Alternative agricultural business models for large-scale private investments in Sierra Leone: Insights from emerging cocoa and oil palm cases

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1 Introduction

An increasing global demand for agricultural commodities since the mid-2000s has led to rising interest of the (international) private sector to invest in agriculture. After decades of declining support for agriculture and given limited public funds and capacity, many see this rising private sector interest as a chance for agricultural, rural employment and income growth. A number of Sub-Saharan African (SSA) countries' governments have been eager to promote private sector investments in agriculture through various incentives, especially by facilitating acquisitions of large areas of land for commercial farming and plantation projects. The result has been an increase of large-scale land acquisitions (LSLAs) based on long-term leases or concessions in many countries.

Such LSLAs have led to controversial debates about their pros and cons and have contributed to substantial concerns about the negative social and environmental effects of private sector investments in agriculture. A major concern is that LSLAs lead to land conflicts and reduces people's access to land. While a majority of the rural poor have land access land customary tenure rules, they usually lack strong legal protection in the context of competing interest by the state or local elites. Private sector investments, in this context, may induce or reinforce land conflicts and affect access to land and other natural resources of especially the most marginalized. The finding of some studies that LSLAs have been particularly often attracted to those countries offering little legal protection for customary rights underlines these concerns.[1] There has been much criticism about the process of acquiring the lands to usually lack transparency and mechanisms to adequately involve all affected stakeholders, possibly resulting in unfavorable deals for most of them. Although laws in most countries prohibit outright sale of land, lease contracts are often criticized for their long duration (in some cases up to 99 years) and low rental payments for communities.

Potential positive effects from increasing rural employment seems to depend on the specific crop and technology. While labor-intensive technologies and crops may lead to substantial labor demand, there are concerns that many of these recent investments might lead to relatively little labor demand and which may decline significantly after set-up phase. In addition, while such jobs might provide better incomes than existing local jobs, there has been criticism about the creation of primarily short-term and casual jobs.

Some research suggests opportunities for small-scale farmers through linkages or spillovers, e.g. via outgrower schemes/contract farming. At the same time, others might lose out from displacement effects, e.g. by being competed out of the market or worsening access to land or other resources. According to existing Land Matrix data, most investments do not involve farmers in their supply chains, potentially limiting the extent of linkages so far. While public good investments via taxation

[1] Alden Wily (2011) The tragedy of public lands: The fate of the commons under global commercial pressure. International Land Coalition (ILC), Rome. Arezki et al. (2011). What drives the global land rush? IMF Working Paper 11/251. IMF, Washington D.C.

could be another potential positive channel, tax exemptions, misuse or inefficient government spending of public funds might constrain actual positive effects.

On an international level, controversies around LSLAs have to led the Voluntary Guidelines on the Governance of Tenure for Land and other Natural Resources (VGGTs) that establish governance principles for and inclusive use of land and other natural resource, including for private sector investments. While many investments are still at an initial stage and not fully developed, there is a strong continuing interest in agricultural land for investments, which raises the question whether and how private sector investments in agriculture can be in line with the VGGT and contribute to a more inclusive and pro-poor development. In this context, this study aimed at identifying and learning the potential of different business models for private sector investments to increase the local benefits.

The report focuses on Sierra Leone (SL), which has placed a high priority on private sector investments over the last decade to support agricultural development. The country has experienced a significant increase of (mainly foreign) investments based on LSLAs, yet few of which are in an advanced stage. The study is based on several of palm oil and cocoa sector investment case studies. Both sectors are very relevant for SL's economy and have seen several private sector investments. They are also interesting as they present some of the few examples of alternative business models, namely outgrower schemes and benefit-share agreements.[2]

The analysis relies on qualitative individual and group interviews conducted in April 2017. Interviews were conducted with different stakeholders, some of whom were involved in or affected by these investments (e.g. company representatives, community members, traditional authorities, local government, and civil society). The main objective of the interviews was to elicit descriptive information about the functioning and development of the models and to identify potentials and challenges of the respective business models. The major limitation was that most of the investments were still at a very early stage, with none yet at full-scale of operation. In addition, the limited time and therefore small number of interviews in each investment case, allows drawing only limited conclusions about economic viability and expected effects of these investments. More in-depth multidisciplinary analysis would be therefore welcome.

The study is structured as follows. The next section provides a brief background to large-scale agricultural investments in SL. Section three presents the conceptual and empirical framework and approach, before the fourth and fifth section discuss the case study analyses. The sixth section summarizes the results of the case studies and the seventh provides some general conclusion and recommendations.

2 Agricultural investment context in Sierra Leone

Socio-economic background

Since the end of a decade-long civil in 2002, which left much of physical and social infrastructure in despair, the SL economy has sustained strong overall growth, largely due to mining but also other activities (including agriculture). Yet the economy remains vulnerable was it was recently again

[2] The cocoa projects are all part of a partnership model initiated by the German NGO Welthungerhilfe (WHH). One of the oil palm investments started as social business, but as the other oil palm investments, is now completely commercially driven.

heavily disrupted by the Ebola epidemic and falling ironore prices.[3] Although the most recent African Economic Outlook[4] emphasizes the large economic potentials, the country faces enormous development challenges, remaining among the lowest in terms of Human Development (ranked 179th of 188 countries in terms of Human Development in 2016)[5] and with among the highest youth unemployment in Western Africa.[6]

Agriculture remains by far the largest sector, which in 2015 contributed an estimated 61% to national output and employs an estimated 80% of the population.[7] It is expected that the sector will play a (or the) major role in the country's ongoing recovery and development, with agro-climatic conditions that allow for a variety of staple and export crops to be produced.[8] Yet much of the social, economic and physical infrastructure was left in despair during the civil war with many farmers fleeing their homes and abandoning the crop land (especially tree-crop fields and swamps). Despite substantial donor support since then, agriculture and rural sectors are still remain heavily underfunded, with many rural road networks remaining insufficient and research and extension systems with low capacities. Hence, although food production has increased significantly since the end of the war and rehabilitation of cash and export crops are believed to have contributed to production and export improvements, yields for the major staple rice and of (tree-) cash crops are still considered to be low. Food import dependency remains high at an estimated 34.5% in 2015.[9]

Investment legal and policy framework

The Government of SL (GoSL) has aimed at attracting (foreign and domestic) private sector investments to revive and develop its agricultural sector.[10] An important strategy has been to make large areas of land available for investments. The 2007 established Sierra Leonean Investment and Export Promotion Agency (SLIEPA) and the Ministry of Agriculture, Forestry and Food Security (MAFFS) have promoted SL as a country with large areas of land available for private investments and with low land, labor and other resource costs.[11] According to Government estimates, SL has 5.4 million ha of fertile agricultural land and forestry, with 75% under-cultivated and only 10-12% believed to be cultivated.[12] Apart from a number of tax and import duty exemptions, the GoSL assists acquisitions of land by acting as intermediary between land owners/communities and investor. [13] Specifically, the GoSL offers to lease the land from communities and then sub-lease it to the investor. Lease agreements according to MAAFS are possible for up to 50 years with additional 21 years

[3] Korseh-Hindowa et al. (2017) AEO – Sierra Leone Country Note, AfDB/OECD/UNDP, http://www.africaneconomicoutlook.org/en/country-notes/sierra-leone
[4] Ibid.
[5] According to UNDP (2017), the life expectancy is 51 years, 3.3 mean years of schooling, an adult literacy rate of only 48%, 23% of the population with secondary education, a primary school drop-out rate of more than 50% (http://hdr.undp.org/en/2016-report).
[6] https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/Sierra%20Leone%20Full%20PDF%20Country%20Note_01.pdf. An estimated 100,000 new jobs are needed every year to keep track with population growth, according to GoSL & ILO (2010), Sierra Leone Decent work country programme (2010-2012))
[7] Korseh-Hindowa et al. (2017)
[8] JRC (2012) Rural poverty reduction and food security: The case of smallholders in Sierra Leone.
[9] Ibid.
[10] NSADP (National Sustainable Agriculture Development Plan) 2010 -2030; GoSL (2013) The Agenda for Prospertiy – Road to a Middle Income.
[11] SLIEPA (2015) Sierra Leone: An investor's guide – a private sector perspective on the landscape.
[12] Ibid.; Sierra Express Media (2016) Only 12% of our land is cultivated reveals agriculture minister, http://sierraexpressmedia.com/?p=77552
[13] MAFFS (2009) Investment policies and Incentives for private sector promotion in agriculture in Sierra Leone; Glba et al. (2014) Drivers of Success CAADP Implementation - Sierra Leone Case Study.

renewal option. The lease rates a centrally fixed by MAAFS at US$5 per acre, of which landowners receive 50% and the rest goes to district council (20%), chiefdom administration (20%) and national government (10%).

GoSL documents emphasize the need for these investments to contribute to social development, especially of host communities,[14] and promote different measures that should be implemented in investments agreements. MAFFS (2009), for example, specifies four measures related to shareholding, outgrower schemes, CSR activities and use of land lease rates. The document states that 5-20% of the company shares should be offered to Sierra Leoneans, "especially to those from the investment area". Yet, shares are understood as alternative to lease rates as landowners can decide to convert their share into a lease rent. Second, each investor should have provisions in the investment plan for an out-grower scheme and specify the support given to farmers. Investments in agro-processing should rely for "a minimum range of 20 to 40%" on out-growers for the supply of their raw materials. In addition, investors have to establish a Corporate Social Responsibility (CSR) strategy, specifying the support given to communities in the area of infrastructure, capacity building etc., using at least 5% of the annual net revenue. Lastly, MAFFS (2009) emphasizes that the amount of the land leases going to landowners, district council and chiefdom administration should "be used to support community development initiatives to be determined by the community/Chiefdom Development Committee or the District Council."

Agricultural investments in SL: development, impacts, drivers

From 2009 onwards, SL has experienced a sharp increase in the number of mainly foreign private investments, most of which are based on LSLAs. While one study has claimed that nearly 25% of the country's arable land area has been under agreements for such investments,[15] Land Matrix data suggested in early 2017 that 24 large-scale land deals (those exceeding 200 ha) were concluded or under negotiation (since around 2007), with a total of 774,000 ha and average of around 30,000 ha. Although, only few were in an advanced stage, with Land Matrix reporting 14 operational investments on 30,000 ha in total, the actual area might be already higher and is likely to increase significantly in future. Despite policies and guidelines to promote out-grower models, most investments recorded in the Land Matrix database were pure nucleus-estate/plantation projects based on large-scale land leases, with only four including other arrangements such as contract farming.

Several case study reports by NGOs and researchers that have investigated about some of these recent investments largely present strong concerns about potential negative the implications for host communities' populations:[16]

[14] MAFFS (2009), see also GoSL (2010); MAAFS' draft-Guidelines for Investments in Biofuels and Agriculture; GoSL (2016) Local Content Act; GoSL: National Export Strategy 2010-15, SLIEPA (2016): SL Investment Outreach Campaign; According to SLIEPA (2012, 10; in Menzel 2015), a good investment "involves the careful engagement of grassroots stakeholders, paying particular attention to the role of landowners, in keep with customary rules".

[15] Christian Aid (2013)

[16] World Bank (2014), for example, summarizes some of these studies (World Bank, 2014, Growth Poles Program – Political Economy of Social Capital, World Bank: Washington D.C.), citing: M. Anane and C. Abiwu, 'Independent study report of the Addax bioenergy sugarcane-to-ethanol project in the Makeni region in Sierra Leone', June 2011; J. Baxter, 'Understanding land investment deals in Africa. Country report: Sierra Leone', The Oakland Institute, 2011; G. Melsbach and J. Rahall, 'Increasing pressure for land: implications for rural livelihoods and development actors. A case study in Sierra Leone', Deutsche Welthungerhilfe, October 2012; F. Mousseau and E. Schaefter, 'Understanding land investment deals in Sierra Leone: Socfin land investment in Sierra Leone', Oakland Institute, April 2012.

- Lack of transparency and inclusiveness of the negotiations has been reported as a major concern, which may affect land tenure security. Negotiations are reported to often not involve land-owners (and even lass other community members) but are instead only between chiefs, governments and investors. In a number of reported instances this has led to different forms of land conflicts.[17]
- The long duration of lease agreements has been criticized as it may exclude communities for several generations from using the land. One study about the oil palm investment SOCFIN, for example, claimed the lease to have a potential duration of 99 years.[18]
- Land-lease and crop compensation payments have been criticized as being too low and insufficient to improve or compensate for lost livelihoods,[19] with families only using but not owning land potentially not benefiting at all.
- There have been complaints that investors or government failed to comply with promises made before signing the agreement, such as employment generation (or the low quality of jobs provided) and little public good investments.[20] At the same time, there are complaints that communities were not sufficiently informed about negative effects on land and water access prior to signing the deal.[21]

A recent study by Bottazzi et al. (2018) of the Addax study, when it was still operational, tried to assess livelihood changes in communities that surround these investments. They estimated that farmers in areas close to the investment reduced their food crop areas, had lower yields, and spent more on external labour compared to other communities, but at the same time had "higher total monetary income, a perceived improvement in food and water security, and an increase in food consumption expenditure." Yet, these monetary improvements were high for land owners compared to tenants and jobs were primarily given to men, potentially increasing local inequalities (Bottazzi et al. 2018).

The existing land regulation in SL, a dual system comprising both statutory and customary regimes (see Box 1), has been argued to be a major contributor to these problems and conflicts surrounding LSLAs.[22] The recently passed National Land Policy (NLP) therefore also emphasized the need for reviewing the statutory land laws, most of which predate the country's independence or were enacted shortly after.[23] Some of the problems according to the NLP are unequal land access, overlapping jurisdictions of statutory and customary law, lack of land information and weak administration as well as inadequate mechanisms to prevent "land-grabbing".

Box 1: Customary tenure and large-scale agricultural investments

[17]See also e.g. Sierra Express Media (2015) Land owning families in Eastern Sierra Leone sue Chinese company and Paramount Chief to recover land, http://sierraexpressmedia.com/?p=72906; Conteh (2015) Sierra Leone News: Sierra Leone's proposed land tenure make-over: Is the draft National Land Policy equal to the challenge? http://awoko.org/2015/02/10/sierra-leone-news-sierra-leones-proposed-land-tenure-make-over-is-the-draft-national-land-policy-equal-to-the-challenge/

[18] According to Christian Aid (2013) in the case of SOCFIN land leased and subleased from MAFFS appeared to involve two renewal options for 25 years each.

[19] World Bank (2014)

[20] World Bank (2014)

[21] Alden Wily (2017), Alden Wily (2011, p. 72).

[22] National Land Policy (2015)

[23] NLP (2015), p. 39

Land in most parts of the country is governed by different customary law,[24] under which there are two main tenure forms, communal and family land tenure. Communal tenure is land claimed by the community as a whole, with the rights "exercised on behalf of the community by the traditional leaders", who "are vested with powers of management, control and supervision" and "the right of disposal to non-members of the community".[25] Each member has usufruct rights. Family land instead is owned by the patrilineal side of a family, but "not held or exploited by the family as a unit", but rather to "varying degrees of lesser interests (…) by sub-family groups, households and even individuals."[26] The head of the family is vested with "powers of management, control, and disposal".[27] Families that are from the communities but not from the patrilineal side (i.e. families not owning land) can acquire customary tenancy for a single farming season, but which can be also granted indefinitely.[28] A problem of the land tenure situation, according to the NLP, is the inequitable access to land and insecurity of land tenure especially for women and other marginalized (youths, migrants) groups.

