

Finding Common Ground

Studying the relation between human need satisfaction and a large-scale land investment in Sierra Leone



L.R.C. van Lanschot
3663442 - Utrecht University
4 August 2014

A thesis submitted to the Board of Examiners in partial fulfillment of the requirements of the degree of Master of Arts in Conflict Studies & Human Rights

Supervisor: prof. dr. ir. G. Frerks
Program Trajectory: Internship (15 ECTS) and Research & Thesis Writing (15 ECTS)
Word count 14752

List of Abbreviations

BHN	Basic human need
CSR	Corporate Social Responsibility
DFI	Development Finance Institution
EU	European Union
FDI	Foreign Direct Investment
FPIC	Free, Prior and Informed Consent
GoSL	Government of Sierra Leone
IFC	International Finance Corporation
MSF	Multi-Stakeholder Forum
RSB	Roundtable for Sustainable Biomaterial
SiLNoRF	Sierra Leone Network on the Right to Food
SLIEPA	Sierra Leone Investment and Export Promotion Institute

Table of Contents

1. Introduction	4
2. Case Introduction: The Addax Bioenergy Project in Sierra Leone	7
2.1. Large-scale Land Investments	
2.2. The Post-Conflict Context of Sierra Leone	
2.3. The Addax Bioenergy Project	
3. Theoretical Framework	12
3.1. Human Needs Theory	
3.2. Max-Neef's Human Scale Development	
3.3. Critique on Human Scale Development as Analytic Tool	
4. Research Design	19
4.1. Problem statement	
4.2. Sub-questions	
4.3. Research method	
4.4. Methodological problems	
5. Analysis	23
5.1. The Stakeholders	
5.2. The Issues	
5.3. The Addax Bioenergy Project from the HSD Perspective	
6. Reflection on Human Scale Development as an Analytic Tool	33
6.1. Concerns from the Literature	
6.2. Other Concerns	
7. Conclusions	37
7.1. The Addax Bioenergy Project	
7.2. The HSD framework as an Analytic Tool	
8. References	40
9. Attachments	45
9.1. Addax Bioenergy Project – Facts & Figures	
9.2. The Human Scale Development Matrix	
9.3. Types of Satisfiers	
9.4. Stakeholders of the Addax Bioenergy Project	
9.5. Issue Map	

1. Introduction

On the 14th of May 2014, Addax Bioenergy, a Swiss company that is implementing a 267 million euro investment project in Sierra Leone, proudly announced it had begun its production of biofuels for the European market. Visiting the factory site to witness this important moment, the President Koroma of Sierra Leone made the following statement:

“The Addax Bioenergy initiative is the largest private sector investment in Sierra Leone’s agricultural sector to date and provides a great example of successful investment in our country. We will be using it as a model on how to integrate local communities to further enhance their skills in a range of trades and professions (Addax Bioenergy, 2014b)”

On the exact same day, a local network of NGO’s, called the Sierra Leone Network on the Right to Food (SiLNoRF), and one of their international partners, Bread for All, released the first draft of its latest monitoring report of the companies’ operations, stating:

“The report concludes that, while SiLNoRF and Bread for All acknowledge that some positive evolutions have taken place during the period under review, there are several issues of concern that need to be addressed as soon as possible (SiLNoRF, 2014a, p.9).”

The executive summary of that report lists thirty-one issues that are said to be of immediate concern to those that are affected by the project (SiLNoRF, 2014a, p.4-8). Six years after the project’s initiation, it is startling to see how divergent the opinions about the Addax Bioenergy Project are. The Addax plantation is often promoted by the European Union (EU) as an example of an environmentally and socially responsible biofuel plantation and is the only agricultural investment in Africa to have received a sustainability certificate from the Roundtable for Sustainable Biomaterials (ActionAid, 2013; DNV GL, 2013; Schoneveld, 2013). Recent research produced by civil society, however, argues that the project is negatively impacting food security and land rights of local communities, may be threatening livelihoods more generally and lacked free, prior and informed consent from local communities before starting (ActionAid, 2013; Baxter & Schäfter, 2013; SiLNoRF, 2014a).

Although being the first in Sierra Leone, the Addax Bioenergy Project is certainly not the only large-scale agricultural investment project in sub-Saharan Africa. A complex set of factors has increased investors’ interests in farmland over the past decade. A growing world population predicts a continuation of rising global demand for food and land, which is now considered to be a relatively safe investment (Schaffnit-Chatterjee, 2012, p.1). “This trend has been spurred by policies in the European Union, United States, Brazil, and other countries favouring the use of biofuels in the transport sector to enhance energy security and reduce carbon emissions, as well as by the desire of governments in developing countries to harness

the stimulus that new commercial investments provide to the agricultural sector and to national economies (German et al., 2011a, p.1)". Another argument for these policies comes from the liberal peace dialogue, which argues that 'free markets make free men' and has been operationalised into the extension of market 'solutions' in post-conflict societies, meaning that state resources are privatised, markets are opened up to international competition and the state is reoriented to facilitate the free market (MacGinty, 2010, p.579). Supposed rural economic benefits are also one of the main reasons why governments of developing countries adopt policies that encourage foreign investors to invest in large-scale biofuel production (German et al., 2011b, p.1). The result of all these dynamics has been a massive increase in large-scale land investment projects in many post-war states over the past ten years, and throughout sub-Saharan Africa in particular, where over 50 million hectares of land have been leased to foreign actors since the turn of the century (Economist, 2011).

A central claim that critics of large-scale land investments make is that it is wrong to use agricultural land for biofuel production for the European market, rather than food production for local consumption in a country with such high malnutrition as Sierra Leone (ActionAid, 2013; Baxter & Schäfter, 2013; Schoneveld, 2013; SiLNoRF, 2014a). An investment project such as the Addax Bioenergy project does not only take away land for food production, but also affects the level of biodiversity in the region. Agricultural land is the main source of income for most Sierra Leoneans, who use a wide range of its crops for various income strategies (Baxter & Schäfter, 2013, p.68). Any project that promotes industrial monoculture may put them at risk. "When important local food and medicinal resources disappear from the land, they also disappear from diets, household income sources (particularly women's) and lives (Baxter & Schäfter, 2013, p.32)." And even if large-scale land investments could potentially be economically beneficial to local communities, the structures that distribute the value added often imply that the company benefits substantially, but other stakeholders profit only marginally (SiLNoRF, 2013a, p.10).

Not only the economic benefits, but also the potential of large-scale land investments to contribute to positive peace in post-conflict situations is questioned. Especially in regions where land rights are ill defined, Foreign Direct Investment (FDI) has the potential to aggravate old wounds or initiate new local conflicts. There are reports that claim that the Addax Bioenergy is increasing violent tensions in the Makeni area (ActionAid, 2013; Baxter & Schäfter, 2013; SiLNoRF, 2012). For example, Baxter and Schäfter (2013, p.58) conclude in their report on the Addax Bioenergy Project that "there was consensus among focus groups that the situation had deteriorated, that life had become more difficult and that tension and the risk of conflict had increased." Moreover, "Addax is said to intimidate civil society organisations and community members, and has co-operated with the local police in order to maintain security in the region (SiLNoRF, 2012, p.21)."

All this indicates that we should at least question the notion that foreign direct investment (FDI) turns war economies into peace economies. Perhaps FDI is important to help Sierra Leone develop in the long run, but it may affect PAPs negatively in the short run. The central question of this thesis will therefore be: Using the Human Scale Development framework as an analytic tool, is it possible to identify how existing structures are impeding the satisfaction of basic human needs of project-affected persons of the Addax Bioenergy project in Sierra Leone? The purpose of seeking to answer this question is twofold. First, the analysis is likely to give insights into the key issues that arise when implementing a large-scale land investment in a post-conflict area in Sub-Saharan Africa. The results could be used to inform and improve the implementation of similar investments in the future, and perhaps even suggest ways to improve the implementation of this particular project. Secondly, this investigation might show how well the Human Scale Development (HSD) framework serves as an analytic tool when trying to understand how a modern economic process affects local development towards positive peace. The Addax project offers an interesting case to do so.

In the next chapter the Addax Bioenergy Project will be introduced more thoroughly, by placing it in its context and by explaining its particularities. In Chapter 3 it will be explained why the HSD framework seems to be the most appropriate one to apply to this case. It will also make clear how this thesis will test how useful the framework is when used as an analytic tool to understand how the Addax Bioenergy Project affects its PAPs. Next, in Chapter 4, the research design of this thesis will be explained. The sub-questions that must be answered in order to be able to answer the main research question will also be presented there. In Chapter 5, then, constitutes the actual analysis will be presented, the results of which will be reflected on in Chapter 6. Finally, Chapter 7 seeks to answer the main research question as posed in this introductory chapter.

2. Case Introduction: The Addax Bioenergy Project in Sierra Leone

Social research is concerned with issues that are both socially and academically significant. This chapter highlights the social relevance of the Addax Bioenergy Project by situating it in its socio-historical context, while Chapter 3 will elaborate on the academic relevance of this thesis by placing it in its theoretic context.

2.1 Large-Scale Land Investments

The past decade has shown a clear rising trend in the number of large-scale land investments, especially in sub-Saharan Africa (Geary, 2012; Schaffnit-Chatterjee, 2012; Schoneveld, 2013; The Economist, 2011). It is difficult to derive an accurate figure on the scale of the recent investments, but it is clear that the pace and scale of recent land-based investments are of an unprecedented magnitude (Schoneveld, 2013, p.159). Research by the World Bank (2011) shows that between October 2008 and August 2009, around 40 million hectares of land was sold in land deals in Africa, while the average annual increase in agricultural land is only around four million hectares.

There are a number of highly interdependent factors that may explain this increased interest in farmland. To begin with, the process of globalisation encompasses several features that make large-scale land investments attractive. The neoliberal idea that economic liberalisation will lead to economic development has been extended into the neoliberal peace dialogue, which states that economic development in turn will bring about sustainable peace. Based on these arguments, the borders of developing countries have opened up to FDI (Schoneveld, 2013, p.51). On top of this, their governments are adopting additional policies aimed at incentivizing foreign investors to enter their markets (Bald & Schröder, 2011; Curtis, 2014). In some cases a key rationale behind these tax incentives is personal enrichment of the government itself (Curtis, 2014; SiLNoRF, 2013b).

At the same time, the international arena as a playing field for global actors has become increasingly complex as the private sector is claiming a more central role in the political-economic environment (Margulis & Porter, 2013, p.80). These changing dynamics account for uncertainty about who should be held accountable for the well being of those communities that are affected by large-scale land investments. Sometimes, it leaves space for international corporations to exploit weak governance systems, especially when traditional land laws are in place.

On the side of the investors, vertical integration has become an important strategy for large corporations that want to secure their production chain and reach economies of scale. The recent food crisis has driven up prices in the food market, which made investors realise the potential of agricultural land as an important asset class to hedge against market fluctuations and convinced governments of import-dependent countries of the need to secure their food supply (Schoneveld, 2013, p.4). At the same time, the environmental crisis has

created a large market for biofuels through pro-biofuel policies in the industrialised countries, which gained further when oil prices started increasing in 2008 (Schoneveld, 2013, p.3).

In other words, there are two motives that explain why investors are moving their money towards large-scale agricultural projects in sub-Saharan Africa. First, they may have a genuine conviction that such investments are needed in order to make a significant change in the way that developing countries organise their economies. Secondly, in search for profit, they hope to find cheap and fertile land, while securing their capital in a relatively safe investment. Interestingly, both of these expectations might be mistaken. It is important not to underestimate the social, political and environmental risks associated with such investments. For example, weak local governance structures can be an advantage for investors but can also complicate the implementation of an investment project significantly. Also, local discontent with a project may put the economic viability of the entire investment at risk when social tensions turn violent. Moreover, public scrutiny is increasing as a result of the continuous efforts of civil society organisations to bring to light what these investments imply for PAPs in host countries (ActionAid, 2013; Baxter & Schäfer, 2013; Geary, 2012; SiLNoRF, 2014a).

The effects of large-scale land investments for local PAPs are at least ambiguous and, in the absence of binding international rules, depend to a large extent on how much responsibility the management of the investing company is willing to take. Although such investments may have direct and indirect benefits for PAPs (Dessy, Gohou & Vencatachellum, 2012), there are obvious downsides as well. For example, landowners regularly receive far too little compensation for their land, or nothing at all. Some (I)NGOs and academics are convinced that large-scale land investments can ultimately never be beneficial for PAPs, even when done right (ActionAid, 2013; Geary, 2012; Schoneveld, 2013). In other words, best practice might still be bad practice. Schoneveld (2013, p.2010), for example, concludes that none of the current large-scale agricultural investments are sustainable. He defines sustainability in this context as “the reconciliation of environmental conservation, social equity, and economic objectives in a manner that respects basic human needs” (Schoneveld, 2013, p.9). As the number of large-scale land investments is likely to increase in the future (UNEP, 2012, p.6) and all stakeholders have an interest in making them succeed, it makes a lot of sense to think about how such investments can be done in a truly sustainable manner.

2.2 The Post-Conflict Context of Sierra Leone

The Addax Bioenergy Project is an excellent example of an investment taking place in the complex context described above. After a decade of civil war, which ended in 2002, Sierra Leone has now become a peaceful democracy that relies on its economic growth, which is higher than in any other African Country (AEO, 2014). The cruel civil war had destroyed the

country's infrastructure and left most of the population traumatised and uneducated. Sierra Leone is now trying to catch up. An important pillar of its development policy is inviting large companies to capitalise on its abundant natural resources. In fact, the Government of Sierra Leone repeatedly declared in its *Agenda for Prosperity* that agricultural development through large-scale agro-based production is to be the foundation for the country's economic growth and poverty reduction (GoSL, 2008; GoSL, 2013). With some help of the IFC, it has established the Sierra Leone Investment and Export Promotion Institute (SLIEPA) in order to attract the foreign capital that is necessary to achieve such development. Major tax incentives are offered to foreign investors, including waivers on import and export duties, discounts on the Goods and Services Tax, and reductions in the rate of income tax payable by foreign corporations (Curtis, 2014; SLIEPA, 2012). Besides that, company-specific Memoranda of Understanding have been signed between foreign companies and the GoSL, which offer additional financial advantages (Addax Bioenergy & GoSL, 2010). Also, it is important to note that the national law of Sierra Leone allows foreign companies to lease land for a period of fifty years, with a possible extension of twenty-one year (GoSL, 1961, p.1270).

The large number of large-scale land investments taking place in Sierra Leone can be interpreted as a sign that the tax incentives are effective. Yet poverty reduction also requires adequate distribution of wealth and sufficient tax revenues that can be allocated to developmental programmes (Curtis, 2014). Research by the IMF suggests that there is a real risk that tax incentives ultimately have adverse developmental effects (Cheng, 2008, p.5). More importantly, there are legitimate concerns about leasing land to companies that replace food production plantations with biofuel plantations in a country that is listed in the top 10 of the most food insecure countries and is heavily dependent on food imports (IFPRI, 2012, p.35). A key issue here is that it is not clear how much arable land is still available for large commercial plantations. Addax Bioenergy (2014a, p.2) claims that by 2050, "after land that is needed for food security has been set aside, more than 2 million hectares of arable land will be available for commercial agriculture in Sierra Leone". The German Ministry of Economic Cooperation and Development, however, stated that "there is no idle productive land that could easily be made available for commercial investment under the current patterns of smallholder upland cultivation and fallow rotation" in 2011 already (Bald & Schröder, 2011, p.7). There are many examples of such conflicting statements about large-scale land investments in Sierra Leone and more specifically about the Addax Bioenergy Project in Makeni. The next section will introduce that particular project.

2.3 The Addax Bioenergy Project

Addax Bioenergy is a subsidiary of the Swiss-based Addax and Oryx Group (AO) and is the company behind the largest private sector investment in Sierra Leone's agricultural sector to date. It has invested around €267 million in a project area of 14.000 hectares around the city of Makeni and started producing biofuels from sugarcane for the European markets in May

2014 (Addax, 2014d). The processing capacity of its facility is 1 million tons of sugarcane per year, which can be turned into 85.000 m³ of ethanol and in the process of turning sugarcane into ethanol it will generate 30 MW of electric power (Addax, 2014d). Addax will use half of this for its own operations and sell the other 15 MW to be added to the Sierra Leonean National grid, of which it will then constitute 20% (Addax Bioenergy & GoSL, 2010). More detailed figures and the project's timeline can be found in *Attachment 1*.

Interestingly, different stakeholders assess the Addax Bioenergy Project in very different ways. It is not clear of what exactly the Addax Bioenergy Project is a case. Some (I)NGO's continuously refer to the project with the strongly negatively associated term *land grab*, claiming that it is jeopardizing the interests of local communities (ActionAid, 2013; Baxter & Schäfter, 2013; Geary, 2012; SiLNoRF, 2014a). Other important actors, such as the GoSL, the monitoring companies and the company itself would describe the project as *best practice*, since it is the only large investment project in Africa that is compliant to the most stringent international social and environmental sustainability criteria (Addax Bioenergy, 2014b; AfDB, 2011; DNV GL, 2013). For the sake of objectivity in the analysis, the Addax Bioenergy Project is considered in this thesis as a *large-scale land investment*, which has a more neutral connotation and is regularly used in academic settings.

The fact that different stakeholders have completely different convictions about how the project impacts on local communities is precisely what makes the Addax Bioenergy Project such an interesting case study. The contradictory claims concerning the Addax Bioenergy Project indicate that there are problems to be solved. For example, there exists extensive evidence that is interpreted as a sign that food security in the Makeni area has decreased since the arrival of Addax (ActionAid, 2013; Baxter & Schäfter, 2013; SiLNoRF, 2014a), but there is also compelling evidence that suggests the opposite (DNV GL, 2014; Addax Bioenergy, 2014c). Research outcomes seem to depend mostly on how one defines *food security* and on one's data collection methods. To illustrate, African Development guidelines state that if the supply of rice in Sierra Leone is equal to 104kg per person, then the area is food secure (AfDB, 2011). It seems obvious that food security entails much more than that, such as the variety of the people's diet and the quality of their food. On the other hand, in the poor project area around Makeni, which has arguably not been food secure for a long time, people are likely to complain about their standard of life. If they are asked any questions about food security, their answers are bound to be negative. These kinds of issues are behind the multitude of contradictions that are related to the project.

Another interesting aspect of the Addax Bioenergy Project is its supposed impact on local dynamics of violence. Since the project is taking place in the post-conflict setting of Sierra Leone, "there is the tendency that disagreements over certain issues might whip up a security threat, which will not be good for the country" (SiLNoRF, 2014b, p.12). NGO's such as BFA and SiLNoRF are "also concerned about the huge conflict potential over land for

subsistence food production in Sierra Leone (SiLNoRF, 2013c, p.23).” As an explanation, Baxter and Schäffer (2013, p.56) conclude that pre-existing structures for social cohesion had disappeared after the arrival of the investor, while communities were dealing with heightened sources of potential conflict that aggravated tensions and divisions in their communities. If the Addax Bioenergy Project, which is internationally known as a *best practice* investment when it comes to its social and environmental sustainability, is accused of such harsh allegations, it seems important to assess their validity.

To be clear, this thesis will not focus on the question whether large-scale land investments may be beneficial in general and will not end with an advice about whether these investments should continue to take place. Rather, it starts with the realistic assumption that such investments are taking place and uses the Addax Bioenergy Project as an interesting case study to analyse how such large investments affect the satisfaction of human needs on a local level. More specifically, this thesis aims to provide insights about whether and how this particular large-scale land investment does so, since such an understanding might help to prevent a recurrence of violence in the post-conflict context of Sierra Leone. As the number of such deals is likely to increase in the near future (Geary, 2012, p.2), there are important lessons to be learned.

3. Theoretical Framework

3.1 Human Needs Theory

In essence, human needs theorists are convinced that, in order to attain a certain level of well being, humans need certain essentials, which are called basic human needs (BHNs).

