



SIANI

Swedish International Agricultural Network Initiative

Agro-industrial foreign investment and rural transformation: Lessons from the Makeni Project in Sierra Leone

Policy Brief

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Introduction

Bioenergy investment is on the rise in sub-Saharan Africa. Global production of liquid biofuels has more than quadrupled in the past decade, driven by renewable energy targets and biofuel blending requirements in the EU, the US and other markets. Although Africa's role in biofuels markets to date has been small – under 1% in 2014 – interest in sub-Saharan Africa as a supplier is growing rapidly.

Many foreign companies have acquired large tracts of land for biofuel crop plantations. Sugarcane has drawn particular attention, as it is a commercially proven, tropical bioenergy crop with significant potential in much of the region. Welcoming governments add to the appeal; foreign direct investment – a record US\$80 billion in 2014 – is crucial to African economies, and bioenergy is seen as a way to attract FDI, boost exports and drive rural development. From 2006 to 2011, bioethanol production in Africa nearly doubled, to 135,000 m³ – about 60% of it for export.

Agricultural-based bioenergy investments can bring large infusions of capital, infrastructure and technology into rural areas. In most of rural Africa, small-scale farming still predominates, and these projects are often the communities' first encounter with large-scale agro-industry. The projects can thus bring rapid changes, including new jobs, economic growth and development, but also increased pressure on natural resources that are crucial to local livelihoods, particularly land and water.

This policy brief summarises the findings of a two-year study by the Stockholm Environment Institute of the Makeni Project, developed by Addax Bioenergy Sierra Leone (ABSL), as a window into the complex dynamics of bioenergy and agricultural investment in sub-Saharan Africa.

The study places the €400 million Makeni Project, the largest agricultural investment in the country's history, and the first in Africa to be certified by the Roundtable on Sustainable Biomaterials, in the context of Sierra Leone's development challenges and strategies to address them. The analysis is based on the concept of "rural transformation", which posits

KEY FINDINGS

Sierra Leone, like many Least Developed Countries, has pursued foreign direct investment (FDI) as a way to jump-start its economy, and prioritised bioenergy for its potential to advance rural development. The €400 million Makeni Project highlights both the benefits and the risks of that strategy:

- The project has created thousands of jobs, built hundreds of kilometres of roads and extensive other infrastructure, and brought new sources of income into rural communities. Once it is operating at full capacity, it will also feed 15 MW of power into the national grid, about 20% of the country's supply.
- The Makeni Project has provided training in farming, business and other skills, introduced mechanised agriculture with modern inputs, and developed new vegetable gardens. This has dramatically increased the productivity of rice fields, diversified diets and supported small-scale commercialisation.
- By leasing large amounts of land, the project has directly affected the availability and use of key livelihood resources. To the extent that the land leased was actively under cultivation, farmers have had to relocate their crops. For some, access to water and firewood may also have become more difficult.
- Lack of government oversight and engagement on the ground has resulted in missed opportunities – from roads built by the developer that could have been extended to reach now-isolated villages, to jobs that would be available to local people if they gained the necessary skills.
- Least Developed Countries seeking to make the most of FDI should make it a priority to strengthen governance, with particular attention to regulatory structures, technical know-how, and coordination among key agencies. Development partners, finance institutions and NGOs should support these efforts.



ABSL workers bring farming equipment into Malainka to harvest rice grown through the FDP.

Photo: Ival Cummings-John / SEI



The FDP field outside Madora, prepared for cultivation by ABSL.

Photo: Ival Cummings-John / SEI

that eradicating poverty and achieving sustainable development requires transforming rural spaces, economies and societies to empower rural people.

The Makeni Project and Sierra Leone's development strategies

Sierra Leone, now emerging from the worst of the Ebola epidemic, is no stranger to hardship. The civil war of 1991–2002 cost some 70,000 lives, destroyed property and infrastructure, internally displaced about half the population, and drove away many skilled professionals. Even after several years of economic growth, the country remains very much a Least Developed Country (LDC), with more than half its people living on less than 1.25 USD per day (purchasing power parity) in 2010. Governance is another key challenge; although several democratic elections have been held, corruption is endemic, and the public sector is plagued by low wages, poor infrastructure and low-capacity personnel.

Yet Sierra Leone is rich in natural resources, which it is using to jump-start its economy. The mining sector is growing particularly fast, expected to contribute 30% to GDP in 2017, but it provides few jobs. Agriculture, meanwhile, accounted for about 42% of GDP in 2013 and employs about 70% of the work force. Productivity is very low, however, and most smallholders are subsistence farmers. Sierra Leone has made it a priority to foster rural development by supporting the commercialization of small-scale farming and, at the same time, working to attract large-scale foreign investments.