Non-natives, including foreign companies, can acquire land in the customary lands through statutory law by means of the Provinces Land Act, Cap 122. While customary rules are officially acknowledged by means of this statutory law document as it requires "consent of the Chiefdom Council" and "approval of the District Officer", according to the NLP (2015) it is "at odds with customary law" as it gives chiefs the right to make land allocation decisions instead of land-owning families. Some argue that it has led to contentions between community members and some chiefs, who reinterpret their powers of allocating land as their ownership over land (Alden Wily 2017, 108)[29]. Yet according to NLP (2016) most conflicts exist between the state and communities (landowning families and chiefs) over customary lands (NLP 2015). Shortcoming of current land regulations when it comes to agricultural investments, according to the NLP, have to do with the lack of systematic and reliable inventories of available lands, of information of impacts and of regulations "to guide and ensure transparency and fair benefit sharing".[30]

The NLP was passed to initiate a land reform process and a constitutional reform to address these land-related conflicts (Box 1). [31] Apart from addressing existing inequalities related to the existing land tenure system,[32] the NLP also promotes reforms to create an environment for responsible domestic and foreign investments, which involve adopting measures, which "ensure that investors act responsibly, respect human and land rights, do no harm to food security, local livelihoods and the environment."[33] Some of the juridical measure involve to adopting "draft Guidelines for Sustainable Agricultural and Bioenergy Investment 2013 and set up clear and transparent procedures to include

[24] Customary land tenure applies to the entire country outside Freetown and the Western Area, i.e. in the Provinces.
[25] NLP (2015), p.47, see also Renner-Thomas, A. (2010). Land Tenure in Sierra Leone – The Law, Dualism and the Making of a Land Policy
[26] Ibid.
[27] Ibid.
[28] Ibid.
[29] Alden Wily (2017) The fate of res communis in Africa: unfinished business
[30] NLP (2015), p. 17
[31] NLP (2015). Final National Land Policy of Sierra Leone – Version 6. Ministry of Lands, Country Planning and the Environment.
[32] The NLP requires all land tenure systems to "guarantee access to land and security of tenure for all citizens," including "ensure equity in the distribution of land resources, eliminate discrimination in ownership/access and transmission of land resources, and preserve and conserve resources for future generations." (Ibid., p. 63) The NLP recommends to insert in the Constitution "to protect women's rights generally and rights relating to land in particular", in particular "equal rights of inheritance and ownership of land for women and children."
[33] (NLP 2015, p. 65)

adherence to best practices such as the FAO principles for responsible agricultural investments and the African Union guiding principles on large scale land based investments in Africa (…) that support out-grower models (…)" and "provide incentives for investors to seek partnerships with local tenure right holders."

According to the NLP, land committees will identify land jointly with land owners to set up "community-led land bank schemes for responsible investment purposes." Procedures will be set up to "ensure the full participation of all relevant stakeholders, landowners and land users" with the aim of addressing "power imbalances between tenure rights holders and investors by promoting inclusive local land governance structures and ensuring the availability of independent legal aid and other relevant professional assistance" by establishing "a legal assistance fund for legal and paralegal assistance to communities."[34]

3 Conceptual and empirical approach

The focus of private sector investments on land-based large-scale farming or plantation projects in recent years has led to serious concerns about their implications for rural populations, given that a majority of them depends on land for their livelihoods. Most use the land as family farmers who produce on small plots under rainfed conditions with little external input use.[35] Much production is subsistence oriented, yet many also participate in markets through selling produce or casual wage employment. However, their potential to increase production and enhance their livelihoods is often constrained by limited access to credit, know-how, and output markets while many are increasingly vulnerable to increasingly uncertain agro-ecological conditions.

There has been an increasing focus on the potential of the private sector to address challenges of rural poverty. In the context of limited government capacities and private (international) sector's access to finance, improved technologies, know-how, and high-value output markets, private sector investments are believed to provide important elements for pro-poor rural development. The UNDP (2008) has defined commercially viable businesses that at the same time provide benefits for the poor as "inclusive business models", e.g. models that are based on integrating farmers in a company's value chain. More broadly, inclusive and pro-poor growth depends on whether development is based on assets that the poor have access to and return to these assets. Investments based on small-scale farmers are likely to be more beneficial than large-scale plantation projects since communities benefit from returns to household labor as well as land and not either from wages or land leases. However, these effects depend also on the relative profitability of both systems, the capital intensity of the investments (large-scale operations may differ in labor and land requirements) and initial distribution or productive assets (land) within the community, with the poor households having more difficulties to access land.

While depending on the context, a number of factors, however, may contribute to relative efficiency advantages for private investors to choose large-scale farming or plantation models,[36] such as high

[34] NLP (2015), p. 67
[35] Jayne et al (2010) world development: principle challenges confronting smallholder agriculture in SSA
[36] See e.g. Vermeulen and Cotula (2010); Byerlee, D. (2014) The Fall and Rise Again of Plantations in Tropical Asia: History Repeated? Land, 3, 574-597.; Cotula et al. (2010); Byerlee and Haggblade (2013) African Food Systems to 2030: Toward Inclusive Business Models. Stanford Symposium Series on Global Food Policy and Food Security in the 21st Century

economies of scale in post-harvest processes in combination with high perishability of some crops that require close supply chain coordination. High upfront investments in processing, export market infrastructure, in crops that only generate revenues after some time (e.g. oilpalm requires 7-8 years) as well as pioneering risks when these crops are introduced to a new area might also all favor large-scale operations.[37] Finally, low land, labor other resource costs and low administrative hurdles to to acquire lands reduce relative transaction costs of large-scale farming projects compared to working with small-scale farmers. At the same time, in spite of small-scale family farmers efficiency advantages, for example, reduced labor supervision and management of seasonal labor demand from using family labor, dealing with them often involve high transaction costs due to their small sizes, low farm-/off-farm productivity (low input use, knowledge), geographical dispersion, weak infrastructure, and weak public support systems.

This report involves six cocoa and three oil palm investments that present two main models (that involve combinations of different land tenure, production and ownership arrangements) to reduce transaction costs and provide benefits for rural communities.

The three oil palm investments involve models based on existing small-scale farmer production systems, namely outgrower schemes, which are often promoted as they allow small-scale farmers to benefit from investments without giving up their land. They may allow farmers to access credit, inputs and advisory services, while potentially increase companies supply stability, reduce transaction costs and land conflicts. However, the implications for risks and rewards depend on the context and design (price agreements, purchasing guarantees, and services), with some arrangements possibly increasing farmers' dependency, potentially locking them into exploitative contracts. Given farmers' differential access to land and other resource, the already poor might be also further marginalized increasing further social differentiation.[38] Potential side-selling and high contract supervision costs together with high investment costs in processing activities may also reduce its commercial viability. Low population density and little local experience may also make it more difficult to establish such models.[39] Two of the investments (GoldTree and Natural Habitat Zimmi, the latter still in conceptual phase) are therefore also nucleus-estate outgrower models that partly rely on large-scale plantations that raise commercial viability and reduce their risks, yet with a significant part of the overall effects determined by land and labor arrangements. In contrast, only one (NedOil) sources completely from outgrowers, but relies on a strong extension system and premium price organic export markets.

The cocoa investments are part of a partnership farming approach of the German NGO Welthungerhilfe (WHH) (so-called Block Farms or Cocoa Production Clusters) that are based on modifications / combinations of large-scale farming systems and small-scale ownership model, with operation under the company yet communities involved through shareholder agreements. For the company, advantages can be reduced transaction costs, increased efficiency, stable raw material supply, and higher acceptance in the community. Communities may benefit in line with the success of the investment instead of constant lease payments and might have greater feelings of empowerment by being shareholders of the investment. Though increasing the scale of production

[37] ibid.

[38] This is not to say that farmers not benefiting directly, might also benefit indirectly through second-round effects, but which are likely to be significantly smaller. At the same time the excluded might be also negatively affected through increasing competition for land or other resources.

[39] Vermeulen & Cotula (2010) Making the most of agricultural investment: A survey of business models that provide opportunities for smallholders. IIED/FAO/IFAD/SDC.

may involve costs similar to company plantations. Context factors as well as specific contractual design, e.g. the share agreement, accountability structure and project profitability, will influence its effectiveness.

While the study's aim is to understand the design and its implications for social and commercial viability, given the early stage of most investments and short time in the field, the report is less evaluating rather than attempting to identify critical general drives and elements for further investigation. The analysis is based on a broad understanding of a sustainable livelihood framework, with rural households drawing from a diverse set of assets and activities aim at improving their well-being and agency, while increasing resilience in uncertain and risky environments. Yet, since households have different access to assets/resources they differ in their opportunities (apart from preferences) to take up and benefit from certain livelihood strategies.

Effects of private investments are therefore likely to be heterogeneous within communities, depending on the community context and the investment model, which may change during its life cycle, from negotiations to implementation and operation, with substantial land use changes and employment usually early, and most other effects only occurring after time. Vermeulen and Cotula's (2010) framework to study inclusive agricultural investments models along the four elements of processes (ownership, voice) and outcomes (risks, and rewards) is partly adopted in this study. The analysis is based on qualitative individual and group interviews conducted with stakeholders directly involved in the investments or affected on the local level (the investing companies, NGOs, local government officials, traditional leaders, land owners and other community members) (see Appendix 1) .

4 Case study results: Cocoa benefit-share models

4.1 Background and overview

Cocoa is among SL's most important export commodities and an important income source for many cash crop producing households. The average small-scale family farm produces on 2.5 hectares using family labour and no chemical inputs (Interview 1). As most on-farm and primary post-harvesting activities are done manually, production is very labor intensive. Primary processing (fermentation and drying) is commonly done on-farm without improved technologies (e.g., no box fermentation), while some traders buy raw beans, as it is easier to ferment than to process different qualities of beans (Interview 17). Most traders are local firms that usually source cocoa through independent middlemen. A common feature of these trading firms is that their main business is to import other goods. They therefore have a competitive advantage compared to exclusive cocoa traders as their main interest is to generate foreign exchange for their import business and do not need to operate profitable cocoa businesses (Interview 17). This "unfair competition" is a reason why companies interested to invest in the sector, focus on acquiring lands to have guaranteed cocoa supply (ibid).

While SL experienced a dramatic drop in cocoa production during the war, production has since then increased considerably.[40] Yet, production is still low compared with other countries. Yields have been estimated to be around 200 kg per acre compared to, for example, 400 kg in Ghana (Interview 1).

[40] Annual export production used to be around 27-28,000 tons, but dropped dramatically during the war. After the war, exports were around 8,000 tons, but have increased slightly and are now around 15,000 tons (Interview 1).

One reason is the old age of trees as only few have been replanted over the last decades. Trees are also rarely maintained well according to good agronomic practices (GAP).[41] Another problem is the low quality of cocoa produced in SL, mainly because of poor post-harvest processes. Beans are often under-fermented causing defect rates of 20-30% and respective price discounts (Interview 5).

After the war, several donors started initiatives with a focus on increasing production via rehabilitation of existing farms (i.e. training farmers in GAPs) and replanting or establishing new plantations. The initiatives are believed to have contributed to increasing production, apart from an overall increase in world demand.[42] Yet, further production improvements are constrained by little replanting or establishing of new plantations due farmers' capacity constraints (difficulties to implement GAPs), land access problems[43] and reluctance to invest in long-term cash tree crops (Interview 1).

One strategy to increase cocoa production by GoSL has been to attract new investments into the sector. In this context, different donor-funded projects implemented by the German NGO Welthungerhilfe (WHH) have emerged that involve so-called partnership models, linking cocoa trading companies, but also cooperatives with communities through benefit-share agreements (Interviews 1, 2, 17). The basic rationale is to facilitate communities in establishing new plantations and increase their production by incentivizing traders to move into joint cultivation, with the investor managing the operations. Investors are expected to benefit through stable and substantial supply of cocoa compared to existing spot market transactions where they have to compete with other buyers (Interviews 1, 2). Companies are expected to have incentives to invest in new plantations to ensure good agronomic practices (GAP) and invest in post-harvest technologies, increasing product quality. For communities, such models are expected to be more beneficial than long-term land leases involving low lease payments. Instead, local communities are expected to be involved as direct shareholders and have lower land related risks. With the end of the agreements, communities are expected to take over managing the land again.

In early 2017, the overall area under the various Block Farm agreements under WHH projects was estimated to be around 2,000 ha,[44] with first harvest expected from 2018 onwards (Interview 1). The various benefit-share models, however, vary in their arrangements (e.g., size of plantations, lease periods, beneficiary groups, employment benefit share), with some having extensive benefit-share arrangements while others rather reflecting common plantation investments. These differences probably reflect both differences in the initial funding criteria as well as lessons learnt from implementing these models. In some of the models, the investors operate under management contracts with land owners and communities retaining land ownership, while pursuing formal lease agreements in others. The agreed benefit-shares also differ substantially in terms of participants and distribution share. Some investors have agreements only with land owners, others also include land users and other community members. Whereas some investors pay wages, others provide only in-kind rewards for laborers. The models also differ in management approach, some of which have more direct and hierarchical supervisory structures, others operating semi-independent groups on

[41] GAPs involve pruning, underbrushing, and adequate shade management. If farmers would apply GAP, it is believed that it could increase to 600 kg. (Interview 1)

[42] The quality of cocoa exports increased, with defect rates today below 10%. SL cocoa had a discount of 300-400 USD / tons because of bad quality, which is now down to 100 USD per ton, even 80 USD (Interview 1).

[43] Specifically younger farmers face difficulties to access land to plant tree crops, which are often in the hand of old land owners who have difficulties to invest in productivity improvements (Interview 1).

[44] The area that has been already planted, however, might be significantly lower (Interview 17).

the blocks (Interview 17). WHH is providing technical advice in all of the schemes, focusing on training Block Farm caretakers who are then supposed to train the workers and beneficiaries.

Table 1 presents an overview of five existing studied business models and one which is still in conceptualization phase. The five existing models (Randling Holding, Dayoub Trading, MOAWOMA, AliBaz Trading) operate under the Block Farm label, initiated through different EU and GIZ funding schemes since 2015. The most recent investment, the Cocoa Production Cluster, is still in an early implementation phase, funded by DFID's LEGEND fund, built up on experiences with the other models with the aim of developing a responsible business model for agricultural investments (Interview 17).

Table 1 Overview of selected cocoa benefit-share models

	Randling Holding	Dayoub Trading Ltd.	MOAWOMA	AliBaz Trading Company	AliBaz Trading Company	Balmed
WHH	Block Farm	Block Farm	Block Farm	Block Farm	Block Farm	Cocoa Production Cluster
Funding scheme	EU Aid4D	EU Aid4D	EU Aid4D	EU Aid4D	GIZ EPP	DFID LEGEND Fund (Spiral project)
Area	1,167 acres over 30 communities	548 acres in 1 location	625 acres	300 acres in 2 communities	200 acres in 2 communities	1,000 ha in total (each plot with 50 to 150 ha)
Product	Cocoa	Cocoa with rubber	Cocoa	Cocoa	Cocoa with inter-crop (pinapple & plantain)	Cocoa
Lease agreement partners	Company, land owners	Company, land owners	Cooperative w/ land owners	Company w/ 3 land owning families	Lease agreement between 100 youths and land owners	Investor, around 30 land owners, 500-700 vulnerable land users
Operations	Company manages for 15 yrs, community provides labor. After 15 yrs: lease back to land owners, but contract farming	Company leases for 50 years & manages farm, community provides labor	Company manages, community provides labor	Company leases for 30 yrs (renewable) and manages farm, community provides casual labor & supervisors	Company holds lease in trust 10 yrs, manages farm; Yrs 11-25: each youth w/ 2 ha lease, After 35 yrs, back to owner	Company holds lease in trust 10 yrs, manages farm; Yrs 11-25: each land users w/ 2 ha lease. After 35 yrs, back to owner
Benefit share	Land owners (60% of cocoa harvested), company (30%), local authority (10%)	Around 5% of the area to land owners	Land owners 40%, vulnerable women 5%, community 5%, orphans 10%,	Company 60%, local mgmt. group 10%, land owners 20%, community	Youths 30%, management group 10%, land owners 20%, AliBaz 40%.	Company 50%-70%, land-users 20-40%, land owners 10%.

			cooperative 40%.	10%.	
Employment	Land owners work or select workers. Worker receives daily wag.	Casual worker in rubber (12 months) and cocoa (3-4 months?)	Community members as casual workers.	The management group selects workers, but company can bring own workers at any time to ensure quality is guaranteed.	Beneficiaries have right to be employed as casual workers.