Following these lines, they argue that “violence occurs when certain individuals or groups do not see any other way to meet their need, or when they need understanding, respect and consideration for their needs” (Kök, 2007, p.90). By thinking about how people’s needs may be satisfied to a greater extent, human needs theory is helpful in understanding processes that prevent or build peace in situations of both direct and structural violence.

The concept of universal needs can be traced back to Aristotle. “He posited the notion of needs within his Nichomachean Ethics, and contrasted “natural desires,” part of intrinsic and universal human nature, with “acquired desires,” which individuals accrue as they live in particular societies, cultures or polities“ (Avruch & Mitchell, 2013, p.5). Most contemporary BHN theories, however, use Maslow’s pyramid of human needs as their first point of reference. He grouped the BHNs in five categories, being physiological, safety, love, esteem, and self-actualization and argued that they were arranged in a hierarchic order of prepotency. His idea was that “the less prepotent needs are minimised, even forgotten or denied, but when a need is fairly well satisfied, the next prepotent ('higher') need emerges, in turn to dominate the conscious life and to serve as the centre of organisation of behaviour, since gratified needs are not active motivators” (Maslow, 1943, p.394-395).

Borrowing his list of needs originally from the sociologist Paul Sites (Sites, 1973), John Burton was the first scholar who viewed the BHNs as fixed, ontological and universal (Burton, 1979, p.209). Importantly, it was Burton who emphasised that human needs theory should serve as the primary explanation for violent behaviour. One of his main claims was that people would always strive to have their human needs satisfied, even at the cost of social disruption and personal disorientation (Burton, 1979, p.209). Although the BHN approach departs from individualism, “Burton’s orientation was toward the individual in society, as a member of a group (usually a struggle or identity group), and toward the role of authorities or institutions insofar as they frustrated the fulfilment of individual basic human needs“ (Avruch & Mitchell, 2013, p.8). Burton noted that “some structures and institutions that have evolved over time, as a result of the differentiation of power and of socialisation, do not necessarily, either in the short- or the long-term, reflect human needs and desires and frequently frustrate them” (Burton, 1979, p.209). When the institutional framework clashes with the pursuit of BHNs, disruptive behaviour, including actions of violence, may occur (Burton, 1979, p.209). Ontologically, Burton thus provides a link between the individual and the structures, by establishing that the roots of violence lay in the individual’s collective and relentless struggle to overcome the frustration of human needs deprivation. Although Burton originally

considered the human needs for identity, recognition, security and personal development to be crucial in determining whether violence would take place, he later stated that deprivation of people's need for identity alone could be decisive (Kök, 2007, p.91).

Several authors made efforts to make the link between human needs deprivation and violent conflict more explicit. One of the purposes of Galtung's conflict triangle, for example, is to describe how structural human needs deprivation may turn latent violence into manifest violence (Galtung, 1996, p.72), "through a dynamic process in which contradictions, attitudes and behaviours are constantly changing and influencing one another" (Demmers, 2012, p.59). Later, Azar introduced the notion of protracted social conflict (PSC), which emerges through a multicausal model in which need deprivation plays a key role. He emphasises the importance of collective recognition of human needs deprivation in determining whether violent conflict will take place (Azar, 1990, p.12). For Azar, the real sources of PSC include "economic and technological underdevelopment, and unintegrated social and political systems, which are deeply rooted in the lives and ontological being of those concerned" (Azar, 1986, p.29). Gurr's approach was quite different, as it aimed at quantifying the relationship between (relative) needs deprivation and violence in a positivist manner. Using large number analyses, he established his claim that relative deprivation, defined as perceived discrepancy between value expectations (what actors expect in terms of their resources) and value capabilities (what actors feel they are capable of obtaining and holding on to), is significantly correlated with instances of violence (Gurr, 1970, p.37). More specifically, Gurr suggests that the likelihood of violence varies directly with the intensity and scope of elite and mass relative deprivation (Gurr, 1970).

Given that the primary purpose of this thesis is to understand why the Sierra Leonean farmers perceive significant deprivation of their BHNs, rather than how this might impel them to resort to violent acts, this review will not deal with the literature on mobilization for collective violent action as a result of human needs deprivation extensively. Having noted the contributions of scholars such as Galtung, Azar and Gurr, this paper accepts the proposition that human needs deprivation is a driving force behind violent collective action and tries to answer the question how different formulations of the human needs approach may increase our understanding of the supposedly increasing tension in Sierra Leone.

One of the key elements of human needs theory is that it opens up many opportunities for reconciliation and prevention. In fact, "the great promise of human needs theory, in Burton's view, was that it would provide a relatively objective basis, transcending local political and cultural differences, for understanding the sources of conflict, designing conflict resolution processes, and founding conflict analysis and resolution as an autonomous discipline" (Rubenstein, 2001, p.52). When the true contradictions underlying a particular conflict are detected by an analysis of human needs, the structures, institutions and social conditions could be altered through positive sum processes to allow satisfying relations to develop

(Robertson, 1979, p.360). Burton suggests that any third party mediator should be a specialist in human need theory and conflict analysis in order to guide negotiations in a thoughtful manner. Also, Burton created the neologism “provention” to capture the “prevention of an undesirable event by removing its causes, and by creating conditions that do not give rise to its causes” (Burton, 1990, p.3). Provention means that active steps are taken to remove possible causes of conflict and to promote constructive and positive relations (Burton & Dukes, 1990, p.161). In order to do so, it is key to have understanding of what those underlying causes of future conflict may be.

In general, authorities adhering to a power-based paradigm tend to construct the threat of punishment to provide disincentives to aggrieved minority actors from taking direct action against those who are perceived to be responsible for their need deprivation. “By contrast, authorities who adhere to a problem-solving/needs-based paradigm would likely concentrate on reducing, if not eliminating the incidence and frequency of the frustration of minority actors’ important objectives by establishing alternative systems for fulfilment of their basic needs (e.g. by creating, in the short term, job training programs with pay)” (Sandole, 2013, p.32). In other words, BHN-oriented conflict resolution focuses on changing those aspects of social systems that do not satisfy people’s BHNs and thereby give rise to a situation in which people resort to acts of violence.

With regard to the Addax case, the above discussion indicates why the human needs approach seems to be helpful in understanding why tensions are rising in Sierra Leone. First, it provides a link between the global dynamics of international investment and the local dynamics that are affected by this. Secondly, human needs theory is concerned with the effects that structures have on individuals within groups, which seems to be what is happening in Sierra Leone. Thirdly, by its focus on finding the sources of communal grievances, it is well suited to be applied in cases of latent structural violence. Finally, human needs theory opens the door to violent conflict prevention in practice.

3.2 Max-Neef’s Human Scale Development

If the human needs approach is useful in finding the true contradiction in Galtung’s triangle of conflict, then the theory of Human Scale Development (HSD) might provide the adequate tools to do so. Its founding father, Manfred Max-Neef, proposed a different way of looking at development. By putting the satisfaction of fundamental human needs at the heart of development, advocates community-based action research, which is likely to provide the necessary insights for people-oriented development. In Max-Neef’s view, “development is about people and not about objects” (Max-Neef et al., 1991, p.16). The HSD framework thus offers a fundamentally different approach to development than the one adopted both in traditional developmentalism and neoliberal monetarism, in which development always concerns the accumulation of economic goods. Max-Neef, Elizalde and Hopenhayn (1991) describe Human Scale Development as “focused and based on the satisfaction of

fundamental human needs, on the generation of growing levels of self-reliance, and on the construction of organic articulations of people with nature and technology, of global processes with local activity, of the personal with the social, of planning with autonomy, and of civil society with the state" (Max-Neef et al, 1991, p.8). This is based on the idea that in order to determine which developmental process allows for the greatest improvement in people's quality of life, we must assess the possibilities that people have to adequately satisfy their fundamental human needs. The crucial question, then, becomes: "What are those fundamental human needs, and/or who decides what they are" (Max-Neef et al., 1991, p.16)?

According to Max-Neef (1991, p.17), human needs must be understood as a system in which all human needs are interrelated and interactive. He notes, "no hierarchies exist within the system, but simultaneities, complementarities and trade-offs are characteristics of the process of needs satisfaction" (Max-Neef et al., 1991, p.17). Most importantly, Max-Neef was the first to make a distinction between needs and satisfiers of BHNs. For example, food is not a human need but a satisfier of the fundamental need for subsistence. "Satisfiers may include, among other things, forms of organisation, political structures, social practices, subjective conditions, values and norms, spaces, contexts, modes, types of behaviour and attitudes, all of which are in a permanent state of tension between consolidation and change (Max-Neef, Elizalde & Hopenhayn, 1989, p.27). Within the framework, people in one social system may satisfy their human needs through the generation of satisfiers which are different from those in an other social system. Each economic, social and political system adopts different methods for the satisfaction of the same fundamental human needs. In short, "what is culturally determined are not the fundamental human needs, but the satisfiers for those needs" (Max-Neef et al., 1991, p.18). Cultural change can then be described as the process of changing the satisfiers that traditionally satisfied human needs in a particular social system.

Human needs can be categorised according to many criteria; there is not just one right categorization. As an example, Max-Neef organised human needs into two categories: existential and axiological, allowing him "to demonstrate the interaction of, on the one hand, the needs of Being, Having, Doing and Interacting; and, on the other hand, the needs of Subsistence, Protection, Affection, Understanding, Participation, Idleness, Creation, Identity and Freedom" (Max-Neef et al., 1991, p.17). His example of such a matrix can be found in *Attachment 2*. Max-Neef also suggests ways to classify different types of satisfiers, namely: (a) violators or destroyers, (b) pseudo-satisfiers, (c) inhibiting satisfiers, (d) singular satisfiers and (e) synergic satisfiers (Max-Neef et al., 1991, p.31). To illustrate, within this system, natural resource exploitation, such as large-scale biofuel production, is identified as a pseudo-satisfier, because it generates a false sense of satisfaction of a given need. "Although not endowed with the aggressiveness of violators or destroyers, such satisfiers may on occasion annul, in the not too long term, the possibility of satisfying the need they were originally aimed at fulfilling" (Max-Neef et al., 1991, p.31). In *Attachment 3* descriptions of the other types of

satisfiers are provided.

As the HSD framework indicates how social systems could be constructed to adequately satisfy BHNs, Max-Neef suggests that improving key satisfiers should be definitive in determining a development strategy. When the focus of such a strategy lies on improving the satisfaction of people's needs, development will have the most impact on the well being of human beings. Instead of an ultimate aim, human need satisfaction should be the motor of development itself (Max-Neef et al., 1991, p.52). There are several features of HSD that explain why it is helpful to use the HSD framework in constructing a development strategy.

One of the advantages of Human Scale Development is that it formulates needs both as deprivation and as potential. An unfulfilled need of understanding for example, can be seen as a deprivation, but is also a potential for understanding. Similarly, the need for affection is a potential for affection. "To the degree that needs engage, motivate and mobilise people, they are a potential and eventually may become a resource" (Max-Neef, 1989, p.26). By formulating needs as potential, the HSD framework suggests ways to solve problems that exist because structures are not satisfying human needs.

In order to find which structures are failing, the HSD framework provides an approach that meets the requirements of small group, community-based processes, while simultaneously integrating global structures in the analysis. The idea is that, through critical analysis, participants will gain deep understanding of the failing structures in their society. "Through a process of regular dialogue—preferably with the presence of a facilitator acting as a catalysing element—the group may gradually begin to characterise itself by filling in the corresponding squares" (Max-Neef, 1991, 37). Having gained understanding of what the deprivations are in society, the group is then invited to "repeat the exercise in propositional terms: that is, identifying which satisfiers would be required to fully meet the fundamental needs of the group" (Max-Neef, 1991, 37). The detailed approach of such a process is explained in the next chapter.

Finally, acknowledging that most developmental problems face a complex web of interrelated issues that cannot be understood by analysing it from the perspective of one discipline alone, the HSD framework constitutes a transdisciplinary approach. It makes the HSD framework apt to deal with real situations, as it is not restricted by the boundaries of a particular field of study. It also means that social systems can be analysed in a comprehensive manner. It is precisely the relation between different needs and satisfiers that are assumed to offer potential for problem-solving strategies.

3.3 Critique on Human Scale Development as Analytic Tool

There has been much debate concerning the extent to which the problem-solving process that the HSD framework prescribes can be helpful in the actual analysis of preventing and solving violent conflict. Many contemporary scholars have tried to improve BHN theory by

incorporating new ideas in it that could deal with its original practical shortcomings. A number of clear themes have emerged that categorise the contributions in a coherent manner; these have to do with the dilemma of power (asymmetry), the limitations of rational choice thinking at the heart of Burton's conception of BHN, and culture as an under-theorised dimension of human needs theory (Avruch & Mitchell, 2013, p.12).

First, concerning power, the dilemma presents itself to the individual mediator who intervenes in a conflict between parties with obvious and undeniable differences of power, and seeks a solution" that does not merely entail the less powerful accepting whatever the more powerful want (Avruch, 2013, p.41). The core problem is that the HSD framework assumes that there is power symmetry between participants in the problem-solving process, which might not always be the case. If there is power asymmetry, the more powerful party is likely to have a stronger position in the debate and is likely to be hesitant to give up some of the benefits related to that position, even if it knows that this would benefit the social system as a whole. In such cases, the problem-solving process suggested by Max-Neef is unlikely to give way to solutions that constitute positive-sum games in which every party is willing to take part.

Secondly, Abu-Nimer (2013, p.166) thinks that the problem-solving process that is suggested by human needs theory far too easily assumes that parties involved in a conflict can be rational; that "they will weigh the cost of their conflict behaviour and are able to modify their actions accordingly". In other words, BHN theory relies heavily on the bedrock assumption "that parties, educated as to the power of BHNs, will come rationally to "cost" their conflict behaviour and that this insight will presage some sort of resolution, is a part of the "classic model" that has not fared well" (Avruch & Mitchell, 2013, p.15). Basically, the problem is that BHN theory is said to overemphasise the parties' capacity for analytic and rational behaviour and action, and thus overestimates its conflict resolution and prevention capabilities. "As one knows from Northern Ireland, or from the South African post-Apartheid model, and even from post-civil rights laws in the USA, passive acceptance based on simple recognition that all people have needs that should be respected through law is not enough to develop genuine understanding and appreciation of human connectedness among conflicting groups or even to create strong bonds against future conflicts" (Abu-Nimer, 2013, p.175).

Thirdly, the human needs approach is often said to be culturally insensitive. Although on the theoretical part, Max-Neef incorporated culture in the HSD framework by stating that human needs are universal and it is the satisfiers that are culturally determined, (Max-Neef, 1991, p.18), there remain some issues with the way that cultural dynamics might affect the practical side of the problem-solving process. With regards to the practice of conflict resolution, Väyrynen argues that "mediation does not take place in a vacuum or laboratory, but it is a highly context-dependent form of human action, which is tied to a specific time and place" (Väyrynen, 2013, p.105). This makes it difficult for stakeholders from different cultures

to come to terms, as they might not understand how sets of satisfiers that are crucial to the satisfaction of human needs might differ between stakeholders in a particular social system.

In summary, conflict resolution scholars and practitioners are still struggling with conceptualizing practical tools and approaches to address the three core limitations of the existing BHN framework: cultural relevancy, asymmetric power relations, and the assumption of cost-benefit analysis based on rational thinking (Abu-Nimer, 2013, p.183). Still, the BHN framework, and Max-Neef's model of Human Scale Development particularly, is well suited to address the question relating to the Addax case in a thoughtful manner, because it (i) puts human needs at the heart of violent conflict explanations, (ii) explains how individuals within groups may be affected by structures and institutions, (iii) is capable of dealing with complex multidisciplinary issues, (iv) emphasises the importance of community-based processes and action research, (v) provides insight in how local communities dynamics may be affected by global dynamics such as international investment dynamics, and (vi) is able to assess latent structural violence in such a way that it may provide ideas about prevention.

With the academic criticism in mind, it will be interesting to see how well the human needs framework, and more specifically the HSD framework, as an analytic tool will increase our understanding of how a large-scale land investment such as the Addax Bioenergy Project in Sierra Leone affects local development towards positive peace. This is how this thesis derives its academic relevance.

4. Research Design

At this point in the thesis, several important questions have already been answered:

1. What is the context in which large-scale land investments take place (Sections 2.1 and 2.2)?
2. What are the case-specific and generalizable attributes that make the Addax Project such an interesting case study (Section 2.3)?
3. What are the ideas posited in human needs theory (Section 3.1)?
4. More specifically, what is Max-Neef's concept of the HSD framework (3.2)?
5. What are its main shortcomings as an analytic tool as identified by the existing literature (Section 3.3)?
6. How does the HSD framework relate to large-scale land investments (Section 3.3)?

4.1 Problem Statement

To be clear, the main research question of this thesis, as posed in the introductory chapter is:

Using the Human Scale Development framework as an analytic tool, is it possible to identify how existing structures are impeding the satisfaction of basic human needs of project-affected persons of the Addax Bioenergy Project in Sierra Leone?

In Chapter 3, it became clear that, within the HSD framework, structures are satisfiers of basic human needs, which “may include, among other things, forms of organisation, political structures, social practices, subjective conditions, values and norms, spaces, contexts, modes, types of behaviour and attitudes” (Max-Neef et al., 1989, p.27). In trying to answer the main research question, the purpose of this thesis is twofold:

1. Establishing how the Addax Bioenergy Project affects human needs satisfaction of PAPs in order to understand how violent action may be prevented;
2. Testing how well the HSD framework serves as an analytic tool to increase our understanding of how a large-scale land investment affects local development towards peace.

In line with these purposes, this thesis has an explanatory function, because it aims to explain how structures affect human needs satisfaction, as well as an evaluative function, since it is also a test case of the HSD framework as an analytic tool (Ritchie, 2003, p.27). In relation to the two purposes of this thesis there are basically two underlying hypotheses:

1. There are a number of structures that do not adequately satisfy PAPs needs for subsistence, security, participation, understanding and identity;
2. There is/are one or more practical problem(s) with using the HSD framework as an analytic tool to help understand how a large-scale land investment affect local peace development towards peace.

4.2 Sub-Questions

In order to be able to answer the main research question, several sub questions need to be answered. These are divided in two parts, which relate to the two purposes of this thesis.

1. How does the Addax Bioenergy Project affect human needs satisfaction of its PAPs?
 - 1.1. What are the destructive elements (satisfiers) affecting their society? That is, all those 'destroyers' that impede the actualization of the fundamental human needs
 - 1.1.1. with respect to being (attributes, personal or collective (negative, in this case), that are expressed as nouns);
 - 1.1.2. with respect to having (institutions, norms, mechanisms, tools, laws, etc.);
 - 1.1.3. with respect to doing (actions, personal or collective, that are expressed as verbs);
 - 1.1.4. with respect to interacting (locations or milieus in the sense of times and spaces) (Max-Neef, 1989, p.40).
 - 1.2. Which of those satisfiers are most important? Which of them can be grouped under one common satisfier?
 - 1.3. What insights does the resulting *Negative Synthesis Matrix* provide?
 - 1.4. Can these deprivations be expressed as potentialities?
 - 1.5. What insights does the resulting *Positive Synthesis Matrix* provide?
2. Does the HSD framework increase our understanding of how a large-scale land investment affects local peace development towards peace?
 1. Having answered the first set of sub-questions, did the HSD framework provide useful/interesting insights that increase our understanding of how a large-scale land investment affects local peace development towards peace?
 2. If not, what made using the HSD framework as an analytic tool problematic? Are there similar concerns to those raised by academics?
 - a. Did power imbalances seem to hinder *such positive-sum games*?
 - b. Did irrational decision-making seem to hinder *such positive-sum games*?
 - c. Did cultural differences seem to hinder *such positive-sum games*?
 3. Are there additional concerns that arose while using the HSD framework as an analytic tool?

