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***Securing Livelihoods, Land and Natural Resource Rights
Through Inclusive Business Models:
Lessons From Uganda and Mali***

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ACRONYMS

AFD	Agence Française de Développement
BUL	Bidco Uganda Limited
CDF	Code Domanial et Foncier
FAO	Food and Agriculture Organization
FBSARL	Faso Biocarburant
FCFA	Franc Communauté Financière Africaine
FDI	foreign direct investment
FEPPASI	Fédération Provinciale des Professionnels Agricoles de la Sissili
FFBS	fresh-fruit bunches
FGPN	Fédération des Groupements de Producteurs du Nayala
ICCO	Inter-church organization for development cooperation
IFAD	International Fund for Agricultural Development
IIED	International Institute for Environment and Development
KBSA	Koulikoro Biocarburant
KIT	Royal Tropical Institute
KOPGA	Kalangala Oil Palm Growers Association
KOPGT	Kalangala Oil Palm Growers Trust
LATF	Land Acquisition Task Force
MBSA	Mali Biocarburant S.A.
MPED	Ministry of Finance, Planning and Economic Development
MOU	Memorandum of Understanding
NLP	national land policy
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
OPUL	Oil Palm Uganda Limited
PPP	Public-Private Partnership
RPDU	Regional Partnership Development Unit
SSA	Sub-Saharan Africa
TFT	Trees for Travel
ULSPP	Union Locale des Sociétés Coopératives de Producteurs de Pourghère
UNDP	United Nations Development Programme
VODP	Vegetable Oil Development Project
WB	World Bank

ABSTRACT

The paper presents the lessons learnt from the Vegetable Oil Development Project in Uganda and Mail Biocarburant S.A. in Mali in establishing mutually beneficial inclusive business models between smallholder farmers and outside investors that improve the livelihoods and tenure security of smallholder farmers and rural communities more generally. The establishment of these models has not been without challenges and sometimes the business arrangements require some form of trade-off. The success of such partnerships depends on the level of ownership, voice (governance), risk-sharing and benefit-sharing between partners. Partnerships that do not require a major transfer of land rights to investors are more desirable and socially sustainable. Any land relinquished in such deals should be done preferably on a temporary basis (e.g. through a lease agreement). Rights to land need to be recognised, taking into account legitimate occupation versus legal rights. The two cases show that establishing mutually beneficial partnerships is possible, but requires sustained support by a range of service providers (government, civil society, private sector) to secure rights, support land use and investment planning and to negotiate with outsiders, and effort and time.

Key words: inclusive business models, tenure security

I. INTRODUCTION

The current controversy about large-scale land acquisitions by foreign investors has put land rights issues and responsible agricultural investment more visibly back on the global development agenda. It has also raised questions regarding the world's future development trajectory. In both respects, it has opened up important international space for discussion on how to improve land administration systems and investment in agriculture, so that the land rights and livelihoods of smallholder farmers, pastoralists and other vulnerable groups are strengthened. One approach to increasing sustainable private-sector investment in agriculture, is to promote mutually beneficial partnerships between smallholder farmers and private-sector investors – preferably partnerships that do not require large-scale land acquisitions.

This paper aims to contribute to the current debate by presenting the lessons learned on the establishment of “inclusive business models” from two cases studies – the Vegetable Oil Development Project (VODP) in Uganda and Mali Biocarburant in Mali. Both projects have been supported by the International Fund for Agricultural Development (IFAD). The two cases have significantly different business arrangements but both have had a positive impact on the livelihoods and tenure security of poor women and men in the communities that they operate in.

II. BACKGROUND

A. Investment in land

After several decades of under-investment in the agricultural sector in developing countries, the late 2000s witnessed a surge in foreign direct investment (FDI) in primary agricultural production. The reasons for this surge are diverse and complex, but the main drivers can be linked to the steep rise in commodity prices in 2007- 2008 and the realization that demand for finite natural resources is set to continue increasing significantly in the next decades (FAO 2012). Estimates of the area acquired by foreign firms vary substantially across sources due to methodological differences. The more reliable cross-checked figures are not as high as what the media headlines suggest (FAO 2012).

There has been an increasing concern about the potential risk the growing demand for agricultural land in the developing world, especially in Africa, by foreign investors may have for the livelihoods, land and natural resource rights of rural communities living there. As such, there is a fear that land acquired by foreign investors tends to be amongst the best lands, with good soil quality, high production potential, irrigation and proximity to infrastructure and markets. As a majority of foreign

investment projects aim at export markets or the production of biofuels, they may pose a threat to food security in low-income food-deficit countries, especially if they replace food crops that were destined for the local market. Large-scale acquisition of agricultural land can have other adverse impacts, especially in countries where there is a lack of good governance, rule of law, transparency and clear land tenure rights. These negative effects could include the displacement of smallholder farmers, the loss of grazing land for pastoralists, the loss of incomes and livelihoods for rural people, the depletion of productive resources, and in general, negative impacts on local livelihoods due to reduced access to resources, which may lead to social fragmentation. There is also evidence of potential adverse environmental impacts, in particular the degradation of natural resources such as land, water, forests and biodiversity (FAO 2012).

In most countries in Africa, agriculture is seen as being central for economic development and poverty reduction, but in general there is a massive shortfall of investment in agriculture in these countries. Agriculture is critical to achieving global poverty reduction targets. It is still the single most important productive sector in most low-income countries, often in terms of its share of Gross Domestic Product and almost always in terms of the number of people it employs. In countries where the share of agriculture in overall employment is large, broad-based growth in agricultural incomes is essential to stimulate growth in the overall economy, including the non-farm sectors selling to rural people (World Bank 2009). However, for decades, Africa has suffered from under-investment in agriculture, leading to stagnant productivity and poor growth in the sector. On average, African countries allocate only 4% of their budgetary expenditures to agriculture, compared with up to 14% in Asia. In addition, FDI and Official Development Assistance (ODA) for the sector have long remained very low (OECD 2012). A growing interest has been witnessed in many developing countries to attract FDI as a basis for reinvigorating agricultural development. These countries attract investment in and for their agriculture sectors, with a view toward improving food security, yields, output, and value added, while benefiting from additional farm and firm income, direct and indirect employment, productive infrastructure, technology transfer, new product development, and better access to attractive markets (OECD 2010).

While African Governments continue to have a central role in facilitating investment in agriculture, the role of the private sector in meeting the investment shortfall is increasingly recognized. Given the resource constraints of governments in Sub-Saharan Africa (SSA) and the tight budgetary conditions in many donor countries, the private sector, both domestic and foreign, has a potentially important role to play in financing agricultural investments in the region (FAO 2010). Agricultural development requires the complementary growth of value chains to provide key inputs and markets. This in turn requires greater investment along value chains by a host of private sector players. Growth in agricultural investment and production depends on sufficient complementary investment in

agroindustry, something that is often ignored in discussions about the investment needs of agriculture. Recent years have seen significant growth in private and corporate sector investments along value chains, and although farm level investments by large scale corporate players through the purchase or leasing of land in developing countries have attracted attention, the vast majority of this private sector investment is going into agro-industrial activity (FAO 2011). Private sector agribusiness investment in Africa is low but has been increasing over time, particularly in value-adding processes. Commercial bank lending to the primary agricultural sector is small, accounting for less than ten per cent of total commercial bank credit in a number of SSA countries. However, such lending has also shown a general upward trend in absolute terms. The players in the sector include a number of large foreign and African enterprises. Private investments in the agriculture sector are mainly directed towards high-value crops and non-traditional products such as cut flowers destined for markets in industrialized countries. Fruit and vegetable exports, especially from East Africa, are experiencing relatively high growth. Activities linked to agricultural production are also attracting FDI, including food processing, transport and marketing.

At the same time, agricultural and rural development strategies need to, and typically do, recognize the central role that smallholder farmers and micro entrepreneurs more generally must play in driving agricultural development and poverty reduction. The approximately 500 million smallholder farming households are the main investors in land and agriculture in developing countries. They support a third of the global population, and produce up to 80 per cent of the food consumed in the developing world. These farmers are typically among the poorest and most neglected in development support and investment terms, yet they play a key role in achieving poverty reduction and food security (IFAD 2010). The main assets that they have are land, labour and their creativity. Among the main things that smallholder farmers and rural communities more generally need are: secure land and natural resource rights and better access to inputs, technical expertise, agro-processing and other off-farm opportunities, finance and perhaps most importantly, markets. Therefore, enabling poor rural people to be part of the solution for global food security must be a priority for governments, the international development community and any other investors. Women play a critical role in agricultural production in developing countries, where they usually make up the majority of the agricultural workforce. Hence, their economic and social empowerment is essential.