4.2 Cocoa Block Farm models

The general idea of the Block Farm model as outlined in WHH's concept note,[45] is that an investor leases blocks of land for 20 years (often with a renewal option) and manages them under benefit-share agreements, potentially involving different community groups (e.g. land-owning families, trained youth groups, the land-use rights holders, or other community representatives). An investment usually comprises a number of blocks that are managed independently by the groups. The group heads receive training and technical advice by the investor. According to the concept, the revenue-share agreement becomes effective after the first harvest. Before the first harvest, youth groups are provided with wages or in-kind work compensations. After that their work contribution and the land-owners land contribution is covered by their revenue-share. Once harvest starts, the investor will collect the cocoa and processes it in community-owned processing centers, which the investor is expected to have set up by then. The concept envisages that the Block Farms are governed by a set of agreements, including a Farm Management Contract between investor and land rights holders, a MoU between investor and other youth groups (or other beneficiary groups), as well as a Land Lease Agreement with the Chiefdom Council and respective Government Authorities (ibid). While all of the Block Farm projects still had not yet started producing, the start-up phase and investment designed differed widely, which provided already some interesting insights.

Aid-for-Development (A4D) projects:

The first Block Farms were initiated through EU's A4D funding that had as principal objective to increase cocoa production in the country. Within this funding, WHH started a project that require private sector partners (including cooperatives) to establish agreements with communities over cocoa production that would involve a benefit-share component. Possibly, partly because the EU required a quick implementation, relatively few conditions were set up for the private sector partners. WHH-support focused on training (setting up nurseries, out-planting, and maintenance) and small financial assistance for nursery establishment. The investors covered the other costs.

The established models therefore differ widely, ranging from a rather large-scale plantation model to seemingly more elaborated benefit-share agreements. For example, in terms of size of individual blocks, Randling Holding (RH) reported to have 1,167 acres covering 30 different communities (average of 38.9 acres) (Interview 3), while Dayoub's investment covers 548 acres in one block

[45] WHH (2017): The Block Farm- and the CPC-Model – Comparison of two responsible investment approaches (internal document)

(Interview 5).[46] The lease agreements are between the company and land-owning families, yet durations differ. RH reported to have the lease for 15 years, before handing the land back to landowners, but who according to RH agreed to continue selling to RH thereafter. In other Block Farms, the private sector partner stated to have a lease for 30 years with a renewal option (AliBaz) or 50 years (Dayoub), the latter again reflecting more existing large-scale land investment contracts in SL.

The benefit share agreements differ in terms of involved parties and the allocated shares. In the RH and AliBaz model, landowners and the company are the major shareholders, with landowners receiving 60% (RH) and 20% (AliBaz). At AliBaz, 10% is also paid out to the block managers, who are local youths. In the investment involving a cooperative (MOWAWA), the benefit share model also includes other groups, with women groups receiving 5% and orphans 10% of the benefits, while land owners and the cooperative each 40%, as suggested by the community themselves (Interview 4). The Dayoub investment is the only one not including such a benefit-share agreement, who instead prepared around 5% of the overall area for land-owning families for them to harvest themselves (Interview 5).

In most of the models, according to the company interviews, employment is created for locals on a casual work basis, yet with slight differences in wages and some paying in-kind by providing food. In most cases, the landowners can decide whether they want to work or select someone else.

EPP – Employment Promotion Programme:

A different type of Block Farm has been initiated by WHH in collaboration with the trading firm AliBaz under a GIZ Public-Private Partnership (PPP) programme on youth employment (Interview 1). The model aims at productively integrating youths who often lack access to land into the labor market. The project facilitates leases and land inheritance from older landowners to younger, potentially more productive farmers. The Block Farm is an agreement involving WHH, AliBaz, landowning families and youths. Both WHH and AliBaz contribute 50% to setting up the Block Farm, with WHH contributing the youths' part. WHH has selected groups of youths in villages with cocoa expansion potential, while AliBaz organized lease agreements between landowners and those youths (ibid.).

100 youths were selected for a total of over 200 ha, spread across two communities (ibid.). According to AliBaz, the agreement stipulates that in the first 10 years AliBaz is in control of management, harvest and organizing division of proceeds (Interview 6). After that, the Block Farms are split up into 2 ha units for each beneficiary, who will have the lease for 25 years (ibid.). After 35 years the lease is will return to the landowners. According to the WHH,[47] however, the land tenure and production arrangements are slightly different, with the investor holding the lease over a total of 40 years, before it is returned to landowners. The youth groups, instead, are responsible for independently cultivating the farm blocks under share-cropping arrangements with the investor (Interview 17). These youth groups then report to a district coordinator or the company and are monitored by the investor (ibid.)

As most youths are from the same landowning family, the youths might have already inherited the land by the time the overall agreement ends (Interview 1). According to the WHH, the labour or

[46] This latter approach by Dayoub is not in line with the initial idea of a Block Farm, which was intended to incorporate several smaller blocks (Interview 17).
[47] WHH (2017)

youths groups in the Block Farms include 70% ordinary community members and 30% who are representatives of landowning families.[48] WHH expects that AliBaz has incentives to build capacities as well as trust of the beneficiaries to continue selling after the first ten years as contract farmers. Pineapple and banana are planted as intercrops in the first years to provide immediate incomes. According to AliBaz, the benefit-share agreement stipulates that youths receive 30%, the management group 10%, landowners 20%, and AliBaz 40% of the harvest (ibid.).

4.3 Cocoa Production Cluster (CPC):[49]

A shortfall of these initial Block Farm models was that most agreements had been established with only the landowning families (Interview 17). Members of the broader community participation only participate through casual wage employment. In order to build up on and improve the Block Farm approach, WHH has started to implement a new partnership model referred to as Cocoa Production Cluster (CPC) (Interviews 2, 17).[50] According to WHH, this model puts stronger emphasis on inclusive engagement and free, prior, and informed consent of entire communities (including land users and landless households) (ibid).

The project that was in early implementation in 2017 is a collaboration between WHH, the private company Balmed (an existing cocoa trader)[51] together with local communities in order to establish long-term land lease and partnership agreements. The project aims at establishing an environmentally and socially sound land-use option for responsible investments in agricultural land and specifically tries to operationalize principles of the VGGTs (ibid). WHH thereby aims at creating "win-win partnerships" that provide (a) the communities with documented and protected land tenure rights in addition to access to capital, farm inputs, and know-how, (b) specifically marginalized groups with improved land access, and (c) private sector partners with access to agricultural land and investment security for 25 years and (Interview 17). The envisaged investment will cover 1,000 ha in total and involve different Cocoa Production Clusters (CPC) that range from 90 to 500 ha in four different target areas of three chiefdoms. In early 2017, the project was in the process of identifying land and making agreements with communities. The project is collaborating with the legal grassroots organisation NAMATI[52] in order to ensure that interests of the communities are respected in the negotiation process (Interview 17).

Partnership stakeholders: main partners in the agreements are Balmed, landowners, traditional authorities and land users or vulnerable households. In order to select project beneficiaries, the project conducted a survey in the communities to assess the vulnerability levels of households (including social networks, material assets, diet, agricultural production) to then transparently select beneficiaries, regardless whether landowning or landless families (Interview 17). WHH intends to select 500-700 vulnerable households from the communities, who are willing and able to farm. These households will be signatories of the agreements.

[48] WHH (2017)
[49] Interview 2
[50] The model is being developed through a two-year project within DFID's LEGEND Challenge Fund.
[51] However, as of early 2018, Balmed has withdrawn from the project, so that WHH was in the process of identifying alternatives.
[52] www.namati.org

Land tenure and operation design/governance/management structure: Under the model, a trust is set-up, which holds the land tenure rights over a period of 30 years (i.e. covering one productive cocoa life cycle). The trust deed stipulates a two-phase approach over the trust's lifespan.[53] During the first phase, the investor is the trustee who establishes a cocoa plantation on the trust's land and organizes the selected beneficiaries into farmer groups to cultivate the blocks (production units). Each group has a chairperson who is the link between the company and workers and who receives special training. The investor is in charge of overall management of the blocks, provides all necessary farm-inputs, pays the beneficiaries (labor, lease, and benefit-share), markets the produce and carries the risk of the investment (Interview 17). The project envisages this first phase to last for 19-20 years (a four/five-year pre-harvesting period plus 15 years).

In the second ten-year phase, the investor withdraws from active management and, in consultation with the trust's stakeholders, divides the block into smaller units (referred to as Small-Scale Commercial Farming Divisions) and hands each unit to a group's chairperson. According to the model, the chairpersons will take over the role as trustees and manage the blocks for the other beneficiaries according to the model's principles (see Box 2), yet with the other beneficiaries continuing to enjoy the same privileges as during the first phase (benefit-share and employment). The investor is expected to develop the capacity of the chairpersons and to continue buying from these blocks under contract farming arrangements. It is foreseen that after 30 years, the trust will dissolve and land returns to landowners.

Box 2: The CPC-Model core principles:

1. Corporate Responsibility: The investment shall be responsible and in full compliance with the principles of the VGGTs and the RAI. The legal and operational set-up shall ensure that operational risks are not carried by the project's most vulnerable participants.
2. Benefit Sharing: The investment shall incorporate three separate financial mechanisms to ensure that host communities, land owners and laborers benefit fairly. These are: (A) Lease Payments, (B) financial Labor Rewards, and (C) a Revenue Share.
3. Performance-oriented Management: The investment shall be fully integrated into the Investor's existing corporate structure. The Investor shall set-up a direct management system which shall feature short reporting lines, efficient monitoring, stringent motivation and sanctioning mechanisms, as well as a performance-based reward structure. Such system shall be headed by paid CPC-Managers (by rule of thumb i.e. one Plantation Manager per CPC).
4. Empowerment: The investment shall empower the host communities in the medium-term. During Phase 1 the Investor (supported by WHH and SPIRAL's sister project SkillUp) shall offer targeted trainings to the selected PUCs and provide the support necessary to develop their long-term management and supervisory capacity. Towards Phase 2 the Investor shall assign the lease to the PUCs who will henceforth take over the Investor's role in managing the CPCs.
5. Mutual Accountability: The investment shall strengthen accountability among all stakeholders. Against this background the Investor shall establish and institutionalize an adequate Complaints Response Mechanism.

Source: Communication with Welthungerhilfe (Interview 17)

[53] WHH (2017)

Economic returns: Envisaged benefits for communities include three elements, (a) lease payments, (b) casual wages, and (c) a revenue share. A revenue sharing-arrangement will be set up between the trust's stakeholders, i.e. the investor and beneficiaries. Similar to some other models, the benefit-share is based on the harvested amount, i.e. without production costs deducted before, which avoids risks that the investor might over-charge input prices (so-called transfer-pricing). In order for the investor to recover the costs, the revenue-share might only start after three years of harvesting to guarantee the economic viability, with beneficiaries receiving wages during this initial phase (Interview 2). Yet, the exact arrangement will be the result of the negotiations between the investor and the local communities, supported by the local land rights NGO NAMATI. Beneficiaries would have the right to be employed as casual workers and therefore have an income stream from the outset. The concepts envisages that landowning families will only receive the lease payments and no benefit-share.

Accountability structure: It is envisaged that an association is set up, of which beneficiaries will become members and which will function initially as accountability structure and which could also develop into producer groups.

Land acquisition and stakeholder engagement process: At the time of the interviews in 2017, WHH was in the process of identifying land as part of a stakeholder engagement process along the VGGT principles (see Box 3), which WHH understands to be the foundation of the model (Interview 17). The process first involved district-level meetings in two districts, before six target chiefdoms were approached. Entire villages were consulted, from where WHH approached landowners with at least 25 acre plots who were willing to provide land. WHH ended up with selected investment areas in two chiefdoms. The process took significantly longer than envisaged because of the time to identify available land and establish trust among stakeholders. 20 out of 50 visited villages were eventually considered as they had plots of at least 25 acres. WHH ended up with more than 2,700 acres that had been mapped in order to then discuss it with the investor and communities. The project intends to go into agreement with around 30 land owners as some families own areas of up to 500 acres.

Land conflicts: In order to avoid land conflicts or involuntary displacement, WHH communicated to communities that they only want conflict-free land. According to WHH, they encountered situations where there were existing land conflicts and therefore did not pursue these lands further. Likewise, WHH tried to avoid areas already planted, even if only with annual crops. Although some of the areas identified include swamps, WHH stated that these would be excluded from the project, as they are important for rice cultivation. WHH believes that the project had a positive effect already in some instances as the engagement process forced landowners and users to address pre-existing conflicts.

Box 3: Elements of the land acquisition and stakeholder engagement process:

1. The identification of (potential) production sites.
2. The undertaking of a Vulnerability Assessment and the identification of Beneficiaries.
3. The organisation of beneficiaries into CPC-Associations and labour groups.
4. The undertaking of an „Environmental and Social Impact Assessment/High Conservation Value Assessment"
5. The undertaking of a Tenure Assessment and a Participatory Land Use Planning Exercise.
6. The negotiation of a lease arrangement.
7. The setup of a Complaints and Response Mechanism.
8. The training of Beneficiaries and PUCs.

Source: Communication with Welthungerhilfe (Interview 17)

4.4 Remarks about Cocoa Business Models

Some of the possible factors constraining cocoa production expansions include limited labor availability, difficulties of applying good agronomic practices (GAPs), and lack of investments in post-harvest technologies, apart from difficulties to access land for poorer households. Possible solutions are replanting and new plantations (i.e. planting new trees) as well as applying GAPs and investments in improved processing. Private cocoa traders who might have the necessary capital and know-how, often face difficulties acquiring land due to fear of communities to lose land rights, while their preferred modes of operation also draws substantial criticism.

The cocoa business models described in the last section have been initiated by WHH to test models for commercially viable private sector investments that are inclusive of communities. Since the most recent Block Farm model and the Cocoa Pruduction Cluster (CPC) approach differ substantially from earlier investments (e.g. by putting emphasis on broader stakeholder involvement), they provide more interesting insights on developing inclusive models.

Main defining features of these models to combine considerations of efficiency/commercial viability and socio-economic inclusion are (a) creation of farming blocks, i.e. greater operational units, under professional management with benefit-share agreements and (b) two-phased approaches with shorter land lease durations and instead considerations of transitioning to contract farming or outgrower arrangements. In addition, in particular the last CPC-approach is based on an extensive community involvement approach based on VGGT-principles.

Given the early stage of implementation, it is not possible to finally conclude on the commercial viability and actual socio-economic effects of the models. In terms of socio-economic outcomes, the reduction of the land lease duration to around 20 years managed by the investor could be an improvement for communities as it might reduce dependency, land tenure risks, and potentially increase influence over the investment. Farmers with only annual access to land might find it more difficult to acquire land as land availability could decline or land prices could rise. Moreover, land related risks also increase with size of individual farming blocks, while increasing efficiency. While some of the models seem to be based on smaller units that are not adjacent to each other, the CPC combines larger adjacent blocks under one unit (Interview 17). A very broad-based consultation process as WHH emphasizes it follows in the CPC-model, may allow to reduce some of these risks, especially when inclusive of land using families . Yet, land use changes and changes in resource access by different community would arguably be monitored throughout the investments lifetime.

