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**CURRENT DYNAMICS OF LARGE-SCALE
AGRICULTURAL INVESTMENTS AND INCLUSIVE
BUSINESS MODELS IN MALI -
TRENDS AND CASE STUDIES**

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Final Report

Bamako, May 2012

ACKNOWLEDGEMENTS

This report was prepared for the International Institute for Environment and Development (IIED), with funding from the Food and Agriculture Organization of the UN (FAO). IIED also contributed resources to the research through the Accountable Grant supported by the UK Department for International Development. The authors would like to thank Lorenzo Cotula of IIED, for comments on earlier drafts and for his much valued contribution to the preparation and finalisation of the report; Perrine Burnod of CIRAD and Pascal Liu of FAO, for their many helpful comments and suggestions on an earlier version of the report; the leaders and managers of ULSPP in Koulikoro, for facilitating research in the field; Hugo Verkuijl, manager of MBSA, for his comments on an earlier draft of this report; and the many people and organisations we met in Ségou, in the Office du Niger area and in Koulikoro Region, as this research would not have been possible without them. Of course, responsibility for the views expressed remains with the authors.

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ACRONYMS

ADB	African Development Bank
ANRM	Assemblée Nationale de la République du Mali (Malian National Assembly)
CDF	Code Domanial et Foncier (Property and Land Law)
CFA	Communauté Financière Africaine (African Finance Community)
CILSS	Comité Inter - Etats de Lutte Contre la Sécheresse dans le Sahel (Permanent Inter-State Committee for Drought Control in the Sahel)
CT	Collectivité Territoriale (Local Authority)
DNCN	Direction Nationale de la Conservation de la Nature (Malian Nature Conservation Department)
DNEF	Direction Nationale des Eaux et Forêts (Malian Water and Forestry Department)
DNH	Direction National de l'Hydraulique (Malian Hydraulics Department)
DNP	Direction Nationale de la Pêche (Malian Fisheries Department)
DNPIA	Direction Nationale des Productions et des Industries Animales (Malian Livestock Production and Industry Department)
DNSV	Direction Nationale des Services Vétérinaires (Malian Veterinary Services Department)
DRA	Direction Régionale de l'Agriculture (Regional Agriculture Department)
DRPIA	Direction Régionale des Productions et des Industries Animales (Regional Livestock Production and Industry Department)
ECOWAP	ECOWAS Agricultural Policy
ECOWAS	Economic Community of West African States
EGF	Etats Généraux du Foncier (Malian Land Tenure Congress)
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
FAO	Food and Agricultural Organization of the United Nations
GERSDA	Groupe d'Etude et de Recherche en Sociologie et Droit Appliqué (Research and Study Group on Sociology and Applied Law)
IIED	International Institute for the Environment and Development
IUCN	International Union for the Conservation of Nature
LOA	Loi d'Orientation Agricole (Agricultural Framework Law)
MDRE	Ministère du Développement Rural et de l'Environnement (Malian Ministry for Rural Development and the Environment)
MEDIZON	Ministère Délégué auprès du Premier Ministre, chargé du Développement Intégré de la Zone de l'Office du Niger (Secretary of State, attached to the Prime Minister's office,

	responsible for the Integrated Development of the Office du Niger Area
MFC	Ministère des Finances et du Commerce (Malian Ministry of Finance and Trade)
MLAFU	Ministère du Logement, des Affaires Foncières et de l'Urbanisme (Malian Ministry of Housing, Land and Town Planning)
MMEE	Ministère des Mines, de l'Énergie et de l'Eau (Malian Ministry of Mines, Energy and Water)
NGO	Non-governmental organization
ON	Office du Niger
ONFH	Observatoire National du Foncier et de l'Habitat (National Land and Housing Observatory)
PAP	Project-affected people
PIV	Périmètres Irrigués Villageois (Village irrigation schemes)
P-RM	Présidence de la République du Mali (Presidency of the Republic of Mali)
PSM	Projet Sucrier de Markala (Markala Sugar Project)
SDDZON	Schéma Directeur de Développement de la Zone de l'Office du Niger (Development Master Plan for the Office du Niger Area)
SEDIZON	Secrétariat d'Etat auprès du Premier Ministre, chargé du Développement Intégré de la Zone de l'Office du Niger (Secretary of State, attached to the Prime Minister's office, responsible for the Integrated Development of the Office du Niger Area)
SLPIA	Service Local des Productions et des Industries Animales (Local Livestock Production and Industry Service)
SOSUMAR	Société Sucrière de Markala (Markala Sugar Company)
UEMOA	Union Economique et Monétaire Ouest Africain (West African Economic and Monetary Union)
USAID	United States International Development Agency

EXECUTIVE SUMMARY

About the study

This report discusses trends, drivers, legal frameworks and case studies of agricultural investments in Mali. It is part of wider research involving funding from the Food and Agriculture Organization of the UN (FAO) and coordination from the International Institute for Environment and Development (IIED). The wider research involves country reports from Ghana, Mali and Zambia. The purpose is to generate evidence on a range of different models for structuring agricultural investments, with a focus on models that hold promise for the inclusion of local farmers and communities.

There has been much debate on agricultural investments involving the acquisition of long-term rights over large areas of land in developing countries. While private investment is considered necessary, the recently observed trend towards large-scale acquisitions raises major social, economic and environmental issues. Many have raised concerns that local small-scale producers risk tenure insecurity and economic marginalisation. As a result, many have called for more inclusive investment models that involve smallholders in production and benefit-sharing, or engage them in related activities that provide opportunities to minimise the risks and maximise the benefits of agricultural investment. This study responds to a need to test these theoretical constructs with empirical case studies. The report analyses the context in which agricultural investments are taking place, particularly with regard to Mali's policy framework regulating land use and tenure and to the economic position of local producers; it analyses recent trends in agricultural investment and land acquisition in Mali; it discusses the design and implementation of different business models, focusing on case studies of two investment projects; and it develops conclusions and possible ways forward. The two case studies involve a discussion of two recent agricultural investments: a biodiesel project run by Mali Biocarburant SA in the Koulikoro Region, which provides an example of agricultural investment that does not involve land acquisitions and has made the inclusion of small-scale producers a central pillar of its business model; and a sugar can plantation and processing facility run by the Markala Sugar Company (SOSUMAR) in the country's Office du Niger area, which is located in Ségou Region. This second case study provides an example of 'public-private-community' partnership.

The report draws on a review of the literature and of documentary evidence, including some contracts for agricultural investments, on interviews with key informants, and on fieldwork based on qualitative semi-structured interviews. Interviews with informants based in Bamako helped frame the analysis and collect data on the two case studies. Informants included researchers, officials of public and semi-public agencies and private sector officers. Fieldwork focused on the two case studies. Field research was conducted in May 2011 in Koulikoro Region and in the Office du Niger area. During the field visits, collective and individual interviews were conducted with the various stakeholders, including investors, local producers, government administration, technical services and funding agencies.

The national context of agricultural investment in Mali

Mali has great potential for agricultural, forestry and pastoral production. Faced with major challenges in mobilising the resources required to finance an ambitious agricultural modernisation strategy, the Malian government has made concerted efforts to attract private and particularly foreign investment in agriculture. But the ensuing wave of large-scale agricultural investments is taking place in a national context that still appears ill-prepared to ensure that benefits are maximised and risks properly managed. For example, legislation adopted to manage the social and environmental impacts of large-scale investments has faced major implementation challenges.

Even more importantly, the recent wave of large-scale land acquisitions for agricultural investments has taken place in a land tenure context characterised by growing conflict and major governance challenges. In Mali, land tenure is governed by two main systems: the formal system under written law established by the state and customary systems that are most widespread in rural areas but differ from place to place. There are bridges between the two systems, for example when holders or acquirers of customary rights undertake formalisation procedures provided by national law.

Despite efforts to legislate in ways that take account of the diversity of contexts and tenure patterns, many provisions of national law are incomplete, ineffective and out of touch with the local socio-economic reality, particularly in rural areas. Some national law norms are so ambiguous that they lead to confusion, resulting in conflicts and abuses, and in the ensuing tenure insecurity and poor land governance.

On the ground, multiple pressures are exacerbating competition for valuable lands and increasing the number and intensity of land conflicts between communities and the state, and between different communities.

These pressures also have a negative influence on the quality of land governance, creating fertile ground for land speculation and corruption, abuses of all kinds and insecurity of tenure for the most disadvantaged groups.

Recent trends in agricultural investment

While the recent wave of land acquisitions affects the whole of Malian territory, the number and size of investments and acquisitions vary significantly from one area and region to another. In the absence of comprehensive information on developments across the national territory, the trends analysis focused on the Office du Niger (ON) area, where the most iconic cases can be found. The Office du Niger area hosts a major share of Mali's irrigation potential, and is considered to have attracted particularly intense investor interest.

Given the diversity of the types of investments and farms in the Office du Niger area, this area can be seen as a laboratory where various forms of tenure can be tested, and a breeding ground for the country's future land policy. Two main categories of agricultural investment can be identified, each with several subcategories: (i) public investments made by the state with or without support from donor agencies; and (ii) private investments made by large-scale investors, whether national or foreign, with or without state involvement, and private investments made by small-scale private investors or farmer groups.

Until recently, all schemes in the ON area were publicly funded. Following the global food and financial crisis and the related renewed interest in private agricultural investment, together with the biofuels boom, the Office du Niger has become a favourite target for private investment. Over the period 2004-2009, 871,267 ha were allocated to investment projects, with the pace accelerating after 2007. These allocations were made either by the Office du Niger or by the central state, in the main to large investors, on a permanent (50,419 ha) or provisional basis (820,848 ha). They cover an area almost 10 times the size of the irrigation schemes set up since the creation of the ON in colonial times.

There is much diversity of institutional entry points (the authority that negotiates the contract, for instance) and of form and content of the agreements concluded between investors and state. Manifest gaps between law and practice in the process of implementing contractual arrangements have also been documented. Generally speaking, legal requirements on managing the environmental and social impacts of investment projects are often sidestepped or ignored. 'Letters of intent' and even actual land leases are given out in the absence of strategic planning. The size of some large land allocations, compared to the

neighbouring areas allocated to family farmers, raises serious equity concerns.

The land governance challenges raised by these dynamics have been recognised to some extent by the ON and by the government. This is reflected in the recent establishment of a new Secretary of State, attached to the Prime Minister's office, responsible for the integrated development of the Office du Niger area (SEDIZON, from the French name of the institution). It is also reflected in the initiation of a revision of the ON management decree, and in the cancellation of a number of letters of intent for which investors had not complied with requirements to carry out feasibility studies within an agreed timeframe.

In addition to these recent developments, ongoing initiatives related to the implementation of the Framework Law on Agriculture (LOA) and of the deliberations of the 'Etats Généraux du Foncier' (Malian Land Tenure Congress, EDF) offer opportunities to improve land governance in the Office du Niger area and beyond.

