown Port Efficiency & Performance Assessment Report.

ArcGIS. (2013). ArcGIS - SIERRA LEONE: Smallholder Commercialization Programme (SCP). Retrieved August 19, 2013, from <http://www.arcgis.com/home/item.html?id=0033e69555124898954095c5224d663b>

Barry Callebaut. (2009). Barry Callebaut Corporate Responsibility. Retrieved October 20, 2013, from <http://www.barry-callebaut.com/2118?faq=9438>

CAADP. (2010). Review of Sierra Leone's Smallholder Commercialisation Programme Investment Plan.

Caleb, D., & Ramatu, A. (2013). Factors Influencing Participation in Rice Development Projects: the Case of Smallholder Farmers in Northern Ghana. *International Journal of Development and Economic Sustainability*, 1(2), 13–27.

Cartier, L. E., & Bürge, M. (2011). Agriculture and Artisanal Gold Mining in Sierra Leone: Alternatives or Complements. *Journal of International Development*, 23, 1080–1099. doi:10.1002/jid

Chauveau, J., & Richards, P. (2008). West African Insurgencies in Agrarian Perspective: Côte d'Ivoire and Sierra Leone Compared. *Journal of Agrarian Change*, 8(4), 515–552.

CS Monitor. (2013). West Africa Rising: Sierra Leone looks to “smallholders” to solve agricultural woes. Retrieved August 19, 2013, from <http://www.csmonitor.com/World/Africa/Africa-Monitor/2011/0628/West-Africa-Rising-Sierra-Leone-looks-to-smallholders-to-solve-agricultural-woes>

District, I. K. (2012). Palm oil brings jobs and income for Sierra Leone 's recovery Production underway in autumn Fruit procured from smallholders Development effects impress Finnfund.

GAFSP. (2013). Sierra Leone | GAFSP. Retrieved August 19, 2013, from <http://www.gafspfund.org/content/sierra-leone>

Government of Sierra Leone. (2010a). Sierra Leone National Agriculture Development Plan 2010-2030.

Government of Sierra Leone. (2010b). Sierra Leone National Export Strategy, (June).

Government of Sierra Leone. (2011). Sierra Leone Smallholder Commercialisation Programme Project Design Document.

Government of Sierra Leone. (2012). Sierra Leone Food and Nutrition Security Policy Implementation Plan.

Green Scenery. (n.d.). Large Scale Land Investments in Sierra Leone: Opportunities and Challenges.

Green Scenery. (2012). Large Scale Land Investments in Sierra Leone: Opportunities and Challenges.

Greenpeace. (2012). Palm oil's New Frontier.

GIZ (2012). Agricultural Finance in Sierra Leone.

Government of Sierra Leone (2010). Smallholder Commercialisation Programme Investment Plan.

Morlai, T. A., Squire, C. B., Mansaray, K. G., & Vandy, G. (2011). Enhancing Agricultural Yields by Small-holder Farmers through Integrated Climate Change Adaptation in Sierra Leone.

Politicosl. (2013). Challenges in achieving household food security in Sierra Leone. Retrieved August 19, 2013, from <http://politicosl.com/2013/03/challenges-in-achieving-household-food-security-in-sierra-leone/>

Sanders, J. (1982). Palm Oil Production on the Gold Coast in the Aftermath of the Slave Trade : A Case Study of the Fante. *The International Journal of Historical Studies*, 15(1), 49–63.

SLIEPA (2011). Sierra Leone Investment Outreach Campaign.

Skoll Foundation. (2013). Root Capital Gives First Loans in Sierra Leone « Skoll Foundation. Retrieved August 19, 2013, from <http://www.skollfoundation.org/root-capital-gives-first-loans-in-sierra-leone/>

The Oakland Institute. (2011a). Understanding Land Investment Deals in Africa: Sierra Leone Country Report.

World Bank. (2013b). Sierra Leone: Smallholder Commercialization Programme (SCP) Mapping Data. Retrieved August 19, 2013, from <http://maps.worldbank.org/maps/2944/details>

## **African Small-holder Case Studies/Models**

African Development Bank. (2010). *Smallholder Agriculture in East Africa: Trends , Constraints and Opportunities*.

ASI. (n.d.). *Building Agricultural Markets: Constraints and Opportunities in Contract Farming for Smallholder Agricultural Economy in Zimbabwe. 2012*.

CAADP. (2009). *Strengthening the Commercial and Technical Capacities of Farmer Organizations and Trade Associations*.

CIAT. (2010). *Impacts of Climate Change on Smallholder Farmers in Africa and their Adaptation Strategies*.

Claessens, L., Antle, J. M., Stoorvogel, J. J., Valdivia, R. O., Thornton, P. K., & Herrero, M. (2012). A method for evaluating climate change adaptation strategies for small-scale farmers using survey, experimental and modelled data. *Agricultural Systems*, 111, 85–95. doi:10.1016/j.agsy.2012.05.003

Common Fund for Commodities. (2002). *Facilitating Smallholder Access to Warehouse Receipt System in Zambia: Review of Options*.