4.3 Research Method

Step 1: Data Collection

Although human needs are experienced by individuals, their satisfaction depends on how well structures function as satisfiers of those needs. Therefore, it is those structures that constitute the unit of analysis of this thesis. The data collection tools used were:

- Extensive literature review, including, amongst others: academic literature, reports published by civil society organisations, government publications and official monitoring documents.
- As an intern at Cordaid's Corporate Strategy Unit, the researcher was involved in setting up the so-called *Action Research Dialogue Project in Sierra Leone*, the project proposal of which can be found in *Attachment 4*. This provided key data collection tools:
 - Extensive discussions with Cordaid's Senior Corporate Strategist (Davin Bremner), who co-designed Cordaid's intervention in the Addax Bioenergy Project.
 - Extensive discussions with Cordaid's Expert on Entrepreneurship (José Ruijter), who co-designed Cordaid's intervention in the Addax Bioenergy Project.
 - Participant observation during a full day of meetings with a senior official of Addax Bioenergy at the Cordaid and the Dutch Development Bank offices.
 - Participant observation at the two-day Core Group Meeting in Makeni, Sierra Leone. The aim of that meeting was to facilitate a group of "key stakeholders who will discuss, define and co-design, and thereby 'own' the research dialogue activities" (Cordaid, 2014b, p.2). The Core Group agreed on a categorization of the issues and discussed which issues were most important. Although the Core Group Meeting was not structured according to Max-Neef's guidelines, HSD was the main framework guiding the construction of the Core Group Meeting and the HSD matrix was even explained during the meeting. Throughout the project, Cordaid seeks to answer the questions "which human needs are going unsatisfied; how are the existing structures dysfunctional for the purpose; what would contribute to needs satisfaction in this specific social or cultural context; and how will the proposed project contribute to improving social structures and institutions so that they better serve to help people meet their needs?" (Cordaid, 2014a, p.4)
 - Four semi-structured key informant interviews with PAPs in two villages in the Makeni area.
 - A mother and teacher in the Woreh Yeamah village, whose land is leased by Addax Bioenergy;
 - A male blacksmith in the Woreh Yeamah village, who is a former employee of Addax Bioenergy;
 - The male chief of the Romaro village, who leased most of his land to Addax Bioenergy;
 - A male employee of Addax Bioenergy who lives in the Romaro village.

Step 2: Constructing a List of Issues

The data generated by the data collection tools is subsequently used to create a list of all the issues that are related to the Addax Bioenergy Project. This is necessary in order to address the issues with Addax Bioenergy in a comprehensive manner. For sake of clarity and simplicity, the list of issues will only be illustrated by formulations of SiLNoRF and Addax Bioenergy, and not of other stakeholders.

Step 3: Turning the List into Matrices

This is an important part of the actual analysis in which Sub-question 1 will be answered. The list of issues is turned into a negative synthesis matrix and a positive synthesis matrix, by following these steps:

- Establish what kinds of needs are related to the each issue;
- Put those issues rephrased as satisfiers in the corresponding cell of the *Unconsolidated Matrix*;
- Consolidate that map in a negative synthesis matrix, in which satisfiers are formulated as deprivations.
- Consolidate that map in a positive synthesis matrix (potentialities)

Next, the matrices are interpreted in order to answer sub-questions 1.3 and 1.5.

Step 4: Reflection on HSD as an Analytic Tool

This is an important part of the actual analysis in which Sub-question 2 is answered.

Step 5: Conclusions

What conclusions can be drawn from the results that are obtained?

4.4 Methodological Problems

The most important problem with the method described above is that a workshop as proposed by Max-Neef did not take place. The Core Group Meeting was the closest that the researcher could get to a “participative exercise of self-diagnosis” based on the HSD framework (Max-Neef et al., 1989, p.37). The researcher uses all data collection tools at his disposal to make informed decisions while constructing the list of issues and the matrices. Yet the issue remains that those matrices are not created by a broad set of the project’s stakeholders themselves.

Also, throughout this thesis, it is essentially assumed that the communities were fully represented by SiLNoRF, which is certainly a problematic assumption. It was impossible to get representative answers from the PAPs themselves. The four interviews that were held in the Makeni area did provide some direct input, but the limited number of interviews makes it difficult to draw conclusions firm from them.

5. Analysis

The HSD framework allows for the comprehensive analysis of social structures in a certain social system. As explained in Chapter 4, the framework is well suited to deal with complex and multidisciplinary problems, such as the issues related to the Addax Bioenergy Project. Before it is possible to analyse the issues from the HSD perspective, a crucial first step in defining the problems at hand is to identify the stakeholders of this particular investment project.

5.1 The Stakeholders

There are many actors involved and they all have their own interests in and concerns. *Table 1* on the next page is an overview of the different groups of stakeholders, which are broken down in their different components in *Attachment 4*. It is clear that Addax Bioenergy and the PAPs are key stakeholders. In this paper, the term PAP refers the people in the Sierra Leonean communities that are affected by the investment. The other stakeholders will briefly be introduced.

“The Sierra Leone Network on the Right to Food (SiLNoRF) was founded in 2008 as a national coalition of civil society organisations promoting the right to food by advocating against land grabbing in Northern Sierra Leone (SiLNoRF, 2014).” The network aims to be involved in evidence-based lobby and advocacy and has continuously monitored the Addax Bioenergy Project since 2010. Claiming to function as a watchdog over Addax Bioenergy, it has been critical of the project in the past (SiLNoRF, 2014b). It is financially and strategically supported by several INGO’s, including Bread for All, Brot für die Welt and Cordaid.

Another important stakeholder is the GoSL. In line with its focus on economic development through large-scale foreign investments it signed the Memorandum of Understanding in 2010, which set the playing field for the implementation of the Addax Bioenergy Project (Addax Bioenergy & GoSL, 2010). The GoSL essentially made the investment happen, receives tax revenue as well as electricity for its national grid, and is the only actor that is able to change the Sierra Leonean land laws.

The Addax Bioenergy Project is partially funded by eight European and African development finance institutions (DFI’s), which each have their own compliance requirements with regard to social and environmental standards, including amongst others the African Development Bank’s safeguards policies, the World Bank’s International Finance Corporation (IFC) performance standards, the EU renewable energy environmental and social sustainability criteria, and those of the Roundtable for Sustainable Biomaterial (RSB). The financial support of the DFI’s is crucial and the sustainability criteria they want Addax Bioenergy to be compliant to give the project its legitimacy with regard to its corporate social responsibility (CSR).

Since many of these DFI's are financed by government money, they are stakeholders themselves as well. They have the responsibility to spend their taxpayers' money in a sustainable way and could change legislation with regard to such investments by the development banks. Also, investments such as the Addax Bioenergy Project take place in reaction to European policies that promote the use of biofuels. Addax Bioenergy produces for the European market, which is growing because the EU established the goal of reaching a 10% share of renewable energy in the transport sector by 2020 (Glass, 2014).

INGO's are involved because they fund local NGO's (SiLNoRF in particular) and are involved in lobby and advocacy at the international level. The Multi-Stakeholder Forum (MSF) is a platform at which different local stakeholders can discuss issues with the project. The MSF Taskforce is the committee that is supposed to take up the issues that have been discussed in the MSF. Finally, international institutions that formulate voluntary guidelines for sustainable investment and official monitoring institutions are important stakeholders because they set the standard for the sustainability policies of large-scale agricultural investments.

Table 1. List of Stakeholders of the Addax Bioenergy Project
1. Addax Bioenergy
2. Project Affected Persons (PAPs)
3. Sierra Leone Network on the Right to Food (SiLNoRF)
4. Government of Sierra Leone (GoSL)
5. Development Finance Institutions (DFI's)
6. Governments of donor countries
7. INGO's
8. Multi-Stakeholder Forum
8. International institutions that formulate guidelines
10. Official monitoring institutions

5.2 The Issues

Now that it is clear which stakeholders have an interest in the Addax Bioenergy Project, the next step is to identify what type of issues they have with it. Categorizing those issues in a comprehensive manner is a key part of the analysis of this thesis, because different stakeholders refer to different types of issues and have used various categorizations themselves. Most of these issues are related to each other in a highly complex manner. The main categories of problems that were identified are shown in *Table 2*. It is important to note that there are many issues that relate to each category; the comprehensive list of issues is can be found in the *Issue Map (Attachment 5)*. All participants of the Core Group Meeting agreed with this categorization of issues during the meetings in Makeni. The construction of

this list was the result of all the data collection methods discussed in Chapter 4. An issue was included in the *Issue Map* if at least one stakeholder had identified it as being one.

Table 2. Categories of Issues Relating to the Addax Bioenergy Project
1. Community involvement and consultation structures
2. Land rights and compensation issues
3. Food security
4. Employment
5. Environmental issues
6. Monitoring
7. Social, cultural and community welfare issues
8. Accountability structures
9. Macro-dynamics

For sake of clarity of the issue map, the issues are explained in terms of only two key groups of stakeholders: Addax Bioenergy and SiLNoRF. Although SiLNoRF's interests do not completely align with those of the PAPs, SiLNoRF's mission is to represent them and formulate issues in terms of the interests of the PAPs. To illustrate, column A displays short descriptions of the issue at hand. Column B and C show a formulation of the problem as produced by Addax Bioenergy and SiLNoRF or PAPs respectively. Each category of issues listed in *Table 2* is shortly explained below.

First, the issues with community involvement and consultation structures are at the heart of the problem (SiLNoRF, 2014a, p.18). Although Addax claims to have informed all the landowners about the land leases, it seems that they were never granted full FPIC by landowners. Landowners claim that the terms of the land lease were never explained fully to them and that they did not understand the land leases that they signed (ActionAid, 2013; Baxter & Schäfer, 2013; SiLNoRF, 2014a). Although it is clear that Addax Bioenergy supplied information packages and organised community meetings to inform them, it remains difficult to assess to what extent landowners were involved in the process and the extent to which they were able to refuse to sign the lease. In an effort to have on-going stakeholder engagement, Addax Bioenergy constructed several platforms that facilitate dialogue, such as the MSF, but PAPs continue to complain about their involvement in decision-making processes.

Secondly, there are many issues with land rights and the amount of compensation that landowners should be paid. The underlying problem is that the traditional land laws of Sierra Leone are not suited to deal with these kinds of land leases. The law does not

recognise most land users as land owners, allows foreign companies to lease land for a period of fifty years, and is vague about compensation for specific crops (ActionAid, 2013; Baxter & Schäfter, 2013; SiLNoRF, 2014a). Although Addax Bioenergy was the first company to enter into Acknowledgement Agreements, which forces it to pay a percentage to land users on top of the lease fee (Addax Bioenergy, 2014c, p.3), this compensation is said to be far too low (ActionAid, 2013; Baxter & Schäfter, 2013; SiLNoRF, 2014a).

Thirdly, food security is a highly contested issue. Addax claims it has increased food security significantly (Addax Bioenergy, 2013a, p.1), whereas PAPs and many civil society organisations claim the opposite (ActionAid, 2013; Baxter & Schäfter, 2013; SiLNoRF, 2013). As indicated in Chapter 2, any statement about food security depends on one's definition of food security and the data collection methods one uses. Changes in land use patterns may affect food security in a variety of ways such as declining levels of food production, increasing food prices and a decreasing quality of food. In a country where malnutrition is high, assessing an investment's impact on food security is both important, because a decline may be disastrous, and complex, as malnourished people are likely to claim that food security is decreasing, in order to get compensated.

Fourthly, Addax Bioenergy is accused of making juicy promises regarding the number of PAPs the company would employ as a result of the investment, to which it has not lived up yet (ActionAid, 2013; Baxter & Schäfter, 2013; SiLNoRF, 2013b). Although Addax is denying such allegations, it is a fact that most Sierra Leonean employees of Addax are employed on a temporary base and are hired to do low-skilled work (Addax Bioenergy, 2013b; AfDB, 2011; Driver & Bisset, 2013). At the same time, Addax Bioenergy is not responsible for educating its PAPs and cannot be expected to turn subsistence farmers into highly skilled employees of a modern firm. Addax Bioenergy complains that the PAPs do not understand how to behave as a proper employee and are not very reliable (Addax official, personal communication, April 8, 2014).

Fifthly, there are many environmental issues related to the Addax Bioenergy Project. Civil society blames the company, amongst others, for a loss in biodiversity, water pollution and an indirect impact on bushes and forests outside the project area (SiLNoRF, 2014a). Yet NKUK UK, the company responsible for official monitoring of the project's environmental impact, claimed that "none of the physical, chemical or biological parameters monitored showed any significant changes from the baseline conditions" (Driver & Bisset, 2013).

Sixthly, different stakeholders refer to different international guidelines and monitoring frameworks. This means that they use different definitions for similar concepts, do different types of research, and question each other's credibility. Mutual mistrust also accounts for the issue that working relations between stakeholders are sometimes adversarial instead of constructive, which is not beneficial to the problem-solving process.

Seventhly, Addax Bioenergy also impacts on social aspects of the communities in which it operates. For example, there are gender-related issues: land lease payments are

always paid to men and the number of women employed by Addax is significantly lower than the number of men (SiLNoRF, 2014a, p.30). It is difficult to assess to what extent these dynamics are the result of the Addax Bioenergy Project in a country where women have always been treated differently than men. Another important social issue is the effect of the investment on local conflict dynamics and the cultural value that the land has in rural Sierra Leonean culture.

Eighthly, there are no agreed upon accountability structures within the social system. International guidelines remain voluntary, which means that most actors cannot be held accountable. In the Addax Bioenergy Project this has been problematic, as different stakeholders constantly point to each other when it comes to taking responsibility for solving a certain issue. For example, it is unclear who should be held responsible for employment levels in the Makeni area. Although Addax Bioenergy should indeed provide jobs to locals, the GoSL should be responsible for educating its population and the PAPs should conduct appropriately when being employed.

Finally, when looking at the Addax Bioenergy Project from a macro-perspective, it is a case of a large-scale land investment in sub-Saharan Africa from which important lessons can be learned. There are issues concerning the environmental effects of the emerging global market for biofuels (Booz&Co, 2008; de Schutter, 2013; Schoneveld, 2013) and the extent to which tax incentives affect a country's revenues (ActionAid, 2013; Baxter & Schäfer, 2013; Curtis, 2014; SiLNoRF, 2014a), but also about the economic viability of large-scale land investments in general (Addax Bioenergy, 2014c; Schoneveld, 2013).

5.3 The Addax Bioenergy Project from the HSD Perspective

Identifying and categorizing all the issues that relate to the investment project was necessary in order to be able to conduct the core part of the analysis: assessing the issues that stakeholders have with the Addax Bioenergy Project using the HSD framework as an analytic tool. In line with the research method, as described in Chapter 4, the idea is to move from the *Issue Map (Attachment 5)* to the human need matrix that was proposed by Max-Neef (Max-Neef et al., 1989).

The issues that stakeholders have with Free, Prior and Informed Consent (FPIC), which is issue 1.1 in *Issue Map*, serve as an interesting example to demonstrate how the HSD framework changes our perception of a particular problem. The FAO describes FPIC as consisting of: "(i) information about and consultation on any proposed initiative and its likely impacts; (ii) meaningful participation of affected communities; and (iii) representative institutions" (BEFS, 2013, p.6). Although FPIC originally only applies to *indigenous people*, of which there are none in Sierra Leone, the RSB guidelines state that "the RSB requires the Free, Prior and Informed Consent of all land owners and land users, irrespective of whether they claim to be *indigenous people*" (RSB, 2012, p.12). As Addax is said to be compliant with the RSB guidelines (DNV GL, 2014), it makes sense that communities claim it should have

established FPIC. Civil society has continuously claimed that “the principle of free, prior and informed consent was seriously compromised because the information given to the project affected people was incomplete and the documents were not correctly translated if they were translated at all” (SiLNoRF, 2014a). In the Core Group Meeting, Addax Bioenergy’s senior official seriously doubted whether true FPIC could ever be granted. According to him, “You can never obtain full FPIC. Statements like ‘FPIC was or was not done’ do not make sense. There is a great need to sustain FPIC in the future as the project and context are constantly changing, but to claim Addax Bioenergy has not made considerable effort in all of these areas is disingenuous” (Addax official, personal communication, June 9, 2014).

When adopting the HSD perspective, it is straightforward to see that there are a multiple human needs that FPIC should fulfil. To begin with, FPIC could satisfy the communities’ fundamental need for understanding. If they would have been able to understand the terms of the land lease and what the investment would imply for them, they could have made an informed decision and there would most likely have been fewer issues at this stage of the investment project. Moreover, FPIC could fulfil the PAPs’ need for participation. They want to be included in the project and want to have a say in the decision-making processes, which affect their lives so heavily. Also, FPIC relates to the need for identity. Involving and consulting PAPs in decision-making makes them feel significant and respected, rather than powerless. It means a lot for a subsistence farmer to lose his/her land to a large foreign company. At the same time, FPIC is also a satisfier of the need for subsistence. The economic viability of the investment project depends for a large part on the support of PAPs, who could seriously harm the operations of the project if they intend to do so. Yet the PAPs also want the project to succeed, since they have become dependent on it for employment and food production (ActionAid, 2013; Baxter & Schäfer, 2013; SiLNoRF, 2014a). The example shows that by using the HSD framework as an analytic tool, our understanding of the issue changes. It becomes clear that FPIC is a complex satisfier that has the potential to satisfy multiple human needs: understanding, participation, identity and subsistence.

Column D in the *Issue Map* shows the types of human needs that directly relate to each issue listed in Column A in that map. Interestingly, each issue that stakeholders have raised relates to at least one of the needs in the HSD framework. Even more interesting, however, is that the issues with the Addax Bioenergy Project clearly relate to only a small subset of the human needs that were suggested by Max-Neef. In *Table 3* it is shown how many issues relate to each human need. The most important human needs that are not satisfied are the need for subsistence, security, understanding, participation and identity. The need for creation and freedom both relate to only one issue, and will be dropped in this analysis for sake of clarity. Also, Employment (issue 4.1) could indeed satisfy one’s need for creation, but the type of low-skilled work that PAPs are involved in is unlikely to do so. Issue 4.1 is thus adequately

represented as an issue related to the need for subsistence, participation and identity. Similarly, displacement (Issue 7.3) could imply an impediment to one's freedom. Addax, however, has never involuntarily displaced people and has promised to never do so (Addax official, personal communication, June 9, 2014). This means that issues with displacement are more likely to impede actualization of the needs for subsistence, identity and security.

Table 3. Number of Issues relating to specific Human Needs	
Human need	Number of issues
Subsistence	28
Security	8
Affection	0
Understanding	28
Participation	26
Idleness	0
Creation	1
Identity	9
Freedom	1

Most issues with the Addax Bioenergy Project involve the way it affects the satisfaction of the human needs for subsistence, understanding and participation. It should be noted that this is a very important insight in the problem-solving process. Next, the first version of the HSD matrix should be constructed, allowing us to visualise which issues relate to which human needs. On the next page the *Unconsolidated Matrix* is shown, which was constructed by filling in all the issues listed in the Issue Map in the corresponding cell of that matrix. The numbers behind each entry relate to their numbers in the *Issue Map*. For example, Issue 1.1 in the *Issue Map* corresponds to the issues with FPIC and concerns the human need of participation, understanding, identity and subsistence. It can thus be found in multiple cells of rows A, C, D and E in the *Unconsolidated Matrix*.

Perhaps the most important part of this analysis is determining which elements are considered to be most important and belong in the final consolidated matrix. According to Max-Neef, "that destroyer must be selected that carries the greatest weight in the lot" (Max-Neef et al., 1989, p.41). As described in Chapter 4, this should ideally be done by a working group of key stakeholders. In this case however, this decision-making process was based on the researcher's own understanding of the project, which was informed by all the data collection methods listed in Chapter 4. Page 30 shows the final *Consolidated Negative Synthesis Matrix*, in which the issues are expressed as deprivations. Since it was already established that the key needs that are not being satisfied are the needs for subsistence,

understanding and participation, the cells that are in typed in bold show the satisfiers that are most important.