Two experiences of inclusive investment models

While much attention in earlier research has focused on the more worrying experiences with agricultural investments in Mali, this study deliberately focused on two experiences that are widely recognised as part of better practice. One such experience is a sophisticated public-private-community partnership involving a sugar cane plantation and processing facility in the ON area – the Markala Sugar Project (PSM). This project has two components: a farming component involving the establishment of a 14,132-hectare sugar cane plantation with sprinkler irrigation, designed to produce 1.48 million tonnes of sugar cane per year; and an industrial component involving the establishment of a processing plant for the production of 190,000 tonnes of sugar and 15 million litres of ethanol per year, together with cogeneration of 30 MW of electricity. The plantation would involve a combination of estate production and outgrower schemes. Involvement of a multilateral lender involved application of international social and environmental standards. An ambitious development programme accompanies the investment.

The second experience studied is the work of Mali Biocarburant SA (MBSA) in the Koulikoro Region. This experience involves the production of biodiesel for the national market. The company has invested in a processing facility, and sources all the jatropha seeds from local farmers on the basis of contract farming. In other words, the venture does not involve land acquisition for farming purposes. Farmers intercrop jatropha with food crops. The farmers are organised in a cooperative that has an

equity stake in the Malian subsidiary of the company, and thus representation on the company board.

Both projects are based on innovative institutional designs. Both have gone a long way towards promoting inclusion of local farmers and consideration of social and environmental issues. While both projects are still at an early stage, they both have strong potential to benefit local groups through development opportunities. In the case of MBSA, the venture provides a potential source of additional income for smallholders. The profit-sharing principle on which this experience is based should help to reduce poverty in the medium to longer term. The project also offers opportunities for combating soil erosion. Similarly, SOSUMAR is an ambitious project that can bring multiple developmental benefits – from job creation to development of processing capacity, from opportunities for smallholders and local businesses through to improved energy access.

Both projects also present major challenges, however. In the case of SOSUMAR, for example, some clauses in the contract with the Malian government appear to disproportionately favour the investor. Also, opposition from part of the local community and the slow pace of implementation provide cause for concern. In the case of MBSA, problems in communication lines between the company, the management of the farmer co-operative and co-operative members, as well as difficulties in agricultural production, raise challenges for the inclusiveness and sustainability of the venture. The two experiences show that even where inclusiveness is integrated in the design of the business model, making it work in practice is riddled with difficulties, and positive outcomes cannot be taken for granted.

Moving forward

For a country like Mali, the renewed interest in agricultural investment presents important opportunities but also major risks. It is critical to tackle the challenges affecting the governance of land relations at both local and national level. Measures must be taken to fill the gaps in the governance of land tenure and agricultural investments. Steps need to be taken to accelerate the implementation of the land tenure provisions of the Agricultural Orientation Law (LOA). This law requires the government to develop a rural land policy to secure local land rights. Steps are also needed to strengthen institutional arrangements to monitor and ensure compliance with existing legislation. This applies particularly to regulations concerning environmental and social impact assessments and management plans. Finally, there is a need to strengthen the mechanisms

to promote accountability in decision making affecting land relations. At the national level, the government has experimented with the '*espace d'interpellation democratique*' - a forum that enables civil society and citizens at large to bring concerns to the government and hold decision makers to account. Similar arrangements can be developed in relation to institutions involved with land governance at the local level - from local government bodies to the Office du Niger, through to deconcentrated government departments.

In addition to measures to improve the governance of land in general, several important steps can be taken to specifically address issues linked to large-scale land acquisitions. Land allocations should be subject to the free, prior and informed consent of local landholders. This would require going beyond current consultation requirements already included in legislation regulating impact assessment studies. Investment contracts with companies should also make it very clear that any land acquisition requires the consent of local landholders. There is a need for a coherent and comprehensive policy on agricultural investment, bringing together scattered provisions from different policies and laws. National policy should set land area size ceilings on land acquisitions. The duration of land leases, which is currently standardised (30 and 50 years, renewable, in the Office du Niger), should be tailored to the economics of investment projects, including based on nature of the economic activity and land area size. While local landholders at best obtain one-off compensation for their losses, thought should be given to arrangements for ensuring equity participations for local landholders, so as to enable ongoing sharing of project benefits. Land allocations above a certain size should be approved by parliament, and all contracts should be published. The capacity of government agencies to negotiate contracts with investors should be strengthened.

More fundamentally, there is a need to look at a wider range of models of agricultural investment. Family farmers have shown they can invest. In the Office du Niger, there are experiences of cooperatives acquiring land for their members. For example, Association Niéta has obtained a lease for about 300 hectares that will benefit some 100 farmers. Smallholder farmers account for the bulk of agricultural production in the Office du Niger. Yet their landholdings are shrinking with demographic growth, and their tenure is insecure. National farmer associations are developing tools

to enable family farmers to have access to leases (i.e. the same type of contracts that are granted to large investors) for new land areas. They are also providing legal support to their members whose land rights are being threatened. These efforts deserve to be supported.

1. INTRODUCTION

This report discusses trends, drivers, legal frameworks and case studies of agricultural investments in Mali. It is part of wider research involving funding from the Food and Agriculture Organization of the UN (FAO) and coordination from the International Institute for Environment and Development (IIED). The wider research involves country reports from Ghana, Mali and Zambia. The purpose is to generate evidence on a range of different models for structuring agricultural investments, with a focus on models that hold promise for the inclusion of local farmers and communities.

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The remainder of the report is structured in three parts. The next chapter analyses the national context within which agricultural investments are taking place, which is characterised by widespread poverty, the existence of considerable agricultural development potential, weak public funding capacity in the sector, the urgent need for private investment – all within a confused land tenure situation. Chapter 3 reviews current trends in agricultural investment, discussing key players and their drivers, features as well as potential and actual impacts. Finally, Chapter 4 presents findings of the two case studies. The conclusion summarises key findings and suggests possible ways forward.

2. THE NATIONAL CONTEXT

Gaining a proper grasp of the context of private investment in the agricultural sector in Mali requires a discussion of three critical issues. Firstly, the country has considerable agricultural development potential but, due to its extreme poverty and the decrease in Official Development Assistance (ODA), it faces difficulties in funding the agricultural sector. This explains the desire of public authorities to attract private investment. Secondly, complex and pluralistic land tenure systems and the limited ability of national legislation to ensure effective regulation of the tenure dimension of private agricultural investment raise important challenges for the government's ability to manage investment in agriculture and for the protection of local rights that may be affected by investment projects. Thirdly, legislation has been adopted to promote investment and regulate its social and environmental impacts, but the effectiveness of this legislation in establishing safeguards for local people and the environment has been questioned. The next few sections discuss these three aspects in greater depth.

2.1. A country with major agricultural potential but facing financing difficulties

Mali is a landlocked country in the heart of West Africa, with a surface area of around 1,240,000 km². Its population was 14,517,176 in 2009.¹ Mali shares around 7,200 km of borders with Algeria to the North, Niger to the East, Burkina Faso to the South-East, Ivory Coast and Guinea to the South, Mauritania and Senegal to the West. Much of the country is relatively flat, with rolling plains and low plateaux.

With its very low but steadily rising Human Development Index, Mali is amongst the poorest countries in the world. Although the poverty rate fell over the period 2001-2006, it is still very high, with a national average of 47.4% in 2006. Geographical variations are substantial: the poverty rate is 20,1% in urban areas and 73% in rural areas (CSRP 2007-2011)The country was ranked 175th out of 187 on the HDI in 2011 (UNDP, 2011). This pattern of poverty, combined with certain cultural and historical features, has made Mali the source of major migration, particularly towards West, North and Central Africa, as well as Europe and America.

The structure of the Malian economy is characterised by a predominance of the primary and tertiary sectors, which accounted respectively for 36% and 35.6% of gross domestic product in 2009 and 2010.² This pattern was expected to remain stable in 2011, with the primary and tertiary sectors losing a little ground to the secondary sector. In 2010, growth in real GDP

1 Provisional results, 4th General Census of Population and Housing.

2 www.africaneconomicoutlook.org/fr/countries/west-africa/mali/.

was held to the same level as 2009 (4.5%) but below initial forecasts.³ Mali presents considerable agricultural, forestry and pastoral potential. Rural land is estimated to amount to 46.6 million hectares, including 12.2 million ha of arable land, 30 million ha of grazing land, 3.3 million ha of wildlife reserves and 1.1 million ha of forest reserves (Ministry of Agriculture, 2008). The country has vast areas suitable for development and irrigation (2.2 million hectares), substantial water resources (2,600 km of rivers), considerable biological diversity, substantial forest and wildlife resources and large numbers of diverse, adapted livestock (7.1 million cattle, 19 million sheep/goats, 0.6 million camels, 25 million poultry) (Ministry of Agriculture, 2006 and 2008).

Nevertheless, agricultural resources are unequally spread over the national territory, two thirds of which is desert. In addition, funding is crucial to the expansion of the agricultural sector but this is becoming increasingly problematic.

The modernisation of agriculture is one of the three main objectives of the Rural Development Master Plan (SDDR), together with environmental protection and improved natural resource management. The Master Plan was adopted in 1992 and updated in 2000. The provisions of the Plan are reflected in various other official documents. They were taken up by the second President of the third Republic of Mali just after his election in 2002 and developed particularly within the Economic and Social Development Programme, which he outlined during the presidential election campaign in 2007 (Toumani Touré, 2009). So, agricultural modernisation is seen as a policy priority at the highest level of government.

The desire to modernise agriculture also lies at the heart of the Framework Law on Agriculture (LOA), which was adopted in 2006. In article 3, the LOA states that 'agricultural development policy shall be based on voluntaristic promotion of the modernisation of family farming and agri-business, to foster the emergence of a structured, competitive agro-industrial sector integrated within the sub-regional economy'.

However, agricultural modernisation involves a financial cost that the country cannot meet from its own resources. The Strategic Framework for Growth and Poverty Reduction (CSCR) 2007-2011 estimates the cost of taking action in the agricultural sector at FCFA 153,648,000,000 (CSCR 2007-2011, Annex III). At an approximate exchange rate of 1 USD = 500 FCFA, this is equivalent to USD 307,296,000.