B.Private sector investment as an opportunity for smallholder farmers

Private sector investment (foreign and domestic, large and small scale) can play an important role in addressing the needs of smallholder farmers and micro entrepreneurs mentioned above and to improve their livelihoods and tenure security. Key for this to happen is the type of business arrangements entered into between smallholder farmers/community enterprise groups on the one hand and the

external investors on the other. One approach to increasing sustainable private-sector investment in agriculture, is to promote mutually beneficial partnerships between smallholder farmers and private-sector investors – preferably partnerships that do not require large-scale land acquisitions (IFAD 2010). Especially in view of the risks associated with large-scale acquisition of land and a number of prominent project failures, there have been calls for the promotion of alternative business models that would involve the local community more actively. Arguably, inclusive business models that involve smallholders in production and/or other related activities have the potential to minimize the risks and maximize the benefits of agricultural investment (FAO 2012).

There is growing experience with models for structuring agricultural investments other than large-scale plantations. A wide range of collaborative arrangements between investors, on the one hand, and family farmers and local communities, on the other, include diverse types of contract farming schemes, joint ventures, management contracts, community leases and new supply chain relationships or a combination of these (IIED 2010). No single model is the best possible option for smallholders in all circumstances. The adequacy of a model is found to depend closely on the local context and to be contingent on tenure, policy, culture, history and biophysical and demographic factors. None of the models can be described as a holistic solution to rural development. The various options each have risks and opportunities and the success of such partnerships, and the real benefits to smallholder farmers and rural communities more generally, depends on the level of ownership, voice (governance), risk-sharing and benefit-sharing between partners.

Some serious investors in agriculture are increasingly looking towards mutually beneficial and sustainable partnerships as it makes good business sense. And many smallholder farmers are prepared to negotiate if they are properly consulted, well informed of the implications and potential risks, and see a real benefit. They sometimes may involve some form of land being used by an outside investor. Accessing this land should preferably involve proper consultation with the affected communities and the granting of leases with clear agreements regarding expected benefits for these communities. Establishing mutually beneficial partnerships are possible, but they require sustained support by a range of service providers (government, civil society, private sector), and effort and time. Particular attention needs to be given to empowering smallholder farmers and rural communities to engage on equal terms with outside investors. There is also a need to monitor the implementation of agreements to ensure that the anticipated benefits are realized and to assess the impact.

Box 1: Key concepts

A *business model* is the way in which a company structures its resources, partnerships and customer relationships in order to create and capture value – in other words, a business model is what enables a company to make money. Business models are considered as more *inclusive* if they involve close working partnerships with local landholders and operators, and if they share value among the partners.

Land tenure refers to the rules, norms and practices that govern how people access, use and transact in land. Closely linked to the governance of other natural resources, namely water and forests. Most land in Africa and Asia is not registered and instead is governed under diverse customary land tenure systems.

III. LESSONS FROM IFAD SUPPORTED PROJECTS

Through loans and grants, IFAD works with governments to develop and finance programmes and projects that enable rural poor people to overcome poverty themselves. Over the past years, however, IFAD's engagement with the private sector has been steadily increasing, especially in the areas of pro-poor value-chain development, supporting the emergence of a private rural financial sector that is more responsive to the needs of poor rural people, establishing government-backed equity funds that invest in rural businesses, supporting an enabling rural business environment, and contributing to multi-donor trust funds that support rural businesses in Africa (IFAD 2011). It recognizes that smallholder farmers are private sector entrepreneurs, or at least have the potential for being entrepreneurs. They are the main investors in land and agriculture and should be at the centre of agricultural development, food security and poverty reduction strategies, policies and programmes. IFAD therefore plays an important role in supporting and facilitating the creation of inclusive business models that secure land and other natural resource rights of its target groups, as in the case of the Vegetable Oil Development Project (VODP) in Uganda and Malibiocarburant in Mali and Burkina Faso. The two cases have significantly different business arrangements but both have had a positive impact on the livelihoods and tenure security of poor women and men in the communities that they operate in. Four criteria have been used to assess value sharing, namely: ownership, voice, risk and reward. It must be noted that while VODP is a public private partnership, Malibiocarburant was set up as a private sector initiative.

A. Vegetable Oil Development Project in Uganda

1. Introduction

VODP was launched in 1998. It was envisaged that the project would reduce Uganda's reliance on imported vegetable oils and address the country's low per capita vegetable oil consumption by

supporting the production and processing of oilseeds and oil palm. By fostering national vegetable oil production, the project would also increase the income of small-scale farmers. The first phase of the project ended in 2012 and second phase will be completed in 2018.

From the onset, the oil palm sub-project of VODP was conceived as a public-private partnership – the first of its kind in Uganda – for oil palm development. While the Government committed to developing the infrastructure in the area and supporting the set-up of smallholder plantations, a private-sector partner brought technical expertise for the development of the crops, as well as modern and environmentally sound processing methods that produce a high quality product compliant with food safety standards. The partnership implements an inclusive business model, combining small-scale production with large-scale processing and integrating small-scale producers into the wider economy.

Despite significant delays, early results indicate that the project is having a positive impact on Bugala island. Some of the impacts include increased employment and incomes, improved infrastructure and improved tenure security.

2. Context

Agriculture. With a largely rural population (86 per cent lived in rural areas in 2012 (FAOSTAT, 2012)), poverty in Uganda is concentrated in rural areas, where 30 per cent of people live below the national rural poverty line (IFAD, 2012). While the majority of the labour force is employed in agriculture (73.6 per cent in 2012 (FAOSTAT, 2012)), agricultural value added accounts for a relatively small proportion of GDP (23.4 per cent in 2011 (World Bank, 2013)), and rural and agricultural households are disproportionately poor (Gollin et al., 2010). Agriculture is largely based on smallholder production (75% of the total agricultural output in 2007 was contributed by smallholder farmers (AfDB, 2010)) and is mostly oriented towards domestic consumption (Gollin et al., 2010). Mixed cropping systems are most commonly used (Gollin et al, 2010).

With respect to meeting the domestic demand for vegetable oil, Uganda has relied heavily on imports. Expenditure on palm oil imports, including crude palm oil in 2010 was greater than that on any other agricultural commodity, amounting to more than USD 177 million for 203,096 tonnes (FAOSTAT, 2012). It was envisaged, in the 1990s, that the VODP would help reduce the reliance on imports, and address the low per capita intake of vegetable oils.

In recent years the Ugandan government has implemented policies to support the growth of agribusiness, including liberalization and privatization, civil service reforms to improve public services, structural reforms for infrastructure development, land policies, and specific agricultural

subsector policies. Poor implementation of these policies has, however, constrained the degree of success achieved (Kibwika et al., 2009).

Land tenure. A national land policy (NLP) was adopted in February 2013. It will guide the legal reforms in the land sector. The NLP supports the registration of land rights under customary tenure and contains a number of important reform proposals to strengthen women's land rights. It also includes measures geared at rationalizing and streamlining the land dispute resolution structures and recognizes the role of customary institutions in making rules governing land, resolving disputes and protecting land rights (Zevenbergen and al., 2012). This will hopefully allow for solving disputes in a more time- and cost-efficient manner, but at the same time the reinforcement of local/customary institutions might leave room for corruption (LANDac 2012).

The 1995 Uganda Constitution recognizes four land tenure systems, namely: customary, freehold, mailo and leasehold. Most land is accessed through customary tenure systems. Central and southern Uganda is dominated by mailo land. This is a kind of customary form of freehold that was created under British colonial rule when mile-square blocks of land were allocated to Baganda notables in exchange for political cooperation. Today mailo land is largely confined to Buganda and Bunyoro, but can also be found in other parts of the country. The land is owned by (often absentee) land lords and worked by tenants, who can be evicted. This system is currently a major cause of conflict between land lords and tenants (Green 2005; Place and Kejiro 2000). The Land Act of 1998 includes a commitment to ensuring security of tenure, particularly for the poor – here identified as the lawful, bona fide and customary tenants. Protecting the land rights of lawful, bona fide and customary tenants has proved a daunting task (FAO 2011).

3. The business model

Establishing the partnership. Following IFAD's agreement to support the VODP in 1997, a competitive bidding process was launched to identify a private-sector company to invest in the oil palm plantations and processing facilities. After two years of inconclusive negotiations with a local company, the Government of Uganda entered into negotiations with Bidco Uganda Limited (BUL), a subsidiary of Bidco Oil Refineries Limited of Kenya, and one of the largest processor and marketer of vegetable oil in Uganda. Bidco's proposal, with which the Government ultimately agreed, was that 40,000 ha of oil palm plantations would be developed in subsequent phases, as well as a 300 tonne/day refinery at Jinja to produce the crude palm oil, with the first phase of the project involving the development of 10,000 ha of oil palm plantations on Bugala Island in Kalangala District. The land under cultivation would comprise a 6,500 ha nucleus estate as well as 3,500 ha of smallholder plantations. The nucleus estate provides some guarantee of throughput for the plant.