The Makeni Project, backed by six development finance institutions, involves a roughly 10,000 ha sugarcane estate, plus a distillery expected to produce about 85,000 m³ of ethanol per year for export to the EU. The plant will also produce electricity, including 15 MW to be fed into the national grid. Construction of the distillery and power plant began in 2011, construction of the distillery and power plant was completed in 2014, and full production capacity is expected to be reached in 2017. ABSL has said it wants the project to be “a benchmark for sustainable investment in Africa”.

ABSL has signed 50-year leases on the land for the estate, agreeing to pay 8.90 USD per ha per year, with half going to the landowners and the remainder to the District Council, the chiefdom and the national government. Landowners who agree to sign direct agreements with ABSL get a bonus payment. ABSL also compensated the communities for any lost assets, such as trees.

ABSL implemented a comprehensive social and environmental management programme as well. Its centrepiece is the Farmer Development Programme (FDP), designed to ensure food security and build skills in the communities in the project area.

As part of the FDP, ABSL set up a community field for each village that leased land to the company, to produce enough rice to meet basic caloric requirements for the entire community. ABSL ploughs and prepares the fields and provides inputs, and the communities maintain the fields and harvest the rice. In 2013, ABSL also started a pilot vegetable garden programme under the FDP. In 2013, ABSL added the Farmer Development Services (FDS), providing low-cost ploughing and other services.

In addition, about 2,000 people have also gone through the Farmer Field and Life Schools, a 30-week programme that teaches improved farming practices as well as health, nutrition, money management and other “life skills”. ABSL is also sponsoring community development initiatives, and it has provided bicycles, hand-washing stations for Ebola prevention, and wells and boreholes in some communities.

The Makeni Project has become a major employer, with 3,455 workers as of December 2014, 46% of them in permanent positions (the rest are short-term or seasonal). Despite high interest among local residents, however, a lack of necessary job skills has inhibited local hiring. ABSL's original plans also included a support scheme for outgrowers – local farmers who would produce sugarcane on their own fields and sell it to ABSL – but logistical challenges have kept ABSL from moving forward.

Field research findings

Loosely following the “sustainable livelihoods” approach, the study examined the different types of capital that underpin rural households' livelihoods – natural resources, skills, social capital, infrastructure, financial resources. It focused on a sample of six villages in the project area, and three outside it. All households in each village were surveyed: 327 in total in November 2013, and 331 in April 2014. Several rapid rural appraisal techniques were also applied, including community resource maps, seasonal calendars, impact diagrams and focus groups.

The study found high levels of poverty, with a 62% likelihood of households living on less than 0.50 USD/day, 90% relying at least in part on rain-fed subsistence agriculture for their livelihoods. Almost all reported food shortages in August, and many also faced shortages in June, September, and sometimes other months. Water access issues are widespread, particularly in the dry season, and water quality is a major concern.

Infrastructure in the area is very poor. The lack of roads makes it difficult to take goods to market, travel to work, or access supplies and services. Energy infrastructure is nearly non-existent, and 99%

of households said they cook mostly with firewood. Although 78% of households with children aged 6–13 said they were attending school, many said they struggle to cover the school fees. Government resources are concentrated in Freetown, with very limited capacity – or visibility – at the local level.

The study identified four key change processes occurring in the project area:

Changes in access to and use of natural resources: The land leases have directly affected the availability of farmland and other natural resources in the project area. The FDP has introduced high-productivity rice cultivation, and the vegetable gardens have helped diversify diets and provided new crops to sell. Some farmers expressed concern about their ability to sustain these benefits after “graduating” from the FDP; it is unclear how well the FDS will fill the gap. Concerns about reduced access to fuelwood have also been raised.

Changes in infrastructure: ABSL has developed a significant amount of infrastructure, including not only the plant, irrigation system and supporting infrastructure, but also roads – an estimated 440 km as of June 2014 – though not all villages are connected to them. Many new houses have been built (79 in the project villages between October 2013 and April 2014, a 37% increase), and existing homes are being upgraded as well. New commercial and food stalls are also being added.

New income sources and transition to wage labour: For many people, ABSL offered the first opportunity to engage in formal wage labour, and 38% of households in the project villages had at least one member receiving some income from employment with ABSL. Wage labour can pose challenges for subsistence farmers, however, as the jobs for which they qualify are likely to be seasonal and may coincide with the rice planting and harvesting seasons. Notably, almost all the jobs are going to men, likely for cultural reasons; as of December 2014, women’s share of ABSL employment was 10%.



Women and children from Warreh Wanda, one of the communities in the Makeni Project area, visit their FDP fields. Photo: Ival Cummings-John / SEI

Demographic changes: There has been an influx of migrants seeking employment with ABSL, in both the project and control villages. The newcomers have different needs, and along with households renting out rooms, restaurants and shops are opening up to cater to this market. However, some community members noted increased competition for food and water, as well as price inflation.