The CPC model in particular intends to contribute to long-term commercialization of the indigenous smallholder sector, by empowering selected beneficiaries to take over individual Block Farm units and transition into local commercial farmers. Transitioning over a medium-term to community management and contract farming, could therefore increase returns to the community and empower

them by taking over again the ownership and management functions. The overall objective is to transition to a more inclusive structural change based on small-scale commercial farmers.

Whether such agreements are substantial improvements depends on how they compare to existing lease- and casual wage-based investments. The effect of a benefit-share agreement partly depends on whether it is additional to or replaces lease and casual wage payments. While additional ones clearly constitute improvements for the community, if it is replacing other payments the net effects will depend on commercial success and the share allocated to communities. While some models envisage quite high shares of nearly 50% for communities to benefit from revenues, the community might be also exposed to a greater extent to market risks. In the CPC-model, landowners are envisaged to receive a normal land lease fee, while the others benefit through a benefit share, therefore making no participating community group worse off. Yet, the exact shares still depend on negotiations between investor and communities and their supporting land rights NGO, which could increase the voice of the community members.

Equally important is the distribution of returns between community members. Whereas the initial block farming models largely excluded other community groups and only involved land-owning families as shareholders, the most recent two models, involve different beneficiary groups, including a substantial share of non-landowning families as shareholders and workers. Despite a large variation in benefit-share arrangements, the arrangements show opportunities for broadening the group of beneficiaries and may provide opportunities to address these groups' challenges to access land, capital and know-how to benefit from these market opportunities. For example, the CPC and one of the Block Farm models aim at directly involving more marginalized households as shareholders, a majority of whom are not part of landowning families and often without access to land for tree crop plantations. After receiving wages in the first years, they are envisaged to become shareholders and receive a revenue-share.

Thus, while transitioning to a system of commercial farming units operated by a few community members, maintaining benefit-share component, through which also other beneficiaries benefit from the performance in addition to their wages, might lead to a more inclusive investment model. In addition, some companies and WHH stressed the importance of group work that is strengthened through these Block Farms, potentially contributing to collective action and group activities in more general. One company claimed that the Block Farm groups are already using these new groups for other activities (e.g., road maintenance or other crop farming) (Interview 1 and 6).

Yet, in how far these potential effects materialize, will depend on a number of factors, possibly including long-term external support through capacity building activities and mediation. According to WHH (Interview 17), support of the CPC model will be also done through other capacity-building initiatives by WHH.

A pre-condition, however, is the investments' commercial viability. The concepts envisage private sector partners to have incentives to build up good relationships with farmers and invest in production and processing and in contract farming arrangements in the long-term. Most investors seemed to have also agreed to a limited lease period of around 20 years, which seems to suggest its general commercial viability. Yet the actual economic viability will only show after some time, when start-up difficulties will have been solved. One challenge seems to relate to liquidity constraints of

private sector partners, with one investor, for example, reported to lack funds to hire labor. In the most recent CPC the private sector partner Balmed pulled out end of 2017.

The role of a supporting partner is likely to be pivotal for the viability of such a business model. A proper community engagement process also takes a substantial time, which might be too costly for most domestic investors.

5 Case study results: Oil palm business models

5.1 Background and overview

Palm oil is an important staple food in SL, used by most households as cooking oil. The country is considered to have good climatic growing conditions of oil palms, a native tree crop to many Western African countries. Most oil palms are cultivated by small-scale farmers who do primary processing on their farms and sell the unrefined oil to local traders. There were previously two former large-scale government-run mills. The Gambia-Mattru Oil Palm Company (GMPOC) is still operational,[54] whereas the Daru Oil Palm Company (DOPC), which was established in 1974 with World Bank assistance, had already been abandoned before the war (Interview 7). Exact data on area and number of production units is difficult to find, with estimates differing widely. According to FAOSTAT, the production area was only 27,000 ha in 2016. Another estimate, however, by one of the private oil palm companies assumes that around 185,000 households cultivate oil palms on around 240,000 ha.[55]

SL is a net importer of palm oil, with nearly 20,000 officially imported (FAOSTAT). Most of the imported oil is refined oil as SL still lacks local refinery capacity (Interview 8). Oil palm yields are very low, which has been argued to be due to the old age of existing trees and low-yielding seed varieties.[56] There has been a surge of large-scale investments since the mid-2000s, most of which are still in an initial stage. The model that most are based on are pure plantation or nucleus-estate models, with only very few currently incorporating alternative approaches, including combinations of nucleus-estate-outgrower models (Goldtree and Natural Habitats) and pure outgrower models (NedOil).

Table 2: Characteristics of studied oil palm investments

	Goldtree SL (GTSL)	**NedOil**	**Natural Habitat - Zimmi**
Business modell	Nucleus-estate outgrower	Outgrower	Nucleus-estate outgrower
Certifications	Member of RSPOP; applied for certification	Already organically certified; Fair-for-Life certified; waiting for RSPO certificate	RSPO (expected for 2017); organic (planned)

[54] IFAD (1984); World Bank (1984)
[55] Goldtree website (http://www.goldtreeholdings.com/)
[56] A seed farm and some research apparently exists at Njala University, but there are concerns about the seed quality (ibid.).

		(expected end 2017)	
Mill capacity	15 tons FFB / hour (60,000 tons annual), expansion plan (2020/22: 30 tons hour, 120,000 tons)	4 tons / hour	x
Current production oil (CPO)	4,000 tons (2016)	5-600 tons (2016), plan 2017: > 900 tons; Plan: > 3,000 tons CPO	x
Nucleus-estate area	3,000 ha	70 ha	10,000 ha (planned)
Lease agreements	2007: 470 ha (old DOPDC plantation) 2009: lease of 5,000 ha from MAFFS	n.n.	Master lease (from previous investor): entire chiefdom
Individual land user agreements	Currently: ~2,000 ha, Plan: 3,000 ha	n.a.	Currently: 3,301 ha (98 land owners), planned: 10,000 ha with 300 land owners
Area under production	800-900 ha (April 2017)		215 ha (April 2017)
Lease period	50 years	n.n.	50 years
Lease payment	Government recommended rate	n.n.	Government recommended rate plus X
Outgrowers	2016: > 8,000 outgrower (40 km radius), 14,500 tons FFB	2017: ~1,900 registered; 3 year plan: 4,500 farmers	Plan: 5,000 ha plus X
Donors supporting/ funding	Africa Enterprise Challenge Fund (matching grant),	DFID Legend Fund, Solidaridad, World Bank	Solidaridad

5.2 Gold Tree's nucleus-estate outgrower model

5.2.1 Background and business model

Goldtree SL (GTSL) is an oil palm plantation and milling company located near Daru, in Kailhaun District, in the Eastern Province of SL. It was incorporated in 2007 by a private British investor, by the Finnish Fund for Industrial Cooperation (Finnfund) [57], and the African Agriculture Fund (AAF), a fund managed by Phatisa, which is a private equity investor from South Africa that contributed the first investment of USD 16 million in 2011. Phatisa holds 80% of the shares and Finnfund 20% (Interview 7). GTSL took over the abandoned DOPC-palm oil mill and 400 ha plantation in 2009 from the

[57] Finnfund is a development finance company owned by the State of Finland. According to its website, Finfund can co-finance Finnish companies, investments that use Finish technology or cooperate with Finnish partners on a long-term basis or that generate major environmental or social benefits (www.finnfund.fi)

Government of SL (GoSL).[58] DOPC had operated a nucleus-estate and purchased fruits from smallholders, yet ran into financial problems in the 1980s due to low mill efficiency and low smallholder supply because of low prices paid by DOPC. Farmers instead sold to local markets.[59]

GTSL currently operates an imported refurbished mill with a processing capacity of 15 tons of fresh-fruit-bunches (FFB) per hour (annual capacity of 60,000 tons) and potential for upgrading to 30 tons (Interview 7). The mill includes a palm kernel crushing plant and can therefore produce crude palm oil (CPO) and crude palm kernel oil (CPKO).[60] The mill produces since 2013 around nine months per year. In 2016, oil production was around 4,000 tons. At the times of the interviews, GTSL sold all palm oil to domestic buyers for soap making, who sold it locally or to Guinea or Liberia. GTSL is member of RSPO, but was still waiting in early 2017 for a final audit to be fully certified (Interview 7).

The initial business plan for sourcing FFB was to focus on outgrowers and only to 10% on own production. According to GTSL, this initial assumption was unrealistic as it assumed sufficiently and easily accessible fruits, which was not the case, given a bad road network, low yields and high local competition (Interview 7). GTSL now plans to source 50% of FFB from own plantations once production is at full-scale. In early 2017, outgrowers were still providing all FFBs. By 2016, GTSL had purchased from more than 8,000 outgrowers, with purchased tonnages increasing from around 5,000 tons (2013) to 9,500 tons in the second year and 14,500 in 2016. For 2017, GTSL aimed for 18,000 tons of FFB from outgrowers. According to GTSL, it plans to expand the own nucleus-estate to around 3,000 hectares with the improved Tenera variety (ibid), which at the time of the interview was still only planted on around 800-900 ha. With potential yields of 18 tons, annual own supply could be around 54,000 tons which would allow the mill to run under full capacity with the nucleus-estate itself. Yet according to GTSL, the new business plan envisages mill expansions in 2020 to 2022 to double its size to 120,000 tons, which would also require outgrower supply.

GTSL also has an irrigated seedling nursery, where it develops imported Tenera hybrid oil palm seedlings to supply its own plantations and outgrower farms.

Land acquisition process and lease agreement /land tenure arrangement

In addition to the initial 470 ha plantation, GTSL acquired a lease of 5,000 ha in 2009 from the Ministry of Agriculture (MAFFS), which had obtained the land from the communities. Although GTSL allegedly never had the intention to cultivate the entire area but rather patches of it (Interview 7), this acquisition process had led to substantial skepticism by communities and many refused giving up the land (Interview 16). Discussions in two communities suggested a lack of consultation with landowners and land users, but suggested also that the previous GTSL management created high expectations because of promises made, some of which were not kept (FGD 2 and 3).

As GTSL had difficulties dealing with communities inside the 5,000 ha area, they moved to other areas and apparently changed the approach to only using land for which they could obtain consent from landowners (Interview 7 and 16). The current approach, according to GTLS, involves first consultations with an entire community, before individual landowners are approached. Agreements are then signed with landowners and local authorities. Once they agree and before clearing the land,

[58] 50% of the overall capital of the company is equity, the other 50% credit (Interview 7)
[59] World Bank (1984, p. 11). An IFAD document of 1984 recommended privatizing the investment, but leaving the government as minority shareholder.
[60] The mill can burn waste fibre from processed FFBs as fuel to generate power (http://www.goldtreeholdings.com/).

GTSL conducts an Environmental and Social Impact Assessment (ESIA) to get government approval and a HCVA (High Conservation Value Assessment)[61] for RSPO certification. GTSL wants to end up with a master lease that includes all individual agreements with landowners and is signed by MAFFS, chiefs and landowners.

The final concession area is envisaged to cover the initial 5,400 ha plus 2,000 ha. Including newly signed agreements in 2017, GTSL had a total of around 2,200-2,300 ha with landowner agreements. 500-600 ha were inside the initial area. Another 700 hectares was still missing at the time of the interviews to reach 3,000 ha. The GTSL land is not one consecutive estate but scattered, making it difficult to manage it. Regarding the 5,000 ha lease, GTSL is not yet sure how to continue as they do not use most of it, yet say that pay the lease fee (Interview 7).

The lease period of the GTSL investments seems to be in line with government recommendations of 50 years. Whereas the company sees it as given, communities have different opinions, with one representative demanding rather 20 to 30 years (Interview 16). Likewise, lease payments are based on GoSL recommendations, which by communities and other stakeholders is seen as way too low (Interview FGD2 and 3, Interview 16).

Outgrower model (purchase structure and agreements)

GTSL buys FFBs from surrounding oil palm farmers who are located in 400 villages in a 40 km radius around the mill. GTSL has started to map and register these farmers: 5,400 at the time of the interview. According to the GTSL database most of them operate on an average of 1.1 ha, 15% are women and most between 25 and 45 years of age (Interview 7).[62]

GTSL procures FFBs through agents, 50% of whom are employed as staff, working on commission basis. Agents inform village contact persons about fruit purchase days. Farmers then harvest their fruits and let them weigh by the agents, who pay in cash. A tractor picks up the fruits on the same or the following day. Harvest is usually every second week, year round (ibid). To improve the sourcing system, GTSL acquired 10 tractors through a matching fund from AECF (Africa Enterprise Challenge Fund), which they gave to local traders on loan who pay back through fruit delivery. GTSL offers a mill and field price. The mill price includes costs of agents, commissions and transport. Most farmers do not yet have the capacity to bring it to the mill. In early 2017, there were no official criteria for farmer to sell to GTSL. Yet with the move to RSPO and organic palm oil, outgrower fields' will have to be certified, but which according to GTSL will be possible for most.[63]

The major competition for FFBs is the local market, for which farmers process themselves before sell the oil to local traders. Farmers traditionally produce red palm oil used for cooking, whereas GTSL produces so-called Masaki oil used for soap making, but which according to GTSL can be produced from the same varieties.[64] Yet there are substantial price differences, with prices for red palm oil often 50% higher than for Masaki. GTSL believes that processing at household-level, however, is not

[61] The HCVA is particularly crucial since the investments are close to the Gola forest (Interview 7).

[62] They collect further information (e.g. location, demographics transaction history with GTSL, existing debts with traders), which GTSL party uses to estimate their efficiency and loyalty.

[63] In order to certify outgrowers farmers according, a HSCVAS has to be conducted. But with areas less than 500 hectares, the company can do it following a RSPO proven format (Interview 7). GTSL organizes farmers in blocks and visits them to assess whether they produce on swamps or hills, something that is not allowed. GTSL claims they will be among the pioneers for RSPO smallholder certification in Africa.

[64] Although some Masaki is also produced in villages, soap makers, however, prefer buying from GTSL due to supply certainty and reduced transport cost and less risk to lose money, as they do not have to pre-finance farmers (Interview 7).

economic given the extra costs and labor time (Interview 7 and 8). Yet, most farmers continue doing it and only sell part of their FFBs to GTSL (ibid).[65]

The few outgrowers interviewed mentioned to sell to GTSL when they need quick cash and in order to participate in the GTSL-initiated farmer groups as they hope to access improved seeds from the company. None of the outgrowers sells only to GTSL, but also stores palm oil to sell locally once local oil prices are high (FGD 6). GTSL argues that it does not have contracts with outgrowers because of this competition. Outgrower are thus free to sell to whomever they want to, which the company assumes would happen anyway. However, GTSL claimed that farmers increasingly prefer selling FFBs to GTSL.

Outgrower support: current challenges (yields, oil content)

Major challenges to source from outgrowers, according to GTSL, are the low yields and extraction rates of smallholder oil palm varieties (Interview 7). GTSL assumes that farmers produce 2-3 tons per hectare, but believe they could produce 10 tons with GAPs and improved varieties. Farmers mainly cultivate a local variety called Dura, which is low yielding and of low oil content, but apparently preferred for red palm oil production. GTSL prefers buying FFB from high-yielding, improved hybrid varieties, such as the Tenera.[66] According to GTSL, average outgrower fruits give 10-11% of oil compared to 22% at the nucleus-estate, making outgrower fruits less attractive for them. GTSL initially bought all fruits but struggled with extraction rates and therefore implemented a stricter quality system and paid more for Tenera varieties, less for Dura and rejected bad fruits.[67]

According to GTSL, the last seed program dates back to 1982, when Tenera seeds were distributed through World Bank assistance, but which are now too old, yielding less than 2 tons (Interview 7). Since then, farmers have not planted new varieties, but instead have been using seeds from below the trees, believing they are high yielding (Interview 8). According to GTSL, most also neglect maintenance during the first years after planting as there is no harvest, which GTSL believes to reduce yield potentials by 50%.