Box 2: Oil Palm

Oil Palm (*Elaeis guineensis*) is native to the tropical rainforests of West Africa, and the processing of oil palm fruits for edible oil has been practiced in Africa for thousands of years. Indeed, palm oil, which is rich in carotenoids that produce a deep red colour, is a core ingredient of much of West African cuisine and is important in human diets. In particular, red palm oil is important for the high amount of vitamin A it contains (FAO, 1997). Oil palm has a high potential productivity, with the highest yield of oil per unit area compared to any other crop (FAO, 2002) and its cultivation can, therefore, derive significant economic benefits in addition to its nutritional benefits. The yields of fresh fruit bunches provide a stable income for smallholders, as it is a perennial crop and harvesting takes place at least twice a month over a 20 year period. There are environmental risks inherent to palm oil cultivation and processing, such as potential damage resultant from untreated aqueous effluent (FAO, 2002) and careful consideration must be given to the mitigation of such risks.

The government committed to ensuring the acquisition and leasing of the necessary land to Bidco for the nucleus estate, ensuring compliance with the environmental safeguards set out by the National Environmental Management Authority (NEMA), and ensuring the formation of the Kalangala Oil Palm Growers Trust (KOPGT), a trust that acts on behalf of the farmers towards the private sector. Additionally, the government committed to developing the required infrastructure, including upgrading the Kalangala district road network and establishing a ferry service to and from the island. The Government obtained financial and technical support from IFAD in order to fulfil its obligations.

To implement the agreement Bidco formed an international corporate partnership, Oil Palm Uganda Limited (OPUL), with Wilmar International, Josovina and ADM (previously Archer Daniels Midland). The establishment of OPUL represented the convening of significant expertise in oil palm development and marketing.

Box 3: Main stakeholders and their roles

Smallholder farmers: Smallholders are both first inhabitants and earlier migrants to the island. Many are tenants of, or even occupants on, large areas of land owned mostly by absentee landlords. Current smallholders have typically established about 2-4 ha of oil palm (although in some cases it may be as much as 10 ha). Some have already started harvesting oil palm fresh fruit bunches (ffb) which they sell to the palm oil mill set up by OPUL on the nucleus estate. A total of 3,500 hectares have been planted by farmers of which 1,451 hectares have reached maturity and are under harvesting. A total of 1,523 farmers are participating in the project of which 575 are women.

KOPGT: The Kalangala Oil Palm Growers Trust (KOPGT) was established in 2006 by the Government of Uganda using IFAD funds in order to represent the interests of smallholder farmers

within the public-private partnership. Its main functions include acting as an intermediary between the farmers and OPUL, smallholder mobilisation, provision of extension services (e.g. on-farm technical guidance for land preparation, lining, holing and planting, maintenance, and eventually harvesting), financial management (including the oil palm development loan programme) and marketing of oil palm ffbs. The board of KOPGT is made up of the following trustees: three farmers (of which one is the chair), a district representative, the VODP project coordinator, a representative of the National Agricultural Research Organization and a representative of a local NGO. Representatives of the Ministry of Finance, the Ministry of Agriculture and the Ministry of Justice are also Board members, but not trustees. KOPGT holds a 10% share in OPUL.

KOPGA: The Kalangala Oil Palm Growers Association (KOPGA) was established by farmers in 2007, as a way to present their voice more effectively. KOPGA offers farmers a platform on which to participate in discussions and to formulate proposals and requests that can then be negotiated within KOPGT. KOPGA has three members sitting on the board of KOPGT.

Government of Uganda: the Government was responsible for ensuring the acquisition and leasing of land to Bidco for the nucleus estate, providing financing and other support to smallholders for the development of 4500 hectares, providing the legislative environment to ensure the successful take-off of the project, ensuring compliance with the environmental safeguards, establishing KOPGT, and putting in place the required transportation infrastructure.

BUL: Bidco Oil Refineries Ltd of Kenya, founded in 1970, began focusing on the manufacturing and marketing of edible oil, fats and soaps in the 1990s. It has since become a market leader in soap and cooking oil brands in East and Central Africa. Bidco oil Refineries in partnership with others formed Bidco Uganda Limited (BUL) to implement the project activities in Uganda.

OPUL: Oil Palm Uganda Limited (OPUL) is a private company formed by BUL to initiate and implement the investment in Bugala, Kalangala. BUL holds a 90 per cent share in OPUL, with the remaining 10 per cent held by KOPGT on behalf of the participating smallholders. OPUL's main activities include the establishment of oil palm nurseries for the nucleus and smallholders, establishing and managing the nucleus estate and palm oil mill, and providing services and inputs to KOPGT to support the cultivation of oil palm by smallholders. BUL is OPUL's sole buyer.

IFAD: IFAD has provided loan funding to the Government of Uganda to implement the smallholder component of VODP. It carries out a facilitator role and provides technical support smallholder oil palm development and investments in roads.

Overview. VODP's oil palm sub-project can be classified as a nucleus estate model, where the agribusiness company (OPUL) combines contract farming ("outgrowers") with direct involvement in production through a plantation estate. Smallholder farmers grow and deliver fresh palm fruit bunches to KOPGT on a daily basis at an agreed price. OPUL, through KOPGT, provides upfront inputs, support with land preparation, seedlings, and technical advice. This is charged by KOPGT as part of

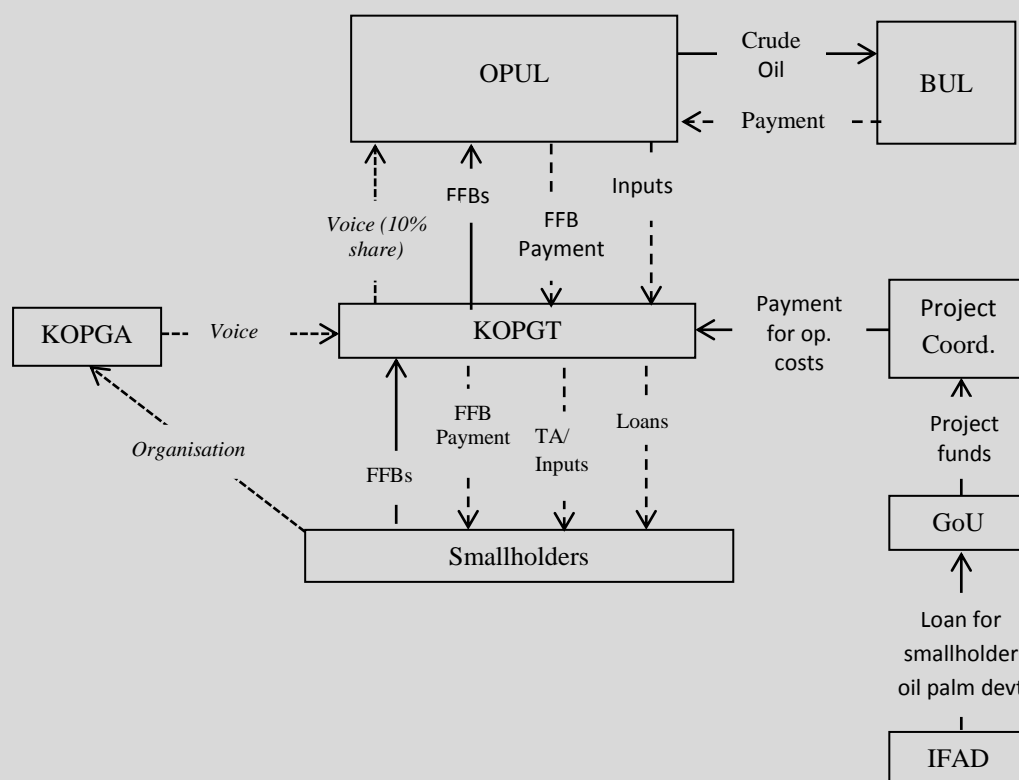
the farmers' loan. KOPGT organises transport for farmer inputs and harvests from and to the nucleus estate respectively.

VODP is also an example of a joint venture, as it entails co-ownership of OPUL, the business venture, by two independent market actors, BUL (the agribusiness) and KOPGT (the farmers' organisation). The joint venture involves sharing of financial risks and benefits and decision-making authority in proportion to the equity share.

The partnership agreement foresaw OPUL establishing a nucleus estate and a crude palm oil mill on Bugala Island in Kalangala District. In addition, OPUL provided an implementation plan that included the importation of oil palm seedlings, nursery facilities and a complete support package for participating growers. The support package included land surveying and preparation, digging of holes, planting, provision of inputs at cost, advice, transport and other services.

With financial support from IFAD through the Government, KOPGT was established in 2006 as an intermediary between OPUL and the smallholder farmers. Farmers must register with KOPGT in order to participate in the project, and to access financing under the oil palm development loan programme. While farmers pledge to follow the recommended agronomic practices for oil palm production through an agreement signed between the farmers and KOPGT, the Trust performs a range of functions on their behalf. It administers the loan programme. Repayments are carried out through KOPGT, which deducts a pre-agreed percentage from the payment for the farmers' FFBs. The Trust has furthermore implemented a voucher system to manage the transactions around the inputs and services required by farmers. KOPGT also collects the fresh-fruit bunches from farmers and delivers them to OPUL. Participating farmers agree to sell all fresh-fruit bunches to OPUL, which, in turn, sells all crude palm oil to BUL, which is responsible for processing and marketing the refined products. A price formula for oil palm is used which is linked to world prices.