Dalberg. (2012). *Catalyzing Smallholder Agricultural Finance*.

EcoAgricultural Partners. (2012). *Landscapes for People , Food and Nature: the vision, the evidence and next steps*.

FAO. (2010b). *A Review of Existing Organisational Forms of Smallholder Farmers' Associations and their Contractual Relationships with other Market Participants in the East and Southern African ACP*.

FAO. (2012a). *Smallholders in Global Bioenergy Value Chains and Certification*.

FAO. (2012b). *Smallholder business models for agribusiness-led development*.

Farm Africa. (2009). *Profit Making for Smallholder Farmers*. In *Proceedings of the 5th MATF Experience Sharing Workshop*.

Felgenhauer, K., & Wolter, D. (2008). *Outgrower Schemes – Why Big Multinationals Link up with African Smallholders*.

Giller, K. E., Witter, E., Corbeels, M., & Tittonell, P. (2009). Conservation agriculture and smallholder farming in Africa: The heretics' view. *Field Crops Research*, 114(1), 23–34. doi:10.1016/j.fcr.2009.06.017

Governing Council Roundtables. (2009). *Smallholder Agriculture and Food Security in the 21st Century*.

Havemann, T., & Muccione, V. (2012). *Mechanisms for agricultural climate change mitigation incentives for smallholders*.

IDASA. (2010). *Governance and Small-Scale Agriculture in West Africa*.

Milder, J., Majanen, T., & Scherr, S. (2011). *Performance and Potential of Conservation Agriculture for Climate Change Adaptation and Mitigation in Sub-Saharan Africa*.

MSSD. (2002). *Globalization and the Smallholders: A Review of Issues, Approaches and Implications*.

Oxfam. (2010). *Think Big go Small: Adapting Business Models to Incorporate Smallholders into Supply Chains*.

Oya, C. (2012). Contract Farming in Sub-Saharan Africa: A Survey of Approaches, Debates and Issues. *Journal of Agrarian Change*, 12(1), 1–33. doi:10.1111/j.1471-0366.2011.00337.x

Paschall, M. (2012). Certified Cocoa: scaling up farmer participation in West Africa.

Peck, R., Anderson, J., & Conway, S. (2013). Segmentation of Smallholder Households: Meeting the Range of Financial Needs in Agricultural Families. *CGAP*, 85.

Sherlund, S. M., Barrett, C. B., & Adesina, A. a. (2002). Smallholder technical efficiency controlling for environmental production conditions. *Journal of Development Economics*, 69(1), 85–101. doi:10.1016/S0304-3878(02)00054-8

Siegel, P. B. (2005). Poverty Reducing Potential of Smallholder Agriculture in Zambia: Opportunities and Constraints.

Smalley, R. (2013). Plantations , Contract Farming and Commercial Farming Areas in Africa: A Comparative Review. *Future Agricultures Working Paper*, 55(April).

USAID. (2011). A Comparison of Models Enabling Smallholder Producers of Staple Foods to Access Commercial Markets in East Africa.

Vermeulen, S., & Cotula, L. (2010). Making the most of agricultural investment: A survey of business models that provide opportunities for smallholders. IIED.

Vorley, B., & Chan, M. (2012). Tipping the Balance: Policies to shape agricultural investments and markets in favour of small-scale farmers.

Wild Asia. (2012). A Review of Smallholder Oil Palm Production.

### **Annex 1: Liberia Rubber Value Chain Constraints (IITA, 2008)**

Currently, smallholder rubber farmers have limited options when trying to sell their coagulum or latex rubber. Essentially there are three direct outlets for their product, two of which are directly tied to the multinational exporters. Smallholders who are facing extreme cash flow constraints may look to fellow smallholders or village-level entrepreneurs who have the capacity to pay cash for the rubber at the farmgate (likely in \$LD) as an immediate source of income from rubber. The option of immediate payment from these agents may be preferable to waiting for the opportunity to sell to the multinationals whose payment is in the form of a “weigh bill” in \$US/mt that is paid at a later date. Though the US dollar is commonly used as legal tender throughout Liberia, \$LD is more commonly used in the small rural economies up-country so obtaining a convertible currency is less of an incentive than trying to meet immediate household needs. These small-scale buyers are presumed to be self-financed and likely receive the prevailing farmgate or regional buying centre price that the rubber farmer would have otherwise. In order to make this profitable, the small-scale buyer must therefore pay the farmer a price that is below that of prevailing prices in order to assure a margin.

The second and third option available to smallholder farmers is through the multinationals either through their mobile agents who roam the countryside collecting rubber or directly through one of their field offices which are located in many of the larger towns throughout the “rubber belt” of Liberia. It is believed that the farmgate price that agents pay to farmers is lower than that received at the buying centre, as agents must cover all transaction costs associated with the procurement of the rubber, including the agent’s margin. Otherwise, farmers themselves recoup these costs/margins to provide some incentive for them to transport their own product to the buying centre. Once the rubber enters the multinational owned segment of the chain, each step downstream is an intra-firm transaction. Currently, all of the rubber produced in Liberia is presumed to be exported.