Unconsolidated Matrix				
	1. BEING	2. HAVING	3. DOING	4. INTERACTING
A. SUBSISTENCE	<ul style="list-style-type: none"> • food secure [3.1, 3.2, 3.4, 3.10, 9.1] • employed [4.1, 4.2] • healthy [5.2] • empowered [7.1] 	<ul style="list-style-type: none"> • adequate compensation for land and crops [2.2, 2.3] • food & water [3.1, 3.2, 5.2, 3.7 - 3.9] • well paid work [4.1 - 4.3, 4.5, 7.2] • development programs [7.1, 9.2] • an economically viable investment [9.4, 9.5] 	<ul style="list-style-type: none"> • mitigation [3.6, 3.10] • work [4.1, 4.2, 4.5, 7.2] • development planning [9.2] • feeding [3.1, 3.2, 3.4, 9.1] 	<ul style="list-style-type: none"> • space for food production [3.1, 3.3-3.5, 3.11, 9.5] • biodiverse environment [5.1, 9.5] • living environment [7.3]
B. SECURITY	<ul style="list-style-type: none"> • safe [7.5 - 7.7] • safe at work [4.4] • cooperative [1.3, 6.4, 6.5] • understanding & aware [7.5, 7.6, 7.7] 	<ul style="list-style-type: none"> • labour rights [4.4] • safe communities [7.3, 7.5-7.7] • self-help mechanisms [7.5] • healthy relations & trust [6.4, 6.5, 7.3, 7.7] 	<ul style="list-style-type: none"> • self-help/conflict prevention [7.5] • dialogue [1.3, 6.4, 6.5] • constructive approach [1.3, 6.4, 6.5, 7.7] 	<ul style="list-style-type: none"> • living environment [7.3, 7.5-7.7] • working environment [4.4] • platforms to deal with social issues [7.3, 7.5-7.7] • safe space for dialogue [1.3, 6.4, 6.5]
C. UNDERSTANDING	<ul style="list-style-type: none"> • transparent [1.3, 2.5] • involved [1.1-1.3, 3.10, 4.5] • aware of context [2.1, 3.3, 5.1, 5.2, 7.2, 9.1] • educated [4.5] • responsible [8.1-8.7] 	<ul style="list-style-type: none"> • social license to operate [1.1] • community involvement [1.1-1.3] • transparency [1.3] • understanding of context [2.1, 3.3, 7.2, 9.1] • understanding of effects [5.1, 5.2, 6.1-6.4] • farming skills [4.5] • accountability structures [8.1-8.7] 	<ul style="list-style-type: none"> • consultation [1.1-1.3] • dialogue [1.2] • mitigation [1.1-1.3, 4.5] • education [4.5] • monitoring & audits [6.1-6.2] • research [6.3] • sharing information [6.4] • evidence-based lobby & advocacy [6.5] • learning policy lessons [9.6] 	<ul style="list-style-type: none"> • consultation structures [1.1-1.3] • safe space for dialogue [1.2] • space for personal development [4.5] • space for civil society [6.5] • accountability structures [8.1-8.7]
D. PARTICIPATION	<ul style="list-style-type: none"> • involved [1.1-1.3, 3.10, 4.5] • consulted [1.1] • transparent [1.3, 2.5] • included [2.4] • represented [2.6] • employed [3.1, 3.6, 4.1, 4.2] • empowered [7.1, 9.1] • responsible [8.1-8.7] 	<ul style="list-style-type: none"> • social license to operate [1.1] • community involvement [1.1-1.3] • land rights [2.1, 2.4, 3.3] • transparency [1.3, 2.5] • representation [2.6] • employment [3.1, 3.6, 4.1, 4.2] 	<ul style="list-style-type: none"> • consultation [1.1-1.3] • dialogue [1.2] • representation [2.6] • sharing information [6.4] • evidence-based lobby & advocacy [6.5] • work [3.1, 3.6, 4.1, 4.2] • empowerment [7.1, 9.1] 	<ul style="list-style-type: none"> • consultation structures [1.1-1.3] • safe space for dialogue [1.2] • community involvement structures [1.1-1.3, 3.10] • space for civil society [6.5] • national international alignment [6.6] • accountability structures [8.1-8.7]
E. IDENTITY	<ul style="list-style-type: none"> • significant [1.1] • involved [1.1] • landowner [2.1, 7.4] • respected [1.1, 7.4] • represented [2.6] • employed [4.1, 4.2] • educated [4.5] 	<ul style="list-style-type: none"> • power/significance [1.1] • land rights [2.1] • land [3.3] • employment [4.1, 4.2] • education [4.5] 	<ul style="list-style-type: none"> • farming [3.3, 7.4] • providing food [3.3, 7.4] • work [4.1, 7.4] • education [4.5] 	<ul style="list-style-type: none"> • community involvement structures [1.1-1.3] • living environment [7.3] • space for agriculture [7.4]

Negative Synthesis Matrix				
	1. BEING	2. HAVING	3. DOING	4. INTERACTING
A. SUBSISTENCE	food insecure	inadequate compensation for land and crops	exploit	destruction of the environment
B. SECURITY	insecure	violent tension	adversarial approach	no structures to deal with social issues
C. UNDERSTANDING	opaque	unawareness of context	incredible research and monitoring	no safe space for dialogue
D. PARTICIPATION	excluded / uninvolved	no social license to operate	disregard communities	no accountability structures
E. IDENTITY	unemployed	no significance	disrespect	loss of agricultural land

A great advantage of using the HSD framework as an analytic tool is its promise to lead to deeper understanding of the issues, which would enable a reformulation of problems into potentialities (Max-Neef et al., 1991, p.37). By understanding needs as potentialities instead of deprivations, the framework allows “for the elimination of the vicious circle of poverty” (Max-Neef et al., 1989, p.44). The design of the *Positive Synthesis Matrix* on [Page 30](#) tries to live up to this promise by showing the, in which the violators of the *Consolidated Negative Synthesis Matrix* are expressed as potentialities.

Again, it is interesting to use the issues that stakeholders have with FPIC as an example to illustrate how the HSD framework changes the way in which problems are formulated. By showing how FPIC could satisfy needs for both Addax Bioenergy and the PAPs, the framework exposes the potential of the satisfier, instead of only depicting it as a problem. Knowing that true FPIC was probably not granted (ActionAid, 2013; Baxter & Schäfer, 2013; SiLNoRF, 2013), and that FPIC implies *prior* consent, any discussion about

this issue cannot be constructive. Now that we know which needs FPIC could potentially satisfy (understanding, participation, identity and subsistence), it makes more sense to reformulate FPIC as a ‘social license to operate’, which is essentially what both Addax Bioenergy and the PAPs are after at this point. The issue becomes a potential satisfier for human needs in the future, instead of an old grudge.

Positive Synthesis Matrix				
	1. BEING	2. HAVING	3. DOING	4. INTERACTING
A. SUBSISTENCE	food secure	adequate compensation for land and crops	develop	space for food production
B. SECURITY	safe	peaceful communities	constructive approach	structures to deal with social issues
C. UNDERSTANDING	transparent	awareness of context	credible research and monitoring	safe space for dialogue
D. PARTICIPATION	included / involved	social license to operate	consult communities	accountability structures
E. IDENTITY	employed	significance	respect	space for agriculture

6. Reflection on Human Scale Development as an Analytic Tool

The analysis in the previous chapter, based on the HSD framework, has concretely resulted in two matrices: one that shows the key satisfiers that impede the satisfaction of basic human needs in the social system within which the Addax Bioenergy Project is positioned, and one that turns these negative satisfiers into positive satisfiers that could improve the situation for all stakeholders involved. In this chapter it will be considered whether there were any difficulties in using the HSD framework as an analytic tool to provide new insights in the way that the Addax Bioenergy Project affects the satisfaction of basic human needs of its stakeholders.

6.1 Concerns from the Literature

In Section 3.3 some practical concerns with using the HSD framework as an analytic tool in problem-solving processes were raised. Now that the case of the Addax Bioenergy Project has been analysed using the HSD framework as analytic tool, it is interesting to review whether these concerns have hindered the process of critical analysis in this particular case. As indicated in the Chapter 4, the core group meeting will be used as an example of such a process, although it was quite different than the one that Max-Neef suggested (Max-Neef, 1989, p.40). It should be repeated that in this case, it was the researcher who constructed the HSD matrices, instead of the stakeholders themselves. As explained in Chapter 4, the Core Group meeting is assumed to display dynamics similar to those in a true HSD process.

The first concern relates to the dilemma of power asymmetries between different parties in a problem-solving process based on the HSD framework. In order to find solutions to complex problems, actors need to work towards satisfying each other's needs, but it is questionable to what extent powerful actors are willing to give in to less powerful actors (Avruch & Mitchell, 2013, p.41). In order to discuss this concern in a thoughtful manner, it is crucial to determine what kind of *power* we are talking about, since the word has many different meanings in different settings. Hiemstra, Brouwer and van Vugt (2012, p.3) distinguish the following four types of power: 'power over' (related to control people or events), 'power within' (related to self-confidence), 'power with' (related to cooperation), and 'power to' (related to agency). Those with more resources are often said to have 'power over' others in multi-stakeholder processes (Hiemstra, Brouwer & van Vugt, 2012, p.3). In this case, for example, one could argue that Addax Bioenergy has considerably more resources and thus power over the PAPs.

However, in the problem-solving process, such as the one taking place in the Core Group Meeting, it was clear that farmers have significant power over Addax Bioenergy as well. They could severely harm the project's operations and possibly hurt the economic viability of the entire investment. The fact that two senior officials of Addax Bioenergy were present at the Core Group Meeting signified their acknowledgement of this power of the

PAPs. Moreover, Addax Bioenergy has published extensive reports in response to the negative reports of civil society (Addax Bioenergy, 2013b; Addax Bioenergy, 2013c; Addax Bioenergy, 2014c) and has taken up many issues that these reports brought to light (SiLNoRF, 2014a, p.12). Within the problem-solving process based on the HSD framework, the emphasis lies on the concept of 'power with' and this eliminates the problematic notion of 'power over'. Indeed, the stakeholders of the Addax Bioenergy Project acknowledged their interdependency, were aware that many of the issues would require joint action in order to improve, and were willing to think creatively about how to increase the satisfaction of human needs of the other parties.

The second concern is that the rational choice assumptions that underlie the HSD framework are not realistic enough to structure an actual problem-solving process (Abu-Nimer, 2013, p.166). In order to get to positive-sum games, actors are expected to calculate the costs of their adversarial attitude, realise the benefits of a constructive one and adopt the latter. In practice, getting stakeholders to participate in the Core Group Meeting was indeed a difficult task, not the least because participants were asked to refrain from any adversarial behaviour over the course of the project (e.g. publishing critical reports). Possible participants were wary of agreeing with this part of the project proposal (Cordaid, 2014, p.8), because it seemed to take away their most effective tool. After various efforts of explaining the project's intentions by the project's facilitator, most possible participants chose it was worth it to join the Core Group, thereby adopting a more constructive approach. Some key participants, however, did not. One of the involved (I)NGO's, for example, decided that the cost of participating and thereby dropping adversarial tools was higher than the benefits, and refrained from participation. After having seen the results of the Core Group Meeting, they are likely to participate in the workshop stages of the project. The majority of stakeholders that were invited to join the Core Group Meeting chose to participate and to discuss the issues in a constructive manner, which can be explained by a rational weighing of the benefits and costs in favour of the constructive approach. Overall, the concern with rational choice assumptions is valid in the sense that it requires proper attention in the problem-solving process. It seems that it can be overcome if expectations are managed in the right manner.

The third practical concern that critics of the HSD framework as an analytic tool raise is that the process does not account for cultural differences between the participants of the problem-solving process. Indeed, there are many cultural differences between the stakeholders of the Addax Bioenergy Project. For example, Addax Bioenergy finds it difficult to understand the cultural value that agricultural land has for subsistence farmers and how to deal with secret societies common to Sierra Leonean culture, such as the Porroh (SiLNoRF, 2014a, p.36). PAPs, on the other hand, have problems understanding what it means to be employed by a company: after they get paid, they often do not show up at work, because they do not feel a direct need to work (Addax official, personal communication, April 8, 2014). Cultural issues have accounted for quite some misunderstanding between stakeholders of the

project (ActionAid, 2013; Baxter & Schäfter, 2013; SiLNoRF, 2014a). At the same time, stakeholders seem to be aware of the need to bridge the cultural gap. Addax Bioenergy, for example, has organised workshops so it could be introduced to some of the rural customs (Addax official, personal communication, June 9, 2014). In addition to an effort by the stakeholders to be more understanding of each other, it is important, as Väyrynen suggested, that the mediator is characterised by sensitivity to cultural uniqueness and difference, rather than by knowledge of a predetermined set of universally applicable rules (Väyrynen, 2013, p.104). During the Core Group Meeting, Cordaid's senior strategist, who has considerable experience with Sierra Leonean culture as well as with guiding multi-stakeholder problem-solving processes based on the HSD framework, was able to manoeuvre swiftly around cultural issues and explain them when necessary. Also, the fact that the *Negative Synthesis Matrix* contains the need to understand the local context as a deprivation is a way of incorporating the cultural issue within the matrix. In short, cultural differences mattered in the Core Group Meeting, but they were largely overcome.

6.2 Other Concerns

The concerns about the practicalities of using the HSD framework as an analytic tool that were raised by academics did not turn out to be quite so problematic in the analysis of this thesis. There were, however, several problems that did make the use of the HSD framework as an analytic tool problematic. These issues will shortly be explained below.

First, throughout the entire process of constructing a list of issues and turning that list into a matrix as suggested by Max-Neef, the validity of claims that various stakeholders make was never questioned. Therefore, if an issue was raised by at least one of the stakeholders it automatically ended up in the *Unconsolidated Matrix*, which implies it might be positioned on the final matrices as well. Especially in the case of the Addax Bioenergy Project, in which so many issues are heavily contested, there is a real risk that the final matrix is not an accurate reflection of the key problems in reality. In other words, the *Negative Synthesis Matrix* is an overview of structures that are *said* to impede the satisfaction of basic human needs, but not necessarily of structures that are *experienced* as an impediment to satisfaction of basic human needs. Researching whether the claims that are made by various stakeholders are correct is beyond the scope of this thesis, but could significantly improve to what extent the content of the final matrices reflects the key problems with the Addax Bioenergy Project. In a way, cell C3 of the *Negative Synthesis Matrix* acknowledges this problem, by stressing that the human need for understanding is not satisfied, because of a lack of credible research.

Secondly, there is a serious representation problem. In the analysis of the thesis, it was assumed that SiLNoRF, a local network of NGO's, was representing the communities' needs. In reality, however, SiLNoRF has its own strategic agenda, which is influenced by some of its foreign funders. On top of that, it is impossible for an organisation such as SiLNoRF to perfectly represent each PAP in the region. Even though SiLNoRF may aim to do

so, it is likely that there are many issues within communities that the organisation is not aware of. Also, related to the first concern in this section, PAPs may complain to SiLNoRF about certain issues simply because they are relatively poor and would welcome any increase in mitigation by Addax Bioenergy. Not every issue that they bring to SiLNoRF may thus be a real issue. Although these are case-specific issues, there is a more general representation problem in using the HSD framework as an analytic tool in multi-stakeholder processes. The outcome of such processes reflects the ideas of the participants only. The *Negative Synthesis Matrix* “represents the picture of the most negative elements affecting that society, community or institution (*as perceived by the participants*) inasmuch as the actualization of fundamental human needs is concerned” (Max-Neef, 1991, p.41, emphasis added). He does not discuss to what extent the ideas of the workshop participants may differ from those of the community they are supposed to represent. To illustrate, in the case of the Addax Bioenergy Project, even if there had been several PAPs in the Core Group Meeting, they would not have represented the community of PAPs as a whole.

7. Conclusions

This thesis set out to identify how existing structures are impeding the satisfaction of basic human needs of PAPs of the Addax Bioenergy project in Sierra Leone. It used the HSD framework as an analytic tool and, in doing so, also constituted a test case of how that framework can change our understanding of complex multi-disciplinary problems such as those that relate to a large-scale land investment in sub-Saharan Africa.

7.1 The Addax Bioenergy Project

With respect to the Addax Bioenergy Project in Sierra Leone, the analysis started with collecting the multitude issues that different stakeholders have raised over the course of the project's implementation. The fact that the *Issue Map (Attachment 5)* contains 55 issues, most of which are highly interrelated, illustrates in how many ways stakeholders claim to be affected by the investment project. Ultimately, using a method similar to the one suggested by Max-Neef, two matrices were constructed that display the most important structural problems in the social system within which Addax Bioenergy operates, based on the human needs of *all stakeholders*. More specifically, the *Negative Synthesis Matrix* shows which important satisfiers are depriving people's human needs instead of satisfying them. One of the conclusions is that most issues relate to the satisfaction of people's need for subsistence, understanding, participation, identity and security. Especially the needs for subsistence, understanding and participation are not being satisfied.

The *Negative Synthesis Matrix* indicates the key satisfiers that are not geared towards satisfying those needs. When it comes to their need for subsistence, PAPs are not food secure, they do not receive adequate compensation for land and crops, and they feel like they are being exploited by Addax Bioenergy, which is destroying their natural environment. Their needs for understanding are not satisfied because Addax Bioenergy is opaque about its operations and there is no safe space for dialogue between stakeholders. At the same time, incredible research, a multitude of monitoring frameworks and the absence of critical awareness of the local context hinder the satisfaction of needs for understanding of all stakeholders. Finally, PAPs cannot fully satisfy their need for participation, because they are disregarded, instead of involved in decision-making processes. And Addax Bioenergy finds it difficult to implement the investment project because it has no social license to operate in a social system without clear accountability structures.

The *Positive Synthesis Matrix* suggests that there are ways to move forward if the stakeholders accept their interdependency and work together to increase the satisfaction of basic human needs of all stakeholders. In order to fulfil needs for subsistence, the Makeni area should be food secure, PAPs should be paid higher compensation for land and crops, the focus of the project should be on local development and there should be enough space for food production. Basic needs for understanding could be satisfied if Addax Bioenergy would

be more transparent and would increase its understanding of the local context. In addition, civil society should conduct research that is credible, there should be a clear and agreed-upon monitoring framework and a safe space for dialogue. When it comes to participation, PAPs should be included and consulted in the decision-making process. Also, Accountability structures should be made explicit. Addax Bioenergy is then likely to be granted a 'social license to operate'.

7.2 The HSD framework as an Analytic Tool

There are also conclusions to be drawn with respect to how the HSD framework as an analytic tool changed our understanding of how the Addax Bioenergy Project affects its stakeholders. Max-Neef uses the analogy of a medical patient to explain how the HSD framework is likely to offer valuable insights in situations where structures are not geared towards the satisfaction of human needs. If the diagnosis of a patient's disease is wrong, one may choose to apply an inadequate or incomplete prescription and the result may be that the patient gets worse (Max-Neef et al., 1991, p.43). Similarly, if one was to suggest changes to the implementation of the Addax Bioenergy Project, it is of paramount interest to understand exactly what the underlying problem is. In other words, the purpose of using the HSD framework as an analytic tool was to find the disease that underlies the visible symptoms of the Addax Bioenergy Project.

In a way, HSD did not live up to the expectation, because the thesis did not arrive at one fundamental underlying problem. Yet this is not necessarily a problem; a patient may have several diseases at the same time. In fact, above all, the analysis in Chapter 5 has shown that the Addax Bioenergy Project is suffering from multiple diseases and requires a comprehensive treatment. It is still remarkable that, in comparison to the *Issue Map* containing 55 different issues, the *Negative Synthesis Matrix* manages to depict the issues in a much more concise, yet still comprehensive manner. Within the matrix, the emphasis should be on rows A, C and D, since significantly more issues relate to the needs in those columns. Following this reasoning, one of the conclusions of the analysis is that the key problems that stakeholders of the Addax Bioenergy Project face are that their needs for subsistence, understanding and participation are not being satisfied by structures that normally do so. To a lesser extent, satisfaction of their needs for security and identity is also impeded.