Box 4: Organogram of VODP's oil palm sub-project



Ownership. BUL (the agribusiness) and KOPGT (the smallholders) co-own the business: KOPGT acquired a 10% minority share in OPUL in 2006, using funds provided to the Government by IFAD and the land leased by Government to OPUL, while the remaining 90% is owned by BUL. Accordingly, KOPGT retains two seats on the OPUL board of management.

The tenure arrangements for the land under cultivation vary between the nucleus estate and the smallholder plantations. The nucleus estate comprises 3,200 ha of public land as well as 3,300 ha of land purchased by the government from private mailo land (the tenure system under which most smallholders on Bugala island live) owners at market prices through negotiations on a willing buyer willing seller basis. An inter-ministerial Land Acquisition Task Force (LATF), which included representatives from the Treasury, Ministry of Land, Housing and Urban Development, Ministry of Justice, Ministry of Agriculture, National Environment Management Authority, the Uganda Investment Authority, Bugala Local Council, District Agricultural Officer and the VODP's Project Management Unit, was set up by the government to identify the land that would be developed. The land purchased was leased to Bidco under a ninety-nine year agreement.

The 3,200 ha of public land that is currently being used for the nucleus estate were vacant. The population on the Island was low and most settlements, fishing villages, were along the shores of the lake. In case the identified public land was being used by neighbouring communities, this land was

surveyed and left to the communities. This has led to the nucleus estate being scattered, but OPUL gave priority to accommodating the farmers. Neighbouring communities that were using this public land have benefited from the project by becoming members of the Kalangala Oil Palm Growers' Association (KOPGA). A total of 1,023 ha of public land that was originally allocated for the nucleus estate was handed back over to the communities and used for several purposes, such as settlement, oil palm production, food crop production or livestock keeping. Through the project about 460 farmers were granted access to public land. Mailo landowners were financially compensated on a willing seller-willing buyer basis. Some of the land that was purchased could not be used for the nucleus estate as it was too scattered. This land was allocated to poorer farmers, especially women and youth.

Smallholders receive support from OPUL, which includes inputs and other services, as well as loans administered by KOPGT. By December 2012, the total number of farmers registered with KOPGT was 1,523, accounting for a planted land area of 3,497 ha compared to a target of 3,500. The smallholder land is organised in 21 units, in six production zones. Furthermore, in an effort to encourage more women to participate in the project, the project sensitized men to provide user rights to their wives and daughters and have them participate as farmers in their own right.

While plans are underway to grant smallholders who are tenants on public land with either lease or freehold title deeds, strengthening the tenure security of tenants on mailo land – who typically do not have documented land rights – is more challenging. It is estimated that only about five per cent are the original mailo land owners. Most of the remaining members who are landowners acquired their land from the original mailo landowners. A growing number of mailo land owners have or are willing to sell the land to tenants/occupants and the latter are now better able to buy the land they are using given their increased income from oil palm production. Additionally, some KOPGA members used the production loans provided by KOPGT to buy land. This approach seems to have been particularly useful for women and youth.

Voice. In the design stages of VODP, between 1990 and 1996, wide consultations were undertaken, involving farmers, church leaders, central government, district officials, donors and some private investors. Though stakeholder analysis was not performed (it was not a common practice at that time), documentation indicates that smallholders were enthusiastic about the project.

Business decisions are taken by the company. The smallholders involved in VODP are able to influence those decisions to a certain degree. In the planning stages, significant consideration was given to devising means of ensuring that farmers would be able to represent their interests within the partnership. Through their membership in KOPGT, and given the Trusts' share in OPUL and its role on the pricing committee and services cost panel, farmers have a say in decision-making around

prices paid for fresh fruit bunches, transport costs and input costs. Representatives are designated by farmers from each of the six production blocks to act as spokespersons on their behalf at KOPGT. The three seats held by farmers on the KOPGT Board of Trustees are filled through an election process. The Government has played an important role in building trust between the various partners involved.

The establishment of KOPGA in response to the degree of government involvement in KOPGT does, however, suggest that farmers felt their voice was underrepresented in KOPGT decision-making. KOPGA offers farmers their own platform, on which they can participate in discussions and formulate proposals and requests that can then be negotiated within KOPGT. The Association is democratic, with an annual general meeting and an Executive Committee and representatives to KOPGT being elected every three years. KOPGA is organised at lower levels in blocks (parish level) which are further organised in units at village level. At these two lower level, farmer governance structures are in place with an executive elected by all farmers in the block or unit as is applicable, every two years. KOPGA are highly involved in the project, undertaking quality control of the crops upon sale to OPUL.

Risks. The smallholders bear production risks linked to weather, pests and other factors affecting harvest, although these are mitigated by the loans and “in kind” repayment system. Clear commitments for OPUL to purchase produce (subject to agreed quality standards) at guaranteed prices shift market risk from smallholders to the company. But market risk for smallholders remains significant as the contract farming arrangements determine purchase price through reference to (fluctuating) market prices, rather than to a fixed amount.

The risk associated with the loans administered by KOPGT are mitigated against using the co-guaranteeing approach, whereby each loan agreement is signed jointly by a group of 5-7 farmers who mutually agree the repayment of the financing. In the event that a group member fails to repay the minimum payment due to mismanagement of the oil plot, failure to follow the recommended practices or engagement in side selling, the co-guarantors are obliged to jointly repay the amount owed by that member. The system encourages farmers to ensure that good crop husbandry is practiced by all group members and that the crop is sold fully to OPUL. Part of the profits made by selling the ffbs to OPUL is used to repay the loan. Farmers therefore do not use other sources of income (including to repay the loan).

In order to register, farmers are required to demonstrate their legitimate status on land and sign the Agreement of KOPGT Association. At the onset, a land title or Certificate of Occupancy was required for each plot. This gave rise to difficulties for farmers in accessing the project, since they were often tenants on their land without formal documentation, and landowners were often reluctant to negotiate

and for Certificates of Occupancy to be issued. KOPGT, therefore, later relaxed the requirements so that farmers could register with a letter from the local council and the support of five witnesses where the original landowners had not reclaimed the land. Requiring farmers to demonstrate their legitimate access to the land on which they wish to cultivate oil palm, and to pledge the land for 25 years means that they maintain the use-rights of the investment.

The KOPGT fresh fruit bunch Inspection Officer regularly inspect the grading of fresh fruit bunches at the points of purchase (collection points). This protects farmer from risks of having fresh fruit bunches unduly rejected by OPUL. The Inspection Officer also inspects the weighing operations at the mill and OPUL's bookkeeping and payment operations on a regular basis.

Reward. OPUL provides a complete support package for participating growers, which includes land surveying and preparation, digging of holes, planting, provision of inputs at cost, transport (all at cost), advice and other services. As mentioned above, through their membership in KOPGT, and given the Trusts' share in OPUL and its role on the pricing committee, farmers have a say in decision-making around prices paid for fresh fruit bunches, transport costs and input costs. The price formula assures that the farmer gets a fair price, based on the international crude palm oil price and the oil extraction rate, and is not determined by the buyer, i.e. OPUL. The farm gate price is higher than in other countries. The price formula is included in the agreement between Government and BUL.

The participating growers furthermore benefit from KOPGT's loan programme, which provides credit to smallholders for land preparation, seedlings, inputs and working capital. Some farmers have been able to contribute their own labour to maintain the oil palm gardens, providing the opportunity to save money and purchase land.

The community benefits from a new opportunity for income generation that offers a relatively high return as a result of fresh fruit bunch prices being linked to the world crude palm oil price and a stable source of income (harvesting ffbs at least twice a month over 25 years). Staff working on the nucleus estate and at the mill benefit from employment. A total of 2,000 people are employed on the nucleus estate and an estimated 500 work on smallholder fields as labourers. The increased investment in the district and the associated increases in incomes should, in theory, also produce a multiplier effect whereby economic activity expands more broadly and the wider community can benefit. As is discussed in the early results section further in the paper, improvements have already been seen in business and tourism in the region. The local community also benefits from the improved infrastructure (e.g. roads, ferry service) and services (e.g. financial, public) in the region.

Additionally, smallholders benefit from the formal legal recognition of their tenure through official recognition by land owners. In the case of private land this is done either through the purchase of user rights using the income generated through their participation the project or through officially recognised sharecropping agreements, while in case of government land this is done through leases. OPUL employees on the nucleus estate also benefit from free access to a health clinic maintained by OPUL.