Increasing development benefits from agro-industrial FDI

The government of Sierra Leone, development finance institutions, and rural communities went into the Makeni Project with very high expectations. But the study suggests that while the project has brought many benefits, the potential for rural transformation has not been fully realized. For example, although the FDP has succeeded at producing large quantities of rice to offset any crop losses due to the land concessions, local buy-in has varied significantly, and it is uncertain how well these farmers will do after they “graduate” from the FDP.

Another risk that needs to be addressed is that labour scarcity during the growing season will contribute to food insecurity. Given the demographic changes in the region, it is crucial to ensure that there is adequate labour and organization to produce enough food to meet increasing demand. Moreover, if inflation and lack of access to markets reduce workers’ buying and selling power, their families could end up poorer than before. The impact of ABSL employment appears to be large enough to warrant active engagement by the public sector and civil society to help the communities to adjust.

There is also a need to narrow the gap between ABSL’s labour needs and the skills and capacities available in local communities. This requires collaboration between the public sector, development partners and NGOs to assess the range of capacities that ABSL expects its workers to have, and to set up structures to build those capacities. ABSL’s plan to develop an outgrower scheme, currently on hold, could also make a significant difference for local livelihoods.

More broadly, the Makeni Project highlights the challenges of relying on FDI as a means to advancing development goals,



Children gather around a mango tree in Makeng as ripe fruits are picked. Photo: Ival Cummings-John / SEI



A community vegetable garden next to the river outside Magbaikolie, a village near the Makeni Project area.

Photo: Ival Cummings-John / SEI

especially in countries with limited resources and substantial needs, such as Sierra Leone. Foreign investors can make a real impact, but they cannot replace the public sector. In fact, without an enabling policy environment and supporting public-sector investments, the transformative potential of private-sector investments will be diminished. For example, ABSL has built roads to support its own operations, and in the process provided vital infrastructure for local communities. But the government has done nothing to fill any gaps – even where building as little as 50 metres of road could transform a village’s prospects by linking to an ABSL-built road.

It is possible that Sierra Leone’s public institutions do not yet have the capacity to keep up with the rapid pace of ABSL’s activities, in which case development partners and NGOs should step in to help. Another, more worrisome possibility is that ABSL’s presence has actually led government agencies – and even NGOs – to curtail their own activities in the area, on the assumption that ABSL will now cover local needs. If this is the case, corrective action is needed. Policy-makers may also want to take precautions to ensure this does not happen around other foreign investments.

Finally, the Makeni Project’s potential to expand modern energy access in the region should be carefully explored. Options might include building a mini-grid to connect local communities to the ABSL power plant, and selling some of the ethanol locally, to fuel new, clean cookstoves. It is also worth considering whether there is a viable domestic market in Sierra Leone for ethanol for transport, to reduce dependency on imported oil products – particularly since the country has no working distillery.

Conclusion

Sierra Leone has worked to attract FDI as a key development strategy, and has highlighted bioenergy as a priority sector for its potential to advance rural development. Yet one of the most important lessons from bioenergy projects around the world is that good governance is crucial to achieving sustainable development benefits, and to ensuring that the rural poor share in those benefits and are not harmed. This study suggests that Sierra Leone’s institutions are not yet up to that task.

Strengthening governance needs to be a priority, with particular attention to regulatory structures, technical know-how, and coordination among key agencies. The Sierra Leone government also lacks the capacity and resources to supplement ABSL’s investments in the Makeni region and fill gaps. By more actively engaging with ABSL, however – and with other project developers – it could start to identify opportunities that are now being missed, and seek support from development partners, donors and/or NGOs to pursue them. The development finance institutions have a key role to play in this regard.

Finally, it is important to note that this study provides only a snapshot in time of a project that continues to evolve, in communities undergoing rapid change. Further research is gauge the impact of the Ebola crisis on this project and on the vulnerability of local communities, and to identify longer-term trends. It would also be useful to “ground-truth” the expectations set on the Makeni Project and agricultural FDI in general, to ensure that the development benefits envisioned are actually achievable.

This policy brief was written by Marion Davis and Matthew Fielding. It is adapted from the executive summary of SEI Project Report 2015-09, *Agricultural Investment and Rural Transformation: A Case Study of the Makeni Bioenergy Project in Sierra Leone*, by Matthew Fielding, Marion Davis, Nina Weitz, Ival Cummings-John, Amanda Hickey, Francis X. Johnson, Jacqueline Senyagwa, Lidia Martinez, and Miaojie Sun. The report was published by the Stockholm Environment Institute in August 2015, simultaneously with this policy brief.

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