Most interesting, perhaps, is that the deprivation of the human needs for understanding and participation are deemed more or less equally problematic to the deprivation of the human need for subsistence. In order to make a positive change to the social system within which the Addax Bioenergy Project is positioned, most efforts are likely to focus on improving the way that PAPs need for subsistence is satisfied (quote something). Although this need should indeed be prioritised, simply because it is a necessity to exist (Max-Neef et al., 1989, p.19), the analysis has clearly indicated that any effort to improve

stakeholder satisfaction should also focus on increasing the satisfaction of PAPs understanding and participation needs. On top of that, the matrix shows which satisfiers are considered to be most important in establishing a sufficient level of satisfaction of those basic human needs for this particular group of stakeholders.

The *Positive Synthesis Matrix* demonstrates that the deprivations in the *Negative Synthesis Matrix* can indeed be turned into potentialities. Although not very concrete, it provides insight in how the Addax Bioenergy Project could potentially contribute to the satisfaction of the human needs of its stakeholders, by showing which structures should be changed towards satisfying them. In Chapter 6, it was explained that the practical concerns that were raised by the academic literature indeed posed challenges to the problem-solving process, but, more importantly, that they could be overcome. Two different difficulties did arise. First, throughout the analysis the validity of claims that different stakeholders made was never tested. If a stakeholder complains about a particular issue it is not necessarily a problem in reality. The HSD framework is based on assumptions of rational choice. If stakeholders make decisions rationally, they will raise any issue that is likely to provide them benefits, even if that implies acting untruthfully. Secondly, there was a serious representation problem. Even if a few PAPs had been included in the Core Group Meeting, they would not have been representative of the entire community of PAPs. It seems that consultation rounds should be held prior to such a meeting, during which a large number of PAPs are invited to fill in the matrices themselves. This will entail practical concerns also, as it seems to be impossible to explain the HSD framework to illiterate subsistence farmers.

All in all, using the HSD framework as an analytic tool proved to be helpful in increasing our understanding of how a large-scale land investment affects local development towards peace. It was especially helpful in (i) structuring the issues in a thoughtful and concise manner and (ii) offering insights on how to improve the situation at hand by indicating which structures are dysfunctional. The analysis indicated that several satisfiers in the social system of the Addax Bioenergy Project should be altered in such a way that they are better tailored towards the satisfaction of people's needs for subsistence, understanding, participation, identity and security. This is likely to diminish the risk that any stakeholder of the project will resort to violent action in the post-conflict setting of Sierra Leone in the future.

8. References

- Abu-Nimer, M. (2013). "Basic human needs: bridging the gap between theory and practice" in *Conflict Resolution and Human Need*. *Routledge*, pp. 165-185.
- ActionAid (2013). Broken promises: the impacts of Addax Bioenergy in Sierra Leone on hunger and livelihoods. *ActionAid International*.
- Addax Bioenergy (2011). Addax Bioenergy response report alleging human right abuses at an Addax Bioenergy project in Sierra Leone. *Addax Bioenergy*.
- Addax Bioenergy (2013a). A sustainable investment model. *Addax Bioenergy*. Retrieved from:
http://www.addaxbioenergy.com/uploads/PDF/Sustainable_investment_model_January_2013.pdf
- Addax Bioenergy (2013b). Red line for Broken Promises. *Addax Bioenergy*.
- Addax Bioenergy (2013c). Open letter to ActionAid. *Addax Bioenergy*.
- Addax Bioenergy (2014a). A new model for sustainable bioenergy. *Addax Bioenergy*. Retrieved from:
http://www.addaxbioenergy.com/uploads/ABSA_May_Factsheet%202014_final.pdf
- Addax Bioenergy (2014b). Addax Bioenergy starts sugarcane bioethanol and power production in Sierra Leone. *Addax Bioenergy*. Retrieved from:
http://www.addaxbioenergy.com/data/news/Addax_Bioenergy_starts_sugarcane_bioethanol_and_electricity_production_in_Sierra_Leone_14_May_2014.pdf
- Addax Bioenergy (2014c). Implementing a large land based investment in Sierra Leone: land grab or real development – an investor's perspective. *Addax Bioenergy*.
- Addax Bioenergy (2014d). The Makeni Project: facts and figures. *Addax Bioenergy*. Retrieved from:
<http://www.addaxbioenergy.com/en/the-makeni-project/facts-and-figures.php>
- Addax Bioenergy & GoSL (2010). Memorandum of Understanding and Agreement. *Addax Bioenergy and the Government of Sierra Leone*.
- AEO (2014). Table 2- Real GDP Growth Rates. 2004-2014. *African Economic Outlook*. Retrieved from:
<http://www.africaneconomicoutlook.org/en/statistics/table-2-real-gdp-growth-rates-2003-2013/>
- AfDB (2011). Addax Bioenergy project: executive summary of the environmental, social and health impact assessment. *African Development Bank*.
- Anane, M., & Abiwu, C.Y. (2011). Independent study report of the Addax Bioenergy sugarcane-to-ethanol project in the Makeni region in Sierra Leone. *Sierra Leone Network on the Right to Food, Bread for All, Bread for the World, & EED*.
- Avruch, K. (2013). "Basic human needs and the dilemma of power in conflict resolution" in *Conflict Resolution and Human Need*. *Routledge*, pp. 40-58.

- Avruch, K., & Mitchell, C. (2013). "Introduction: basic human needs in theory and practice" in *Conflict Resolution and Human Need*. *Routledge*, pp.1-18.
- Azar, E.E. (1986). Protracted international conflicts: ten propositions" in E.E. Burton and J.W. Burton (Eds.) *International Conflict Resolution: Theory and Practice*. Wheatsheaf Books & Lybbe Rienner Publishers.
- Azar, E. E. (1990). Protracted Social Conflict: An Framework. *The Management of Protracted Social Conflict*, 5-17.
- Bald, J., & Schröder, P. (2011). Agricultural finance in Sierra Leone: product innovation and financial access. *Deutsche Gesellschaft für Internationale Zusammenarbeit and Germany Ministry of Economic Development and Cooperation*.
- Baxter, J., & Schäffer, E. (2013). Who is benefitting? The social and economic impact of three large-scale investments in Sierra Leone: a cost-benefit analysis. *Action for Large-scale Land Acquisition Transparency*.
- BEFS (2013). Sierra Leone sustainable agriculture and bioenergy investment guidelines. *Bioenergy and Food Security Projects of the Food and Agriculture Organization*.
Community Consultation Summary
- Booz&Co (2008). The Bounty of Biofuels: Perception versus Reality. Booz&Co.Burton.
- J. W. (1979). Deviance, terrorism & war: The process of solving unsolved social and political problems. *New York: St. Martin's Press*.
- Burton, J.W. (1990). Conflict: resolution and prevention. *London: MacMillan and New York: St. Martin's Press*.
- Burton, J. W., & Dukes, F. (1990). Conflict: Practices in management, settlement and resolution (Vol. 4). *London: Macmillan*.
- Cheng, K. C. (2008). Kenya, Uganda, and United Republic of Tanzania: selected issues (No. 8-353). *International Monetary Fund*.
- Cordaid (2014a). Project proposal: Cordaid research on civil society engagement 2014. *Cordaid*.
- Cordaid (2014b). Final project proposal: action research dialogue project in Sierra Leone. *Cordaid*.
- Cotula, L. (2013). The great African land grab? Agricultural investments and the global food system. *Zed Books*.
- Curtis, M. (2014). Losing out: Sierra Leone's massive revenue losses from tax incentives. *Budget Advocacy Network (BAN) and National Advocacy Coalition on Extractives (NACE)*.
- De Schutter, O. (2013). Biofuels: animal feed a minor factor. *Financial Times*.
- Demmers, J. (2012). Theories of violent conflict. *London & New York: Routledge*.
- Dessy, S., Gohou, G., & Vencatachellum, D. (2012). Land Acquisition in Africa: Threat or Opportunity for Local Populations? *African Development Bank Working Paper*.
- DNV GL (2013). Addax Bioenergy RSB public report 2014. *DNV GL*.

- Driver, P. & Bisset, R. (2013). Environmental & social performance of the Addax Bioenergy Project in Sierra Leone: a summary report prepared for Swedfund International AB. *Nippon Koei UK*.
- Galtung, J. (1996). Peace by peaceful means: Peace and conflict, development and civilization (Vol. 14). *Sage*.
- German, L., Schoneveld, G. C., & Pacheco, P. (2011a). Local social and environmental impacts of biofuels: Global comparative assessment and implications for governance. *Ecology and Society*, 16(4), 29.
- Geary, K. (2012). Our Land, Our Lives: Time out on the global land rush. *Oxfam Policy and Practice: Private Sector*, 9(2), 1-26.
- German, L., Schoneveld, G. C., & Pacheco, P. (2011b). The social and environmental impacts of biofuel feedstock cultivation: evidence from multi-site research in the forest frontier. *Ecology and Society*, 16(3), 24.
- Glass, D.J. (2014). European Union Renewable Energy Directive. *Advanced Biotechnology for Biofuels*. Retrieved from: <http://dglassassociates.wordpress.com/2013/01/22/european-union-renewable-energy-directive/>
- GoSL (1961). The Laws of Sierra Leone Vol. VII. *Government of Sierra Leone, London, Cap. 122*.
- GoSL (2008). An agenda for change: second poverty reduction strategy. *Government of Sierra Leone*.
- GoSL (2013). The agenda for prosperity: Sierra Leone's third generation poverty reduction strategy paper. *Government of Sierra Leone*.
- Gurr, T. R. (1970). Why men rebel. *Princeton University Press*.
- Hiemstra, W., Brouwer, H., & van Vugt, S. (2012). Power dynamics in multi-stakeholder processes: a balancing act. *ETC Foundation*.
- IFPRI (2012). Global hunger index: the challenge of hunger: ensuring sustainable food security under land, water and energy stresses. *International Food Policy Research Institute*.
- Kök, H. (2007). Reducing violence: Applying the human needs theory to the conflict in Chechnya. *Uluslararası Hukuk ve Politika*, (11), 89-108.
- MacGinty, R. (2010). Warlords and the liberal peace: state-building in Afghanistan. *Conflict, Security & Development*, 10(4), 577-598.
- Margulis, M. E., & Porter, T. (2013). Governing the global land grab: multipolarity, ideas, and complexity in transnational governance. *Globalizations*, 10(1), 65-86.
- Maslow, A. H. (1943). A theory of human motivation. *Psychological review*, 50(4), 370-396.
- Max-Neef, M., Elizalde, A., & Hopenhayn, M. (1989). Development dialogue. Human Scale Development: an option for the future. *Dag Hammarskjöld Foundation, Uppsala*.

- Max-Neef, M., Elizalde, A., & Hopenhayn, M. (1992). Development and human needs. *Real-Life Economics: understanding wealth creation. Routledge, London, 197-213.*
- Ritchie, J. (2003). The applications of qualitative methods to social research. In J. Lewis and J. Ritchie (Eds.), *Qualitative research and practice: a guide for social science students and researchers. London/Thousand Oaks/New Delhi: Sage Publications.*
- Rubenstein, R. E. (2001). Basic human needs: the next steps in theory development. *International Journal of Peace Studies, 6(1), 51-58.*
- Robertson, M. (1979). Book review: Burton's *Deviance terrorism and war: the process of solving unsolved social and political problems. Oxford, 359-360.*
- RSB (2012). RSB guidelines for land rights respecting rights, identifying risks, avoiding disputes and resolving existing ones and acquiring lands through Free, Prior and Informed Consent. *Roundtable for Sustainable Biofuels.*
- Sandole, J. D. (2013). "Extending the reach of basic human needs: a comprehensive theory for the twenty-first century" in Avruch & Mitchell: *Conflict Resolution and Human Need. Routledge.*
- Schaffnit-Chatterjee, C. (2012). Foreign investment in farmland: no low-hanging fruit. *Deutsche Bank Research.*
- Schoneveld, G.C. (2013). The governance of large-scale farmland investments in Sub-Saharan Africa: a comparative analysis of the challenges for sustainability. *Uitgeverij Eburon.*
- SiLNoRF (2012). Annual Monitoring Report on the Operations of Addax Bioenergy by Sierra Leone Network on the Right to Food (SiLNoRF), For the Period June 2011 – June 2012. *Sierra Leone Network on the Right to Food & Bread for All.*
- SiLNoRF (2013a). The RSB certification fails to assess the real impacts of biofuels Analysis of the RSB certification of Addax Bioenergy. *Sierra Leone Network on the Right to Food & Bread for All.*
- SiLNoRF (2013b). Annual Monitoring Report on the Operations of Addax Bioenergy by Sierra Leone Network on the Right to Food (SiLNoRF), For the Period July 2012 – July 2013. *Sierra Leone Network on the Right to Food & Bread for All.*
- SiLNoRF (2013c). Complaint of SiLNoRF and Bread for all against the RSB certificate of Addax Bioenergy: weak audit process and inadequate criteria for biofuel investment. *Sierra Leone Network on the Right to Food and Bread for All.*
- SiLNoRF (2014a). Annual monitoring report on the operations of Addax Bioenergy by Sierra Leone Network on the Right to Food (SiLNoRF), For the Period July 2013 – May 2014. *Sierra Leone Network on the Right to Food & Bread for All.*
- SiLNoRF (2014b). Bi-annual newsletter: the untold sufferings of the Manonkoh. *Sierra Leone Network on the Right to Food.*
- SiLNoRF (2014c). Welcome. *Sierra Leone Network on the Right to Food.* Retrieved from: <http://silnorf.org/>

SLIEPA (2012). Investment incentives: fiscal and financial incentive and special zones. *Sierra Leone Investment and Export Promotion Institute*. Retrieved from:
<http://www.investsierraleone.biz/index.php?l=english&p=18&pn=Investment%20Incentives>

Sites, P. (1973). Control: The basis of social order. *Dunellen Publishing Company*.

The Economist (2011) When Others are Grabbing their Land: Evidence is piling up against Acquisitions of Farmland in Poor Countries. *The Economist*. Retrieved from:
<http://www.economist.com/node/18648855>

[UNEP \(2012\). Global economic outlook 5: managing increasing pressure on land. *United Nations Environment Programme*.](#)

Väyrynen, T. (2013). "Ethics of the conflict resolution mediator: from scientific gaze to sensitive and skilful action" in Conflict Resolution and Human Need. *Routledge*, pp. 95-107.

World Bank (2011). Rising global interest in farmland: can it yield sustainable and equitable benefits? *World Bank*.

Attachment 1. Addax Bioenergy Project – Facts & Figures**Facts and figures**

Location	Bombali and Tonkolili Districts, close to Makeni, Central Sierra Leone
Project phase	2008 - 2014
Investment	Euros 267 million
Total project area	14,300 hectares
Total sugar area	10,000 hectares
Processing capacity	1 million tons of cane per year
Estimated ethanol output	85,000 m3 per year
Excess power	15 MW (for National Grid)
Workforce	2,750 (as of May 2014)

Project Timeline

2008 – 2010	Feasibility studies and stakeholder dialogue
2010 – 2013	Initial sugarcane planting
January 2011	First farmers graduating from Farmer Field and Life School (FFLS)
Autumn 2011	Groundbreaking for sugarcane bioethanol refinery and biomass electricity plant
2013	Completion of sugarcane bioethanol refinery and biomass electricity plant
2014	First production of biofuel and "green" electricity for production and National Grid
2016	Full production

Figure 1. Facts and figures about the Addax Bioenergy project (Addax Bioenergy, 2014d)

Attachment 2. The Human Scale Development Matrix

Needs according to existential categories Needs according to axiological categories	Being	Having	Doing	Interacting
Subsistence	1/ Physical health, mental health, equilibrium, sense of humour, adaptability	2/ Food, shelter, work	3/ Feed, procreate, rest, work	4/ Living environment, social setting
Protection	5/ Care, adaptability, autonomy, equilibrium, solidarity	6/ Insurance systems, savings, social security, health systems, rights, family, work	7/ Cooperate, prevent, plan, take care of, cure, help	8/ Living space, social environment, dwelling
Affection	9/ Self-esteem, solidarity, respect, tolerance, generosity, receptiveness, passion, determination, sensuality, sense of humour	10/ Friendships, family, partnerships, relationships with nature	11/ Make love, caress, express emotions, share, take care of, cultivate, appreciate	12/ Privacy, intimacy, home, spaces of togetherness
Understanding	13/ Critical conscience, receptiveness, curiosity, astonishment, discipline, intuition, rationality	14/ Literature, teachers, method, educational policies, communication policies	15/ Investigate, study, experiment, educate, analyse, meditate	16/ Settings of formative interaction, schools, universities, academies, groups, communities, family
Participation	17/ Adaptability, receptiveness, solidarity, willingness, determination, dedication, respect, passion, sense of humour	18/ Rights, responsibilities, duties, privileges, work	19/ Become affiliated, cooperate, propose, share, dissent, obey, interact, agree on, express opinions	20/ Settings of participative interaction, parties, associations, churches, communities, neighbourhoods, family
Idleness	21/ Curiosity, receptiveness, imagination, recklessness, sense of humour, tranquility, sensuality	22/ Games, spectacles, clubs, parties, peace of mind	23/ Day-dream, brood, dream, recall old times, give way to fantasies, remember, relax, have fun, play	24/ Privacy, intimacy, spaces of closeness, free time, surroundings, landscapes
Creation	25/ Passion, determination, intuition, imagination, boldness, rationality, autonomy, inventiveness, curiosity	26/ Abilities, skills, method, work	27/ Work, invent, build, design, compose, interpret	28/ Productive and feedback settings, workshops, cultural groups, audiences, spaces for expression, temporal freedom
Identity	29/ Sense of belonging, consistency, differentiation, self-esteem, assertiveness	30/ Symbols, language, religion, habits, customs, reference groups, sexuality, values, norms, historical memory, work	31/ Commit oneself, integrate oneself, confront, decide on, get to know oneself, recognize oneself, actualize oneself, grow	32/ Social rhythms, everyday settings, settings which one belongs to, maturation stages
Freedom	33/ Autonomy, self-esteem, determination, passion, assertiveness, open-mindedness, boldness, rebelliousness, tolerance	34/ Equal rights	35/ Dissent, choose, be different from, run risks, develop awareness, commit oneself, disobey	36/ Temporal/spatial plasticity

* The column of BEING registers attributes, personal or collective, that are expressed as nouns. The column of HAVING registers institutions, norms, mechanisms, tools (not in a material sense), laws, etc. that can be expressed in one or more words. The column of DOING registers actions, personal or collective, that can be expressed as verbs. The column of INTERACTING registers locations and milieu (as times and spaces). It stands for the Spanish ESTAR or the German BEFINDEN, in the sense of time and space. Since there is no corresponding word in English, INTERACTING was chosen 'a fait de mieux'.

Figure 2. Max-Neef's proposed matrix of BHNs (Max-Neef et al., 1989, p.33)

Attachment 3. Types of Satisfiers

Violators or destroyers

Supposed Satisfier	Need to Be Supposedly Satisfied	Needs, the Satisfaction of Which it Impairs
Arms race	Protection	Subsistence, Affection, Participation
Exile	Protection	Affection, Participation, Identity, Freedom
National Security Doctrine	Protection	Subsistence, Identity, Affection, Understanding, Participation, Freedom
Censorship	Protection	Understanding, Participation, Mimoso, Creation, identity, Freedom
Bureaucracy	Protection	Understanding, Affection, Participation, Creation, Identity, Freedom
Authoritarianism	Protection	Affection, Understanding, Participation, Creation, Identity, Freedom

* Violators or destructors are elements of a paradoxical effect. Applied under the pretext of satisfying a given need, they not only annihilate the possibility of its satisfaction, but also render the adequate satisfaction of other needs impossible. They seem to be especially related to the need for protection.