4. Early results

Early results suggest that the project has been successful in improving land rights as mentioned above. While challenges remain in regard to the issuance of Certificates of Occupancy, the tenure security of mailo landowners and tenants appears to have been improved. The project has provided some solutions to the impasse between mailo land owners (who have de jure rights but are unable to use their land) and tenants (who have de facto and de jure rights but are unable to register their rights). The support the project provided in surveying the individual plots and developing land use plans has allowed for farmers to be located on a map with their piece of land 'kibanja' clearly identified. The project implementers are committed to better documenting the range in size of land holdings of KOPGA members, to better analyse the tenure security situation of members and to continue working on solutions that strengthen tenure security.

It has been reported that certain KOPGA members who are occupants on mailo land intend on selling their use rights because they are concerned about their lack of tenure security, although there may be other reasons for them wanting to sell. It would appear that many mailo landowners are reluctant to grant Certificates of Occupancy to tenants/occupants but at least some owners have or are willing to sell the land to tenants/occupants and the latter are now better able to buy the land they are using given their increased income from oil palm production. In some cases occupants have already purchased or are planning to approach owners to buy the land they are using. In some cases KOPGA members have used the production loans provided by KOPGT to buy land. This seems to have particularly enabled women and youth to access land.

Other significant impacts of the first phase of the project include higher land values, improved access to financial and government services, transport, and utilities (mobile phone services). Additionally, business, tourism and trade have improved, while increases in farmers' income have led to increased investment in housing and education. Encouragingly, the project has also helped address gender disparity in the community, by challenging the traditional gender division of labour, increasing women's access to farm assets and income-generating activities, and promoting their participation in, and leadership of farmer groups.

The incomes of farmers have also increased. Farmers who started harvesting in 2010 now earn an average of UGX300,000 (approximately US\$120) from each acre, per month, and will earn up to US\$170-80 per acre per month once the trees are at full production (starting from the fifth year and continuing for at least a decade, after which yields are expected to decline). Employment has been created for about 4,000 people; with 2,000 employed at the nucleus estate and palm oil mill, 500 field labourers on smallholder plantations and a further 1,523 directly involved as smallholder farmers and 500 workers in the smallholder fields. OPUL employees have benefited from wages, housing, subsidized food, free health care and social security. Employment conditions on the estate compare very favourably with similar types of work elsewhere (e.g. sugar plantations) and many are able to remit savings to their families. The project also successfully empowered farmers, particularly through their membership in KOPGT and KOPGA.

Infrastructure facilities and services have improved dramatically, and production in other crops, livestock and complementary agricultural activities, tourism and other non-agricultural enterprises is expanding. Forest reserves are now clearly demarcated and illegal logging is down. There is less reliance on dwindling fish stocks. The contribution of OPUL to the local government revenue of Kalangala District is being invested in improving facilities (schools, clinics, etc.) and infrastructure (roads and electricity). The Government has also benefitted from the taxes that are being paid by BUL on an annual basis. Ultimately, the project has had a significant positive impact on reducing poverty on the island.

5. *Lessons learned*

The project has illustrated that an effective partnership can be developed between rural smallholders and the private sector, and that such partnerships can produce positive development outcomes for rural communities. Furthermore, the project has shown that governments can play a positive role in agricultural investment projects, particularly in terms of creating the appropriate policy environment, mobilising smallholders to organise, ensuring that the required infrastructure is made available and building trust amongst the various partners.

The choice of the business partners is very important. There needs to be a willingness of experienced business players to work with smallholders and local operators as part of the very core of their business model. This requires a high degree of flexibility, as illustrated in the case of VODP where, due to realities on the ground, the nucleus estate ended up being scattered.

Of particular value in terms of the project's success in improving the livelihoods of the local community was the inclusion of smallholders in all decision-making processes, beginning with the community consultations in the appraisal stages, and ensuring that, through KOPGT, they could

continue to represent their interests as the partnership matures. The establishment of KOPGA illustrates that farmers are empowered when they are organised.

That the partnership has been successfully established despite the long delays and the inexperience of the government and local communities in engaging with the private sector in such an agreement demonstrates that building partnerships takes time and that it can be worth persevering.

B.Malibiocarburant in Mali and Burkina Faso

1. Introduction

Mali Biocarburant S.A. (MBSA) was founded in 2007 as a well-advised response to the worldwide trend to convert biomass into fuel. Compared to fossil fuels, biofuels are better for the environment, but only if they are produced in a sustainable way. This initiative is about generating biofuels from plants that are harvested on land stretching along the roadside, or by integrating *Jatropha* in existing farming systems while ensuring food security. *Jatropha* is resistant to drought and it is therefore ideally suited to holding the soil together and protecting cultivated fields from wind and other erosion factors. The project processes *Jatropha* nuts into biodiesel for local markets.

Smallholder farmers play an active role in the company. They are among the company's shareholders, and the union president in Koulikoro is a member of the board. Overall, through contract farming, MBSA works with a total of more than 10,000 smallholder farmers in three regions of Mali and two regions in Burkina Faso. The local population directly benefits through not only the sales of *jatropha* nuts, but also through the increased value of shares, including foreseen dividends.

Although the venture has been running since 2007, it is still too early to assess its longer-term outcomes. Important positive contributions are however already visible. The farmers have kept their land rights, they sell *jatropha* nuts for processing and also make money as shareholders. To protect food security, the *jatropha* trees are intercropped with food crops or grown on unproductive land.

2. Context

Agriculture. Over the past decade, Mali has succeeded in reducing the incidence of hunger and poverty, but it remains one of the world's poorest countries. The national poverty rate was estimated to be over 43 per cent in 2010. Chronic food insecurity and malnutrition continue to be endemic throughout the country. This situation was aggravated by the global fuel and food crisis of 2008, which led to a sudden increase in food prices that has remained to this day. In recent years, Mali has urbanized rapidly, but nearly 70 per cent of the population still lives in rural areas, where poverty is more prevalent and the vast majority of people rely on agriculture for food and income (IFAD 2011).

The agricultural sector occupies a dominant position in Mali's economy and is the main source of growth, accounting for almost 39 per cent of the GDP (World Bank, 2013).

The steep rise and instability of oil prices on the international market, combined with environmental concerns, have stimulated new interest in biofuels throughout the world. An agro-pastoral country heavily dependent on oil imports to meet its energy needs, Mali has caught the fever and has been exploring production of several biofuel feedstocks, including jatropha (IIED 2012). Only 25% of the population has access to energy, and that percentage is even lower in rural areas (13.8%). In the last decade, Mali has had to increasingly rely on expensive diesel production and on imports from neighbouring countries (OECD 2011).

In order to promote private investment, Mali has, like the other countries in West Africa, enacted a law determining conditions and procedures for both foreign and national private investment: the Investment Code. The Code sets out the mechanisms and provisions designed to promote investments, through legal and institutional arrangements which are attractive. Public-Private Partnerships (PPPs) are considered by the Malian government to be a key instrument for private sector development. The country is ranked only 151st out of 183 countries in the Doing Business 2013 Report (World Bank 2013), pointing to the fact that there is still a long way to go. Lately, investment has been deterred due to security concerns.

Land tenure. There are two main land tenure systems in Mali: customary systems deriving from ancestral traditions and local practice, on the one hand, and the formal system of written law established by the state, on the other. Customary patterns of land access are still the most widespread in rural areas. Relationships between individuals and social groups are organised according to principles like kinship; gerontocracy and the corollary principle of seniority, based on respect for the elders; the pre-eminence of indigenous communities, particularly as regards the exercise of local political power and access to land; and a gender hierarchy in which men take precedence over women. Formal (written) law establishes various methods of access to land. The provisions of general legislation must be distinguished from the norms regulating particular areas such as irrigation schemes. The Land and Property Code (Code Domanial et Foncier, CDF) is the piece of legislation that provides the foundation of national law governing tenure. While customary rights are formally recognised and protected by legislation, the procedures to establish and register them have still not been determined. This is because the necessary implementing decrees have not yet been adopted (IIED 2012).

Competition over land and natural resources is increasing, putting more pressure on customary arrangements. Within communities, secure access to good quality land is becoming more difficult for

groups with weaker rights, such as women and migrants. Between communities, the pressure is on livestock holders relying on mobility to access grazing lands, water and markets, who find livestock corridors blocked and pastures converted into fields (LandAc 2010). The current trend towards private agricultural investment began in peri-urban areas. It is not a new phenomenon, dating back to the colonial era and ever increasing urbanisation. Following the renewed interest in agricultural land and the efforts of the Malian government to attract investment, the trend described above has accelerated and expanded beyond peri-urban areas (IIED 2012). The nature of the land acquirers has also changed, particularly with regard to the substantial involvement of foreign investors. The size of individual deals has increased exponentially, with some deals covering tens of thousands of hectares. While much attention has focused on land acquisitions by foreign investors, 90% of the known applications have been submitted by national developers, even though nationals represent less than 50% of the total area allocated (Papazian 2011).

3. *The business model*

Establishing the partnership. MBSA is the result of a not entirely accidental encounter between a private company and local producers in Koulikoro Region in Mali who, against a backdrop of energy crisis and renewed interest in biofuels, were looking for a partnership. The project developer and MBSA manager, a Dutch researcher and agro-economist, has always been interested in setting up a ‘win-win enterprise’ in which both farmers and the investor would benefit, and, according to him, only a model where producers have an equity stake in the business and where mechanisms exist to ensure a transparent relationship between the parties can ensure such a win-win (FAO 2012).