Outgrower support: extension program

To increase and improve the outgrower network, GTSL has embarked on different projects, partly with donor support. A grant was acquired through AAF's Technical Assistance Facility, financed by EU and implemented by TechnoServe, focusing on road rehabilitation, extension and replanting. A two-year outgrower extension program runs from 2016 to 2018 and focuses on organizing and training farmers. A foreign extension expert was employed to form a team of 13 extension officers. 130 farmer groups had been apparently be established with 15-20 members each (more than 2,000 farmers) by early 2017, with aims of doubling the group number (Interview 8). Every group has a leader as link to GTSL and is visited once a week, with each meeting held at a different group member's farm. According to GTSL, training is organized in a participatory way, with facilitators

[65] This could be due to low opportunity costs, but also existing debts with local traders (Interview 7). Often, smallholder farmers take up loans with local traders to cover immediate expenditure needs, which they pay back by selling FFBs. Yet, in one community, people mentioned it was more profitable to process themselves. Only the people working for the company, they noted, lack time to process themselves. (FGD 5)

[66] Tenera is a cross between Dura and Bicifera and has significantly more flesh and less skin than the Dura (Interview 7)

[67] At the time of the interview, Tenera and Dura mill prices were at Le 405,000 and 365,000, respectively (Interview 7)

asking more than simply providing solutions, with joined practice sessions and discussion on technical issues (e.g. the concept of hybrids[68]).

GTSL believes that establishing these groups has already led to increased collective action as farmers, for example, now slash their farmers together, a practice they abandoned during the war (Interview 8). GTSL only allows farmers to participate who are willing to work and slash their farms together. Most of the farms of these 2,000 farmers are cleaned and slashed, and already provide more fruits, so GTSL claims.[69] GTSL already observed some farmers forming groups on their own and ask GTSL for technical support.[70] GTSL also believes that these groups have increased female participation. According to GTSL, women are traditionally not allowed to use machetes, causing unslashed farms. Many groups allocated different tasks to women, while men would brush the women's fields. According to GTSL, 400 women participate in these groups.

In one outgrower group interview, farmers said they valued the farmer-field-schools very much as it motivated them to work in groups (e.g. brushing each others' farms and doing rice cultivation together) (FGD 6). They also mentioned to participate in the FFS to have access to improved seeds.

Loan and seed programs

GTSL is also testing different loan and seed programs to increase outgrowers' production.

- Cash loan: In 2015, GTSL gave out small loans to 300 farmers to finance slashing and other activities. They made loan contracts with these farmers, which stipulates that farmers have to sell their fruits to GTSL. The initial repayment period was one peak season (3-4 months), but GTSL claimed that the repayment rate has been very low, with GTSL still trying to recover the loans.
- Seed loans and subsidies: GTSL also started to provide improved seeds. In a first project, GTSL selected farmers who had delivered already at least 4-5 times to GTSL. They gave 1,000 farmers each 15 seedlings. The following year, they selected the 300-400 farmers who took good best care of the seedlings, to provide loans for a one acre plot with a seven year payback period. GTSL also piloted a subsidy program with farmers having to pay back only 10% or 15% of the cost over three years. In 2015/15, GTSL gave subsidies to the 21 best groups for group plantations of 1 to 3 acres (their demo sites). The company also provided around 75 farmers larger farmers with seedlings on loans, but with the farmers paying the full costs.

According to GTSL, however, it is difficult to provide loans to farmers due to local market competition and side-selling problems. They stressed the need for donor support. GTSL had approached World Bank to facilitate replanting 1,000 ha of smallholder plots, with farmers paying 30% of the costs and GTSL and World Bank the rest. GTSL aims to reach 3,500 farmers on 2,000 ha. In two communities, there were complains about the small number of seeds given to each farmers and few farmers receiving seeds within these existing seed provision projects (FGD 2 and 3), which might reflect the high demand for improved planting material.

[68] Farmers initially did not understand the concept and mistakenly planted with recycled hybrid seeds. According to GTSL they now understand. However, the higher costs of seeds continue to be a problem (Interview 8).
[69] Slashing is especially important when planting new seeds. Group plantations, according to GTSL, minimize the problem of neglecting to slash.
[70] However, not everybody participates in groups as membership requires being in meetings and being willing to work jointly on others' farms. Many groups had to be again resolved because of this (ibid.).

Employment

GTSL employs people from the communities' on its plantations mainly for slashing and harvesting activities. While some community members mentioned to have permanent contracts, most seem to be casually or seasonally employed with contracts of up to three months.[71] There was dissatisfaction with the short-term term nature and payments in the communities. Some mentioned that DOPC used to pay monthly, which they also expected GTSL to do. There were also claims that the wage is not sufficient to pay for school fees. Some complained about working conditions (FGD 2). Yet, the average wage seems to reflect national minimum wage stipulations, with some of the task-based wages reported by some interviewees being higher than the minimum wage (FGD 2 and 3).

Community development

GTSL has established a foundation as part of its CSR program to invest into the communities. The company reports that $ 50,000 per year go to community projects, part of which is for seedlings and road maintenance. For part of the funds, the chiefdoms can choose a project, e.g. building a guesthouse or buying machineries. The company reported to also give out scholarships.

Grievance mechanism:

GTSL reported to have quarterly meetings with Paramount Chiefs, landowners and local authorities to discuss the investment, including grievances. The company is thinking about establishing a fixed grievance mechanism, e.g., through putting up boxes in the paramount chief's office. Farmers can put grievances agents there or they can contact extension workers if there are problems with the agents (Interview 7).

Ecological effects

GTSL expects that by complying with RSPO, the environmental impacts will be mitigated as it, for example, prohibits deforestation. According to GTSL, large parts in the concession area that were identified as production areas were left out because of their high conservation value. The company mentioned to be in the process of hiring an eco-guard to work on conservation as part of the operation is in the buffer zone with the Gola Forest.

5.2.2 Remarks about the GoldTree investment

Although the nucleus-estate-outgrower investment by GTSL is already operational and, according to GTSL, processes oil palm fruits from more than 8,000 outgrowers in around 40 surrounding villages, it is still in an implementation stage, as the main envisaged business model by GTSL has not yet materialized. It is therefore difficult to fully understand the implications of this investment at this time, especially given the fact that it changed from an initial plan of almost exclusively sourcing from outgrowers to a business plan with a substantial nucleus-estate of 3,000 ha (according to GTSL).

The introduction of the outgrower model provides opportunities for smallholder farmers, but understanding actual effects requires in-depth analyses and an understanding how changes in the

[71] In one community there were complaints that all permanent GTSL staff comes from outside the province. But they noted that community members are working on the plantation and have been employed for maintenance of the road, for which they commend the company (Interview FGD 2).

overall business model towards a greater nucleus-estate area will affect the relationship between GTSL and outgrowers. The interviewed outgrower farmers stated that they see the arrangement as good additional market option, which provides them with immediate cash. Access to extension services and potential access to improved subsidized seeds through envisaged PPP projects between GTSL and donors might also enhance farmers' production in future. Farmers participating in the outgrower projects seem to value the group-based extension services. Yet, more detailed and representative analysis would be necessary to cross-check these individual reports.

The medium- to longer-term effects will depend on how the model develops after the start-up phase of the overall investment. The sustainability of the extension support is an important question since the system is currently largely donor funded. GTSL claimed that they plan to hire seven of the extension officers as staff members, planning to continue having a strong extension service. A more general point of concern relates to the outgrowers' position amid envisaged changes in the overall business model, i.e. once the nucleus-estate reaches its full size. While it is impossible to foresee, outgrowers could receive less access to milling facilities and less access to company services as it reduces the company's dependency on outgrowers. Yet, the company stressed that outgrowers will remain a very important part of the overall expansion strategy, with mill-expansion plans already envisaged for 2020 to 2022. An advantage at the moments seems to be also that farmers still have different other market options, which lowers farmers' risks. GTSL also still buys all oil palm fruits without having binding contracts, allowing farmers to sell to different market outlets. It is difficult to say, however, whether the competition created by GTSL induces longer-term market changes and changes in the market position of local traders and processors in the region as well as consumer prices.

The company seems to have gone through a learning process for the land acquisition process for the nucleus-estate part from a purely top-down approach to approaching more directly local communities. While the initial process promoted by MAFFS of acquiring a master lease through the MAFFS caused significant resistance by communities, making direct agreements with heads of landowning families as part of a master lease is very likely to avoid extreme forms of land conflicts observed in other instances. Moreover, if as GTSL argues, the nucleus-estate area is relatively dispersed and not in one large consecutive area, eruptions to social life might be also less compared to other investments, such as has been reported in the SOCFIN investment.

Yet, there seems to exist hidden conflicts in some of those communities in which GTSL had initially acquired land through MAFFS and set up plantations. In two interviewed cases, for example, people claimed that they had not been consulted by community leaders. In two cases, landowners and other community members in the group discussion gave the impression that they underestimated the land needed for other purposes before handing the land over to the company, suggesting the need for additional external support for contract negotiation.

A perception shared by most stakeholders interviewed is that the amount of lease paid to landowning families seems to be unjustifiably low. As GTSL seems to see these issues as given, the GoSL might have an important role in adjusting the rules on setting the lease payments, but which probably will also require external juridical support for communities for such negotiations. Further more subtle conflicts might also still take place with this changing approach of directly approaching landowners, such as conflicts between landowners and -users and intra-family disputes for the land. More generally, in some community discussions there were also still complains of a lack of

communication with GTLS. According to them, for example, meetings with landowners were scheduled quarterly, but not longer take place. Communities therefore lack channels to inform issues and feel that they are not sufficiently being informed. Instead GTSL refers the communities to the government. Other complaints were about promises made by the company regarding apparent public investments (water well, toilet facilities, health facilities), which the company did comply with. Some of the plantation residues, such as the sludge, communities complained about not being allowed to use it for soap making, which was possible with the old company. Thus, although the process the company is taking for the nucleus-estate seems to cause less conflicts compared to other cases, there are substantial potentials for negative effects for communities. For a clear understating of the implications in-depth analyses would be necessary.

Regarding the design of the overall business model, a change towards greater focus on small-scale outgrower farmers also in the medium- to long-term would arguably likely increase the social/socio-economic outcomes. According to GTSL, a major factor preventing it had to do with high transaction costs of purchasing from smallholders. In spite of a large number of existing oil palm farmers in the area, poor road infrastructure and low production levels raise therefore the costs of an outgrower model. External support for smallholder oil palm farmers to increase comparative advantage might therefore support establishing such models. Such external support would possibly involve improvements in input supply, especially of seeds, combined with a strong extension service, which GTSL seems to build up with donor support. Yet, another issue increasing the costs of this model, is the potential side-selling by farmers, which reduces risks for farmers, but increases commercial risks for the company, especially if it is not able to operate an own nucleus-estate.

Overall remaining challenges, which need to be also carefully studied are the indirect socio-economic effects (apart from ecological effects) induced by the development of this investments. One concern is the potential effect on poorer smallholder farmers, e.g., whether it will be possible also for poorer outgrowers to access subsidized inputs, or whether even the reduced fees will be too expansive if they need to pre-finance the inputs. Another point of concern that came up during one interview regards the implications of non-landowning families (Interview 7). Many landowners seemed to have given oil palm farms to caretakers in return of a share to the owner (sharecropping). But now that these farms generate direct cash, more landowners seem to be interested in farming themselves, potentially worsening land access for these caretakers.

5.3 NedOil's outgrower business model

5.3.1 Background and business model

NedOil is one of two oil palm operations in SL of the Dutch company Natural Habitats Group (NHG), which focuses on the production and sale of organically certified palm oil.[72] NHG was founded in 2009 by a Dutch entrepreneur who started with operating a nucleus-estate-outgrower investment in Ecuador to produce organic-, RSPO-certified oil for the USA and European market.[73] It has since added the Sierra Leone operation and operates today refineries in Ecuador and Rotterdam as well as

[72] The other operation is a large-scale plantation and outgrower-based investments based in Zimmi described in the next section.

[73] For example, through its Ecuadorian operations, where it sources from 100 smallholders, it has supplied the German organic product company Rapunzel (https://www.rapunzel.de/uk/natural-habitats.html)

sales offices in the USA and Rotterdam. The company has formed a subsidiary in SL called Natural Habitat Sierra Leone and merged its operations with that of another company called West Africa Agriculture Number 2 (WAA2)[74] to "create the largest organic palm oil operation in Africa."[75]

On its website and in a number of different documents, the parent company NHG promotes itself as a company "using only 100% organic practices by small farmers in South America and Africa" and one that has at its heart a "dedication to bring organic agriculture, environmental preservation, positive social impact and profitable growth to palm oil." In 2016, the company also established an initiative Palm Done Right,[76] which it refers to as its approach "to combine scalable and profitable production of organic palm oil with social responsibility and environmental stewardship."[77]

NedOil is an already operational palm oil business in central SL (Yile), which was acquired by NHG in 2014 from a foundation founded by Dutch doctors (Lionheart Foundation), who had built the mill in 2007, but which was loss making (Interview 13). The foundation also constructed a hydropower dam and a hospital, which it continues to operate. The initial NedOil operation was based on outgrowers with an additional small nucleus-estate of 70 ha.

Whereas the previous company sold its oil to the local market, NH's main business model is based on producing certified organic palm oil to sell at a premium for export markets.[78] NedOil is already organically certified and has a Fair-for-Life certificate. At the time of the interview, the company was awaiting RSPO smallholder certification, which would make it among the first certified operations in Africa (Interview 13). The certified Crude Palm Oil (CPO) exported to the Netherlands to be refined.

NH operates a four-ton per hour mill on a double-shift with capacities to produce 2,000 tons of CPO per year (Interview 14). Before NH took over, the mill never produced more than 200 tons. In the first year of NH's operation it produced 5-600 tons and planned to produce at least 900 tons in 2017. It eventually plans to produce more than 3,000 tons, which requires installing a second mill (Interview 13).[79] In total, NedOil employs around 50 full-time staffs (ibid). The mill receives most energy through renewable sources.[80] The remaining sludge from the oil press process it sold to local traders for soap making (ibid.).

NH continues to source only from outgrowers and focuses on improving and increasing the outgrower network, leaving the nucleus-estate merely as model farm. NedOil is therefore a relatively small-scale palm oil operation and the only one in SL completely relying on outgrowers. According to NHG, the organic price premium allows to cover higher transport costs and thereby sourcing from two districts, Bo and Tonkolili, within a radius of 75 km (Interview 13). At the times of the interviews, however, the company exported only around 60%, with the remaining 40% sold to the local market at lower prices but same cost structure (Interview 13). Local market sale had been necessary at the

[74] WAA2 was founded by Kevin Godlington, a former British soldier who worked during and after the war in Sierra Leone and is now leading NH's operations in SL (www.natural-habitats.com, NHG 2017). According to the Oakland Institute (2011), Kevin Godlington was CEO of Sierra Leone Agriculture (SLA), part of a British investment company, which according to their website aimed at setting up large scale agricultural, resource and extractive businesses.
[75] NHG website, https://www.natural-habitats.com/countries-of-operation/sierra-leone/ (accessed 20/02/2018).
[76] http://www.palmdoneright.com
[77] Natural Habitats Group – Fact Sheet
[78] As the oil produced in the factory did not meet international specifications, the company focused in the first year of operation on improving the quality of the oil.
[79] The company also plans to install a palm kernel press, which is currently still missing.
[80] The steam energy is generated with heat from the boiler fired with residues from the press. Other energy is generated through the hydropower dam constructed by Lionheart Foundation (Interview 13).

time of the interviews, because NHG had to import special tanks due to bad road conditions, but which faced delays at the import port. According to NHG, improving road conditions is therefore important for the viability of the business model.