Figure 3. Examples of violators or destroyers (Max-Neef et al., 1989, p.33)

Pseudo-satisfiers

Satisfier	Need Which It Seemingly Satisfies
Mechanistic medicine ("A pill for every ill")	Protection
Exploitation of natural resources	Subsistence
Chauvinistic nationalism	Identity
Formal democracy	Participation
Stereotypes	Understanding
Aggregate economic indicators	Understanding
Cultural control	Creation
Prostitution	Affection
Status symbols	Identity
Obsessive productivity with a bias to efficiency	Subsistence
Indoctrination	Understanding
Charity	Subsistence
Fashions and fads	identity

*Pseudo-satisfiers are elements that stimulate a false sensation of satisfying a given need. Although they lack the aggressiveness of violators, they may on occasion annul in the medium term the possibility of satisfying the need they were originally aimed at.

Figure 4. Examples of pseudo-satisfiers (Max-Neef et al., 1989, p.35)

Inhibiting Satisfiers

Satisfier	Need	Needs, the Satisfaction of Which are Inhibited
Paternalism	Protection	Understanding, Participation, Freedom, Identity
Overprotective family	Protection	Affection, Understanding, Participation, Identity, Freedom
Taylorist-type of production	Subsistence	Understanding, Participation, Creation, Identity, Freedom
Authoritarian classroom	Understanding	Participation, Creation, Identity, Freedom
Messianism (Millennialism)	Identity	Protection, Understanding, Participation, Freedom
Unlimited permissiveness	Freedom	Protection, Affection, Identity, Participation
Obsessive economic competitiveness	Freedom	Subsistence, Protection, Affection, Participation, Identity
Commercial television	Leisure	Understanding, Creation, Identity

* Inhibiting satisfiers are those that by the way they satisfy (actually oversatisfy) a given need seriously impair the possibility of satisfying other needs.

Figure 5. Examples of inhibiting satisfiers (Max-Neef et al., 1989, p.35)

Singular satisfiers

Satisfier	Need that it Satisfies
Programs to provide food and housing	Subsistence
Curative medicine	Subsistence
Insurance systems	Protection
Professional armies	Protection
Ballet	Participation
Sports spectacles	Leisure
Nationality	Identity
Guided tours	Leisure
Gifts	Affection

*Singular satisfiers are those that aim at the satisfaction of a single need and are, therefore, neutral as regards the satisfaction of other needs. They are very characteristic of development and cooperation schemes and programs.

Figure 6. Examples of singular satisfiers (Max-Neef et al., 1989, p.36)

Synergic satisfiers

Satisfier	Need	Needs, the Satisfaction of Which it Stimulates
Breast-feeding	Subsistence	Protection, Affection, Identity
Self-managed production	Subsistence	Understanding, Participation, Creation, Identity, Freedom
Popular education	Understanding	Protection, Participation, Creation, Identity, Freedom
Democratic community organizations	Participation	Protection, Affection, Leisure, Creation, Identity, Freedom
Barefoot medicine	Protection	Subsistence, Understanding, Participation
Barefoot banking	Protection	Subsistence, Participation, Creation, Freedom
Democratic trade unions	Protection	Understanding, Participation, Identity
Direct democracy	Participation	Protection, Understanding, Identity, Freedom
Educational games	Leisure	Understanding, Creation
Self-managed house-building programs	Subsistence	Understanding, Participation
Preventive medicine	Protection	Understanding, Participation, Subsistence
Meditation	Understanding	Leisure, Creation, identity
Cultural television	Leisure	Understanding

*Synergic satisfiers are those that by the way they satisfy a given need, stimulate and contribute to the simultaneous satisfaction of other needs.

Figure 7. Examples of synergic satisfiers (Max-Neef et al., 1989, p.36)

Attachment 4: Stakeholders of the Addax Bioenergy Project

Stakeholder	Break-down
1. Addax Bioenergy	
2. Project Affected Persons (PAPs)	
	local communities
	local chiefs
	local men
	local women
	local youngsters
	rest of locals
3. Sierra Leone Network on the Right to Food (SiLNoRF)	
	3.1 international partners
	Bread for All (Swiss)
	Brot für die Welt
	Cordaid
	European Center for Constitutional and Human Rights
	FIAN International
	African Network on the Right to Food RAPDA
	3.2 members with websites
	Council of Churches in Sierra Leone (CCSL)
	Community Action for Human Security (CAHSec)
	Culture Radio
	Defence for Children International (DCI-SL)
	Green Scenery
	Mankind's Activities for Development Accreditation Movement (MADAM)
	Sierra Leone Adult Education Association (SLADEA)
	Standard Times Press newspaper
	Star Radio
	3.3 members without websites
	Buya Romende Human Rights Advocacy Group (BUYARIGHTS)
	Community Women Development Programme (CWDP)
	FoF Tamamari Network
	Foundation for Human Rights and Democracy
	Human Empowerment and Development Foundation (HEMDEF)
	Hunger Free Women
	Konikay Human Rights Watch (KONIKAYWATCH)

	Legal Access Centre (LAC)
	Mafindor Youth Development Association (MYDA)
	Movement for Patriotic Awareness and Development (MOPAAD-SL)
	Nimiyama Human Rights Movement (NIMIRIGHTS)
	Promoting Rights Obligations, Transformation Education, Commitment & Tolerance-Sierra Leone (P.R.O.T.E.C.T-SL)
	Rofutha Development Association (RODA)
	Sabi Yu Rights Advocacy Group (SYRAG)
	Sight and Skills Development Association (S.A.S.D.A)
	Taneh Human Rights Movement (TANERIGHTS)
	Tinap for Peace and Development Organisation (TIPDO)
	Women's Forum for Human Rights and Democracy Sierra Leone –WOFHRAD-SL
4. Government of Sierra Leone (GoSL)	
	Sierra Leone Investment and Export Promotion Agency (SLIEPA)
	Ministry of Agriculture Forestry and Food Security (MAFFS)
	Ministry of Foreign Affairs and International Cooperation
	Ministry of Trade and Industry
	Ministry of Finance and Economic Development
	Ministry of Lands, Country Planning and the Environment
	Ministry of Local Government and Rural Development
	Makeni District Council
	Bombali District Council
	Paramount Chiefs
5. Development Finance Institutions (DFI's)	
	The Swedish Development Finance Institution Swedfund
	The Netherlands Development Finance Company (FMO)
	The African Development Bank (AfDB)
	The German Investment Corporation (DEG)
	The UK-based Emerging Africa Infrastructure Fund (EAIF)
	The Infrastructure Fund managed by Cordiant Capital
	The South African Industrial Development Corporation (IDC), and
	The Belgian Development Bank (BIO)

6. Governments of donor countries	
	6.1 Government of the Netherlands
	Ministry of Foreign Affairs
	Ministry of Foreign Trade and Development Cooperation
	Ministry of Finance
	6.2 Government of Germany
	Ministry of Foreign Affairs
	Ministry of Finance
	Ministry of Economic Cooperation and Development
	Ministry of Food and Agriculture
	6.3 Government of Switzerland
	Department of Foreign Affairs
	Department of Economic Affairs
	6.4 Government of Sweden
	Ministry of Foreign Affairs
	Ministry of Finance
	Ministry of the Environment
	6.5 Government of the UK
	Department for Environment, Food and Rural Affairs
	Department for International Development
	6.6 Government of South Africa
	Department of Agriculture, Forestry and Fisheries (South Africa)
	Department of Rural Development and Land Reform
	Department of Economic Development (South Africa)
	Department of International Relations and Cooperation
	6.7 Government of Belgium
	Ministry of Foreign Affairs
	Ministry of Finance and Sustainable Development
	Ministry of Public Enterprises and Development Cooperation
7. INGO's	
	Oakland Institute
	ActionAid
	ActionAid UK
	ActionAid Sierra Leone

	Action for Large-scale Land Acquisition Transparency (ALLAT)
	Christian Aid
	Interchurch Organization for Development Cooperation (ICCO)
	Rural Agency for Community Action Programme (RACAP)
	United for the Protection of Human Rights (UPHR)
	Land Matrix
	Affected Land Users' Associations (AFLUA)
	Namati
	Partners in Conflict Transformation (PICOT)
8. Multi Stakeholder Forum	
	University of Makeni (UNIMAK)
	Ministry of Education Youth and Sports (MEYS)
	Youth Council
	National Federation of Farmers in Sierra Leone (NaFFSL)
	Sierra Leone Indigenous Business Association (SLIBA)
	Landowners Representatives
	Future in Our Hands
	Sierra Leone Traders Union (SLETU)
	Research into Use (RIU)
	Bombali Farmers Union (BOMFU)
9. International institutions that formulate guidelines	
10. Official monitoring institutions	

Attachment 5: Issue Map

	A	B	C	I
	Simplified description of the issue	Addax	SiLNoRF	Related basic human need(s)
1. Community involvement / consultation structures	<p>1.1 Free Prior and Informed Consent (FPIC)</p> <p>Did the local communities grant Addax Bioenergy Free Prior and Informed Consent before leasing the land?</p>	<p>"The statement of lack of proper free, prior and informed consent from local communities is simply incorrect. Addax Bioenergy, international consultants and legal representatives involved distributed the Land lease documentation (the Land lease, the Acknowledgement Agreement (signed with individual land owners) and the Explanatory note) on several occasions at large public meetings to which every single land owners was invited. The documentation was publicly disclosed during 12 months (from May 2009 to April 2010) for comments, in villages, in Makeni, on websites, in Freetown etc). Addax Bioenergy and the two law firms involved received a large number of comments. No comments or grievances were raised that land owners were not aware of the documentation during this period (Addax Bioenergy, 2013b)."</p>	<p>"The process leading up to the finalization of the lease was fraught with communication difficulties. Communities understood the broad strokes of the Addax project but not the finer details. Landowners were unaware of the details of the lease signed on their behalf by the chiefdom councils. Some signatories to the lease from the chiefdom council admitted not understanding the terms of the lease themselves. Also, when landowners were made to sign acknowledgment agreements, the terms of the lease were not explained to them (SiLNoRF, 2014a)."</p>	<p>participation, understanding, identity, subsistence</p>
	<p>1.2 Multistakeholder Forum (MSF)</p> <p>The MSF is said to be a mechanism that is owned by Addax and lacks the mandate to change policy.</p>	<p>"SiLNoRF (and some critical NGOs) constantly create parallel mechanisms and structures for stakeholder consultation, grievances assessment, and impact monitoring. Whatever we organise, they will complain against (Addax official, personal communication, April 8, 2014)."</p>	<p>"SiLNoRF has declined to serve in the multi stakeholder monitoring committee of the Multi-Stakeholder Forum facilitated by the University of Makeni because the independence and impartiality of this committee has been hijacked by Addax because "Addax has to give its consent" before the committee could investigate any complaint and issue brought to it (SiLNoRF, 2013b)."</p>	<p>participation, understanding</p>
	<p>1.3 Operational Transparency</p> <p>Is Addax Bioenergy transparent with respect to its operations to the extent that communities are well-informed about the investment project?</p>	<p>"In the absence of an official and binding national crop compensation list, Addax Bioenergy has been widely credited for its transparency and documentation of compensation paid to affected landowners, and for having developed a detailed agricultural asset list. A dedicated team is assigned to work solely on this. We would be happy to share any detail on compensation levels from our records with ActionAid as proper details are missing in your document (Addax Bioenergy, 2013b)."</p>	<p>"Land owners have no copies of the LLA or had never seen one, except in 2 villages. Land owners have little or no say in the negotiations as regards the size of their lands to be leased and/or the compensation rates offered. Land owners have no copies of the land survey maps (indicating what lands belong to Addax and what still belong to the community) (Anane & Abiwu, 2011)."</p>	<p>participation, understanding, security</p>
2. Land rights & compensation issues	<p>2.1 Traditional land Law</p> <p>The traditional land laws of Sierra Leone do not recognise subsistence farmers as the legal owners of the farmland they use. This means that they ultimately don't decide whether the land will be leased and they are not necessarily compensated if it is.</p>	<p>"In recognition of this, the company entered into separate agreements known as 'Acknowledgement Agreement' (AA's) with each of the landowning families. Though not required under current legislation, this was an additional legal instrument, tied to the lease, that enabled separate negotiations to be undertaken on the use of the land. Three signatories – representatives - were required from each of the land owning communities to enter in to the agreements. These carried an additional rent payment that was separate from that paid under the land lease (Addax Bioenergy, 2014b)."</p>	<p>"Landowners are the autochthones or the founders of the communities, composed of relatively few families in each chiefdom. They are not formally considered as key players under Cap 122, probably due to explicit delegation to Chiefdom Councils (Anane & Abiwu, 2011)."</p>	<p>participation, understanding, identity</p>

<p>2.2 Compensation for land</p>	<p>It is difficult to calculate an appropriate compensation for land, especially when it is leased for fifty years.</p>	<p>"An additional US\$ 3.46 per hectare is paid directly to land owning families under the AAs giving a total rent of US\$ 7.90 dollars per hectare (64%) paid directly to land owning families. Each household then received a one off payment prior to development in the form of cash compensation. A grievance procedure is in place for those who do not agree with assessments or believe unauthorised development has damaged their land. The current lease rent of US\$8.90 per ha was set and paid for the whole leased area whether land was used or not. It was determined during consultations by the Chiefdoms that the landowning families would get at least 50 per cent of rent revenues. This plus rents from AAs brings considerable benefits to 43 communities of US\$7.90 per ha. Annual payments are made in March/April by Addax Bioenergy in the villages in the presence of invited witnesses such as members of Civil Society (Addax Bioenergy, 2014b)."</p>	<p>"Landowners requested a renegotiation of the rent claiming that the amount was fixed without consulting them. The amount of SLL 52'700 (USD 12) of lease rent that Addax is paying per hectare and per year is in line with what is prescribed by the Government. In essence Addax is in compliance with the Laws of Sierra Leone. However from a moral and ethical point of view and in order to uphold the communities' property rights, the company should have negotiated the lease rent directly with the communities. Additionally, they did not understand the rationale for splitting the rent, resulting in only a 50% accrual to them. They maintained that in the western area a landlord does not share rent with the municipal authority (SiLNoRF, 2014a)."</p>	<p>subsistence</p>
<p>2.3 Compensation for crops</p>	<p>It is difficult to calculate an appropriate compensation for crops, especially when it is leased for fifty years.</p>	<p>"In the absence of an official and binding national crop compensation list, Addax Bioenergy has been widely credited for its transparency and documentation of compensation paid to affected landowners, and for having developed a detailed agricultural asset list. A dedicated team is assigned to work solely on this. This asset list states compensation values for 59 different crop and tree types, which also includes values for farm huts and fence lines. The compensation rates that Addax Bioenergy pays for lost crops and felled trees are higher than those that Ministry of Agriculture Food security and Forestry or Sierra Leone Road Authority recommended (Addax Bioenergy, 2013)."</p>	<p>"Addax should increase the compensation for destroyed palm trees, and Addax should clearly outline the differences and the frequency of Land Lease payment, Acknowledgment payment and the payment for crop compensation (SiLNoRF, 2014a)."</p>	<p>subsistence</p>
<p>2.4 Clauses in lease agreement</p>	<p>Some clauses in the lease agreement are clearly beneficial to Addax, while some clauses that protect farmers and are normally in land lease agreements are left out.</p>	<p>"The last item (Clause 4.6) is one of the most controversial of the lease clauses (Namati 2013). Taken literally this clause does indeed seem to provide sweeping powers over natural resources to the Company within the project area. However, in mitigation this clause also sets out the requirement to provide compensation to those impacted by the project. There is also a restriction that does not allow the company to compel a third party to cease to reside in the area except in exceptional circumstances. In the event of project impacts on dwellings requiring resettlement, provision is made for the project to act reasonably and to pay compensation. In practice, Addax Bioenergy is tied to international standards on all of these matters through the loan agreements with the DFIs and RSB Certification (Addax Bioenergy, 2014b)."</p>	<p>"The lease agreement contains terms which an independent legal service provider would have objected to on behalf of landowners and communities. These terms are: (1) provision of exclusive possession over forests, rivers, etc. (2) clause on external arbitration before an arbitration tribunal in London and (3) clause limiting landlord's right to compensation only for any breach of the lease. The lease omits important clauses which are found in standard leases, including a covenant to keep the demised premises in 'good and tenantable repair,' a clause on nuisance emanating from the demised premises, and a forfeiture clause for non-payment of rent. The omissions work in favour of the company (SiLNoRF, 2014a)."</p>	<p>participation</p>
<p>2.5 Transparency of payments</p>	<p>Payments of Addax Bioenergy to local authorities are rather vague.</p>	<p>"Initially the land lease payments were paid directly to the Districts for onward payment to land-owners, however, after two years the Districts requested Addax Bioenergy administer payments to landowning families. Cropped areas were measured in the presence of owners and priced according to area and crop value (Addax Bioenergy, 2014b)."</p>	<p>"In this context, this report strongly questions the compensation system of Addax: it might have ensured the "cooperation" of every level of national and regional authorities, as the District Council and the Chiefdom Administrators receive annual lease fees without suffering any damage. The Chiefdom Councils headed by Paramount Chiefs who sign the Land Lease Agreement on behalf of the land owners receive an average of USD 14'600 per year. Thus, Paramount Chiefs have a strong incentive in entering in land lease deals with investors (SiLNoRF, 2014a)."</p>	<p>participation, understanding</p>

<p>2.6 Legal representation</p>	<p>It is not clear whether PAPs are given legal representation that is genuine and credible.</p>	<p>"There is no significant evidence that payment of legal fees by a third party with direct interests has compromised Chiefdom and community representation. Addax Bioenergy have no interest in manipulating legal representation in their favour – the legal firm themselves would not allow it and the lending agencies, who closely monitor the implementation of the project, would not allow themselves to be open to such accusations. In practice, the payment of fees by Addax Bioenergy is less of an issue than the need to ensure full use is made of the legal support. The central problem with current legal representation has been lack of attendance and liaison at public and Chiefdom meetings, except on signature of AA agreements (Addax Bioenergy, 2014b)."</p>	<p>"Addax maintained that they provided a lawyer for the landowners. Many of the landowners claimed not to have had any interaction with the lawyer. Communities said they were not consulted in the selection of a lawyer for them. Those who claimed to have interacted with the lawyer felt he was working for Addax and not the communities. Landowners said that neither the lease agreement nor the acknowledgement agreement were explained to them by the lawyer that Addax secured for them. They signed the acknowledgement agreements and vouchers without understanding them and without any legal guidance (SiLNoRF, 2014a)."</p>	<p>participation, identity</p>	
<p>2.7 Expectations mismatch</p>	<p>There was an expectation mismatch about how much compensation Addax Bioenergy would give to PAPs.</p>	<p>"Addax Bioenergy has therefore been extremely careful never to make any promises that it could not commit to. It has been very clear on its intentions from the start in 2008, explaining all aspects of the project in detail, including the distillery, fields, roads, irrigation, electrical installations, etc. Addax Bioenergy has never promised to construct hospitals, schools or substitute itself for the local authorities in any way. On the contrary, Addax Bioenergy is delivering on its promises, including infrastructure development, compensation, job creation, vocational training and enhanced food security. To date, it has fostered real development in the project area (Addax Bioenergy, 2013b)."</p>	<p>"Many communities raised the issue of 'promises' by Addax and local leaders to provide one or more of the following: jobs, boreholes, schools, clinics and community centres. Communities expressed disappointment that their expectations were raised and then dashed. They bemoaned the lack of any enforceable written commitment from Addax on these issues and their consequent inability to hold the company accountable (SiLNoRF, 2014a)."</p>	<p>understanding</p>	
<p>3. Food security</p>	<p>3.1 Local food security (production levels)</p>	<p>The Addax Bioenergy Project definitely affects food security by changing the production level in the Makeni region, but how it does so is ambiguous.</p>	<p>"Addax Bioenergy has contributed to food security in the region by developing more than 2,000 hectares of community fields for crop cultivation and by training 1,892 farmers (with equal numbers of men and women) to increase their productivity with improved agricultural practices at no cost to the communities. This Addax Farmer Development Program (FDP) is eliminating "hunger months" for the first time in many years and has become the largest food production program in the country. It is organised together with the UN Food and Agriculture Organization (FAO) and the Ministry of Agriculture, Forestry and Food Security to sustainably improve food security through better adapted farming methods (Addax Bioenergy, 2014a)."</p>	<p>"SiLNoRF and BFA strongly believe that the company cannot claim that it "has increased the food security in the project region", as the harvests were poor in many villages interviewed, the ownership of the FDP in the population is questionable and serious questions about its sustainability remain (SiLNoRF, 2013c)."</p>	<p>subsistence</p>
	<p>3.2 Local food security (food prices)</p>	<p>The Addax Bioenergy Project definitely affects food security by changing the food prices in the Makeni region, but how it does so is ambiguous.</p>	<p>"Addax Bioenergy has greatly enhanced food security since inception of its project and is continuing to do so, a fact completely disregarded in the statement above. Our on-going socio-economic monitoring programmes provide support for this assertion. Addax Bioenergy welcomes ActionAid present data that may contradict this and welcomes ActionAid to make scrutinise or make use of our data (Addax Bioenergy, 2013b)."</p>	<p>"The fact that biofuels compete with food crops and increase food prices is not included in the RSB scheme (SiLNoRF, 2013c)."</p>	<p>subsistence</p>