This thinking fed directly into the concept of MBSA. The Koulikoro Region of Mali appeared promising, as the Dutch development agency SNV had been working there for a while. Technical and socio-economic studies were carried out, leading to the establishment of MBSA as a company in February 2007. The Malian partners were initially the Koulikoro Chamber of Agriculture, and then the local union of jatropha producers’ co-operatives in Koulikoro (Union Locale des Sociétés Coopératives de Producteurs de Pourghère de Koulikoro, ULSP) (IIED 2012).

While the Dutch developer was nurturing these ideas, two farmer leaders in the region, who were also teachers approaching retirement, were wondering what activities they could undertake once they left teaching. Having found out about jatropha seed processing in other parts of the country, they had begun trialling the crop. At the time, one of the two teachers was the vice-president of the Regional Chamber of Agriculture. The Chamber of Agriculture had a fund available, which was provided by the Royal Dutch Embassy in Mali in connection with the Koulikoro Rural Development Programme. In 2007, MBSA was established as a company and registered at the company register, with the production and marketing of jatropha oil and its by-products as its primary purpose (FAO 2012).

Box 5: *Jatropha curcas* L.

As developing countries face increasing local demand for energy in rural areas, they also must deal with both economic and environmental pressure on agricultural lands in general. The possibility of growing energy crops such as *Jatropha curcas* L. has the potential to enable some smallholder farmers, producers and processors to cope with these pressures. *Jatropha* is an underutilized, oil-bearing crop. It produces a seed that can be processed into non-polluting biodiesel that, if well exploited, can provide opportunities for good returns and rural development. In addition to growing on degraded and marginal lands, this crop has special appeal, in that it grows under drought conditions and animals do not graze on it. Apart from the opportunities, there are risks to the sustainability of *jatropha* bioenergy production in terms of economic viability. There are also risks to the environment and to society (FAO 2010).

Having started with a relatively simple initial structure, MBSA is now turning into a transnational enterprise, with several international public and private partners and activities in both Mali and Burkina Faso. Recently, it has started scaling up its activities into Guinea, Ivory Coast and Senegal.

Overview. MBSA focuses on local production, local processing and local consumption. The company encourages small-scale farmers in Mali to intercrop their fields with *jatropha*. Farmers harvest the *jatropha* nuts and sell them to MBSA, which then extracts their oil using a number of mobile presses. MBSA refines the oil into biodiesel, which is then sold locally and used to power generators and cars that have diesel engines. The extraction process produces residual “press cakes” that are used as organic fertilizer to help improve soil fertility and glycerin that is used to produce soap.

MBSA has many features in common with so-called “contract farming” schemes, in which a central processing and distribution company purchases the harvests of individual smallholder farmers, and the terms of the purchase are arranged through contracts. MBSA goes beyond the traditional contract farming model by offering the local farmers a position as shareholders in the company. As such, it is can also be defined as a joint venture.

At the centre of the venture is the holding company, MBSA Holding. Its shareholders are KIT (48%), SPF (30%), Power Packs Plus (12%), the company’s manager (9%) and Interagro (1%). MBSA Holding finances the subsidiaries and facilitates funding of the foundations. It owns the processing facilities. MBSA runs operations in both Burkina Faso and Mali through the two national subsidiaries. In Mali, activities are led by Koulikoro Biocarburant (KBSA). Ownership of this subsidiary is as follows: MBSA Holding 79%; ULSP 20%; and a KBSA executive 1%. KBSA purchases the

jatropha seeds from producers, extracts the oil to produce biodiesel and markets the product. Farmers produce the jatropha seeds and sell them to the ULSP, which they are members of, and which sells the seeds on to KBSA. Producers also receive support from the Koulikoro Regional Chamber of Agriculture and from the government's technical services. The biodiesel produced is sold to Huicoma and Grands Moulins du Mali, two industrial enterprises based in Koulikoro, the Peace Corps, Omnium, the American School, and to the 'dourounis' (public transport minibuses) in the town. The company is also canvassing to mainstream their sales through existing distribution systems (e.g. Shell and Total) or institutions (e.g. American Embassy) interested in biofuels. Apart from biodiesel, KBSA also produces glycerine, which is used by a women's co-operative belonging to the ULSP to produce soap.

In Burkina Faso, on the other hand, activities are led by Faso Biocarburant (FBSARL). Ownership of this subsidiary is as follows: MBSA Holding 65%; Fédération Provinciale des Professionnels Agricoles de la Sissili (FEPPASI) 10%; Fédération des Groupements de Producteurs du Nayala (FGPN) 10%; Sahel Agribusiness Invest 10%; and Ageratec BV 5%. FBSARL purchases the jatropha nuts, extracts oil, produces and sells biodiesel and its by-products. The producers plant and harvest Jatropha and their cooperatives sell the nuts to Faso biocarburant. Producers also receive support from the Regional Chamber of Agriculture and from the government's technical services. The factory in Burkina Faso is currently under construction.

The Fondation Mali Biocarburant was established as an association under Malian law in 2010. Its registered office is in Bamako. The foundation is a non-profit organisation. Its members are MBSA, which holds the presidency, TFT (Trees for Travel), KIA Motors and the ULSP, together with two other jatropha co-operatives – the Bagani Nafabo Ton co-operative of Kita and the Ouéléssébougou jatropha producers' co-operative. Similarly, in Burkina Faso the Fondation Fasobiocarburant was set up in 2010. Its members are MBSA, which holds the presidency, a Dutch not-for-profit development organisation ICCO and the two farmer unions FEPPASI and FGPN. The foundation supervises producers and helps the farmer co-operatives to integrate jatropha in production systems and train farmers to improve food production without compromising food security. The foundations are in direct contact with producers to encourage them to obtain equipment and training through farmer field schools. The foundations are responsible for managing carbon credit revenues, most of which are used for the operational activities it conducts, with the balance allocated to the producer co-operatives in the form of equipment.

MBSA and the two foundations have various partners and funding sources. The Fondation Mali Biocarburant has received financing from the KIA Motors Company, which is linked to the enterprise by carbon credit contracts negotiated before the corporate restructuring; from TFT, which acted as an

intermediary between KIA Motors and the foundation, of which it is also a member; and through development aid funding, for example from USAID. Similarly, in addition to contributions from the shareholders identified above, MBSA has received investment subsidies from the Dutch Ministry of Co-operation and loan sureties or long-term loans granted by KIT and the French Development Agency (AFD). IFAD is supporting a regional partnership development unit (RPDU) to accelerate the consolidation and formation of foundations in the five target countries (Burkina Faso, Guinea, Côte d'Ivoire, Mali and Senegal). The RPDU is hosted by MBSA. Through IFAD-financed project, support is also being provided for strengthening the producers' organisations that are involved. Finally, as part of its efforts to promote sustainable development of the jatropha production chain, MBSA has pursued assiduous co-operation with various research institutes.

Box 6: Main stakeholders and their roles

Smallholder farmers: The smallholder producers in Mali (regions of Koulikoro, Kita, Ouélessébougou and Sikasso) and Burkina Faso (regions of Nayala and Sissili) plant and harvest Jatropha. They are represented by ULSP, FEPPASI and FGPN respectively. The farmers are organized into farming cooperatives that are in turn joined in farmers' unions.

MBSA: Mali Biocarburant S.A. (MBSA) is the holding company of the venture and finances the daughter companies, owns the assets and streamlines procedures including biodiesel certification. It supports the foundations through the RPDU.

RPDU: The Regional Partnership Development Unit's (RPDU) task is to put in place the 5 national Foundations responsible for introducing and consolidating the new production pattern in the target countries. RPDU is hosted by MBSA.

KBSA: Koulikoro Biocarburant (KBSA) is the national subsidiary of MBSA in Mali and purchases the jatropha nuts, extracts oil, produces and sells biodiesel and its by-products.

FBSARL: Faso Biocarburant (FBSARL) is the national subsidiary of MBSA in Burkina Faso and purchases the jatropha nuts, extracts oil, produces and sells biodiesel and its by-products.

ULSP: The Union Locale des Sociétés Coopératives de Producteurs de Pourghère de Koulikoro (ULSP) is a union of cooperatives of smallholder farmers in Mali that collects the nuts from its members and sells them to KBSA.

FEPPASI: The Fédération Provinciale des Professionnels Agricoles de la Sissili (FEPPASI) is a federation of cooperatives of smallholder farmers in Burkina Faso that collects the nuts from its members and sells them to FBSARL.

FGPN: The Fédération des Groupements de Producteurs du Nayala (FGPN) is a federation of

cooperatives of smallholder farmers in Burkina Faso that collects the nuts from its members and sells them to FBSARL.