A brief look at public investment in the Office du Niger area, which is today favoured by investors because of its enormous hydro-agricultural potential, can give an idea of the resources required to pursue this agricultural modernisation agenda, in particular as regards irrigation schemes.⁴

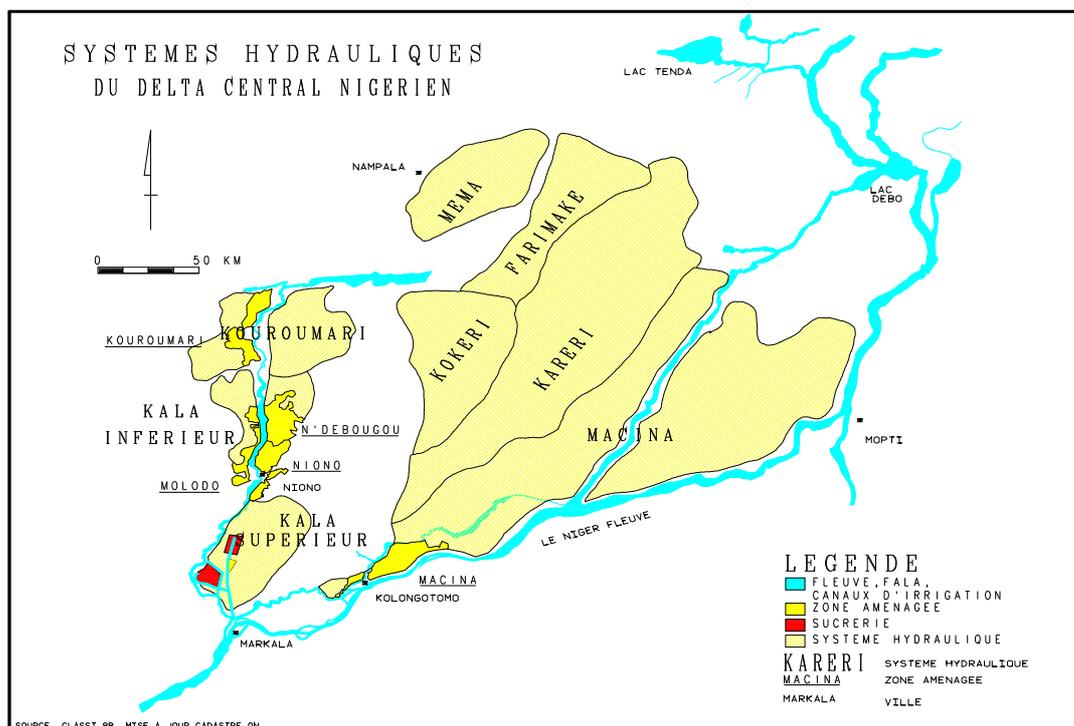
The Office du Niger is one of the oldest irrigation schemes in West Africa. Set up in 1932 in the inner Niger delta, it was to become, according to the

3 www.africaneconomicoutlook.org/fr/countries/west-africa/mali/.

4 The name Office du Niger designates both the irrigation scheme area and the institution set up by the government to manage the scheme.

original plans, the main supplier of colonial France's textile industries, the rice bowl for West Africa and a place of technical and social innovation. The objectives were ambitious, with over a million hectares to be irrigated over a 50-year period. The major structures were designed and built to meet those objectives. Using existing backwaters and a dense network of irrigation and drainage canals, the scheme now covers more than 87,692 hectares. Irrigated lands are used to produce rice, vegetables and sugarcane (Dave, 2010).

Map . Hydraulic systems of the central Niger delta



Source: Office du Niger

Until recently, all the schemes in the ON area were funded by the public authorities. As Table 1 shows, between 1934 and 2009, the government developed a total area of 63,713 ha, including 4,653 ha supported as of 2000 through the Special Investment Budget (African Development Bank, 2010). To these must be added interventions supported by donors. Donor agencies initially funded only the rehabilitation of older schemes, but then went on to fund the creation of new ones. The main donors have been the Netherlands (20,595 ha rehabilitated and 5,829 ha constructed), the French Development Agency (5,540 ha rehabilitated and 1,700 ha constructed, together with another donor), the European Development Fund (3,650 ha rehabilitated), the International Development Bank (700 ha rehabilitated and 520 constructed), USAID (1,971 ha new schemes, usually with the Office du Niger or other donors), German Development Co-operation (3,100 ha rehabilitated and 800 ha new). Table 1 below shows the schemes implemented by the government since the creation of the Office and by donors, together with schemes planned for 2008-2012.

Table . Public irrigation schemes in the Office du Niger since 1934

Donor	Area (ha)	Agricultural activities	Zone
Colonial/Malian State	63,713	Rice production Vegetable production	All zones
Netherlands	5,829	Rice production Vegetable production	M'Bewani, Niono, Macina, Kouroumari
AFD (France)	1,700	Rice production Vegetable production	Niono, Molodo
IDB (Multilateral)	520	Rice production Vegetable production	N'Debougou
USAID	1971 ha	Rice production Vegetable production	Niono, M'Bewani, N'Debougou
KFW (Germany)	800	Rice production Vegetable production	N'Débougou
Kuwait fund +OPEC	3,160	Rice production Vegetable production	Macina
Kuwait +WADB	1230	Rice production Vegetable production	Macina
MCA (USA)	22,441	Allocation of plots with title deeds	Alatona
UEMOA (Multilateral)	11,280	Allocation of plots with leases and title deeds	Kandiourou
FED 10 (Multilateral)	2,500	Rice production Vegetable production	M'Bewani
APEJ (Mali)	300	Rice production	Siengo

Source: Office du Niger, 2009

Tables 2 and 3 provide data on the substantial volume of funding expected to be required for new schemes in the Office du Niger area. Table 2 shows that the irrigation of 79,865 ha planned for the period 2010-2020 requires an amount of FCFA 266,756,291,750 (USD 533512584), i.e. an average of FCFA 3,340,000 (USD 6,680) per hectare, excluding costs relating to feasibility and related studies. According to data from Table 3, funding for planned extensions and studies to be conducted by a Libyan investor, Malibya, over the same period would amount to FCFA 85,750 million (USD 171,500,000). These figures illustrate the challenges faced by a country like Mali in financing its plans to expand irrigation infrastructure as a basis for agricultural modernisation at this scale.

Table . Estimated cost for the implementation of the development and rehabilitation programme under the Development Master Plan for the ON area (SDDZON)

Nature of the work	Area concerned (ha)	Estimated cost FCFA
Total extension work (ha) 2010-2020	79,865	266,756,291,750
Total rehabilitation work (agricultural plots only, i.e. excluding irrigation and drainage networks) 2010-2020	2 695	11,927,000,000
Total rehabilitation and extension studies (plots including reconversion Sossé Sibila)		24,855,362,874
Total studies and work		303,538,654,624

Source: Office du Niger, 2010

It is for these reasons that the Malian government has worked to promote private investment in agriculture. Given limited capital availability within Mali, foreign investment is expected to play a particularly important role. Private investment is seen as a source not only of capital, but also technology, know-how, infrastructure development and market access, and potentially as a catalyst for economic development in rural areas. On the other hand, family farming is considered in public discourses as old-fashioned and incapable of ensuring food security.

The call for private investment was accompanied by a 'charm offensive' to attract investors, which included revising the investment code and setting up a National Investment Promotion Agency, a Presidential Investment Council and an international co-operation office within the Ministry of Agriculture, backed by an intensive advertising campaign.

The call for private investment did not fall on deaf ears. Stimulated by the international food crisis and the increased interest in biofuels, private

investors rushed to get hold of Malian agricultural land, particularly in the Office du Niger area. Some of these deals were very large. By way of illustration, 100,000 ha were allocated in a deal with Malibya, an enterprise of Libyan origin, and a similar land area was allocated to Huicoma, a Malian company. These land allocations alone exceed the total area of the irrigation development schemes established in the ON area since colonial times.

However, this scramble for land took place against a background of relative confusion, given the limitations characterising the legal, regulatory and institutional framework. It is to this topic that the next section turns.

Table . Financing required for the studies and construction work planned by SDDZON

	Items	Nature of study	Area (ha) or distance (km)	Implementation phase of the new SDDZON programme 2014	Estimated cost (FCFA)	Availability of studies or acceptance of work	Studies available in 2009
MALIBYA funding	Extension studies	Opening 2nd canal level of Fala de Boky-Wéré		Phase 1: 2010-2012	250,000,000	Studies available	Yes
		Extension study on first MALIBYA tranche	25,000	Phase 1: 2010-2012	3,000,000,000	Partial	No (PGES in 2010)
	Extension work	Macina extension	25,000	Phase 2: 2013-2020	82,500,000,000		
Total					85,750,000,000		
	Items	Nature of study	Area (ha) or distance (km)	Implementation phase of the new SDDZON programme 2015	Provisional amount (FCFA)	Availability of studies or acceptance of work	Studies available in 2009
SOSUMAR funding	Extension studies	Markala sugar project	27,000	Phase 1: 2010-2012	1,680,000,000	Studies available but not sent to the ON	Yes
	Extension work	Séribabougou	14,000	Phase 1 (2010-2012) and phase 2 (2013-2020)	46,200,000,000	2020	Yes
Total					47,880,000,000		

APEJ funding	Items	Nature of study	Area (ha) or distance (km)	Implementation phase of the new SDDZON programme 2016	Provisional amount (FCFA)	Availability of studies or acceptance of work	Studies available in 2009	
	Extension work	Siengo	300	Phase 1 (2010-2012)	990,000,000	2012	No, in progress	
Total	990,000,000							
ON funding	Items	Nature of study	Area (ha) or distance (km)	Implementation phase of the new SDDZON programme 2017	Provisional amount (FCFA)	Availability of studies or acceptance of work	Studies available in 2009	
	Rehabilitation study	Analysis Kokry primary canal and Ké-Macina primary canal (PM)		Phase 1 (2010-2012)	18,000,000	2010	No	
Total	18,000,000							
IDB funding	Items	Nature of study	Area (ha) or distance (km)	Implementation phase of the new SDDZON programme 2018	Provisional amount (FCFA)	Availability of studies or acceptance of work	Studies available in 2009	
	Rehabilitation work	Latéritage primary canal Koumouna		Phase 1 (2010-2012)	80,000,000	2011	Yes	
Total	80,000,000							

Source: SEDIZON, 2010

2.2. A hybrid land tenure system

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 systems and local practice

Customary patterns of land access are still the most widespread in rural areas. Throughout history, major empires and kingdoms have flourished on the territory of Mali, shaping lifestyles, beliefs and patterns of access to land and natural resources. This historical legacy explains the great similarities that exist in the traditional organisation of social and land relations, although land tenure regimes are still widely different as a result of specific historical, geographical and socio-cultural factors.

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.

These principles guide the organisation and operation of village institutions and indeed the entire social and tenure structure in rural areas. However, generally speaking, their implementation varies depending on the agro-ecological zone concerned, the nature of production systems and especially social and historic factors.

Access to land in rural areas follows two essential patterns: intra-lineage access and inter-lineage access. The predominant method of access to land, common to all geographical zones, is intra-lineage access. This takes two main forms: inheritance and allocation of a portion of the lineage holdings to one family or individual belonging to the lineage. As land ownership is passed on within families, it is possible through inheritance not only to gain access to land but also to become its manager according to customary rules (GERSDA, 2007). Management was originally based not on ownership rights understood in the sense of individual private property rights, but on a set of rights (access, usage, offtake, exclusion, disposal, etc.) held collectively by the members of the lineage or family and allocated in various ways to the members of those groups.

Intra-lineage access patterns depend on the size of lineage landholdings and tenure issues in the area. In many families, there is an increasing trend towards splitting up lineage holdings following the enlargement and dismantling of family farms. As a result of various different factors, large families are breaking up and giving rise in various places to the emergence of nuclear families as customary holders of the land they work.

Inter-lineage access is organised around arrangements that transfer rights, permanently or temporarily outside the landholding lineage. These

arrangements include gifts, loans, rental and, more rarely, sharecropping and sale. The latter three arrangements have developed recently as a result of the growing monetisation of land relations. They tend to involve relationships between indigenous people and recent migrants, rather than between lineages within the same community. The various arrangements can be combined; the predominance of one or the other depends on local land relations and the economic stakes in the area concerned.