<p>3.3 Changes in land use patterns</p>	<p>Food security is also threatened by changes in land use as a result of Addax' operations.</p>	<p>"The ratio of productive land used by Addax Bioenergy and access to and availability of residual land for food production is the key issue here. Addax Bioenergy maintain a record of these ratios for every village inside the operations area. Within the Addax Bioenergy area development of land for cane has been altered and even cancelled altogether where communities have asked for land to be retained. Design amendments have been made on several occasions to accommodate this wish. The FDP is currently making use of residual land for food production. Improved accessibility to land brought about by the new road networks means that access to new lands now provides enormous potential for food production. Evidence from historical land assessments and aerial photography (GIS) suggest that whilst land has been lost due to Addax Bioenergy development for communities this has been replaced by new land being opened by both villagers and the FDP (Addax Bioenergy, 2013b)."</p>	<p>"Many community members living in villages where Addax took a relatively large share of their land stated their access to bushes to fetch firewood and sticks was limited. This will likely increase the pressure on remaining bushes and/or forests in and outside the project area. According to Addax, "changes in land use intensity are inevitable as a result of the development and population growth." Already, the increased burning and clearing of land by subsistence farmers in key areas has intensified. Charcoal burning by outsiders as well as villagers has also intensified (SiLNoRF, 2014a).</p>	<p>subsistence, participation, understanding, identity</p>
<p>3.4 Cumulative impact on food security</p>	<p>In a country with high malnutrition, such as Sierra Leone, it is suggested that agricultural production should focus on producing food instead of biofuels.</p>	<p>"With one exception out of 39 villages involved in the Addax Bioenergy FDP, more rice and more land is under cultivation today than ever before. Combined with this many communities have a better livelihood diversification and cropping options, and more potential income opportunities at household level than before. There are no authoritative reports from any recognised authority claiming that there is starvation caused by Addax Bioenergy in the project area, or that overall livelihood options were better prior to inception of the Addax Bioenergy project. Such assertions on increased hunger, whether blamed on Addax Bioenergy or not, therefore need to be treated with extreme caution. Since this is not sourced or supported by facts or figures this highly damaging statement is difficult to accept and must be strongly challenged (Addax Bioenergy, 2013b)."</p>	<p>"When assessing the Addax project, one should bear in mind that Sierra Leone is not food self-sufficient. Sierra Leone is a net rice importer, with imports of 80'000 tonnes in 2013, about 15 percent of requirements . Sierra Leone is a country where malnutrition affects one third of the population . Moreover, according to the Global Hunger Index 2013, Sierra Leone is ranked 66th out of 78 countries . In countries that are net food importer and with high food insecurity, emphasis should be put in increasing food production and improving food sovereignty, instead of producing biofuel for export (SiLNoRF, 2014a)."</p>	<p>subsistence</p>
<p>3.5 availability and use of (boli)-lands</p>	<p>How much arable land is available in Sierra Leone is highly contested.</p>	<p>"The FAO recently estimated that by 2050, after land needed for food security has been set aside, more than 2 million hectares of arable land will be available for commercial agriculture in Sierra Leone. Addax Bioenergy is planting 10,000 hectares or 0.5% of this figure. Even with a doubling population in the coming decades, there will be more than 3.000.000 ha of arable land available in Sierra Leone (Addax Bioenergy, 2014a)."</p>	<p>"Land owners claimed that from the start, both Addax and local authorities said that only degraded and marginal lands would be used for the project. Bolilands and swamps would not be included. However, many communities complained that their swamps and bolilands have been drained and taken over by Addax. Most importantly, the lease covered entire villages including residential areas, roads, forests, etc, even though Addax's operations are limited to smaller areas. Land owners and inhabitants said that it was never their intention to lease their entire community land space to Addax (SiLNoRF, 2014a)."</p>	<p>subsistence</p>
<p>3.6 (duration of) mitigation</p>	<p>Addax is paying for mitigation during the first years of its operations, after which local initiatives are expected to take over. It is suggested that Addax should pay for mitigation over the course of the entire project.</p>	<p>"Under the FDP villages impacted by the project enter the programme for a period of three years. Planners were anxious not to create dependency and were keen to emphasise the need to lift productivity to levels well above subsistence. Impacted villages, therefore entered the programme under the following terms. Year 1- initial development of land (ploughing, harrowing, seeding and harvest support, threshing and transport) no cost – Addax Bioenergy makes provision for seeds in the first year. Year 2 - on-going development with 33 per cent cost recovery including provision of seed rice to be dried and stored by Addax Bioenergy. Year 3 – on-going development with 66 per cent cost recovery including seed rice dried and stored by Addax Bioenergy (Addax Bioenergy, 2014b)."</p>	<p>"The big uncertainty is how many farmers will be able to benefit from the FDS. If farmers do not apply for the FDS (or if they apply too late), there is a significant risk that the rice production will decline significantly after the FDP support is over. In April 2014, Addax stated that it is overwhelmed with (late) requests for the FDS. This has to be monitored very closely in 2014 and in the next years (SiLNoRF, 2014a)." & "Addax should provide support to the farmers not just during the first three years but as long as the impact of the Addax operations on food insecurity is there (SiLNoRF, 2014a)."</p>	<p>subsistence, participation</p>

<p>3.7 Amount of drinking water</p>	<p>Is Addax Bioenergy using so much water that it leaves too little for local communities?</p>	<p>"Sierra Leone is a tropical country with abundant rainfall of about 2'500mm per year. The project is irrigated by the Rokel River near Makeni, using just 2% of the annual rainfall flowing through the river. A hydroelectric dam built by the Italian government and put in operation in 2009 maintains the flow of water throughout the year and avoids any downstream impacts of the project. Indeed, Addax Bioenergy has become the first company in Sierra Leone to pay for water use (Addax Bioenergy, 2013b)."</p>	<p>"SiLNoRF is concerned that Clauses 4.4 and 4.6 of the Land Lease Agreement signed between the Chiefdom Councils and Addax Bioenergy Limited giving the right to the latter to alter or divert the course of water sources that fall within their operational areas has resulted in barely four years of operation to the alteration of perennial water sources and there are fears that more water sources would be altered in the near future as the company's work progresses (SiLNoRF, 2014a)." & "Addax Bioenergy should provide absolute monthly water consumption figures and not only relative figures and should compare its water consumption data with the Rokel river's flow data after the construction of Bumbuna Dam (that was constructed prior the coming of the company). With its relative consumption data, Addax did not bring the proof it will not endanger the access to water of downstream users (SiLNoRF, 2013c)."</p>	<p>subsistence</p>
<p>3.8 Quality of drinking water (split 2.6)</p>	<p>Is Addax Bioenergy polluting the water in such a way that it creates health risks for local communities?</p>	<p>"During 2012 ABSL used direct-reading instruments and their own on-site laboratory to monitor water quality at 27 SW and GW sampling points. Samples of drinking water and irrigation water were also analysed. From time to time, some samples could not be taken for logistical reasons, and no analyses were conducted in September due to a faulty photometer. However, the generally complete set of data was reported to have only seasonal variation from baseline results, with no 'surprises'. Similarly, the six water quality investigations conducted following complaints / concerns indicated no significant variation from background levels, or no effect due to ABSL activities (Bisset & Driver, 2013)."</p>	<p>20 water samples were taken. Three herbicides were found in 7 water samples (5 samples in water wells and 2 samples in stream water). The concentrations ranged from 0.036 µg/l to 0.847 µg/l. The herbicides were the following: 1. Ametryn, a herbicide which inhibits photosynthesis and other enzymatic processes. Ametryn is forbidden in the European Union. 2. Aminomethylphosphonic acid (AMPA), a degradation product from Glyphosate, which is sold by Monsanto under the brand name of "RoundUp". While glyphosate and formulations such as Roundup have been approved by regulatory bodies worldwide and are widely used, concerns about their effects on humans and the environment persist. 3. Diuron, which is forbidden in France due to its toxicity and ecotoxicity (it can affect ecosystems, habitats and species in several manners (SiLNoRF, 2014a)."</p>	<p>subsistence</p>
<p>3.9 Broken water wells</p>	<p>In a few places, Addax broke existing water wells. Addax claims to have fixed them, but there seem to be a few that are not.</p>	<p>"Where water sources have been affected by the project, Addax Bioenergy has replaced them with new wells or boreholes, significantly improving the local community's access to clean, safe and reliable drinking water all year long (Addax Bioenergy, 2013b)."</p>	<p>"Addax Bioenergy destroyed a water source in Makama Bana to make space for an irrigation canal. Addax claims that they will build water wells as a mitigation measure, whenever water sources are destroyed. Up to now, no water well was constructed for the village that now relies on water from the Rokel River (SiLNoRF, 2014a)." Also, "the community of Woreh Yeamah claims that, as Addax destroyed their water well, Addax should provide a functioning water well as a mitigation measure during the entire duration of the Land Lease Agreement (50 years) and should guarantee their access to water at all times (SiLNoRF, 2014a)."</p>	<p>subsistence</p>
<p>3.10 Farmer Development Program</p>	<p>Is the FDP producing enough to ensure food security in the region?</p>	<p>"The Farmer Development Programme (FDP), has met the key targets for 2012 in terms of its primary objective, "...to ensure that all Project Affected Peoples will have sufficient land and agricultural skills as a further mitigation measure for economic displacement". Sufficient land has been provided to meet the sub-objective of</p>	<p>"Addax refers to a "food security baseline of about 100 kgs per person per year ". In the table above, one can notice that the food security baseline has not been achieved for the Chiefdoms of Bombali Sebory and Makari Gbanti, while the Malal Mara Chiefdom is well above. And these figures still</p>	<p>subsistence, participation</p>

	<p>ensuring food security. In terms of rice production, the overall yield per capita target was met and was slightly more successful than 2011 in terms of this indicator (1,176 against 1,160kg/ha). However, one village, Mabilafu, received nothing for various reasons including considerable non-co-operation on the part of the villagers (Bisset & Driver, 2013)."</p>	<p>have to be reduced by 30%, because the rice was weighed directly at the farm gate and still contained all the moisture, some leaves and stems. Taking into account that after drying and cleaning a 50 kilo bag of rice the quantity remaining is only 35 kilo of rice, the figures released by Addax are overstated and have to be reduced by 30% (SiLNoRF, 2014a)."</p>
<p>3.11 Residual lands</p> <p>Addax is relinquishing land that it initially leased but does not need for its plantation after all. There are some issues with regards to ownership of these lands.</p>	<p>"As the final designs are being completed the project is now looking to relinquish land under the land lease for an area much smaller than the original 52,000 ha. This leaves some 14,000 ha of residual land for food production. Added to this the circular centre pivots that are widely spaced leave large areas for agriculture, thereby increasing food production to levels well above those prevailing pre-development. This access to land has been enhanced by development of infrastructure and increased access both to land and to local markets and nearby towns. For the 50 villages now residing inside the operational area this has provided a welcome relief from the grinding poverty of the past (Addax Bioenergy, 2014b)."</p>	<p>"Addax cannot say they don't have any responsibility over the lands they have relinquished (Mohamed, 2014).</p> <p>subsistence</p>
<p>4. Employment</p> <p>4.1 Who to employ?</p> <p>As Addax is employing more local people, the question arises: how does Addax choose who is eligible for its jobs?</p>	<p>"The project currently employs over 2,200 Sierra Leoneans (Addax Bioenergy, 2014b)." & "There has been a small change in the relative proportions of employees with origins in the local area (decline from 60% to 58% of workers coming from an area within 20km of factory site) and those with origins in the local area plus Makeni (increase of 68% to 70%). Jobs have been taken by both men and women though men predominate, significantly, in terms of the numbers employed. There has been a decline in the proportion of female workers from 10% to 8%, but it is too soon to be sure whether this is a short-term change or the beginning of a longer-term trend (Bisset & Driver, 2013)."</p>	<p>There has been an increase in the number of workers employed by Addax and its contractors during the last months (Addax reported to have a workforce of 2'200 workers as of date, half of them are casual workers and the other half permanent workers, 8-10% are female workers¹⁷). Addax workers have written work contracts. Also, according to payslips of the workers, the company is complying with income tax and social security requirements. Moreover, workers are equipped with safety gears (raincoats, safety vests, and boots). The company uses buses to transport its employees and provided bicycles to some employees at cost (SiLNoRF, 2014a)."</p> <p>subsistence, participation, identity, creation</p>
<p>4.2 Short term vs. long term</p> <p>What proportion of the jobs that Addax offer are permanent jobs, rather than seasonal?</p>	<p>"In 2012, the total number of jobs created has increased (See Tables 2 and 3). Almost all of this increase is made up of permanent employees (up from 312 in early 2012 to 523 by the end of November, 2012) (Bisset & Driver, 2013)."</p>	<p>"People hired from the communities work as casual labourers and hardly worked longer than three months, the people are angry and feel betrayed. In almost all the villages visited, the majority of local people employed were fired after two or three months. Usually workers are also laid off when the planting season is over and that means having to wait till the next planting season to continue with life as a farmer. This situation unleashes frustration, poverty and hunger on the unemployed casual workers who have families to feed (Anane & Abiwu, 2011)."</p> <p>subsistence, participation, identity</p>

<p>4.3 Wages</p>	<p>Are the wages that Addax pays its local employees fair and sufficient?</p>	<p>"As of July 2013, the project employed 2'007 national staff. Recent surveys indicate that the average household income in the area has risen from US\$ 8.01 in 2010 to US\$ 24.39 in 2012, while the average income per capita is up over 70%. Once the project becomes operational in 2014, it will have directly created over 2,000 jobs at more than twice the average minimum salary (Addax Bioenergy, 2013b)."</p>	<p>"Salaries at Addax are lower than the new minimum wage in the public sector, as Addax is paying SLL 400'000 (USD 91) per month (lowest salary grade). At VinMart, a security company working for Addax, security agents are paid SLL 350'000 (USD 80) per month. Moreover, the salaries cannot be considered as "living wages" as the monthly expenses of a rural family amount to a minimum of SLL 633'000 (USD 144). Moreover, the salaries cannot be considered as "living wages" as the monthly expenses of a rural family amount to a minimum of SLL 633'000 (USD 144) . This amount is a calculation based on a survival budget including food (absolute minimum ingredients for only one meal per day) and education for a household of seven (one elderly parent, a husband and wife, with four school-age children). The difficulty to make a living with the salary is even greater for casual workers who are employed a few months per year (SiLNoRF, 2014a)."</p>	<p>subsistence</p>
<p>4.4 Labour conditions</p>	<p>Are the labour conditions that local employees of Addax face of a sufficient level?</p>	<p>"Throughout, 2012, disputes have arisen over issues such as interpretation of contracts, timing of wage payments, and termination of contracts followed by re-hire. Actions are undertaken, continually, by ABSL to explain matters to local people, and to change perceptions, but labour disputes have continued intermittently. The existence of several contractors at the factory site who have their own internal HR policies and procedures, not under the direct control of ABSL, has contributed to the number of disputes and stoppages (Bisset & Driver, 2013)."</p>	<p>"Addax should recognise the ILO Standards and core labour rights (e.g. the right to unionise and the right to industrial action of the workers) (SiLNoRF, 2014a)."</p>	<p>security</p>
<p>4.5 Farmer Field & Life School</p>	<p>Is the FFS succeeding in its goal to educate subsistence farmers into being employees of a modern corporation?</p>	<p>"The Farmer Field and Life School (FFLS) component has continued in 2012 to replicate successfully its activities of 2011 and has added an agro-forestry module to the core Curriculum in Q4 of 2012 (see section on the Community and Skills Development Plan [ESMP 2011.09] below) (Bisset & Driver, 2013)."</p>	<p>"Many graduates from the FFLS reported that they have difficulties in putting into practice what they have learnt during the FFLS because they lack the productive resources. They were taught 'improved methods of farming' that require the application of herbicides and fertilizers, something that is not affordable for most farmers. Many FFLS graduates demand credit loans in order to put their knowledge into practice. Up to now, FFLS graduates were not able to mobilise their community members. In only four villages, agricultural groups evolved out of the FFLS (SiLNoRF, 2014a)."</p>	<p>understanding, participation, subsistence, identity</p>

<p>4.6 Expectations mismatch</p>	<p>There was an expectation mismatch about how much jobs Addax would create for PAPs.</p>	<p>"The company has repeatedly been accused of breaking promises and breaching many of the standards to which the DFIs hold it to account. These allegations have been based on research of variable quality. Most are based on anecdotal evidence, individual testimonies, even rumour, with little factual evidence or reference to the original agreements, all of which were made public (Addax Bioenergy, 2014b)."</p>	<p>"All of the communities we visited raised the issue of 'promises' by Addax and local leaders to provide one or more of the following: jobs, boreholes, schools, clinics and community centres. Communities expressed disappointment that their expectations were raised and then dashed. They bemoaned the lack of any enforceable written commitment from Addax on these issues and their consequent inability to hold the company accountable (SiLNoRF, 2014a)."</p>	<p>understanding</p>	
<p>5. Environmental issues</p>	<p>5.1 Loss of biodiversity</p>	<p>Because of the shift towards monoculture, there a risk of a loss in biodiversity.</p>	<p>The project does not significantly affect biodiversity in the region. "Addax Bioenergy has embarked on a program to protect 1,700 hectares of forest in the project area with the objective of establishing woodlots, expanding and developing buffer zones and eco-corridors and assist in meeting immediate needs of local communities as well as offset any potential impacts to natural forestry during the construction phase. In 2012, 56,000 seedlings of mixed variety were potted and 26,100 trees of mixed variety were planted (Addax Bioenergy, 2014a)."</p>	<p>"Indeed, even if Addax claims to avoid forests with its project, 4,000 hectares of bush (mainly lophira scrubland) are being cleared to make space for the sugar cane monoculture . SiLNoRF could witness that many charcoal producers are producing charcoal in the area using the trees cut by Addax. When Addax will be finished with the land clearing of these 4'000 hectares of bush for its sugarcane fields, it is likely that the charcoal producers will turn to the remaining forests and/or bushes in and outside the project area to produce charcoal. This means that the Addax project will have significant indirect impacts on forests and bushes in and outside the project area (SiLNoRF, 2014a)."</p>	<p>subsistence, understanding</p>
<p>5.2 Water, air and soil pollution</p>	<p>Addax' operations are said to pollute Sierra Leonean water, air and soil, but the company denies such allegations.</p>	<p>"The project is still at a relatively early stage of development; none of the physical, chemical or biological parameters monitored showed any significant changes from the baseline conditions (Bisset & Driver, 2013)."</p>	<p>"In February 2014, SiLNoRF and Bread for all commissioned French environmental consulting company SAFEGE to conduct a water quality analysis in the region. 20 water samples were taken. Three herbicides were found in 7 water samples (5 samples in water wells and 2 samples in stream water). The concentrations ranged from 0.036 µg/l to 0.847 µg/l. Even if the concentrations do not threaten human health at the moment, this show that the quality of the drinking water and the likely impact of the massive use of pesticides and fertilizers in the region have to be further monitored (SiLNoRF, 2014a)."</p>	<p>subsistence, understanding</p>	
<p>6. Monitoring</p>	<p>6.1 Framework mismatch</p>	<p>Different stakeholders refer to different international guidelines and frameworks. This means that they use different definitions and have different ideas about responsibility.</p>	<p>"There is little recognition that Addax Bioenergy was taking a huge risk by investing in Sierra Leone, and has paved the way for many other investors. Also, there already exist guidelines, and Addax is compliant. Why do these guidelines exist anyway (Addax official, personal communication, April 8, 2014)?"</p>	<p>"We describe what the RSB also should take into account to assess the real sustainability of biofuel projects: environmental impacts, cumulative impacts on food security, cumulative impacts on the Rokel river, indirect impacts on bushes and forests, assessing the level of food insecurity in Sierra Leone, assessment of the conflict potential, impact of biofuels on world food prices, economic sustainability (SiLNoRF, 2013c)."</p>	<p>understanding</p>