At the time of the interview, the company had 1,842 registered farmers, 1,392 of whom were already organically certified and the rest to receive organic certification within one year (Interview 14). In total, there are more than 4,000 hectares of mainly smallholder outgrower oil palm plantations, with farm averages of around 2.5 hectares (Interview 13). The company wants to increase its network to 4,500 farmers within three years, which would allow producing more than 3,000 tons of CPO.

Extension system and certification

NHG took over the procurement and extension/inspection system from the previous company and started buying from farmers in the 2015/16 season. NHG had to strengthen the link between mill and farmers as they had little commitment to sell fruits, partly because of competition with local traders, but also because of lack of trust in the company, which apparently had made a lot of promises (e.g. building schools, constructing bridges) without complying with it (Interview 13, FGD 10).

To bring the company closer to farmers, NHG established a system of village-based FFS of which there were 125 in early 2017, each with a model farm (Interview 14). NHG was working on a FFS curriculum and intended to do trials on intercropping. Once all farmers are registered, the group size per FFS would be around 25 to 30 farmers (Interview 13). The plan is to transfer the FFS into legal farmer based organizations (FBOs). The chairman of each FFS is a head farmer, who is elected by villagers and functions as company's main contact person. Head farmers are invited to the mill every few months for training and discussions.

The company has employed a FFS manager and eight internal inspectors who inspect the field for certification and act as extension officers. Inspectors visit the head farmer and FFS on a weekly basis and both inspectors and head farmers jointly inspect the fields. NHG is working on establishing a database to capture all information of each farm for better monitoring. In order to motivate head farmers, they might become owners of the model farms.

NH receives funding through DFID's Legend Fund for a project jointly implemented with the NGO Solidaridad to support farmers in GAP, also a requirement of RSPO. The company supports farmers in complying with certification requirements. Since most farmers in the region are oil palm farmers, the company tries to register and certify all farmers to avoid risks of sourcing non-certified fruits.

Supply structure and arrangements

NedOil has installed collection points where farmers can sell their fruits to agents for cash-on-delivery. Head farmers receive a commission.[81] Agents purchase on a weekly cycle, making it easier for farmers to plan their harvest, also aiming at motivating them to supply only good fruits.[82] The company reported to have established a strict quality policy for the FFBs compared to the previous company, where grading seemed to have been less transparent and often led to quarrels. According

[81] Agents receive a fixed salary since the company plans to establish a benefit share arrangement once the company makes profit, from which all employees should benefit.

[82] Farmers are supposed to pick the fruits three days before selling. They dry the entire bunches to keep the free fatty acid (FFA) content low and then cut the fruits and bring them to the collection point. According to NHG, this allows exporting still with a FFA content below 4% (the export norm is 5%).

to NHG, most farmers comply with the rule – hardly any fruits are rejected (Interview 13). The company claims to have off-take agreements with farmers for 100% of their produce conditional on the quality criteria (ibid.). However, NHG is aware that they cannot force farmers to sell. They believe that farmers only sell between 15 and 50% of their produce.

According to the company, prices are determined by competition with local traders, who pay for palm oil usually more than NedOil for fresh fruits. According to the company, prices for fresh fruits have continuously increased. Farmers' own processing involves significantly more labor costs, which seems to be less problematic given the few job alternatives. But according to NH, processing locally involves other hidden and environmental costs, such as substantial amounts of firewood (ibid.). According to the company, farmers increasingly sell to NedOil, which was confirmed during the farmer discussion, where farmers complained about rising costs of acquiring firewood. They valued the market NedOil provides, which guarantees them regular cash with less work (FGD 10, Interview 15). The organic price premium does not seem to lead to higher prices for farmers, though, but allows NedOil to buy from a larger area and more farmers.

Outgrower support programs

According to NH, the most important issue mentioned by head farmers in their first meeting was to increase production. The potential for land expansions, however, seems to be limited, as was mentioned in different discussions with farmers. Outgrower support would therefore need to aim at increasing yields. However, according to NHG, high local competition and side-selling makes it difficult to invest own funds in farmers' seed adoption. The previous company had already tried to provide seedlings on loan, but faced problems recovering the loans.

Seed adoption: NHG has approached donors for funding a seed project for 1,000 ha worth of seedlings to support replanting and expansions of the outgrower area. The matching grant proposal stipulates that costs for trees, land, and natural fertilizer comes from donor funds, while the company would act as fund manager, contributing own funds for technical assistance (inspectors, pre-nursery, support in GAPs and preparation of land according to RSPO principle). NHG believes that yields of at least six tons per hectare are possible with GAPs, which can be even doubled with replanting of new varieties. Currently, farmers often produce only one ton, according to NHG.

Land expansion: NHG received funding through the legend fund to improve land access and rights of farmers who want to expand their land under oil palm production (Interview 13). Farmers are only able to expand their land if they have tenure security for at least 25 years. They are intending to establish a land guarantee scheme so that farmers do not need official leases. The document would be still signed by the paramount chief and Ministry of Lands.

Access to finance: Another problem is that many farmers are indebted with traders who usually pre-finance them before the harvesting season. NedOil is not handing out loans due to the difficulty to recovering it, but mentioned to have instead supported farmers with the Osusu/SUSU saving schemes, which farmers manage within their FFS or elsewhere.

Food production and food security

While the study could not look at potential effects on food security, there might be risks of farmers abandoning their food production (Interview 15). NedOil advocates farmers to use the inland valley

swamps (IVS), but is not yet implementing a project. There are apparently large swamps that had been developed in the past, but without anyone nowadays using them.

5.3.2 Remarks about NedOil's investment

Compared to other palm oil investments, NedOil is a small-scale palm oil operation and the only one relying completely on independent small-scale farmers as outgrowers. NHG took over the loss making palm oil producer NedOil. They argue that they turned it into a profitable investment because of their specific business model. They sell palm oil as organic and therefore receive a premium price which allows them to operate on a purely outgrower system basis profitably, covering higher transport and transaction costs of working with farmers. As the investment is not a Greenfield investment, NHG might have had to cover less pioneering costs and risks and instead benefits from existing processing facilities and supply chain investments (purchasing network, contacts to farmers and farmers' experiences of selling to NedOil), even though the original investor had efficiency problems. Due to limited expansion potentials for a company concession/plantation in the area, there seem to be also more incentives for focusing on improving the outgrower supply system. However, the investment is still in early stage and still faces significant challenges downstream with its marketing infrastructure (e.g. road infrastructure, importing of special containers).

Given the small number of farmers interviewed, there are only very limited insights on the potential effects. Nevertheless, similar to other palm oil investments, farmers seem to value the market created by the outgrower schemes in addition to local markets for red palm oil, potentially increasing market stability. It would be, however, important to study whether the investment also affects the local market. If it, for example, leads to a crowding out of local traders, dependency on NedOil will also increase. As prices do not differ significantly, farmers seem to value the immediate cash received from the company. Farmers who did not sell to NedOil, mentioned not to do so because of bad roads and high transport costs from their farms to the major roads.

Expanding production was seen by the farmers as major challenge due to lack of additional available land. Increasing use of improved varieties is seen as an important strategy to increase benefits from oil palm cultivation, but also seems to depend on public funding. Hiring labor, however, seems to become more expensive and difficult, but which is needed to adopt GAPs. Another relevant issue to investigate are potential ecological effects, especially the biodiversity effects, since most of the area seems to be largely covered by oil palm plantations. Likewise, the situation and implication for food production and security is something that would need to be studied.

5.4 Natural Habitat's (Zimmi) nucleus-estate outgrower model

5.4.1 Background and business model

A second investment by NHG is a new Greenfield investment located at Zimmi in the Southern Province. While this investment also focuses on the production of organically and RSPO certified palm oil, the envisaged business model differs substantially from the NedOil model as it is largely based on a vertically integrated nucleus-estate and palm oil mill, yet with plans to integrate smallholders via an outgrower program.

At the time of the interviews, the investment was still at a very early stage with only around 215 hectares of land brought under operation, including a 35-hectare nursery. The envisaged overall investment, according to company reports and RSPO assessment, will have a size of a maximum of 15,000 ha, with between 7,500 and 10,000 ha under nucleus-estate and 2,500 to 5,000 ha under smallholder outgrower plantations.[83] According to an interview in 2017, NHG plans to directly sublease and develop 10% of the area to farmers for the outgrower program and intends to develop the remaining outgrower area separately. During the interviews in early 2017, expansions were put on hold as NHG was still waiting for RSPO certification (Interview 13), which was apparently still the case in early 2018 (Interview 18). Mill construction is planned for after 3-4 years.

Land acquisition process

NHG's subsidiary Natural Habitats Sierra Leone (NHSL) by acquiring in 2014 the company West Africa Agriculture Number 2 (WAA2), acquired a land lease concession for 99 years (50 years land lease plus two extensions of 21 years and another 7 years), covering 30.700 hectares out of Makpele Chiefedom's 41.218 ha, according to its RSPO Assessment Report.[84] According to some interviews, this covers nearly the entire chiefdom, except for Gola Forest (ibid.). The land acquisition process received substantial criticism among civil society and host communities. OI (2011) criticized the lack of public disclosure and documentation. As was mentioned in various interviews, the previous investor did not engage with the broader community when acquiring the lease, but the agreement was instead signed in a very non-transparent way, involving WAA2, the government and late paramount chief (Interview 12). This resulted in conflicts as land owners would have been forced to give up land compulsory (ibid.).

According to NHG, they decided not to act on this lease, but instead decided to only use land for which they conclude agreements with individual land owners (Interview 13). According to them, they now approach entire communities first to present their intention. Land owners interested in leasing out land can approach the company, which together with the land owner and the association MILA, which has been initiated through NHG of those land owners already agreed to lease out land, contacts the chiefs to verify the land ownership (Interview 9). The land owner is supposed to consult with the family and wider community, which is usually done in a community meeting. Results are communicated to section and paramount chiefs and district level (Interview 12 and 13). Before demarcating the land, other family members are consulted to ensure that individual land boundaries are respected (Interview 9). Demarcation is documented by company staff through GPS and attached to the individual agreements. The agreements are translated in Mende to answer open questions during community meetings. NHG stressed that they try to engage everyone and only use land once they have full consent of the community, emphasizes that the land owners are the most important decision makers (Interview 9, 11, 12).

At the time of the interviews, NHG held the master lease with an addendum stating that NH will apply sufficient buffers to the Gola forest. NHG noted to have conducted the ESIA and HCV-studies for the entire area and had signed individual agreements with 98 land owners, covering already 3,301 hectares (Interview 9). Ultimately, NHG expects to have around 300 land owner agreements (Interview 13). Land owners from two sections have leased out land. At the time of the interviews,

[83] NHG (2016) – Presentation 8th June 2016; NHG (2017) Assessment Summaries and Management Plans for RSPO New Planting Procedures. Source: RSPO-website.
[84] NHG (2017)

the other two sections that were very critical of the investment decided not to be involved. Initial conflicts between the different sections concerning the investment, however, seemed to have stopped or at least calmed down (Interview 12, FGD 8). NHG also emphasizes that it intends to meet all criteria of a new land policy, including land surveys, titling and a consultative process (Interview 13). While this approach might greater security to land-owning families compared to before and to other investments, non-land owning families might find it more difficult to access land and become marginalized. However, NHG claimed that there are also individual agreements where both land-owning and land-using families (the crop owners) have signed the agreements to share the proceeds of the fields (Interview 9). Yet, some in civil society still claim that the process is not as transparent as claimed by the company, especially with regards to consultation and negotiations with land owning families (Interview 18).

Lease agreement (lease payment, crop compensation, duration and revision)

The lease agreement as reported by NHG deviates slightly from government recommendations. The lease payment covers two parts, the first involves the standard land lease rate of USD 12.50 per hectare, of which 50% goes to the land owner (ibid.), in line with government rules and paid on the entire master lease. In addition, the company reported to pay USD 5 extra annually to the land-owning family once the individual agreement is signed, increasing the amount for a land owner to 11.25 USD per hectare. In addition, NHG pays a flat rate per hectare as crop compensation, which is in contrast to the government's recommendation of paying per tree, which NHG believes excessively expensive and burdensome and allows farmers to cheat by planting additional plants. The flat rate of USD 35 per hectare is independent of whether the area was covered by crops (Interview 9, 12). NHG also allows communities to still enter the area for harvesting until planting of palm trees, which was confirmed by other interviewees (Interview 9, 12, FGD 10, 11).

A third element of the agreements involves a guarantee to land-owning families to operate as contractors on the land and bring in their own workers (see employment below), which, according to NH, lets them partly remain in charge of the land (Interview 9, 12). For NH it makes it easier to scale the investment as NH has to only manage the contractors.

The lease agreements are for 50 years, based on government recommendations. Every seven years the parties come together to review the content of the agreement (ibid). During the interview, however, land owners argued for a shorter review period of five years (FGD 9 and 8, Interview 9).

Employment

At the time of the interviews, employment was limited to two communities where activities have already started (nursery management, planting), apart from the few company staff members (Interview 9). Plantation and nursery employment is mainly casual and seasonal. NH mentioned to have employed a maximum of around 600 persons so far, which was during land clearing (ibid). The 34.7 ha nursery site employs and estimated 180 people according to them (Interview 10).

Work at the plantation is managed by someone from the land-owning family as independent contractor, who is in charge of finding and supervising workers and receives the money at the end of the month to pay out workers. For the case of the nursery, for example, most workers came from two villages, all of whom belong to the same extended family. Although the contractor selects workers, NH ensures that none is younger than 18 years old and able to work. NH and the paramount

chief also mentioned that they encourage land owners to employ workers not only from within their own village (Interview 9 and 12). NH sets up monthly contracts with the works and required days and wages. Once NH has assessed the work, the contractor is paid and receives a 10% commission in addition to his/her daily wage (Interview 13). NH stated to pay the minimum wage, but with a task-based component. With a daily wage of 20,000 Leones and assumed work load of 20 days, a farmer can be paid 400,000 per month. The interviewed workers reported to have earned somewhere between 400,000 and 600,000 (FGD 9).

Two village group discussions were held with a cross-section of people (young and old) in the two villages that provided the land for the nursery and the first other plantings. The discussion in the nursery village gave a largely positive picture of the investment. Particularly younger men and women spoke about the importance of the jobs, which allow them to deal with all the expenditures, including most food needs.[85] The ones with oil palm plantations also stressed that they want to sell to the company once the factory is operational (FGD 9).

However, some noted that they now depend on NH to provide them with work as they have abandoned other activities. Some mentioned also that they had abandoned their own farms and now rely on the salaries to buy food. There were also complaints about reduction in the work time with farmers claiming that their Saturday work has been eliminated. Moreover, they advocated for permanent jobs.

In the second village, people also praised the availability of plantation jobs, yet jobs were still much fewer since only a small portion of land was under production. The villagers knew that the delay had to do with the delay of the RSPO certification. Yet, some had already stopped working on their farms in expectation of the expansion.

Food production and alternative livelihood programs

At full scale, such a large investment is likely to have substantial effects on the local food system. For now, there seem to have been very little changes. NH still allows farmers to use land, which is not yet under oil palms, as was confirmed in the village interviews (Interview 12). However, as farmers are no longer allowed to plant new crops on the lands, some argued that they pay less attention to food crop production compared to before. Some already abandoned their food crop plots altogether to work at the plantation (FGD 9). Yet only very few claimed that food access has deteriorated so far, while the majority stressed that it improved because of the jobs. In general, it may show that many prefer working for wages than cultivating themselves. In this case, it will be important to strengthen food markets and job security.