Despite the existence of principles common to the different customary systems, rules governing access to land vary according to local issues, social and historical factors. They are also profoundly influenced by dynamics concerning the design and implementation of national law enacted by the state.

Tenure systems under written law

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 Domaniale et Foncier*, CDF) is the piece of legislation that provides the foundation of national law governing tenure. As a general rule, Malian legislation follows the principle of state ownership of land. The state plays a leading role in land relations, and directly holds land as part of its public or private land estate. The latter category consists of land that has been explicitly registered as belonging to the state, but also land classified as 'vacant and unclaimed' and land held by virtue of customary rights (article 28 of the CDF). The CDF does protect these customary rights, requiring that their compulsory acquisition requires public purpose and payment of compensation (article 43). But ownership on these lands is vested with the state. So it is the state that has the legal authority to decide on and negotiate transactions affecting these lands.

Article 35 of the CDF states that the private land estate can be transferred in a number of ways, namely such as rural concessions, allocation, long-term lease, leasehold with the promise of sale or title deeds. In the case of rural concessions, for example, the public authority grants the concession-holder the right of temporary use of a piece of land to develop it on the terms set out in the concession deed and attached specifications. In a long-term lease, the lessor grants the lessee a long-term use right that can be mortgaged, against payment of an annual fee. Title deeds are regulated by article 169 of the CDF, which states that titles are permanent and cannot be challenged. A title deed is seen by the Malian courts as the sole starting point of all property rights at the time of registration.

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. This circumstance makes Mali's land

legislation incomplete in important respects. Customary land holders that wish to formalise their rights can only do so through the procedure provided for rural concessions. This procedure is costly and cumbersome, and arguably not suited to recording customary rights.

In virtually every region of the country, there are schemes set up by the state or NGOs where tenure systems varied depending on the legal status of the scheme in question. Plots are typically allocated in these schemes on the basis of permits or usage agreements. This report focuses on the case of the Office du Niger, where various tenure systems coexist.

From its creation until the present day, the Office du Niger has undergone various changes which have resulted in a wide range of tenure arrangements. Pursuant to Decree No. 94-004 of 1994, the Office du Niger (ON) is a public industrial and commercial establishment (EPIC) responsible for managing land irrigated or irrigable through the Markala dam. Decree No. 96-188/PRM of 1996 confirms the ON's control over not only the land which has been developed and equipped, but also the land located in undeveloped areas, i.e. irrigated land and land that is capable of irrigation by means of the Markala dam. Article 3 of the 1996 decree specifies that the remit of the ON management can extend to non-irrigable land if the government deems it appropriate. However, according to article 4, this land must, like land already developed and the surrounding protected areas, be registered in the name of the Malian state, which will bear the cost of clearing customary rights exercised over that land and all expenses connected with registration. Undeveloped land in the ON area, as in the other rural regions of the country, is in practice held by local communities and managed according to customary rules. Any intervention by the State in those areas would require prior negotiation with the customary holders.

The 1996 decree sets out the following mechanisms for accessing land: the Annual Usage Contract (*Contrat Annuel d'Exploitation* - CAE), the Farming Permit (*Permis d'Exploitation Agricole* - PEA) and the housing lease in irrigated areas; and the ordinary lease and emphytheutic lease in areas not yet irrigated. The last two methods are used for large-scale investments, and are briefly discussed in Box 1.

Box 1. Access to undeveloped Office du Niger land

- Ordinary lease: granted on undeveloped land for a maximum period of 30 years, renewable by express agreement between the parties. The lessees must develop irrigation infrastructure. Non-payment of rent and failure to maintain the hydraulic network will result in cancellation of the lease. No structure erected in connection with a lease can be destroyed if the contract is terminated.

Emphytheutic lease: granted on undeveloped land for a period of 50 years, renewable by

express agreement between the parties. On expiry of the long-term lease, the lessee leaves the infrastructure constructed by the project in place as it stands, without compensation from the Office du Niger. The lessee undertakes to develop the land within three years from the date of signature of the lease. This period may be renewed once, either tacitly or by express agreement between the parties. The leases are typically subject to conditionalities determined by the Office du Niger. The lessee bears the cost of developing the land and establishing the hydraulic network and all other facilities enabling the land to be used.

In practice, recent large-scale land acquisitions in Mali and in the Office du Niger have involved use of contractual arrangements not explicitly mentioned in the legislation discussed so far.

The first such contractual arrangement is the investment agreement, or convention of establishment. This is a relatively recent practice in private investment in the agricultural sector, although a few rare examples can be found from the 1990s. These agreements reflect the investors' wish to obtain legal safeguards from the government concerning aspects capable of affecting the success of their investment. This mechanism has been used by large foreign or national investors like Illovo, a firm based in South Africa, the China Light Industrial Corporation for Foreign Economic and Technical Co-operation, Malibya, the Société des Moulins Modernes and a few others.

Box 2. Content of agricultural investment agreements

The content of investment agreements is extremely diverse. In general, the agreements start with recitals setting out the background and purpose of the investment. They then establish the two parties' commitments, the terms for granting the land, access to water, use of mineral resources that might be discovered on the site, participation of third-party enterprises, assignment of rights deriving from the agreement and settlement of disputes. They specify the area made available and the duration of the agreement, noting that the government will make these areas available to the investor free of all legal encumbrances and all tenure rights. They also indicate any public easements that the state

might impose on the land, as well as the investor's commitment to carry out studies, undertake the development and comply with all required legal formalities. The tax regime is also set out in line with the provisions of the investment code.

Details of the parties' commitments and even the nature of the institution signing the agreement on behalf of the government vary from one agreement to the other, as will be explained later. Much depends on the type of investment and the institutional entry point chosen by the investor. In most cases (with the important exception of the agreement with Malibya), the investment agreement specifies that the investor must conclude a separate agreement with the Office du Niger in order to implement the provisions of the investment agreement concerning land acquisition.

But despite all the political, strategic and legal interest of investment agreements, the transfer of land rights is actually implemented through a lease contract. In this respect, the investment agreement can be seen as some sort of letter of intent which cannot be implemented until the studies required by it have been carried out and its provisions have been operationalised, whether totally or partially, through a lease contract. In some cases, while the investment agreement covers a very large land area (e.g. 100,000 ha for Malibya and 20,000 ha for the Malian company GDCM), the lease contract may only cover a smaller area for which the feasibility and impact assessment studies have been conducted and the development plans submitted (e.g. an initial 25,000 ha for Malibya and 7,400 ha for GDCM).

The lease contract is signed by the Managing Director of the Office du Niger and by the investor. It specifies the nature of the lease (ordinary or emphyteutic), as well as its duration and the exact location of the land. The contract sets out the timeline for the development of the land (usually three years), the agreed land use and the terms and conditions, including the terms of access to water and payment of the water fee, conditions of land use, and terms for cancellation of the agreement, withdrawal of the plot and settlement of disputes. Once signed, the contract is registered at the land registry in Ségou.

Box 3. Procedure for obtaining the lease

There are four stages in the procedure for obtaining a land lease from the Office du Niger:

- 1- Anyone wishing to obtain a lease from the Office du Niger must send an application to the Chief Executive Officer. In response, the prospecting investor will be invited to contact the technical department to discuss the project and identify an appropriate site for its implementation.

- 2- Following this and based on the findings of the technical department, the management of the Office du Niger will send the applicant a letter of intent so that the project can be set up.
- 3- The developer will then carry out the required studies, i.e. a feasibility study on the development project, including technical, socio-economic and financial assessments, and the environmental and social impact assessment. The technical studies must, inter alia, deal with the primary, secondary and tertiary irrigation and drainage infrastructure and the plot layout work to be done by the developer. These studies must be conducted within one year.
- 4- When and if the findings of these studies have been deemed positive and validated, the lease contract will be concluded with a schedule of conditions for developing the allocated plot.

Constraints on tenure security for rural producers

As a broad generalisation, the national law regime regulating land tenure is ineffective. State law is modelled on the French legal tradition, rather than customary tenure systems. National and customary law are governed by different and partly contrasting principles. In rural areas, two different systems of authority, the government and customary regimes, claim legitimacy. By placing customarily held land within the private land estate of the state, the CDF has undermined the security of tenure of the majority of rural people, who have little decision-making or management power on their own land. The lack of the implementing decree required to regulate the procedure for recording customary rights makes it more difficult for rural people to have access to formal documentation for their land. Customary and statutory systems also coexist in irrigation schemes that are governed by special regimes under national law, such as the Office du Niger. Here, while irrigated land is accessed through the arrangements articulated in the 1996 management decree, undeveloped areas are effectively managed through customary systems. The different principles that inspire customary and statutory law create latent tensions that can easily explode as large-scale investments enter the local arena.

Although the CDF establishes various measures intended to ensure the transparency of the procedure through which investors may access land under national law, these measures are, in practice, sometimes breached or sidestepped. The effect is to weaken the procedures, undermine the land rights of rural communities and affect the credibility and reliability of deeds issued under national law. In addition, official procedures are based on mechanisms that are unfamiliar and inaccessible for the majority of rural people, and have costs which exclude these people from land ownership (Djiré, 2007).

The effectiveness of national law and of government procedures is restricted by multiple factors, including barriers to rural communities' access to justice, incomplete and inappropriate legislation, and heavy bureaucracy.

2.3. Measures to promote investment and regulate its social and environmental impacts

A new Investment Code to promote private investment

In order to promote private investment, Mali has, like the other countries in the region, enacted a law determining conditions and procedures for both foreign and national private investment. First adopted in 1991 (Law No. 91-048 of 1991 and Decree No. 95-423/PRM laying down its implementing provisions) and subsequently considerably revised (especially in 2005), the Investment Code was drawn up under the aegis of international financial institutions well before the current wave of large-scale land acquisitions.⁵ It does not therefore take account of some of their specific aspects, despite its successive revisions.

The Investment Code defines investment broadly as the contribution of 'fixed assets and initial working capital in connection with a development project'. Despite the dryness of this definition, it does have the advantage of excluding exclusively commercial transactions (sale/purchase) from the scope of the Code. The latter operations are governed by the Commercial Code, together with the OHADA Treaty, which concerns the harmonization of business law in Africa. Also excluded from the application of the Investment Code are mining exploration and exploitation and petroleum exploration and exploitation which, although covered by investment agreements, are governed by the Mining Code and Petroleum Code, respectively, and their implementing provisions.

The Code sets out the mechanisms and provisions designed to promote investments, through legal and institutional arrangements which are attractive. It grants many benefits to investors, without discrimination, such as tax and financial advantages, or flexible hiring and firing terms. Industrial developments are encouraged through an increase in the duration of the exemption from the tax on industrial and commercial profits and from the business tax. Apart from equal treatment between national and foreign investors, the Investment Code offers several other safeguards, including the right to repatriate profits and salaries and recourse to international arbitration to settle disputes with the Malian government. Finally, the Code guarantees protection of established rights, including through general stabilisation clauses.

The Code sets no minimum investment threshold. The essential criterion for project eligibility is that the rate of added value must be 35% or more.