Fondation Mali Biocarburant: In Mali, Fondation Mali Biocarburant trains farmers to integrate jatropha in their production system, and supports them to improve food security. They add value to carbon sequestration for sustainable agricultural investments.

Fondation Fasobiocarburant: In Burkina Faso, Fondation Fasobiocarburant trains farmers to integrate jatropha in their production system, and supports them to improve food security. They add value to carbon sequestration for sustainable agricultural investments.

TFT: Trees for Travel (TFT), a Dutch non-profit organization, acts as an intermediary between KIA Motors and the foundation. MBSA contracts its carbon offsets to TFT, which in turn sells them to KIA Motors Netherlands (KIA Motors). TFT is a member of Fondation Mali Biocarburant.

KIA Motors: KIA Motors is a South Korean auto manufacture and a member of Fondation Mali Biocarburant. MBSA signed a contract for carbon credits with KIA Motors Netherlands.

ICCO: ICCO is the inter-church organization for development cooperation which has provided a medium-term loan to Fondation Fasobiocarburant as well as financing the certification process for pro-poor carbon credits. ICCO is a member of Fondation Fasobiocarburant.

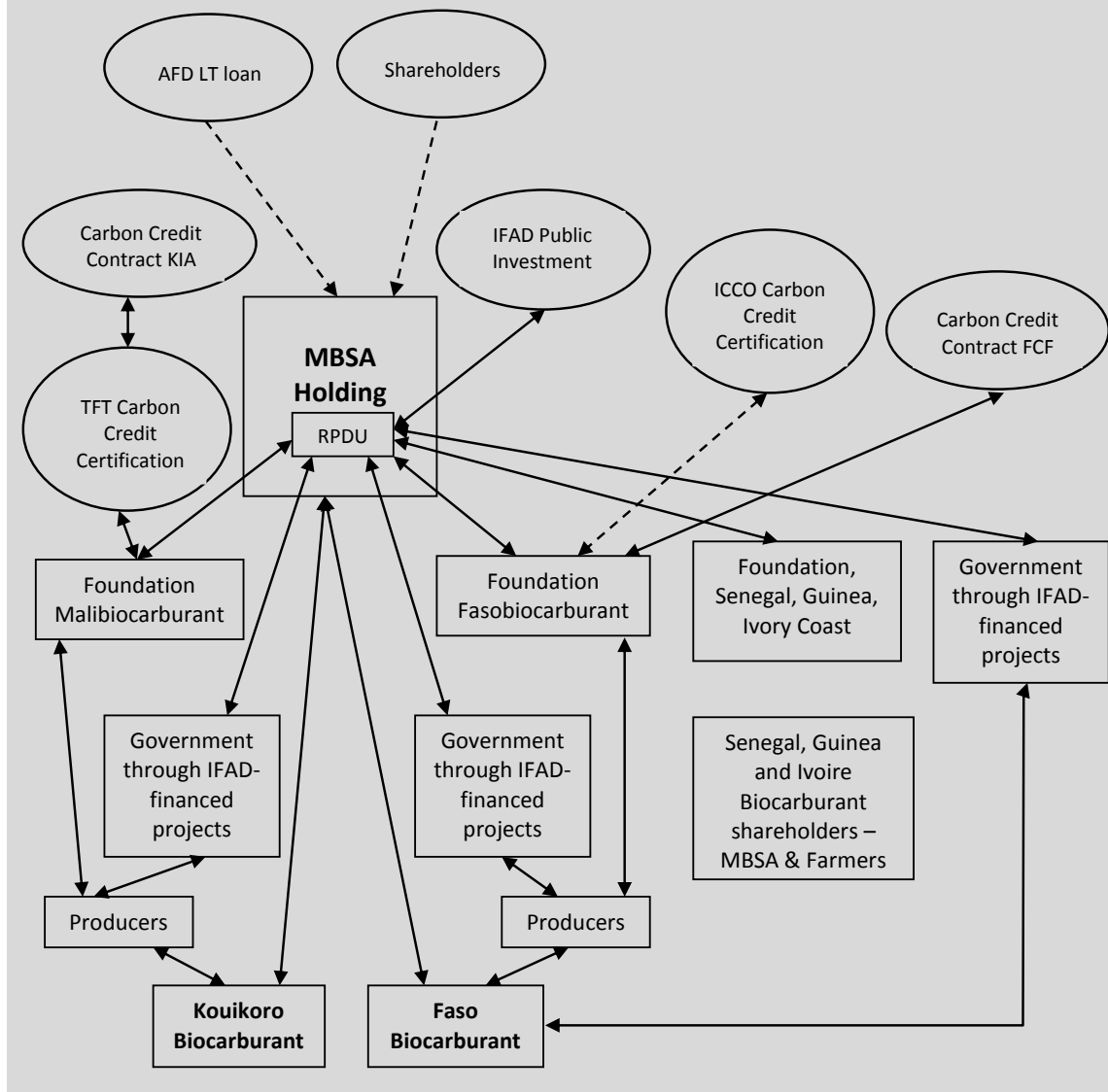
Government of the Netherlands: Through its Ministry of Co-operation, the Government of the Netherlands provided investment subsidies to MBSA.

KIT: The Royal Tropical Institute (KIT) in Amsterdam is an independent centre of knowledge and expertise in the areas of international and intercultural cooperation, which granted loan sureties to MBSA.

AFD: The Agence Française de Développement (AFD) is a financial institution and the main implementing agency for France's official development assistance, which granted a long-term loan to MBSA.

IFAD: IFAD is supporting the operation of the RPDU and, through its projects, strengthens the producers' organisations involved.

Box 7: Organogram of MBSA and its partners



Ownership. MBSA is a joint venture, where the partners share ownership of the two national subsidiaries (KBSA and FBSARL) of the venture, not just benefit-sharing, and the partners do not merge into a single entity but retain their individual legal status. In the case of KBSA, ULSPP owns a 20 per cent share, while FEPPASI and FGPN each own a 10 per cent share of FBSARL. Furthermore, in the former case, the KBSA executive owns 1 per cent of the shares, while the case of FBSARL, Sahel Agribusiness Invest and Ageratec BV own 10 per cent and 5 per cent of the shares respectively.

MBSA Holding owns the processing facilities in Mali and Burkina Faso. Land rights remain vested with the smallholder farmers, who sell the nuts to the company. The total land area held by smallholders amounts to more than 5,000 hectares in Mali and almost 4,600 hectares in Burkina Faso. Neither the company, nor its foundations, have had to acquire any land, other than small training

facilities and the factories that it uses to produce the biofuel, which amounts to two hectares in Mali and six hectares in Burkina Faso. Instead, the company encourages small-scale farmers in Mali to intercrop their fields with jatropha. The land rights of the smallholder farmers are even strengthened as – according the Malian customary law – land planted with trees belongs to the person/community who planted the trees. The company has furthermore envisaged a role for the farmers' unions in assisting their members to manoeuvre the administrative processes to obtain legal recognition for their land rights.

Voice. Strategic decisions are usually taken jointly by the parties through the Board of Directors. Smallholders are represented and have voting right on the Board of the daughter companies and in the General Assembly and Board of the MBSA Foundations in Mali and Burkina Faso. This enhances their influence on management decisions within the company. The purchase price of the jatropha seeds is based on the market price of biodiesel and set by mutual agreement between the farmers' union and the daughter companies of MBSA.

Voting rights on the Board of the Fondation Mali Biocarburant are currently distributed as follows: Farmer Organizations – 3 votes; MBSA – 2 votes; Trees for Travel – 2 votes, while those of Fondation Fasobiocarburant are currently distributed as follows: MBSA – 2 votes, ICCO – 2 votes, FEPPASI and FGPN – 2 votes. It is anticipated that as the relatively young, Jatropha farmers unions consolidate their rapidly expanding membership and governance structures, and capacity and experience in managing the activities and financial flows of the foundations is achieved, the voting shares may be adjusted to provide farmer organizations with overall control.

Smallholders are also represented in the General Assemblies of the foundations and as such they participate in decision making process concerning: the work-plan, budget, decisions on investments as well as on the use of carbon revenues.

Although the venture reflects a partnership between a company and local communities, the fact remains that the interests of the two parties do not always coincide. The development of avenues for communication and negotiation is therefore critical. Both MBSA and ULSP have a general meeting of members/shareholders, a board of directors and management staff. These bodies do periodically hold their statutory meetings. But there appear to be problems in communications among the multiple stakeholders, and communication challenges have emerged between the company management and ULSP management, with business processes not fully understood by producers and some decisions being without prior consultation of the farmers' unions. There also appear to be communication challenges in relations between management of the farmers' unions and their members (FAO 2012).

The difficulty farmers' organisations experience with keeping track of their membership has also been reported (CHRGJ 2010). IFAD support is now being used to strengthen these organisations.