6.2 Audit mismatch	Different stakeholders don't agree with the way in which official audits are made.	"ActionAid needs to better study the RSB standard and how an audit takes place (Addax Bioenergy, 2013b)."	understanding
6.3 Research style	Different stakeholders do different types of research with different results, which explains why they don't agree on some of the key issues.	SiLNoRF (and some critical NGOs) are sometimes presenting false information, based on incredible and out-dated research. "It is international campaigning organisations, who were not present during this period, who raise this issue and spin this message amongst local population and in the published document. It is unethical and unacceptable manipulation of facts (SiLNoRF, 2013c)." "Which 'experts' were involved in your research and what expertise does Actionaid build on for its report? What methods were used – sample sizes – areas visited. The absence of all of this information in itself presents a direct challenge to the credibility of the statements made in this report whatever the justice in the cause (Addax Bioenergy, 2013b)."	"On February 28, 2013, Addax Bioenergy announced it had received the Roundtable on Sustainable Biomaterials (RSB) certification for its biofuel project in Sierra Leone. SiLNoRF and Bread for all strongly believe that Addax Bioenergy violates several criteria of the RSB and that its RSB certificate should be withdrawn. Moreover, we think that this first audit conducted in Africa shows that the audit process is weak and not adequate to assess whether an applicant is compliant with the Principles & Criteria of the RSB (SiLNoRF, 2013c)."
6.4 Sharing information	Although extensive data exists, it is not always shared in a constructive manner.	"We would be happy to share this evidence and would welcome the opportunity to see yours? Addax Bioenergy has never been presented with evidence of having promised things it could or would not deliver. The Company keeps asking for evidence from the NGO's claiming otherwise and asked several times to provide proof of these alleged 'promises'; to date, no one has come forward with evidence that supports this claim. The burden of proof lies with these organisations as much as it lies with ActionAid now (Addax Bioenergy, 2013b)."	"Addax' data is not always easily accessible (Kamara, 2014)."
6.5 Lobby and advocacy style	There's great difference in effectiveness of different lobby and advocacy styles. Addax is convinced that NGO's are unnecessarily adversarial.	"Continued criticism of advocacy NGOs about negative impact of Addax project stirs up communities. The NGO's never come to Addax first. The tone is sometimes not very conflict-sensitive, although there has been some improvement. Sometimes locals are straightout lying in order to get some benefits (Addax official, personal communication, April 8, 2014)." "The intense scrutiny from some NGOs and civil society organisation has resulted in a "war of words" and an overwhelmingly negative perception of the investment by certain stakeholders. This has distorted views of the project and served to reinforce stereotypes on large scale land investments, namely, that foreign or national land deals are not transparent (and therefore by definition, corrupt); that no proper account has been taken of existing rights holders; investments have automatically resulted in displacement of households; access to land has been lost completely and this will lead to impoverishment reduced food security and eventual starvation (Addax Bioenergy, 2014b)."	understanding, participation, security
6.6 Misalignment national/international lobby and advocacy	Since INGO's are often funding local NGO's, there is a complex relation between the two.	"Addax is mostly concerned with the way in which SiLNoRF expresses itself, the way in which it does its research, and with the way Bread for All and other INGO's are trying to control SiLNoRF (Addax official, personal communication, April 8, 2014)."	understanding, participation

<p>7. Social, cultural and community welfare issues</p> <p>7.1 Community empowerment</p>	<p>SiLNoRF would say that the main issue is about community empowerment. The communities should benefit from the company's presence in a fair way.</p>	<p>"The declaration suggests inter alia that small scale producers and indigenous people should be at centre of efforts to secure access to land, that there should be empowerment of land users, particularly women. Local communities must have rights to use, manage and control land and natural resources, and that there must be transparency and accessible land related information to promote dialogue and accountability. Addax Bioenergy has a creditable record on all of these fronts. Whether these interactions are wholly successful and reach all community members is another question involving not only Addax Bioenergy but the stakeholders themselves. In those areas developed early in the project cycle both land owners and land users are now showing signs of more responsible empowerment based on experience and understanding. There is also a sense of being part of development that is bringing considerable benefits to their area (Addax Bioenergy, 2014b)."</p>	<p>"The awareness level of the (negative) impacts posed by the foreign direct investment schemes is very low among residents in communities that are presently affected and those that would be affected in the near future, and it will require a high level of sensitization, awareness raising and direct and continuous engagement with relevant stakeholders to reverse the unfolding trend (SiLNoRF, 2014a)."</p> <p>subsistence, participation, understanding</p>
	<p>As women have a relatively weak position in Sierra Leonean land law and society, the project risks marginalizing women even further.</p>	<p>"In 2013 the company expanded the programme by providing services and assisted in facilities to increase local vegetable production – especially working closely with women's groups. The Quarterly Multi Stakeholder Forum (MSF) includes representatives of the District Councils, Chiefdom Councils, landowners, Civil Society Organisations, NGOs, women's organisations, unions, government, and media. Diversification of cropping in the 2014 FDP programme will start with a kitchen garden vegetable programme in impacted villages. This will contribute to better nutrition and will also provide a means by which the project may assist in furthering women's participation and the overall development of the area (Addax Bioenergy, 2014b)."</p>	<p>"Women are not allowed to own land in this part of the country but they have some limited access to use the land. This situation could be aggravated by the Addax project. Women do not receive land lease agreement payments (as only male land owners can receive these payments). Many women interviewed stated the male land owners kept the Land Lease money for them without sharing it with women. Moreover, only a small minority of women can be employed by the company. SiLNoRF witnessed that a small minority of Addax workers are women (less than 10%). This figure was confirmed by Addax (SiLNoRF, 2014a)."</p> <p>participation, subsistence, understanding</p>
<p>7.3 Displaced people</p>	<p>Since Addax Bioenergy has leased such large amounts of land, there is the risk that certain people have to be displaced.</p>	<p>"The Addax Bioenergy project has undertaken not to displace villages and avoid involuntary resettlement but to restore livelihoods in situ (Addax Bioenergy, 2014b)."</p>	<p>"Land owners have to rent land from other villages and that they have to pay a land lease fee or give part of the rice harvest in order to use the land. For now, it seems that economically displaced communities can rent land from other villages at a low price but land leasing villages, such as Chain Bundu, already said they intend to increase the rent price. Land owners reported that it is humiliating for them to "beg other land owners for land". Moreover, the long distances impede the people to take care of their FDP fields and to weed them regularly, a fact that also affects the level of the harvest (SiLNoRF, 2014a)."</p> <p>subsistence, identity, security, freedom</p>
<p>7.4 Cultural value of land</p>	<p>Besides an economic value, land has an important cultural value in the traditional culture of Sierra Leone.</p>	<p>n.a.</p>	<p>"For the people of rural Sierra Leone, land is their most valuable possession, even if that possession is customary rather than on paper by title deed. It has great spiritual and cultural significance. Cemeteries where ancestors are buried and society bushes where rites of passage and important ceremonies are held are considered sacred (Baxter & Schäfter, 2013)."</p> <p>identity</p>

	<p>7.5 Conflict between locals over land rights</p> <p>As land is being commodified, landusers who used to share it are now sometimes competing for in order to get the compensation.</p>	<p>"Existing land disputes between villages have had to be solved quickly to enable leasing and development to progress. Chiefdoms have had to work hard to keep up with developments and manage expectations. Accusations of broken promises where none were made have had to be answered repeatedly (Addax Bioenergy, 2014b)." & "Addax has even provided the landowners with the first adequate maps, which helps them in claiming their lands (Addax official, personal communication, April 8, 2014)."</p>	<p>"In other ways, land is a kind of social glue. The communities sampled all had highly developed social groups (men, women, mixed, young people) that got together to work communal pieces of land and share the harvests and profits from their sale (see Section 4.5.2 Social breakdowns). They represented self-help mechanisms for promoting grassroots development and coping with hardship and conflicts. Many of the groups simply collapsed after the investor took over the land and left the communities with insufficient land for communal plots (Baxter & Schäfer, 2013)."</p>	<p>security</p>
	<p>7.6 Potential of violence</p> <p>Since Addax Bioenergy is effecting change in so many aspects of Sierra Leonean society, it risks increasing violent tensions.</p>	<p>"Although there is no real violent tension, Addax hopes that this project can lower any existing tensions in the region (Addax official, personal communication, April 8, 2014)."</p>	<p>"There was consensus among focus groups that the situation had deteriorated, that life had become more difficult and that tension and the risk of conflict had increased (Baxter & Schäfer, 2013)."</p>	<p>security</p>
	<p>7.7 Sierra Leonean Police</p> <p>Addax is said to financially assist the local police force, which increases local discontent with both the police and Addax.</p>	<p>n.a.</p>	<p>"Addax should disclose its support to the Sierra Leone Police (SLP) and refrain from acts seeming to influence the work of the SLP in its favour (SiLNoRF, 2014a)."</p>	<p>security</p>
<p>8. Accountability structures</p>	<p>8.1 Addax Bioenergy</p> <p>For what exactly should Addax Bioenergy be held responsible?</p>	<p>"It should be clear where Addax Bioenergy's responsibilities begin and end. We cannot be held responsible for everything in the region. There were wrong expectations (Addax official, personal communication, April 8, 2014)."</p>	<p>"It is a minimum requirement of the RSB that «biofuel operations shall ensure the human right to adequate food and improve food security in food insecure regions11». Further, the Criterion 5a states that "In regions of poverty, the socioeconomic status of local stakeholders impacted by biofuel operations shall be improved (SiLNoRF, 2013c)."</p>	<p>participation, understanding</p>
	<p>8.2 Communities</p> <p>For what exactly should local communities be held responsible?</p>	<p>"Most of the criticism we get is about stuff for we we are not even responsible. This is key to sort out ((Addax official, 2014)." & "In those areas developed early in the project cycle both land owners and land users are now showing signs of more responsible empowerment based on experience and understanding. There is also a sense of being part of development that is bringing considerable benefits to their area. Improved access and exposure to outside influences has increased communities sense of civic responsibility and encouraged citizenship as well as opening possibilities for employment both on the project and in Makeni (Addax Bioenergy, 2014b)."</p>		<p>participation, understanding</p>
	<p>8.3 Local NGO's</p> <p>For what exactly should local NGO's be held responsible?</p>	<p>"At the time already, the declarations of certain NGOs revealed their true intentions. They deliberately kept silent on the participation of our Sierra-Leonean colleagues who had come to explain the land lease process and their daily work in liaison with the local communities. It was as if the NGOs felt embarrassed by the fact that Africans could openly support agricultural investment projects in their own country. It is therefore unfortunate but not surprising that the "independent report" commissioned by certain NGOs amidst a noisy media campaign confirms those apprehensions (Addax Bioenergy, 2011)."</p>	<p>"SiLNoRF is simply serving as a watchdog over Addax so that the company will adhere to its commitment to the people and its corporate social responsibility and at the same time letting the people know their rights and responsibilities. In other words, we are also advocating for Addax and the community people to be in conformity rather than always be at each other's throat (SiLNoRF, 2014b)."</p>	<p>participation, understanding</p>

8.4 Government of Sierra Leone	For what exactly should the GoSL be held responsible?	"The government of Sierra Leone is responsible for many things for which Addax Bioenergy is now held accountable (Taylor-Lewis, 2014)."	"An analysis of tax exemptions and fiscal incentives of land investment companies in Sierra Leone published in July 2013 showed the following: about USD 135 million will be foregone by Government of Sierra Leone through tax exemptions granted to Addax for 13 years (2009-2022). Addax is being given generous tax exemptions and fiscal incentives at great expense to the government of Sierra Leone and the population of the country (SiLNoRF, 2014a)."	participation, understanding	
8.5 INGO's	For what exactly should INGO's be held responsible?	"Regrettably the latest document from ActionAid is deeply flawed in many respects, and we have many questions to challenge its methodology for gathering factual research data. Addax Bioenergy refutes categorically the accusations made by ActionAid, and wishes to underline the fact that in the period April 2010-July 2013, the company has injected US\$51.39 million or 222.9 billion Leones in cash or cash equivalents into the Sierra Leone economy (Addax Bioenergy, 2011)."		participation, understanding	
8.6 Investment banks	For what exactly should investment banks be held responsible?	"The involvement with DFIs requires project compliance with the highest standards in all of these aspects in terms of corporate social responsibilities, observing tenure rights, monitoring of land use, environmental and social monitoring and management of the plant and related agricultural operations (Addax Bioenergy, 2014b)."	"52% of the Addax Bioenergy project is financed by development banks and 48% by the company. Addax & Oryx Group borrows money from development banks and intends to achieve a return on investment (ROI) of 15%. If the money is borrowed at a low interest rate, it means that Addax will be able to cash the difference. Bringing development banks on board also means that the project's risks are not carried only by the company but also by financing banks. This allows the company to reduce its own risks with the help of public money (SiLNoRF, 2014a)."	participation, understanding	
8.7 Governments of donor countries	For what exactly should governments of donor countries be held responsible?	"By definition if the policy is flawed so will be its consequences and the manner in which it is implemented. The statements made then become a self-fulfilling prophecy designed to support the logic of a flawed policy. This compromises the paper as its objectives and statements are, by design seldom impartial (Addax Bioenergy, 2013b)."		participation, understanding	
9. Macro-dynamics	9.1 Development impact of large-scale land investments	There are very different ideas about how large-scale land investments will affect economic development.	"At the same time the project is bringing concrete, lasting and sustainable development to one of the poorest areas of Africa. Hundreds of people in the three Chiefdoms and Makeni have already seen their livelihoods improved in the form of jobs while local authorities have also seen their incomes increase substantially. Surveys indicate that average household income in the area has risen. On-going monitoring indicates that villagers are building new homes, are more likely to send their children to school, some village councils are improving their schools and over 300 km of newly built roads are opening up land for additional cultivation (Addax Bioenergy, 2014b)."	"In 2012, an analysis of the value added sharing demonstrated that the project will mainly benefit to the company (80% of the total value added), while other stakeholders profit marginally (for instance, land owners receive 0.7% of the total value added) (SiLNoRF, 2013c)."	subsistence, participation, understanding
	9.2 Loss of national revenue as a result of tax incentives	Tax incentives may pull in investors, but imply a loss in potential tax revenue as well.	"The project currently employs over 2,200 Sierra Leoneans and it is estimated that over US\$ 20 million a year goes into the local economy for goods and services (Addax Bioenergy, 2014b)."	"An analysis of tax exemptions and fiscal incentives of land investment companies in Sierra Leone published in July 2013 showed the following: about USD 135 million will be foregone by Government of Sierra Leone through tax exemptions granted to Addax for 13 years (2009-2022)."	subsistence

<p>9.3 Electricity</p>	<p>An important aspect of the Addax Bioenergy Project is the surplus of energy that it generates and will be added to the national grid.</p>	<p>"Addax Bioenergy, a Swiss based subsidiary of the diversified energy group of companies (the Addax and Oryx Group (AOG)), is developing a greenfield renewable energy and agriculture project near Makeni, Sierra Leone, that will produce bio-ethanol for export to Europe, for domestic use, and for the generation of "green" electricity for approximately 20 per cent of the Sierra Leone national grid (Addax Bioenergy, 2014b)."</p>	<p>Addax is being given generous tax exemptions and fiscal incentives at great expense to the government of Sierra Leone and the population of the country (SiLNoRF, 2014a)."</p> <p>"Addax will soon start producing power which will be sold to the national grid. The power plant will burn sugarcane biomass and generate power for the ethanol refinery as well as 120 GWh per year for the national grid, representing approximately 20% of Sierra Leone's electric power. This is welcome in a country with very low power production capacity and frequent power cuts and shortages (SiLNoRF, 2014a)."</p> <p>subsistence</p>
<p>9.4 Economic viability of investment</p>	<p>It is unclear how profitable the Addax Bioenergy Project really is. Would it still be profitable if Addax paid significantly more mitigation money?</p>	<p>"Securing real development under a private investment presents real challenges that few investors would be willing to accept. The costs have been high and the level of difficulty continues to increase with massive theft of company assets being added to the list of challenges. The difficult socio-economic environment in which it is being implemented is testing even the most hardy of international workers and professionals. At the same time the project is bringing concrete, lasting and sustainable development to one of the poorest areas of Africa (Addax Bioenergy, 2014b)."</p>	<p>"We are neither against their investment in the country nor do we want the company to leave but what we are saying is that there should be a 'free prior and informed consent' which is largely lacking with multinational companies operating in the country (SiLNoRF, 2014b)."</p> <p>subsistence, participation</p>
<p>9.5 Market for biofuels</p>	<p>The long term profitability of the Addax Bioenergy Project depends for a large part on the market for biofuels. Is this market growing?</p>	<p>"There is a stable market, with relatively stable prices for biofuels. We can sell everything tomorrow (Addax official, personal communication, April 8, 2014)."</p>	<p>"The planned increase in biofuels use could cost European consumers an extra EUR 94 to EUR 126 billion between now and 2020 .</p> <p>The problem of competition (direct and indirect) between the production of crops for food and for biofuels still has to be assessed in details (SiLNoRF, 2014a)." & The EU's biofuel target has however many negative consequences on the Global South. Among these, the following consequences are the most worrying: • The EU's biofuels policies alone could push up oilseed prices by up to 33%, maize by up to 22%, sugar by up to 21% and wheat by up to 10%, between now and 2020 . • Achieving a 10 per cent biofuels share in transport fuel globally by 2020 could put an extra 140 million people at risk of hunger, with the poor urban population, subsistence farmers and the landless in developing countries particularly at risk . • Biofuels may drive more than 50% of large-scale land investments globally, and 66% in Africa (SiLNoRF, 2014a)."</p> <p>subsistence</p>
<p>9.6 Need to draw policy lessons</p>	<p>As this is the first large-scale land investment aimed at bioenergy production in Africa, analyzing its implementation should be interesting to all stakeholders.</p>	<p>"It is the first and only bioenergy project to be brought to financial close in Africa and the first bioenergy project certified under the Roundtable on Sustainable Biomaterial (RSB) in Africa. It is partially funded by eight international development finance institutions (DFI). Is all this really true, and what are the implications and risks for similar investments elsewhere in Sierra Leone and in Africa as a whole? What has been the performance of the company in these key areas to date and is it even possible to comply with all of the demands and expectations being made?. Large scale commercial development alongside continuously adjusting small scale subsistence is bringing new and unprecedented land use intensity with consequent impacts on access to land and perceptions of rights. This is unique in Sierra Leone and will inform development of the land legislation and future land based investments (Addax Bioenergy, 2014b)."</p>	<p>"The report describes the positive aspects and evolutions of the project as well as issues of concern to both the communities and SiLNoRF regarding the operations of Addax Bioenergy. It also includes recommendations to the company, the policy makers, the funding banks and other institutions that might be interested in supporting similar investments in future (SiLNoRF, 2014a)."</p> <p>understanding</p>