To ensure efficient enforcement of the Code's provisions, the state has reorganised the departments dealing with investment. At the government level, an Investment Ministry has been established, under the supervision of which the Investment Promotion Agency is tasked with increasing direct investment, particularly foreign direct investment. A one-stop shop was

⁵ The 1991 Code repealed the first one adopted back in 1986 (Law No. 86-39/AN-RM of 8 March 1986) and is currently under review.

set up in 2008 to deal with all administrative procedures relating to enterprise creation in respect of new investments, and to shorten the time taken to complete the formalities.

These advantages explain to a large extent why major national and foreign investors prefer to sign an investment agreement with the government before approaching the Office du Niger for a land lease. Indeed, the investment agreement triggers the application of the Investment Code. In addition, prior approval from the highest level of government authority, which is usually involved with the signing of investment agreements, can help to facilitate the allocation procedure.

Addressing social and environmental issues

Large-scale investments typically raise important social and environmental issues. Parallel to the development of legislation to promote investment, the Malian government has enacted legislation to manage social and environmental risks. While progress has been relatively slow with regard to social risks, environmental legislation has made important advances over the past two decades. The Malian Constitution of 25 February 1992 enshrines the right to a healthy environment as a human right. Similarly, it considers environmental protection as the common duty of citizens and the state. Indeed, article 15 of the Constitution provides that 'Everyone is entitled to a healthy environment. The protection and defence of the environment and the promotion of quality of life are the duty of everyone and the State'.

Reflecting these constitutional provisions but also under international pressure from environmentalists and ecologists, relevant regulations have gradually been put in place to ensure proper protection of the natural and human environment.

In 2001, basic legislation was enacted to combat pollution and nuisance (Law No. 01-020 of 2001 on pollution and nuisance). According to article 3 of that law, any activity liable to harm the natural and human environment is subject to prior authorisation from the Environment Minister based on an environmental impact study. Article 5 of the same law requires an environmental audit of any industrial, agricultural, mining, craft, business or transport activity, work or development that could be the source of environmental pollution, nuisance or degradation.

First adopted in 2003 to implement these provisions, the decree concerning the environmental impact assessment (Decree No. 03-594/P-RM of 2003) also deals with the social impacts of projects, although its title does not mention that element. The desire to ensure greater consideration of the impact of projects on people living in the area led the authorities to adopt a new decree (No. 08-346/P-RM of 2008). This decree places greater emphasis on the social impact of projects, and establishes the rules and procedures governing the environmental and social impact assessment (ESIA). Further minor amendments were made in 2009.

In principle, projects subject to an ESIA cannot begin implementation without an environmental permit issued by the Minister for the Environment. The permit would require the mitigation and compensation measures recommended by the ESIA. As part of the ESIA, the project developer must inform the local people, particularly those liable to be affected by the project. Also, a public consultation must be organised by the government representative or mayor in the project area to enable local people to voice their concerns. The ESIA must be accompanied by an environmental and social management and monitoring plan (ESMP). These provisions apply to all projects, including agricultural development projects, liable to have negative environmental and social impacts. In practice, the decrees regulating the management of the social and environmental impacts of investments face major problems in implementation, as will be discussed later.

It is in this context of inadequate legal safeguards for local interests, whether in law or in practice, that the recent wave of land acquisitions in Mali has taken place.

3. TRENDS IN PRIVATE AGRICULTURAL INVESTMENT AND LARGE-SCALE LAND ACQUISITIONS

3.1. A long tradition of 'land grabbing' by urban elites

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. Many government officials and traders used their professional positions or their social relations (friendship, marriage ties, etc.) to acquire plots of land in villages not far from towns. This land became the subject of rural concessions and then, in some cases, title deeds (Djiré, 2007). The trend was encouraged at independence by the authorities of the first Republic, who advocated 'returning to the land' and, as a result, set about dividing land into lots and establishing rural concessions for the benefit of city dwellers, especially in the areas around Bamako.

Rampant urbanisation since independence encouraged city dwellers to continue acquiring land in peri-urban areas. Claims that these activities aimed to set up modern farms served to provide them with social legitimacy. In reality, however, although some city dwellers did establish livestock farms (poultry or dairy cattle), most were interested in speculative land acquisitions; the land acquired would be divided up and sold in the form of housing lots (Kéita, 2010; Djiré, 2007).

Despite the absence of official statistics on this phenomenon, there are a few case studies available to help gauge its scale. A study conducted in 2005 in the rural municipality of Sanankoroba, 30 km from Bamako (Djiré, 2007), showed that, while the number of title deeds in the municipality had increased exponentially in recent years, the cumulative 268 title deeds issued until then by the land administration were distributed as follows: government officials (40.29%); the state itself (35.44%); enterprises (19.40%); private organisations (1.88%); small-scale farmers (1.49%); artisans (0.75%); retired people (0.37%); and students, undoubtedly acting on behalf of their parents who already held other deeds (0.37%). Given that land titling is a condition for the acquisition of land ownership in Mali, these figures show that Malian farmers are being excluded from (official) land ownership. Ownership of valuable lands is increasingly concentrated in the hands of public servants and entrepreneurs living in town. And as the capital city expanded outwards, some landowners began to divide up their land and sell lots for residential use. Plots of a few hectares covered by a single title deed sometimes gave rise to hundreds of lots and respective deeds (Djiré, 2007).

Another study, conducted in the rural municipality of Baguineda-Camp, 35 km from Bamako, showed that the land under the management of the Baguineda Irrigation Scheme Agency (*Office des Périmètres Irrigués de Baguineda* - OPIB) was the subject of almost 40 long-term leases held in

the name of public servants, traders, army officers and private sector executives. In the floodplains of the OPIB, 900 out of 2700 contracts allocating plots for rice production were held by non-resident city dwellers (Kéita, 2003). The average size of these plots between 3 and 5 ha, with a few plots reaching 10 ha.

To some extent, these acquisitions of peri-urban and irrigated lands by local elites foreshadowed current trends in land acquisitions – albeit at a slower pace and covering smaller areas. Like the large-scale land acquisitions that have attracted so much media attention, these smaller land deals can undermine the tenure security of local dwellers in rural and particularly peri-urban areas. Farmer organisations in Mali have rightly called for this phenomenon to be taken into account in debates about ‘land grabbing’.

3.2. A process that accelerated and diversified in the second half of the 2000s

Following the renewed interest in agriculture and the efforts of the Malian government to attract investment, the trend described above has accelerated and expanded beyond peri-urban areas. 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. The Office du Niger has become a favoured target for both national and foreign investors.

While the recent wave of land acquisitions affects the whole of Malian territory, the number and size of investments and acquisitions vary significantly from one area and region to another. In the absence of comprehensive information on developments across the national territory, the trends analysis focused on the Office du Niger (ON) area, where the most iconic cases can be found. The Office du Niger area hosts a major share of Mali’s irrigation potential, and is considered to have attracted particularly intense investor interest. In addition to private investment, the ON area has witnessed considerable public investment schemes. It is worth briefly recalling key features of both types of investment.

Public investment schemes supporting by development partners include:

- Land allocations to regional organisations for irrigation development, with plots to be made available to citizens of the member countries: CENSAD (Community of Sahel-Saharan States) and UEMOA (West African Economic and Monetary Union);
- An experimental scheme centred on creating title deeds to be assigned to Malian individuals as part of a project funded by the International Finance Corporation (IFC);
- A scheme funded by the United States government under the Millennium Challenge Account (MCA), also based on the issuance of individual title deeds.

Schemes involving partnerships with regional institutions have had mixed success. The first such scheme involved the Community of Sahel-Saharan States (CENSAD). This is a relatively new organisation bringing together countries from Northern Africa and from the Sahel, and covering an area of 12 million km². CENSAD countries tend to suffer from food shortages and low incomes. At the 6th Conference of Leaders and Heads of State of the Community of Sahara-Sahel States, held in Bamako in May 2004, the then President of Mali announced that 100,000 ha of irrigable land would be made available to CENSAD in the Office du Niger area. The aim was 'to help meet the target of food security for all member countries'.

After several meetings of a steering committee set up by the Malian government, a project document was prepared and submitted to CENSAD, together with a draft agreement (Ministry of Agriculture, 2005). The document estimates the total cost of the programme at FCFA 312,600,000,000 (USD 625,200,000), at an average cost of FCFA 3,126,000 (USD 6,252) per hectare.

Box 4. The conclusions of the feasibility study for the CENSAD project

As CENSAD did not have the necessary expertise to analyse and react to the proposals from the Malian side, it sought assistance from the FAO to advance the project. A consultancy took place from 21 July - 12 August 2005. After visiting Rome, Tripoli, Bamako and the Office du Niger area, the consultant made some important observations and recommendations which cast doubt on the project's viability. First of all, the consultant's report confirmed that development of the land offered to CENSAD would require extending the hydraulic infrastructure of the Office du Niger. It also noted the need to enlarge the intake canal and the second to the necessity of funding ancillary infrastructure, particularly roads and social facilities (education and health).

The report then tackled issues relating to seasonal water availability, which could seriously threaten the profitability of commercial farms. Building the Fomi dam was seen as the only way to increase availability during the low-water period and to facilitate dry-season cropping in the CENSAD project area.

Finally, the consultant looked at production systems and economic considerations, noting that the reasons for high yields (an average of 6 tonnes paddy/ha, with peaks of more than 8 tonnes/ha) and low production costs in the ON area include the modest size of farms (an average of around 3 ha), local farming techniques and almost exclusive use of animal traction for soil preparation. He observed, however, that the planned farms on the land made available to CENSAD would be run in a radically different way, with a preference for large-scale mechanisation, despite there being no convincing evidence of its effectiveness under the operating conditions of the Office du Niger area. The consultant drew attention to the 30-year lease granted by the ON in 1998 to the Chinese company COVEC to set up a 1000 ha experimental farm using large-scale mechanisation. The experiment failed and the

company rented the land out to small-scale producers who, because of the shortage of irrigated land, agreed to pay a higher rent than the water charges that farmers using state land must pay.

The report also mentioned the cost implications of large-scale mechanisation, which would make the scheme very expensive. Finally, in the conclusions and recommendations, the consultant suggested beginning work as a trial on 10,000 ha within the schemes covered by the Development Master Plan. The findings would be used to inform feasibility studies on the remaining areas.

Source: Aw, 2005.

Various sources suggest that, when the report's findings were presented to the following CENSAD Summit, some Heads of State saw the Malian proposal as a poisoned gift. For these reasons, the CENSAD scheme did not go ahead, though the project was taken up by a Libyan company.

Another development scheme involving a regional integration organisation has made more progress compared to the CENSAD experience. Following a similar logic to the failed CENSAD scheme but taking account of lessons learned through that experiment, the Malian government offered an area of 11,288 ha to the UEMOA under an agreement signed in April 2008, as part of a wider regional programme to develop Office du Niger land. The allocation covers two pieces of land located within the hydraulic scheme of the Sahel - Fala de Molodo canal: an area of 9,114 ha in Kandiourou sector and an area of 2,174 ha in Touraba sector.