At the times of the interview, NH was starting a collaboration with the international NGO Solidaridad in a Legend Fund project to support rice farming and vegetable cultivation.[86] The project involves establishing ten hectare units of inland valley swamps (IVS) as pilots. Groups are in the process of

[85] Some of the positive voices (paraphrased by translator): A young woman without a husband mentioned that her main hope is the plantation. She gets 500,000 a month. She is doing everything with the money. Another young woman mentioned that she had difficulties to find 200,000 or 300,000. But with the company she now gets 500,000. The chief said he is now working for the company earning 600,000 L per month, which was difficult to get before. Another young woman mentioned that she and husband work for the company and that they can use the money to get food and settle other expenses. One young woman also mentioned that she is working for the company and that she can use the money to secure food. The youth leader noted that with the money they can now help other people who have problems with money.
[86] According to NH, The chiefdom has an estimated potential of at least 2,000 hectares of IVS (Interview 13)

being formed.[87] One of the interviewed villages claimed to have established already four groups with 40 members each. Membership seems to focus on those not directly benefiting from employment at the estate. In addition, NH plans to study coffee and cocoa production for potential support (Interview 9).

Gender

MILA, the committee of the farmers leasing land to NH noted that NH advocates for including more women in the agreements to improve their land rights. Yet there are still only few, around 15 according to MILA leadership, none of whom is part of the MILA executive committee (Interview 9). However, many women seem to be employed at the plantation, more than 100 according to MILA. According to NH, the Community Contact Person usually also has a female co-contact person (ibid.). In the food production projects on IVS rice farming allow women and men to participate, whereas vegetable gardens are only for women.

Grievance mechanism

According to NH, there are different ways to address grievances. Apart from directly approaching NH, there is apparently a development and grievance committee including representatives from MILA and the chiefdom council (Interview 9 and 13). Local land conflicts, including intra-family conflicts, are dealt with in this committee, some of which have apparently already been addressed (Interview 11 and 12).

Unions have not yet been established to address work issues. To avoid problems of cheating by contractors on the workers for the wages, a supervisor also marks checks the work (Interview 13).

Outgrower program / smallholder program

The outgrower scheme is still in an early conceptual stage, with the final concept not yet established at the time of the interviews, which does not allow drawing much conclusions yet. NH stresses that outgrowers will need to be as productive as the company estate, requiring significant investments into the outgrowers and integrating them very closely to ensure 100% of outgrowers' fresh fruits (Interview 13). It is therefore likely that NH envisions a more block farming based system instead of small individual farms. According to NH, the land owner agreements stipulates that land-owning families have the chance to have 10% of the agreed land to be used for the outgrower program (ibid.). According to NH, it would be relatively easy to integrate outgrowers, since the entire concession area is already covered by RSPO relevant studies.

Farmers not involved in this core outgrower program may still sell fruits to the company. NH estimates that there are around 1,000 ha of existing oil palms around Zimmi. NH plans to certify these automatically so that they can sell to them. Some farmers also apparently asked NH already to replace old cocoa and coffee trees with oil palms, which the company is doing.

5.4.2 Remarks Natural Habitat's Zimmi Operation

[87] Cultivation will only start in 2018 as the rainy season had already started (Interview 13)

The Zimmi operation is still in a very early stage of implementation, with only a very small part of the envisaged nucleus-estate under cultivation and much of the overall model not finalized (e.g. the outgrower model). Overall implications can therefore only be observed after some time. Yet, given the enormous area of 15,000 ha, of which the largest part will be under nucleus-estate, socio-economic and environmental changes will be substantial and require strong monitoring.

In the group discussions conducted, positive early employment effects were appreciated by many members, which shows a high need for jobs in those communities. It will be necessary to study employment effects once the investment is fully operational to see whether sufficient jobs are still created. More in-depth and longer-term independent socio-economic and environmental evaluations would be also very important to understand other potential positive or negative indirect effects in order to address them.

Regarding land acquisition, NHG described that it changed from a top-down approach of acquiring the master lease to directly consulting with land owning families. While it suggests significant improvements, more in-depth studies are necessary in how far this is actually the case. More in-depth analysis of the process is also needed to understand the effects on land access for not land-owning families and different groups within land owning families. Moreover, the negotiation process still seems to be driven by the investor, with little opportunities for communities to influence the negotiation process and its results. Yet, NHG appears to recognize that the government recommended land lease rate is highly inadequate and therefore pays an additional amount to land owners signing the agreement. However, community members and other stakeholders still see the amount as far inadequate. The government recommended 50 years land lease duration with renewable options (in the Zimmi case apparently up to 99 years), is seen as too long. The government rules that 40% of the lease payment goes to the chieftaincy and district level has also received criticism given uncertainties by stakeholder whether this money is actually invested as stipulated for community development. Such a large-scale investment is likely to create substantial expectations and extra demand for public investments (infrastructure, health, sanitation, etc.). It is therefore crucial to guarantee that earmarked funds are used correctly.

While such an investment will cause fundamental landscape changes, NH claims that it is possible to follow RSPO and organic principles and combine environmental conservation while producing oil palm on a large scale. The potential ecological effects of such large-scale investment is something an in-depth analysis would need to address. NHG stressed that it does everything to preserve all areas with high conservation value. Some areas such as along rivers were only leased to make sure that no one is cutting it to avoid land degradation.

However, given the lack of external support for communities for these negotiations and government setting much of the terms (duration, lease rate), it seems to be difficult to establish fair land lease arrangements, but which might be more the fault of the public sector to provide adequate support to communities. Yet, given the company's stated focus on empowerment and on supporting small-scale oil palm farmers in accessing organic markets, prioritizing outgrower farmers' in the investments would be advisable. However, a difference to the other two oil palm investment is that the Zimmi operation is a complete Greenfield investment and therefore seems to incur significantly higher start-up costs and risks than the NedOil operation and Gold Tree. While this might justify a greater initial focus on the company nucleus-estate, creating a commitment to prioritize outgrowers at a later stage and have communities participate to a great extent in the investment's benefit, would

probably create more socio-economic outcomes than a greater focus on lease payment and casual jobs. The smallholder food crop production support programme that is supported by the DFID Legend Fund might provide a safeguard for local food security, but which would require accompanying research to understand its effects.

6 Analysis of models and Discussion

Most of the recent investments in Sierra Leone (SL) based on large-scale land lease or concession models have been criticized for a lack of transparent and inclusive negotiations, contributing to land conflicts and competitions and for failing to provide sufficient benefits to local communities. The investment case studies in the previous sections present two alternative business models for linking private sector investors with communities, which are also promoted in policy documents of the Government of Sierra Leone (GoSL): benefit-share agreements and outgrower schemes. These models involve different land tenure, ownership and production arrangements and differ in their potentials and challenges to combine commercial viability and social/socio-economic benefits for the host communities (Table 3). *Benefit-share/partnership models (Block Farms, Cocoa Production Cluster):*

The first class of models (benefit-share/partnership models), implemented in the cocoa sector and initiated by the German NGO Welthungerhilfe (WHH), is based on large-scale farming principles combined with joint-ownership arrangements between investor and community. It is expected that commercial viability is achieved by creating larger production units with operations managed by the company, similar to existing large-scale operations. Socio-economic effects are intended through (a) benefit-share agreements through which the potentially different community groups are directly benefiting from the success of the investment and (b) medium-term arrangements to transfer complete ownership to the community.

The benefit-share models initiated by the international NGO Welthungerhilfe in the cocoa sector, described in Section 4, aim at increasing commercial viability compared to purchasing from small-scale farmers by creating larger farming blocks managed by the investor. The projects include different arrangements to increase benefits for the community, with the most recent Cocoa Production Cluster (CPC) model, closely facilitated by WHH, involving the most elaborated arrangements. The model includes three main components:

- (a) a trust for the land lease managed by the investor with communities benefiting from the success of the investments through revenue-share agreements;
- (b) a reduced period under investor leadership of 20 years, which are thereafter replaced with contract farming arrangements; and

- (c) an extensive community engagement process, attempting to ensure involvement and participation of vulnerable community members (e.g. families lacking long-term land access).

A major envisaged difference to existing investments is that communities benefit not merely as recipients of lease payments or casual work, but also through shares of the benefits. Whereas the initial Block Farm models involved only agreements between investor and landowners, the CPC attempts to make these models more inclusive by including other groups in revenue-share and labor agreements to enhance their land access and income opportunities. In case the model proves to be commercially viable, benefits for communities could increase via the benefit-share agreements, the inclusion of different community groups and the medium-term transitioning to contract farming.

Yet, establishing such benefit-share agreements that involve investors, land owning and land using families requires strong external facilitation. In the CPC model, support by a German NGO and a local land rights NGO NAMATI appear to be crucial to reduce much of the initial transaction costs for the investor, allowing an intensive community engagement process and to support communities in negotiations. Moreover, continuous support and capacity building will possibly be necessary to allow the community to engage effectively in this joint venture and at a later stage take over the management. However, within usual development project structures, this will be probably a challenge. The two-year duration of the CPC project is likely to be too short to establish local capacities. WHH therefore intends to continue supporting this project through other WHH capacity building projects. A strong capacity building component to support communities in the negotiating with investors is also in line with the new National Land Policy (NLP), which aims at establishing legal aid funds for communities.

However, the model is still in a very early stage of implementation, with commercial viability still to be determined. Especially during the first years, such investments in tree crops require substantial working capital investments by the private sector. From the interviews, it remained unclear whether the domestic cocoa investors have substantial own funds to support these models adequately.

Before promoting this model widely in SL, it will therefore be very crucial to monitor the model in the cocoa sector and share the experiences to understand its potential for other contexts in SL.

In how far such benefit-share agreements can be transferred to other sectors, especially oil palm, also needs more discussion and research. Oil palm investments are arguably more complex and require large processing investments than cocoa and therefore entail significantly higher transaction and coordination costs. Literature on joint ventures or benefit-share agreements from Indonesia in the oil palm sector might provide relevant insights. Yet, experiences from other countries are possibly to provide only limited lessons, given that the arrangements developed in SL are very specific. Some research exists about joint venture models in South Africa between communities and private businesses that have been established to accompany the Government's efforts to redistribute land to communities. In spite of large diversity in models and experiences, many of the models appear to have underperformed in terms of profitability and therefore with little left to pay the communities. Research about such models from Indonesia also highlight different challenges, including transfer pricing, whereby the company overcharges on input costs, resulting in smaller profits to be distributed to farmers. The investments currently developed in the SL seem to avoid this problem by implementing a revenue instead of profit sharing agreements. Yet research at a later stage would be necessary to determine the actual impact of these models.

Outgrower models

The outgrower schemes that are implemented in the oil palm sector about integrating small-scale farmers into the investor's supply chain, thus, building up on existing small-scale farming production and ownership systems. Although various GoSL stress the need for implementing such models in these investments, the cases studied in Section 5 are among the only oil palm investments in the country that incorporate it.

Farmers might benefit from outgrower schemes through the additional output market access and indirectly potentially also through access to credit, inputs and advisory services. In terms of commercial viability, while reducing risks related to land conflicts, transaction costs might still be high due to risks of side-selling by farmers and high sourcing costs. Measures to increase commercial viability of this model by the companies involve (a) seeking external support in reducing transaction costs through infrastructure investments and smallholder support (extension, input subsidies), and (b) additional company investments in own oil palm production.

While the outgrower models themselves are similar, e.g., non involves binding contracts with farmers, the role these outgrowers schemes play within the overall investments differ, which might influence also the outcomes. The Gold Tree (GTSL) investment, for example, aimed at focusing primarily on outgrowers, but now expands the nucleus-estate to cover 50% of their fresh fruit supply through own production. GTSL explains this change with high costs of sourcing from smallholders because of their low yields and road infrastructure conditions. Only one investment, Ned Oil by Natural Habitats Group (NHG), completely relies on outgrowers. This investment relies on the smallest mill and benefits from investments of the previous company in the mill and sourcing system (brownfield investment). NHG argues that it covers higher transactions costs of sourcing from farmers by switching to certified organic palm oil production, sold to premium European markets. The NHG's Zimmi operation is the most recent, with only few hundred hectares so far under cultivation. Yet, the envisaged investment is the largest with up to 15,000 ha, up to 10,000 ha of it under nucleus-estate. The outgrower scheme, while promoted as a central component, was in early 2017 not yet clearly conceptualized.

Both GTSL and NedOil put a focus on improving the outgrower network via extension projects and projects to improve access to improved planting material. Donor support seems to be pivotal, with GTSL implementing a two-year donor-funded extension project. Both aim at acquiring funds for supplying outgrowers with subsidized improved planting material.

The interviewed outgrowers seem to value the opportunity to sell to this additional market outlet, which raises their market stability. As prices for fresh fruits are less than when selling palm oil to local traders, they seem to value the immediate cash they receive from the companies. Farmers see improved varieties as important to raise their output and incomes and therefore seem to view the extension programs and potentials to access planting material as positive, especially given the context of very limited capacities of the public research and input supply systems. Improved oil palm varieties seem to be not available locally and instead are imported. While local traders appear to lack finance and networks to import inputs for farmers, the investors seem to have capacities and know-how to import them, do the pre-nursery and access donor funds. Although, this seems to create opportunities for farmers even in the context of limited state capacities, the lack of a strong public quality system to ensure quality of inputs might still create risks for outgrowers.

The socio-economic impacts, however, depend on a number of factors. The GTSL extension system, for example, is largely donor funded, which may create risks for sustainability and effectiveness of the extension projects. However, the company stressed that it plans to continue employing most extension staff to strengthen the outgrower system. In addition, the socio-economic impacts also depend on the ability of poorer farmers to participate in the input supply project and access the subsidized inputs. Even the reduced fees could be still too expansive for them.

In the nucleus-estate outgrower models, the socio-economic impacts for smallholders also depend on the medium- to longer-term commitment of the investors towards outgrowers changes amid envisaged changes in the overall business model (i.e. a greater focus on the nucleus-estate). While at the moment, farmers have fewer market risks as there are no contracts between farmers and GTSL and GTSLh purchases nearly all fresh fruits supplied by farmers, this might change one the nucleus-estate is fully operational. A risk might be that outgrowers will receive less access to milling facilities and to company services as the company becomes less dependent on outgrowers. Yet, GTSL stressed that it will continue to buy from outgrowers due to planned mill expansions.

The long-term impacts also depend on potential effects on local traders. At the moment, increased competition between both seems to improve the position of farmers. It is too difficult to say, however, whether the investments induce other market changes, e.g., competing local traders out of the market, which can affect consumer prices or increase farmers' dependency on a single market outlet. Monitoring the development of the investment models and markets will be important, especially given the frequently changing management of many of these companies.

While these outgrower systems seem to have potentials to generate more inclusive oil palm investments, the potential depend on external support to farmers' productive capacity, e.g. via input provision projects and extension services since prices do not differ significantly to local prices. Apart from improving the socio-economic impacts, external programs to increase farmers production, will also increase the commercial viability of such models as it lowers transaction costs of operating with them.

Other more general issues would need to be analyzed to understand the overall socio-economic impacts. In one interview, for example, it was noted that landowners who had given the land tenants for farming appear to now be more interested due to the profitability, potentially worsening land access for these tenants. Likewise, there might be effects on local food production due to land use changes, which may or may not affect food security. Potential ecological effects, especially the biodiversity effects, are likely to be relevant even if the land is under outgrowers given that most of the areas seem to be largely covered by oil palm plantations.