## **Annex 2: Liberia Cocoa Value Chain Constraints (IITA, 2008)**

farmers unable to sell their cocoa, after the harvesting and drying period is complete must store their cocoa in a secure location, in order to prevent theft. Those that stored did so for 10 – 45 days. The most common place for cocoa storage was the house. The average quantity stored was 100.51 kg. Good quality (well dried) cocoa can be stored for long periods of time without rotting, however, with little emphasis on proper drying techniques, cocoa in the tropical climate only lasts a few weeks. (IITA, 2008)

As in the past, current Liberian farmgate prices do not encourage smallholders to improve yields or adopt better drying or fermentation methods. In fact, survey participants indicated that the opportunity cost of managing cocoa is high, making subsistence farming and other tree crops more attractive when the price of cocoa is low and the cocoa market persists in its underdeveloped and chaotic state (IITA, 2008).

Liberian farmers received, on average, 22% of the ICCO price while the next lowest percentage was Ivory Coast (43%) where significant government intervention (via taxes and fees) serves as a wedge between farmgate and port prices. In contrast, Cameroonian and Nigerian farmers received 76% and 82%, respectively.

It is apparent that Liberian cocoa farmers are not receiving market signals to produce quality cocoa and are often at the whim of the buyer's price setting (IITA, 2008).

A large part of the ability to market cocoa in Liberia is determined by infrastructural constraints, like distance, quality of roads and accessible methods of transportation. Villages that are far from buying centres or that are located in remote areas of the countryside face a limited or non-existent market in which to sell their cocoa (esp. outside of Bong, Lofa and Nimba). Farmers that live in border towns (esp. Guinea) often can travel across the border to neighbouring countries to sell their cocoa in adjacent towns or more distant buying centres.

Those options, though nominally illegal, may have lower transportation costs than traveling to Monrovia on poorly maintained roads and the risk and cost of being caught, or paying the necessary "fees", may still be low enough to make cross-border trading profitable. Liberian cocoa is harvested primarily during and at the end of the rainy season so transportation infrastructure, and the limited time devoted to properly drying sets up a situation where the cocoa is transported down the path of least resistance and hopes for greater profit. One must note that direct cross-border trade with any of the adjacent countries creates the need for currency exchange and these markets are primarily parallel in nature and can be rather volatile. (IITA, 2008)

The difference between farmgate prices within Liberia at any given time is limited to only a few \$/kg on a county average level. This is quite different from the findings in Cameroon where provincial differences can be quite significant (Wilcox, 2006) or in Ivory Coast where weekly buying centre prices are reported by the BCC and are rather variable spatially. Despite a lack of wide regional price differences at the farmgate, location of sale and the level of the marketing chain at which the sale took place may play a role in farmgate-level market outcomes.

Farmers may be receiving better prices across the Guinean border than in the local Liberian buying centre or, most certainly, at the farmgate. However, the farmers that choose to sell in Guinea pay high transaction costs, compared to selling locally, as they are required to pay entrance fees at both borders. Transporting cocoa across the border does not necessarily guarantee a better price since in either case the farmer rarely has the ability to negotiate prices. A risk factor is also involved when transporting the cocoa to Guinea, for both farmer and buyer. The prevailing prices in Guinea are often unknown to farmers from Liberia (buyers typically have 'customers' and cell service in the larger towns where they reside) and they must navigate parallel exchange channels. Both transactions are often held in the farmer's rudimentary French or the Guinean buyer's rudimentary Liberian English.

There are currently very few sources of credit or loans in Liberia. As such, a farmer's capital constraints becomes an opportunity for buyers to either offer lower prices at the time of sale to take advantage of the farmer's pressing needs or offer the farmer loans/credit that can be paid back in cocoa at harvest. Such loans help the buyer limit

search costs as they typically only make loans to farmers whose production capacity is known and this contractually, albeit informally, obligates the farmer to sell to that buyer to repay the loan. Loans are often made directly by the cocoa buyer in a regional buying centre to the cocoa farmer. Buyer's agents may also have this capacity though on a small scale. These loans are usually given in the form of cash or food during the starvation months of the rainy season. (IITA, 2008) Typically, the farmers will pay back loans in cocoa but it is currently unknown if these farmers receive lower than average farmgate prices (thereby paying interest on the loan). For the cocoa farmers surveyed, the average length of loan was 3.3 months. Loans were used primarily for farm cleaning and maintenance. Motivating or enabling farmers to complete these farm management tasks is one way that the private sector is actually helping to increase production as farmers begin to rehabilitate their farms. Several buyers that were interviewed identified proper farm management, which increases throughput, and infrastructure, which lowers transportation costs, as the two most important things that need to be rectified at the village level. (IITA, 2008)

The large majority of cocoa/coffee farmers hold less than two ha of old cocoa (and coffee) trees. Part of the production from remote areas is not harvested due to the poor condition of rural roads and consequently the shortage of buyers leads to low prices offered. (IDA, 2012)