Box 5. Some information on UEMOA and its agricultural policy

Set up in 1994, the West African Economic and Monetary Union (*Union Economique et Monétaire Ouest Africaine*, UEMOA) currently has eight member countries: Benin, Burkina Faso, Ivory Coast, Mali, Niger, Senegal, Togo and Guinea Bissau.

Its primary objectives include the establishment of a common market based on the right of establishment and free movement of people, goods, services and capital, together with harmonisation of the different national legal systems.

In 2001, the organisation adopted a common agricultural policy covering crop and livestock farming, forestry and fisheries. The Union's Agricultural Policy (PAU) has two main aims: ensuring food security and improving producers' living conditions by developing rural economies and enhancing their income and social status.

The basic principles of the PAU are subsidiarity, proportionality, a regional approach, complementarity, solidarity, progressive change and partnership. The role of young people and women in agriculture is specifically mentioned (article 5), together with the importance of cross-

border management of shared resources (water, fisheries and transhumance; article 8).

The vast potential of the Office du Niger is seen at regional level as an attractive opportunity for economic integration.

The UEMOA project has three components:

- Infrastructure development (hydro-agricultural schemes and private developers' installations): the UEMOA project aims at establishing farms of varying sizes for nationals of the member countries;
- Upgrading existing schemes, which involves intensification of rice production, crop diversification and support measures;
- Programme organisation and management to ensure effective project implementation. Under this component, UEMOA acts as contracting authority in developing the plots that will subsequently be allocated to private operators from the member states. Under this arrangement, UEMOA will cover the cost of the feasibility studies, together with the construction costs of installing the main irrigation and drainage networks and the internal and external road systems; while UEMOA nationals will cover costs for the secondary and tertiary irrigation and drainage networks, together with levelling and preparing the plots, with pre-financing from UEMOA.

The scheme is designed to be open to three kinds of farmers: indigenous small-scale farmers, who will be allocated small plots with a unit size of between 4 and 5 ha; private farmers with adequate technical and financial capacity to farm plots with a unit size of 10 or 20 ha; and major private investors capable of setting up agri-businesses, who can be allocated blocks of between 30 and 60 ha. Malian beneficiaries may receive title deeds but non-nationals will have to make do with long-term leases. With around FCFA 19 million funding from the European Union, the work started on 18 September 2010 and should in principle be completed by the end of 2012.

Issuance of private land titles to individual farmers is a key feature of the UEMOA scheme. This idea was first introduced in the Office du Niger area by another development scheme, the Koumouna project, which was supported by the World Bank.

The Koumouna project bears the name of the place where the scheme is implemented. First funded by the World Bank under the National Rural Investment Programme (*Programme National d'Investissements Ruraux - PNIR*) in the early 2000s, the project is designed to test the impact of granting title deeds to small and medium-scale farmers. The project covers an area of approximately 830 ha (reduced at the end of the project to 444 ha), which were divided into 130 3-ha lots and a small number of larger lots. It is based on the assumption that land titles and farmers' participation in the investment will produce greater security, motivation and a more rational approach to farming.

The ON management, PNIR and World Bank set up a committee to review applications. The results bear witness to the failure of the initiative. The committee was supposed to select candidates on the basis of criteria drawn up by the three organisations, but an initial session held in July 2005 only found one candidate who had met all the financial criteria. A new call for expressions of interest to make up the number was issued by the ON management in October 2006 and the stakeholders jointly drew up a new scoring grid. Of the 16 applications received, 11 were deemed admissible and 5 inadmissible (due to non-compliance with procedures, particularly failure to provide required documentation). Of the 11 admissible applications, 6 received low scores against indicators like solvency, track record and ability to pay a share of development costs. These six applications were therefore rejected pursuant to article 4(2) of Decision No. 05-0187/ MA-SG of 2005, which regulates the operation of the Committee. Only 5 applicants have scores above minimum legal requirements and were thus approved. In effect, land allocations were made by default. Some of the beneficiaries have now begun farming.

Like the Koumouna experiment, a separate and more recent MCA-supported project is also built around the notion of introducing title deeds in the Office du Niger area. The project is the agricultural component of a substantial funding package granted by the United States to Mali, another component of which involves renovating Bamako airport. The objective of the agricultural component is to increase farmers' income in the project area (Alatona) through extending the hydro-agricultural schemes, improving security of tenure, increasing the area under cultivation, livelihood diversification, and agricultural intensification. To this end, the MCA project involves developing irrigation infrastructure in Alatona and allocated irrigated plots to farmers. The project has obtained 22,441 ha, which will then be divided into a large number of title deeds (ranging between 1 and 80 ha each). Plots would be allocated to people from the area, who enjoy priority, and to farmers from elsewhere. In the latter case, open calls for applications are used for allocating blocks of 5 and 10 hectares for young graduates and rural people, and blocks of 30, 60, 90 and 120 hectares for commercial farms. Of the 5,200 ha to be developed in Alatona, 1,000 ha have already been developed and plots distributed to 200 new farmers. The project also includes activities in the fields of education, health and organisational capacity-building.

Publicly funded projects like the Koumouna pilot, the UEMOA project and the MCA project are designed to promote farmer entrepreneurship in the Office du Niger area. In recent years, the Office du Niger area has attracted a substantial number of private investors motivated by other concerns. Over the period 2004-2009, 871,267 ha were allocated to investment projects, with the pace accelerating after 2007. These allocations were made either by the Office du Niger or by the central state, in the main to large investors, on a permanent (50,419 ha) or provisional basis (820,848 ha). They cover an area almost 10 times the size of the irrigation schemes set up since the creation of the ON in colonial times.

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). Although there are some large land applications from national investors, most of national players seek land areas below 50 ha. A staggering 38% of all applications covers areas between 1 and 5 ha. On the other hand, no foreign investor has acquired less than 500 ha (Papazian, 2011).

Land allocations to Malian applicants include: farmers (individuals or groups) already settled in the ON area; farmers (individuals or groups) without farming permits who wish to settle in the ON area; and large private investors. The first group consists of farmers that are already settled in the area that hold a farming permit (PEA) from the ON, and that wish individually or collectively to expand their farms and obtain greater security of tenure by means of a lease contract. These people are mostly farmer representatives who sit on ON joint management bodies, ON zone representatives or local political or association leaders who were the first to be informed of this new opportunity to access land. While many make individual applications, others prefer to set up associations with friends and family. Examples of the latter include the Nièta de Phédié Association, Modibo Kimbiri de Dogofri Association, and land allocations made to the Samabalagnon and Dunkafa-Ton co-operatives. The second group includes people wishing to settle in the ON area but who, having failed to gain access to serviced plots, are applying for undeveloped land. They generally work seasonally on fields belonging to non-resident farmers or work on land sub-let by farmers holding large areas. In general, they access plots through associations and co-operatives. Large private investors are developers that mostly do not live in the area and whose main activity is not farming. Some of them even live outside the country. Like foreign investors, they apply for very large land areas. Just 10 of them hold a combined total of 50% of all the areas allocated to Malians. Significant players include the Tomota Group (100,000 ha) and the companies Yatassaye (20,000 ha), Société Africaine de Production Agricole (20,000 ha), CAMEC (20,000 ha), SOCOGEM (20,000 ha), Ndiaye et frères (15,000 ha), Société des Moulins Modernes (7400 ha) and BMB Export (10,000 ha).

Foreign investors are just as diverse a group as national investors. Following a classification developed by Papazian (2011), they include private investments through sovereign wealth funds, such as the Libyan company Malibya;⁶ industrial groups (national and multinational) from the food processing and energy sectors, such as the Chinese investments Sukala and N-Sukala;⁷ and foreign investors involved with public-private partnerships with the Malian government. The latter category includes a large number of projects in which the Malian government plays an active part through partnerships with the investor or the government of the investing country. This trend is illustrated by the case of SOSUMAR, which

6 For more details on the Malibya project, see Diallo and Mushinzimana (2009); Oakland Institute (2011); Adamczewski and Jamine (2011).

7 On N-Sukala, see Papazian (2011).

is one of the two case studies examined in this report and is discussed further below.

In line with Malian legislation, land allocations to these investors typically relate to land that has not yet been developed (i.e. irrigated) and is governed according to customary rules. However, in some cases, the state already has title deeds in respect of the areas concerned. Currently, land use is agro-pastoral, and the inhabitants include sedentary farmers, who grow cereals like millet, and transhumant herders. The arrival of private investors on this 'undeveloped' land often causes tension between investors and the local community.

Data from the Office du Niger (Office du Niger, 2009) suggests that developers are mainly interested in rice, oilseeds and sugarcane. Only 5.8% of the 871,267 ha allocated is covered by a leasing contract. Of the 94.2% remaining, projects still at the 'letter of intent' stage account for 60%. So much land allocation is still covered by provisional instruments like letters of intent, rather than 'hard' lease contracts. Of the areas allocated under leases (which constitute 5.8% of total allocations), only 23% have actually been developed. So only a tiny percentage of total land allocations has actually been developed. Of the areas still subject to provisional allocation, 54% come under letters of intent where the deadline for conducting studies as a precondition for obtaining the lease and commencing farming has already expired (Papazian 2011; Djiré and Wambo, 2010). Under Malian legislation, these allocations should be cancelled. These observations suggest that developing agricultural land is not the main concern of most of the 'investors' active in the Office du Niger. In many cases, what we are witnessing is speculative land acquisitions based on the recognition that high-value land is becoming scarce and will be of major financial and strategic importance in coming years.

It is therefore worth looking again at the institutional framework surrounding this race for land and analysing its effectiveness in the light of actual practice.

3.3.A legal and institutional framework under threat from current practice

A multitude of management and regulatory bodies and mechanisms...

The Office du Niger, already briefly introduced, lies at the heart of the institutional arrangement and is responsible for managing the land allocated to the scheme. The ON has long been presented as 'a state within the state'. Although not entirely false, this assertion is gradually being challenged, particularly with the arrival of major private investors and the various donor-supported pilot projects being undertaken. A wide array of organisations has mandate to work on agricultural development in the ON area. Various central bodies act directly or indirectly upstream of

the land allocation process and sometimes downstream through their decentralised branches in the field.

For example, the Presidential Investment Council (CPI) and the Investment Promotion Agency (API) are mandated with increasing private investment, in agriculture and beyond. Established in 2003, the CPI is chaired by the Head of State and has foreign and national members representing major mining, industrial and financial groups, together with several ministries (Oakland Institute, 2011). The API was set up in 2005 to ensure greater private sector involvement in the national economy. Answering to the Ministry of Industry, Investment and Trade, the agency's task is to facilitate and increase direct, particularly foreign, investment. A one-stop shop was set up in 2008 to deal with all administrative procedures relating to enterprise creation in respect of new investments and shorten the time taken to complete the various phases. All applications for approval under the Investment Code and requests for prior authorization to set up businesses are, in principle, centralised at this one-stop office.