Nucleus-estate (employment, land acquisition & tenure arrangements)

Despite the potential of these outgrower systems, most companies only implement it in combination with a large own nucleus-estate based on long-term land leases, as is the case in the GTSL and NHG's Zimmi investment. The companies argue that high investment costs in the mill and need for continuous raw material supply requires a nucleus-estate, which reduces commercial risks and costs. Both investments are new investments (Greenfield) and therefore face higher set-up costs and pioneering risks. While the only investment relying completely on outgrowers (NHG's Ned Oil) benefited from an already existing mill and supply chain structure, limited available land for a company nucleus-estate, might have also increased incentives to focus on outgrowers. Yet the much

smaller also reduces supply chain risks, and premium prices through organic certification might allow operating under a higher cost structure. However, NedOil is also in early stage and still faces significant challenges.

Oil palm investments are therefore likely to continue relying on substantial nucleus-estate components. Both investments (GTSL and NHG's Zimmi investment) are still in an early stage of implementation, with Zimmi, for example, only having few hundred hectares under cultivation. In both cases, socio-economic and environmental changes due to the nucleus-estate are therefore likely to be substantial.

Major channels through which impacts will operate are the labor and land market. The need for employment generation appear to be very high. While in-depth evaluation would be necessary, anecdotal evidence from group interviews in Zimmi, for example, suggest that these communities appreciate the creation of these jobs. The majority of households claimed to be better off than before, including in terms of accessing food and other basic need items. However, to have a full picture, there is need for monitoring the employment situation, especially during the operational phase, and for studying impacts with other empirical methods.

Both investments involve substantial land use changes. The initial approaches of acquiring the concessions led to substantial conflicts. Although the companies seemed to have followed government regulations, this procedure often excludes landowners and land users. Amid land conflicts, both investors seemed to have adjusted their approach by negotiating directly with landowning families. While it may avoid extreme forms of land conflicts, interviews in some areas by GTSL, for example, revealed still complaints by some communities that gave land away through the initial process. One community claimed that chiefs had given away land without consulting them. In another community, members seemed to have realized that they gave away too much land and apparently now face land shortages.

Some claim that the overall process is still not transparent and inclusive enough. Head of landowning families play the major role in the negotiations, which might potentially exclude other family members and those families not owning land. NHG noted in interviews that they address these issues by requiring more than one family member to sign the arrangements and allow land owners and users to be part of the arrangement. More in-depth research, however, is necessary to understand in how far land access by these groups is affected and how it can be safeguarded. One project to safeguard community food production started as part of NHG's Zimmi-investment, a donor-funded project implemented jointly with an international NGO Solidaridad to support rice and vegetable productions in the areas' wetlands. Further research is necessary to understand the potentials of such projects as safeguards against potential negative effects or to support positive spillovers.

The land tenure arrangements involve stipulations of the lease payment systems, the duration, and other related agreements (e.g. CSR investments). In terms of lease payments, all arrangements seem to be largely based on government recommendations with 50% of the payment going to landowning families of the government rate. Most stakeholders interviewed argued that the rate is too low, which led NHG to pay an additional amount, which most stakeholders still perceive as inadequate. The companies seem to blame the GoSL, which came up with these rates. The new National Land Policy (NLP) addresses this topic specifically by proposing new methods for valuing the land. Implementing this policies will be crucial to increase benefits for communities. Yet, communities will

still require substantial external support to negotiate. The legal aid fund recommended in new NLP seems to address this issue. The rules of channeling 40% of lease payment to chieftaincy and district level, also receives criticism by communities because of uncertainties about the use of these funds. As such large-scale investments create extra demand for public investments (infrastructure, health, sanitation, etc.), monitoring will be crucial to ensure their effective use. In terms of lease durations, the government recommended 50 years land lease with renewable options (in the Zimmi case apparently up to 99 years) is seen as too long by communities and external spectators. While the new NLP also addresses these issues, it still proposes 50 year duration. Additional research would be necessary to understand whether shorter durations would be also appropriate to still provide the companies with sufficient commercial incentives.

The GoSL and communities expect the investors to contribute to overall community development and public good provision through CSR activities. Most investments are not yet commercially profitable, which puts limits on such investments at this early stage. Yet, most companies seemed to have created substantial expectations because of promises made about different public investments (water well, toilet facilities, health facilities). Expectations, even if not created by the company, about other potential positive effects might also increase discontent, e.g. regarding the use of a mill residue, the sludge in the GTSL investment, which communities received from the previous company for soap making, but have no longer access to it. While these issues need further investigation, latest once investments are fully operational, grievance mechanisms seems to be inadequate at all the investments, limiting possibilities of communities to voice their concerns. At GTSL, for example, communities complained for not being able to communicate directly with the company, but for having to go through the GoSL.

Table 3: Comparison of alternative agricultural investment models

	Shareholding (Block Farm, Cocoa Production Cluster) – cocoa	**Outgrower schemes - oil palm**	**Leaseholds/concession - oil palm**
Social/socio-economic (rewards, risks, voice, ownership)			
Pros	- Rewards: Dividends in addition to leases, wages - Benefit-share: Community can benefit in line with success of project - Inclusion of marginal groups via benefit-share agreement (access to land) - Plans to transition from large-scale Block Farm to contract farming (full community ownership)	- Potential high rewards from own-farming (returns to land, family labor, investments) - Access to additional output market - No binding contracts → fewer market risks (short-term) - Potential access to inputs, know-how - Lower risks of land conflicts - Higher potential for social peace with communities	- Rewards through lease payments, wages, CSR payments

Cons	- Risks: Potential land use competition → negative effects on land access of the poor?	- But, increasing land value may reduce access to land for some - Increasing market power might outcompete local traders in future → risks of higher dependency of farmers on company, less commitment of company towards farmers once nucleus-estate increases	- Low lease & compensation payments - Long lease durations - Risks: land use competition / conflicts among/within families or community-state - Risks of unequal benefits from land leases within community
Commercial viability			
	- Potentials: High efficiency through larger production units (economies of scale) und professional management - Challenges: Initial start-up finance (high for tree crops) - High initial negotiation costs with communities for land tenure and investment sharing agreements	- Challenges: High transaction costs of sourcing from small-scale farmers (bad infrastructure, low production, side-selling) - Reduced risks of land conflicts	- High efficiency through larger production units (economies of scale) und profession management
Positive solutions from cases			
	- Plans to transition from large-scale Block Farm to contract farming - Establishment of cocoa farmer groups to increase accountability - Continuous capacity building to build up capacity with other donor projects - Extensive community engagement + negotiation support through legal aid NGO -	- PPPs to invest in rural infrastructure, extension services, access to improved inputs for outgrowers -	- Direct negotiation with landowners instead of with MAAFS - Having at least 2 signatures on lease agreements - Food production project to safeguard food security
Open issues and potential solutions			
	- Ensuring accountability of company?	- Need to ensure that company continues sourcing from outgrowers - Ensuring inclusive support programs to	- Still low lease payments: improving methodology for valuing land - Still long lease durations: strategies to transition to other models

		increase yields - Ensuring access to outgrower land for non-land owning families - Increasing collective active among farmers to negotiate (e.g. prices, quantities…)	(benefit-share, outgrower) - Uncertainty about use of share of lease payment earmarked for public investments - Lack of effective grievance mechanisms
Conclusions			
	- Commercial viability not yet proven - Need for continuous capacity support + legal aid	- Success depends on continuous commitment from company to source - Success depends on external support	- Success depends on land acquisition procedure (FPIC) - Success depends on land security & access for land owners and users

7 Conclusion and recommendations

The rise in private foreign investments in agriculture has led to controversial debates. While many stress the need for increased public and private sector investments, current large-scale land leases or concessions have raised concerns about their limited benefits for communities. The main objective of this study was to identify alternative models of large-scale land investments in SL and understand their potentials and challenges. While the investments studied are still at an early implementation stage, there are some conclusions for further discussion on land-based private sector investments.

The shareholding model involves establishing larger production units (Block Farms) with joint-ownership arrangements (benefit-share agreements) to achieve greater efficiency and more benefits for communities than only lease payments or wages. However,, large differences between the models, suggest that the specific design will determine whether benefit-share arrangements can be more effective than lease arrangements. The most recent Cocoa Production Cluster (CPC) has a promising approach, for example, which involves facilitated negotiations among villagers to include more marginalized groups (apart from landowners) and therefore attempts to address underlying issues of unequal access to resources. In addition, it involves agreements to transition in the medium-term to contract farming arrangements. Yet, the investment is still at an early stage and still needs to solve substantial challenges with substantial external support needed.

The outgrower schemes are models through which small-scale farmers are integrated as producers into the supply chain of the investor, without changing small-scale farming production and ownership systems, allowing them to benefit from returns to their land and labor. While oil palm farmers in the studied cases seem to benefit from this additional market outlet, benefits will also depend on additional public funding in outgrowers productive capacity, which would also reduce

transaction costs for investors to source from them. For the case of oil palm, however, investors usually also demand land on long-term lease basis for a nucleus-estate in addition to the outgrower scheme to ensure stable input supply and ensure commercial viability.

The benefit-share and outgrower models present possibly better practices than existing land lease and concession arrangements. Benefits through land lease and concession model seem to be constrained by the existing legal and policy framework. Lease arrangements of up to 99 years (including renewal options) cause communities to lose land access possibly for several generations without receiving adequate benefits because of low rental rates centrally prescribed by the GoSL, of which only 50% ends up with land rights holders.

Both shareholding and outgrower models are promoted in different GoSL policy documents to increase local benefits of private sector investments in agriculture. The NLP recognizes the lack of turning these recommendations into legal requirements, e.g. the Draft Guidelines for Agricultural Investments. Conteh (2017)[88] argues that this might change with the enactment of the Local Content Agency Act (LCAA) in 2016, under which agricultural companies will need to establish and support outgrowers and develop employment and training plans.

However, the conditions to establish a certain model will differ and are influenced by a variety of factors, e.g., the type of crop, the initial productive capacities of smallholders, community cohesion, the willingness or need of investors to work with smallholders, and availability of external support to smallholders and to develop and facilitate more inclusive arrangements. While it is therefore necessary to ensure that investments incorporate models that increase benefits for local communities, it is necessary to identify what kind of models and contract details are possible in a given context. The models presented, especially the benefit-share agreements, are still at an early stage and more research and sharing of experiences by project staff in SL is needed to understand their effectiveness in the cocoa sector and its transferability.

Regarding leasehold or concession models, the NLP addresses some of its problems by stressing the need for developing a new methodology for valuating land, which could lead to better outcomes of this model. While the NLP still proposes a cap of 50 years, another approach could be to develop shareholding or outgrower models as part of a two-phase approach, as currently tested in the CPC, starting with an initial period under company management or ownership to then transition into contract farming arrangements.

In an optimal situation, an investment contract would be the result of a fair negotiation process between investors and the communities based on free, prior and informed consent, allowing equal participation within communities and resulting in fair and accountable contracts and models.

The GoSL plays the crucial role in ensuring that large-scale private investments in agriculture contribute to such an inclusive development.

This first includes setting a legal framework that safeguards local communities and particularly the most poor and provides an environment for inclusive investments to develop. The new NLP appears to addresses many underlying legal shortcomings, by aiming at increasing the legal protection of customary land rights, including for the more marginal groups by addressing inequalities of existing

[88] Conteh (2017a) From Law to Action: The Local Content Agency Act 2016, Sierra Express Media, http://sierraexpressmedia.com/?p=80396

customary land tenure systems. However, these policies need to be put into the legal framework, which can be a very long process, as shows the experience of many other countries.[89] However, the controversies surrounding large-scale private investments might also create some urgency for implementing these policies.

To be effective, these legal reforms need to be combined with external support to local institutional capacity building that enable communities to negotiate with investors, ensuring broad-based participation, to identify models that make the best use of the land that are in line with long-term community needs. Continuous monitoring of investments is needed, involving systematic field investigations of such investments. The GoSL could support this by establishing transparent systems that allow sharing company investment plans, making it easier for experts to independently study the investments and determine its viability and potential impacts.

In terms of investment promotion activities, capacities in the government institutions (SLIEPA, MAAFS) could be strengthened to identify and prioritize sectors that do not require substantial land investments, but also incentivizing and requiring more inclusive business model options.

Other actors, including civil society, donors and academia, play important roles in ensuring that the government implements inclusive land policies and investors implement more inclusive models.

On a policy level, such actors would need to continue engaging in ensuring that the NLP would be put into a legal framework and ensuring that its development and implementation prioritizes the needs of local communities and safeguards their livelihoods.

On a micro-level, the major role of civil society and academics could be to support local communities in the negotiations (legal support) and acting as mediators.

External actors would be also needed to establish more inclusive models within the exsting legal frameworks. While the new NLP expands on the problem of unequal access to land, it remains unspecific on how to achieve this. The benefit share model might be an option within the given legal framework, which could more marginal groups through such benefit-share agreements to participate in the benefits made on the land, might and land ownership structures. Yet the case studies show that such an inclusive model might only develop with very strong external support to reduce transaction and coordination costs for the direct stakeholders and support more marginalized groups, which could be otherwise excluded from such processes.

By this, external support can also decrease the costs of doing inclusive business for investors, with government and development partners stepping in to fund legal support and provide in more general an environment conducive to smallholder development. Such a community support in negotiating lease rates will be very crucial ones centrally fixed land lease rates would be abolished and the lease rates would be the result of the negotiations and valuations.

Donors and civil society might also play an important role in the process of testing more innovative and inclusive models and bringing these experiences of different case studies into the policy debate. It will be therefore important to further test, evaluate and build up knowledge in the public (MAFFS and SLIEPA), civil society and academic sector about contractual details and model designs.The

[89] Conteh (2017b)

impacts and potential of transferability of the benefit-share agreements will need to be further studied and monitored and once operational.

Given the lack capacities, it might be an option to more strongly collaborate with academia or regional research bodies, e.g. with Universities through M.Sc.- and PhD-theses to study alternative investments and investment models. In other countries independent research think-tanks that partly have capacities to research agricultural investments, setting up knowledge hubs or networks within the universities and among the different research disciplines might be also an interesting avenue to improve the knowledge capacities within SL.

Appendix 1: Interview list and codes

Date	**Location**	**Organization linked to**	**Interviewees**	**Code**
2017-04-05	Kenema	WHH	Project leader and staff	Interview 1
			Project leader	Interview 2
		Randall Ltd.	Hamoudie	Interview 3
		Moa Women Development Association (MOWOMA)	Project manager	Interview 4
		Dayoub Ltd	Ougrower manager	Interview 5
2017-04-06		AliBaz	Project manager	Interview 6
		MOWOMA	Village group (women & men)	FGD 1
2017-04-07	Daru	GoldTree	Outgrower manager	Interview 7
			Extension manager	Interview 8
2017-04-08			Community 1 - FGD (mixed)	FGD 2
			FGD (women)	FGD 3
			FGD (youth)	FGD 4
			Community 2 - FGD (mixed)	FGD 5
			Community 3 - FGD (outgrower)	FGD 6
2017-04-09	Kailahun	Alibaz	FGD (block farm)	FGD 7
2017-04-10	Zimmi	Natural Habitat	Community Liason Mgr, Admin & Finance Mgr	Interview 9
			Interview Nursery contractor	Interview 10
			Land owner committee (MILA)	FGD 8
			Local Councilor	Interview 11
2017-04-11			Paramount C/f, Section chiefs	Interview 12
			Community 1 - FGD (mixed)	FGD 9
			Community 2 - FGD (mixed)	FGD 10
2017-04-14	Freetown	Natural Habitat	Country head of operations	Interview 13
2017-04-15	Yile	NedOil	Internal controller manager	Interview 14
			FGD - Mixed group	FGD 11

			Outgrower head farmer	Interview 15
2017-04-19	Phone interview	GoldTree	Local Councilor	Interview 16
2017-12/2017-01		WHH	Project leader	Interview 17
2017-12	Email conversation	ALLAT network	Representative of ALLAT	Interview 18
2018-02	Conversation	ALLAT Network	Representative of ALLAT	Interview 19