Risk. On the producer's side, the jatropha trees are intercropped with food crops and the smallholders therefore run agro-ecological risks, such as bushfires and diseases, which can reduce the yield of Jatropha shrubs. Farmers also experience serious problems with white termites which destroy the seedlings in many areas and seriously compromise production. A solution is being developed to address this problem. The Jatropha plants, cultivated by farmers, fix carbon. The Foundations collaborate with third parties, such as Trees for Travel and KIA Motors, by adding value to the carbon sequestration. In this way, the Foundation generates carbon credit income that is used to finance the operational cost of the foundation and its surplus is used to invest in sustainable agricultural practices geared towards improving farmers' incomes. Smallholders may lose their investment in MBSA, which is financed through pro poor carbon offset.

On the other hand, one of the risks borne by the company is side selling of Jatropha nuts, which would lead to a lack of raw material. The risk of side-selling currently mitigated by lack of competing processors. The company also faces biodiesel production risks, some typical biodiesel risks include: methanol fuelled fire; inexperienced owner/operator; long lead components; feed stock change or shortage; process equipment failure; storage equipment failure; and loss of key utilities including power and steam. A final risk for the company is that of low international oil prices (<US\$ 50/barrel). The interest in biofuels was stimulated by the steep rise and instability of oil prices on the international market.

Reward. The smallholder farmers benefit directly from the sale of their produce, which amounts to USD 125/ha or about USD 3,0/day. Although the price is set by mutual agreement between the company and cooperatives, given the production costs of biodiesel, farmers sell jatropha seeds at a price of (FCFA 75/kg). In comparison, other crops suitable to the local ecology would offer higher returns. Sesame, for example, is sold at FCFA 300/kg in the region. However, this sales price does not include the production costs.

Indirectly, the farmers benefit from dividend payments from the profits made by the company and from their equity participation in the company: ULSPP owns a 20 per cent share of KBSA, while FEPPASI and FGPN each own a 10 per cent share of FBSARL. These dividends have, so far, been re-invested in the company.

Furthermore, the cumulative sales of carbon credits under the current contract (€6,5/ton) is potentially worth more than € 2,700,000 per country. In Burkina Faso, the FFB has started the process to certify

these credits under a Carbonfix standard. In the course of 2013, Carbonfix may approve the methodology which will then result in releasing this potential value. The Board of the Foundations will decide how this income will be distributed to the farmers.

A 20 per cent improved yields of corn, sorghum, and groundnuts is expected in four years for farmers who have intercropped their fields with jatropha. These improved yields are likely to compensate for the reduction in land area devoted exclusively to food production, since jatropha is cultivated on approximately 20 per cent of each farmer's land. Moreover, farmers have access to an organic fertiliser, namely the press cake residue, which leads to improved soil fertility. Other factors that may account for the increased yields include: improved water filtration as a result of intercropping; jatropha's ability to reclaim degraded lands; jatropha's use as a living fence to protect crops; decreased vulnerability to pests resulting from jatropha's use as a bio-pesticide; and more sustainable production through enhanced biodiversity. Furthermore, the sale of jatropha nuts diversifies the farmers' income. In case of crop failure, the farmers can always fall back on the sales of jatropha.

By partnering with a local organization such as the ULSP, FEPPASI and FGPN, MBSA is able to achieve a better transfer of technologies and further increase the benefits that flow to the host population. At the moment, 5.000 smallholder farmers in Mali and 8.000 in Burkina Faso are participating in this initiative.

Finally, per country, several people have been employed by MBSA and the foundations: in Mali 55 permanent jobs have been created and in Burkina Faso 25. The company pays 50 per cent above market wages for its direct employees.

4. Early results

Although the venture has been running since 2007, it is still early to assess its longer-term outcomes. However, important positive contributions are already visible. The land ownership of smallholder farmers has been strengthened: the land rights remain vested with them and by planting trees they assert their ownership according to Malian customary law. This has provided incentives for the farmers to invest in the land through e.g. soil improvements and irrigation (IFAD 2012). Interestingly, women's land rights have also been strengthened. In this context, clear agreements have been made with farmers' organisations to put in place safeguards that prevent men from taking over women's plots when cash crops are being produced. After discussions with village chiefs, village land has also been set aside for women's groups to cultivate and intercrop with jatropha. This allows the women groups to plant trees on village land

MBSA has created an entire jatropha value chain in regions where previously none existed. It has catalysed the organisation of rural producers. In Mali the company has established an industrial jatropha biodiesel production unit and a soap factory using the glycerine obtained during processing. The soap factories are managed and owned by a women's group. Eighty permanent jobs have been created, and a large number of farmers have received support through the farmer field schools and producer training. As a result of the publicity generated around the biofuels sector and the success of the farmer field schools, the number of producers is growing year on year (FAO 2012).

By incorporating labour-intensive production methods that favour smallholder farmers over large-scale producers, MBSA takes advantage of the value-added chain and increases the potential for employment creation. MBSA's approach helps to spur growth in the agricultural sector by allowing for diversification of income and the company's use of local processing at its factory in Koulikoro contributes to greater benefits for the local economy. MBSA's biodiesel is sold locally and can be used to power vehicles, generators, and grain mills, thus enhancing energy security in rural communities. MBSA's biodiesel can also support agricultural production in rural communities and make farmers less vulnerable to shifts in global oil prices. This is particularly important in a country such as Mali which is already so dependent on oil imports to satisfy its energy needs (CHRGJ 2010).

5. Lessons learned

The experience of MBSA shows how foreign investment can serve to improve livelihoods if it serves to build solutions that are designed in a way that is participatory and that supports local farmers and strengthens their production systems, rather than substituting another mode of production for their own. It can be seen as a best practice associated with agricultural investment that avoids many of the risks associated with the other large-scale land investments.

The genuine and broad-based involvement of the local community, sustained investment in capacity to enable smallholders to participate equitably and external facilitation and support are key factors that can make or break a business model, as has been the case with MBSA. Most importantly, its ownership structure aims to strengthen the capacity of smallholders in the longer term whilst facilitating their participation in decision-making in the short term. This highlights the importance of shareholding in achieving chain empowerment and farmer influence, which is often more important than the value of shares themselves.

A genuine willingness of investors to work with local farmers and communities is a key ingredient of success. In the case of MBSA the manager was interested in setting up a 'win-win enterprise' in which both farmers and the investor would benefit. But government policy can also play a central role in promoting more inclusive business models – by creating incentives to kick-start the process, and

providing an enabling environment for it to succeed. MBSA's drive to work with family farmers is partly rooted in the small-scale landholding structure characterising Mali, as well as the assessment that jatropha grows best in small plots and marginal land. Also, the Malian government's programme to support rural people who want to set up jatropha businesses through providing equipment and inputs has helped to reduce start-up costs. MBSA's business model is affected not only by the government's supportive sectoral policy on biofuel development, but also by other government policies to promote the employment of young people leaving university (whereby the government pays the salary for the first year as a way to help graduates gain practical experience; businesses then retain successful employees beyond the first year).

Development agencies can play an important role in promoting business models that are driven by family farmers. The subsidies that MBSA received from the Dutch government and through the sale of carbon credits to KIA Motors were particularly important to reducing the risk for MBSA's shareholders in the initial stages of the project. However, the ability to attract this support may be an obstacle to efforts to replicate the MBSA business model in other contexts where similar sources of equity are unavailable.

IV. CONCLUSION

Where outside investment is needed to sustain agriculture and improve productivity and livelihoods, business models that support local farmers are more promising than large-scale land acquisitions. In many parts of the world, family farmers have proved to be highly dynamic and responsive to market forces. The experiences from the two case studies provide useful lessons on how inclusive business models can play an important role in improving the livelihoods and land and natural resource tenure security of poor rural women and men. The establishment of these models has not been without challenges and sometimes the business arrangements require some form of trade-off.

The success of such partnerships and the real benefits to smallholder farmers and rural communities more generally, depends on the level of ownership, voice (governance), risk-sharing and benefit-sharing between partners. Some serious investors in agriculture are increasingly looking towards mutually beneficial and sustainable partnerships as it makes good business sense. And many smallholder farmers are prepared to negotiate if they are properly consulted, well informed of the implications and potential risks, and see a real benefit. In any case, partnerships that do not require a major transfer of land rights to investors are more desirable and socially sustainable. Any land relinquished in such deals should be done preferably on a temporary basis (e.g. through a lease agreement), and should not be on the scale being seen at the moment. Rights to land need to be

recognised, taking into account legitimate occupation versus legal rights, and how to capture the continuum of rights in the design of inclusive business models.

The two cases show that establishing mutually beneficial partnerships is possible, but requires sustained support by a range of service providers (government, civil society, private sector) to secure rights, support land use and investment planning and to negotiate with outsiders, and effort and time. Particular attention needs to be given to empowering smallholder farmers and rural communities to engage on equal terms with outside investors. Policies need to be developed that ensures the participation of local people and regulation of the inclusive business models. There is also a need to monitor the implementation of agreements to ensure that the anticipated benefits are realized. Consequently, there also need to be mechanisms and safeguards for cancelling deals that do not realize expected benefits for small-holder farmers.

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