In addition, various central government departments are involved in managing investment in general and agricultural investment in particular. For a long time, the Office du Niger was answerable to the Ministry of Rural Development and, following an administrative restructuring, the Ministry of Agriculture. But after a ministerial reshuffle in 2009, responsibility for supervising the ON management was transferred to a new Secretary of State attached to the Prime Minister's office - the SEDIZON. Differently to the ministry responsible for rural development and then agriculture, SEDIZON is specialised in dealing with the Office du Niger, given the area's strategic importance. It is responsible for implementing the Sustainable Development Master Plan for the ON area, *Schéma Directeur de Développement Durable de la Zone Office du Niger* (SDDZON), which was adopted in December 2008. More fundamentally, the establishment of SEDIZON reflects the desire of the highest government authorities to bring decision-making power from the ON management, located in Ségou, back to the Malian capital (Papazian, 2011).

But various ministries remain involved with decisions affecting agricultural investments in the ON. The Ministry of Housing, Land-Use and Town Planning deals with granting title deeds when this procedure is required, as well as registering lease contracts at the Ségou land and property register. It also handles the compulsory taking of local land rights and is involved in resettlement operations. The Ministry of the Environment play a part in environmental impact studies and in environmental monitoring, and issues environmental permits. The Minister of Finance manages the tax benefits granted by the Investment Code. Ministries responsible for water, energy, agriculture and other may also be involved in preparing and/or monitoring projects, e.g. by sitting on the validation committee for an ESIA report or the technical committee which supervises and monitors leases.

Outside Bamako, several institutions play a key role in the governance of agricultural investments. The main of these is the Office du Niger. As discussed, this is a 'public industrial and commercial establishment' (EPIC)

endowed with legal personality and financial autonomy. Set up in 1932 to develop irrigation in the Niger River delta, it was restructured in 1994. The ON has its head office in Ségou, not far from the dam in Markala that feeds the irrigation scheme. The Office du Niger area is divided into six production zones under autonomous management, where activities are carried out according to plans and programmes approved by the board of directors. Several joint management committees with representatives from the ON management and from farmers assist the ON in managing the land, water and infrastructure and in settling disputes.

...Facing major challenges for land governance...

Despite this complex institutional set up, major shortcomings affect the ability of the Malian state to manage large agricultural investments. There is much diversity of institutional entry points (the authority that negotiates the contract, for instance) and of form and content of the agreements concluded between investors and state. Manifest gaps between law and practice in the process of implementing contractual arrangements have been documented. Generally speaking, legal requirements on managing the environmental and social impacts of investment projects are often sidestepped or ignored. 'Letters of intent' and even actual land leases are given out in the absence of strategic planning. It is useful to discuss these challenges in greater depth.

The first striking feature of the various agricultural investment contracts signed by the Malian government concerned is the diversity of entry points chosen by investors (Cotula, 2011). In theory, the process for obtaining a lease involves an application to the ON management, followed by a 'letter of intent' and then a lease contract. This process is followed by most Malian investors (with a few exceptions). But large foreign investors mostly rely on 'investment agreements' (or 'conventions of establishment') with the central state, which effectively take the place of the 'letter of intent'. Moreover, different contracts have been signed by different government agencies. For example, the agreement with Malibya Agriculture was signed by the Minister of Agriculture, the agreement concerning the SOSUMAR project was signed by the Minister of Industry and Trade, while the N-Sukala contract was signed by the Minister of Housing, Land-Use and Town Planning. Another contract with GDCM was concluded by SEDIZON. And the allocation of 100,000 ha to the Tomota group was not the subject of any agreement with the central government, despite the large land area concerned.

As a consequence of this situation, the ON management tends to be faced with a *fait accompli*. Based on the contract signed by the central government, the ON is legally required to do everything it can to meet the various commitments undertaken by the state (Cotula, 2011). Also, signature of the lease contract by the ON management should, in principle, be preceded by validation by an ON lease committee on the basis of a final discussion between the various ON officials and preparation of a schedule of conditions clarifying various aspects of the contract,

particularly the investor's obligations. This committee was set up at the Office du Niger at the end of 2007 as a result of the large numbers of applications, but is apparently not yet operational. Therefore, existing lease contracts were signed directly by the CEO of the Office du Niger, with no prior assessment by the committee.

Furthermore, while the structure of the investment agreements and lease contracts is more or less the same for all private investors, there are major differences in their content, particularly as regards the tenure rights allocated to the investor, land and water fees, and various other important aspects of the contract. In other words, the content of the contracts can vary in important respects from one project to another depending on the institutional entry point chosen by the investor.

For example, while the Malibya agreement provides for a long-term lease free of charge, the agreement concerning the SOSUMAR project involves a long-term lease for much of the land area, and transfer of land ownership for the land where the processing facility will be located (857 ha), with land fees being determined and deemed to be an in-kind contribution from the Malian state in exchange for an equity stake in the project. Similar considerations apply to water rights and fees, which are mentioned in all the investment agreements and lease contracts. According to the Malibya agreement, for example, Mali undertakes to give Malibya any necessary permits to use the water from the Macina canal and underground water as per the project's economic feasibility study. It also undertakes to 'permit Malibya to use the quantity of water needed, without restriction, during the rainy season' and to 'provide the necessary quantity of water for less water-dependent crops' from the Macina canal during the low-water period (our translation). The water fee is set at FCFA 2,470 per ha/year for sprinkler irrigation and FCFA 67,000 per ha/year for gravity irrigation. The latter is the same amount paid by small-scale farmers on plots developed by the state. The same amounts appear in the investment agreement with another company, M3 SA. Setting the amount of the water fee in the investment agreement seems to conflict with the provisions of the ON management decree, which states that this amount should be set by an Order adopted by the Minister of the Agriculture. The desire to bring contracts into line with national law may explain why the lease contract with M3 SA, unlike the investment agreement, does not fix the water fee, and merely refers to an order to be adopted by the line ministry supervising the Office du Niger.

Finally, although largely ignored in most contracts, the issue of resettlement is an important aspect of the agreement with M3 SA. According to the clauses of its agreement with the government, that company undertakes amongst other things to put forward a plan for resettlement of displaced people, where appropriate, and to propose an operating model which includes resident communities in the project. Furthermore, as per standard legal practice, the land concerned is allocated free of any legal encumbrances preventing its use. However, the agreement stipulates that 'if the allocated land encompasses sensitive areas such as villages, sacred places, transhumance routes or fields, its

use is subject to the compensation provisions in force'. This provision does not appear in many earlier contracts, though compensation is in any case required by national law.

....For strategic planning and rigorous scrutiny of investment proposals and projects....

In the absence of effective co-ordination between the various agencies, particularly the ministries concerned and between the latter and the ON, not only are contracts concluded with different content but also the effectiveness of strategic planning arrangements is called into question. The central government has allocated land to foreign investors, while the Office du Niger was allocating land to national investors. As indicated above, 871,267 ha were allocated between 2004 and 2009 alone, vastly exceeding the extension target of 120,000 ha by 2020 set in the SDDZON.

The effectiveness of the screening carried out by the ON management is also dubious, given the large number of letters of intent issued and the failure to carry out the required studies for many of these. It seems that the Office du Niger does not properly consider the track record or the technical and financial capacity of the applicant before issuing the letter of intent. Because of the lack of transparent selection criteria, in effect anyone can file an application and receive a letter of intent. Among other things, this procedure allows applications from developers that are far removed from the field and from agriculture, even in the absence of an ability to carry out the necessary studies (Papazian, 2011). Multiple sources in the field indicate that land allocations tend to be influenced by subjective considerations, such as links between national developers and local or national decision-makers, or relationships between foreign developers and the state. These circumstances explain the low rate of conversion of letters of intent into leases, and the recurring failure of lessees to develop the land allocated to them. Legal requirements concerning the deadlines for carrying out feasibility studies (within one year from issuance of a letter of intent) and developing the land (within three years from the lease) are not being respected or properly monitored.

The land governance challenges raised by these dynamics have been recognised to some extent by the ON and by the government. This is reflected in the recent establishment of a new Secretary of State, attached to the Prime Minister's office, responsible for the integrated development of the Office du Niger area (SEDIZON). It is also reflected in the initiation of a revision of the ON management decree, and in the cancellation in 2010 of many letters of intent for which investors had not complied with requirements to carry out feasibility studies within an agreed timeframe. The decision to cancel letters of intent affected 224,219 ha.

.... And for monitoring compliance with social and environmental standards

Investment projects in the ON area all have social and environmental impacts and are therefore subject to ESIA (environmental and social impact assessment) requirements. However, compliance with these provisions is uneven and the degree of compliance usually depends on the origin of the funding.

As ON personnel were not very familiar with the relevant procedures, they tended not to apply them. As a result, the ESIA did not form a direct part of the formalities prior to obtaining several leases. Some developers obtained their lease contracts without having carried out any ESIA. The mass influx of foreign investors eager to obtain thousands of hectares brought the issue into sharper focus. These investors were applying for large areas of land used by farmers and transhumant herders. In several cases, construction works began without any prior ESIA and sometimes even before the lease contract had been signed with the ON. Some foreign developers considered an investment agreement signed with the central government to have sufficient legal authority to authorise commencement of operations, and saw signature of the contract with the ON as 'just one more administrative stage' (Papazian, 2011). During the fieldwork for this report, several people commented that, when ESIA do take place, it is very rare for the proper procedures to be followed.

Another key issue that large agricultural investments must deal with is payment of compensation for affected communities and with resettlement if local communities are displaced. For example, Libyan company Malibya reportedly began construction of the road and canal not only without any prior ESIA but also without taking any account of existing land uses in the project site. Traditionally, the area of Macina is used for transhumant herding. A local convention and development scheme for the agro-pastoral areas supported since 2006 by the German co-operation was trumped by the implementation of the project. Temporary camps were apparently destroyed and transhumance routes obstructed along 7 km in Kolongo municipality (Brondeau, 2011).

N-Sukala and Tomota also began to clear the land without any public consultation or preliminary ESIA. Tomota cleared around 1,400 ha in the same way as Malibya and with the same effects. In the area of Bewani, the land cleared by N-Sukala belonged to the local villages and was used for grazing, firewood collection and dry cereal cropping. Local people were not adequately informed through the public consultation required by the decree concerning the environmental and social impact studies. They received no prior compensation. The same happened in the area of Sanamandougou, where local people originally opposed the M3 SA project before giving up after confrontations with the police which were followed by arrests and various promises made by the developer (Papazian 2011, Oakland Institute, 2011; Diallo and Mushinzimana, 2009; Adamczewski and Jamine, 2011; and data collected during fieldwork).

Conversely, as will be discussed later, the operational guidelines of the African Development Bank, similar in content to those of the World Bank, were applied in respect of the environmental impact study and resettlement plan in connection with the SOSUMAR project. Various provisions favouring the local people were put forward as support measures.

In the absence of clear national guidelines in respect of the displacement and resettlement of affected communities, everything depends on the goodwill of the developer and any requirements imposed by lenders.

A fundamental problem lies in the government's commitment to make land available 'free of all legal encumbrances and tenure rights'. As already mentioned, the land leased is usually outside the irrigated perimeter - investors are allocated undeveloped land for them to build irrigation infrastructure. In these areas, local communities exercise rights, whether customary or not, to use the land for cereal farming or for livestock grazing. Although the ON management decree affirms the monopoly of the Office du Niger over any land that can be irrigated from the Markala dam, the legal status of this undeveloped land falls into two categories: i) land that has already been registered, with title deeds transferred to the Office du Niger; and ii) land that has not yet been registered and over which resident communities exercise customary rights. Registration of this latter land category requires the taking of customary rights and compensation for the holders, following the spirit and letter of the CDF, the management decree and the ESIA decree. This is a task for the government, but government agencies are not always in a position to perform this task to standard. By 2002, only 199,046 ha of ON land had been formally registered with the state, mainly within the irrigation schemes (according to the 2002 ON Framework Agreement). So the vast majority of ON land, and even more so of undeveloped land in particular, has not yet been registered with the state.

Nor is the allocated land that has already been registered with public authorities problem-free. In some cases, the state has registered the land in its name without having carried out all the required field investigations, particularly the identification and compensation of people who exercise rights over the land concerned. In other cases, the state registered the land long ago (whether or not following the proper procedures), but then left the land fallow, so that it was settled by communities who eventually came to consider themselves as the legitimate owners. In this latter case, even if local groups have no legally recognised ownership rights or even customary rights over that land, it is difficult for political, social and humanitarian reasons to evict them without compensation.

In principle, the state must cover the cost of compensating communities holding customary rights. But according to the provisions of the ESIA decree, payment of compensation is a matter for the project developer. This seems contrary to the letter of the management decree concerning the land allocated to the Office du Niger. In practice, the issue is handled on a case-by-case basis depending on the project.

In the case of the Malibya and SOSUMAR projects, the Malian government is responsible for compensation. As regards the N-Sukala project, on the other hand, the Chinese side undertakes to 'cover costs related to information, removal and resettlement of villages and PAP' (article 7 of the contract). Negotiations with Tomota are still ongoing. In this last case, the Malian government refuses to pay compensation, arguing that the developer has not undertaken any work in the area, while Tomota is also refusing to pay, arguing that other projects have received state funding to cover the cost of compensation. The agreement with M3 SA stipulates that the company must take responsibility for paying compensation.

Equity concerns and the soundness of policy choices

Apart from problems related to compliance with legislation, private investment in the ON area also raises issues of equity and soundness of the policy choices made. Large private investors were initially allowed to come in without any concern for small-scale farmers. As Benoît Dave points out, there are some 25,000 family farms in the area, with the size of their small plots averaging 3.7 ha (Dave, 2010). These farms are becoming smaller and smaller, as witnessed by the fact that the average area worked per family has been divided by three in the space of twenty-five years, so that it amounts to only 3.14 ha (Bélière et al., 2003).

These farmers do not own the land. They rent it free of charge but must pay an annual charge for maintenance of the irrigation system. Failure to pay is sanctioned with eviction. These farms face many problems, which Benoît Dave mainly attributes to the shortage of land. According to that author, 56% of family farms have less than 3 ha of irrigated land, the minimum size considered necessary for rice farming in the Office du Niger (Dave, 2010). This percentage is rising, because many farms split up as a result of inheritance or family conflicts, or because over-indebted farmers are obliged to sell some of their fields, even though the practice is forbidden by national law. Conversely, farmers have no real possibility of obtaining further land: there are few new schemes for small-scale farmers and the land tends to be allocated to public servants, traders or new farmers. Moreover, access to credit is beyond the reach of many small-scale producers, who are therefore unable to develop irrigation infrastructure themselves.

Against this background, allocating thousands of hectares to private investors without making any provision for a substantial increase in areas allocated to family farms is bound to raise equity issues and compound the concerns voiced by small-scale farmers that they will end up working as farm labourers in the near future.

In addition, questions have to be raised about the relevance of the policy choices made. With a few exceptions, the contracts and agreements for large investments in the ON area make no reference to the end market for the projects' produce. For example, the recitals of the agreement between Malibya and the government of Mali quote food self-sufficiency as one of its objectives, but the contract makes no mention of the destination of the

produce. How can a project contribute to food self-sufficiency if produce is sold on export markets?

Similarly, the key issue of whether enough water will be available in the longer term against the cumulative number of approved projects, raised by various studies (Schuttrumphant et al., 2008; Oakland Institute, 2011), has not gone away. In addition to water issues, the feasibility study for the CENSAD project (Aw, 2005) also highlighted several important issues going beyond the specific project and affecting the entire ON area. These issues include the importance accorded to large mechanised farms which are unsuited to rice production in the area, land use changes, and inclusion of small-scale farmers.

4. CASE STUDIES OF INCLUSIVE INVESTMENT MODELS

While much attention in earlier research has focused on the more worrying experiences with agricultural investments in Mali, this study deliberately focused on two experiences that are widely seen as being part of better practice. One such experience is a sophisticated public-private-community partnership involving a sugar cane plantation and processing facility in the ON area - the Markala Sugar Project (PSM). This project involves the establishment of a 14,132-hectare sugar cane plantation and of a processing plant for the production of sugar, ethanol, and electricity. The plantation would involve a combination of estate production and outgrower schemes. Involvement of a multilateral lender involved application of international social and environmental standards. The second experience examined is the work of Mali Biocarburant SA (MBSA) in the Koulikoro Region, which is outside the ON area. This experience involves the production of biodiesel for the national market. The company has invested in a processing facility, and sources jatropha nuts from local farmers on the basis of contract farming. The farmers are organised in a cooperative that has an equity stake in the Malian subsidiary of the company, and thus representation on the company board. While the SOSUMAR project involves land acquisition, albeit in the form of an interlocked set of joint ventures, MBSA has not acquired any land for farming - it sources its entire produce from family farmers.

Besides using different models and being implemented at different scales, the two experiences are also at different stages of implementation: the MBSA experience is relatively advanced and lends itself to an analysis of preliminary outcomes, whereas the SOSUMAR project is still at the stage of fundraising and testing varieties.

Beyond these differences, the two models share a common concern about taking the interests of the local communities into account. This chapter discusses advantages and disadvantages of the two models. Given the major differences between the two experiences, the intention here is not to carry out a comparative study. Also, limited access to data means that the analysis is inevitably preliminary and incomplete.

4.1. The Markala Sugar Project (PSM) - A public-private-community partnership model

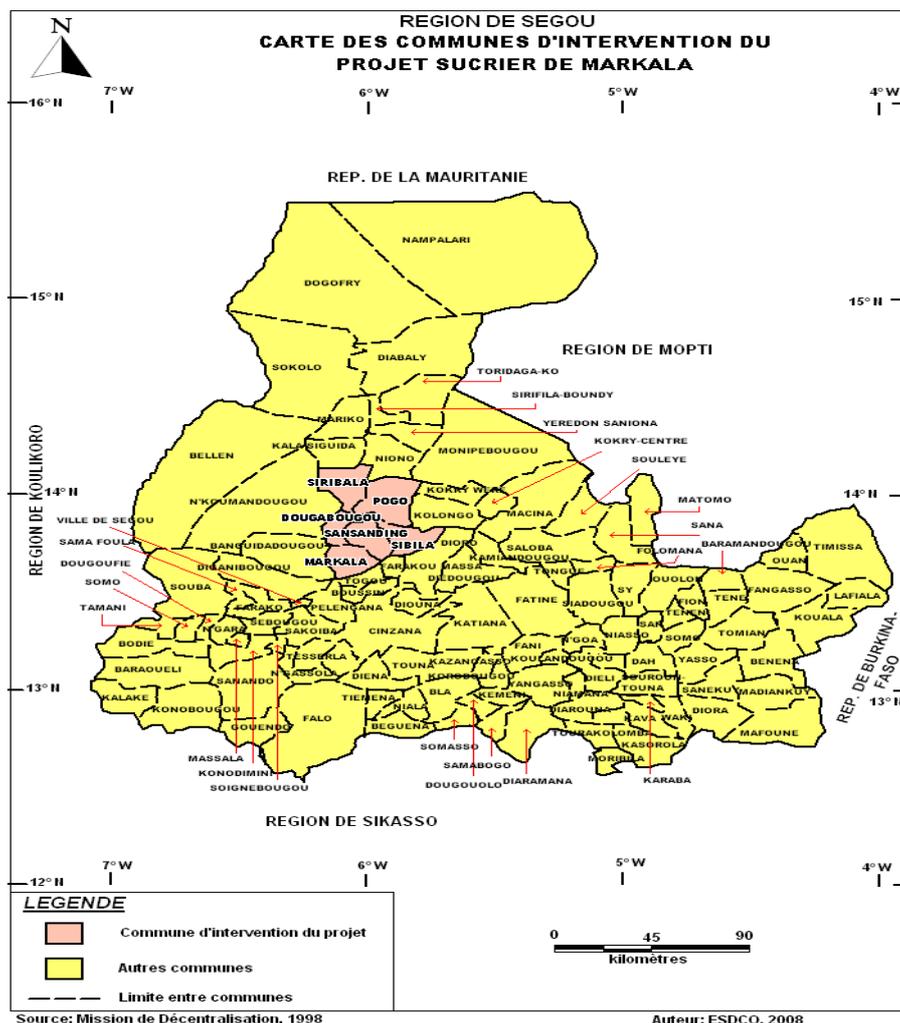
Originally designed as a public-private partnership (PPP) and later expanded to a tripartite public-private-community partnership, the Markala Sugar Project is unlike most private investments in the ON area, because of the way it has been set up and the support it received from the African Development Bank (ADB). The project is led by Illovo Sugar, a South

Africa-based sugar company, which is in turn controlled by a British company.

The project has two components: a farming component involving the establishment of a 14,132-hectare sugar cane plantation with sprinkler irrigation, designed to produce 1.48 million tonnes of sugar cane per year; and an industrial component involving the establishment of a processing plant for the production of 190,000 tonnes of sugar and 15 million litres of ethanol per year, together with cogeneration of 30 MW of electricity. The plantation is divided in two separate zones. In Zone A, water abstraction will be from the existing Costes Ongoïba canal, while the second zone, Zone C, will be irrigated from the existing Macina canal. The chosen irrigation method is by sprinkler (central pivot system) and, according to the project documents; this choice was essentially guided by a concern to save water. The first phase of the agricultural component will include clearing and preparing the land for the sugarcane plantations. The natural vegetation will have to be cleared and the arable land currently used for cereal production, together with the grazing land, will be converted into sugarcane plantations. The second operational activity in this component will be the installation and management of 200 irrigation pivots, together with construction of the other plantation infrastructure such as access roads, primary, secondary and tertiary canals and barns. The land between the pivots will represent around 1000 irrigated hectares available to the local communities. It will be used to grow vegetables and generate income, ensuring the food security of an area known for its very low level of food production.

The project is located in the Office du Niger area to the north-east of the town of Ségou, the capital of the fourth administrative and economic region of Mali. It falls within Title Deed No. 2215 in Ségou District. With a total area of 111,377.46 ha, this land was registered in the name of the state and the deed was issued on 23 June 2004. Within this, the land earmarked for the SOSUMAR project was split into two parts, with one to be transferred in full ownership to SOSUMAR, which is the company leading the the industrial component of the project, and another to be given on a 50-year renewable lease to CaneCo, the company leading the agricultural component. Both companies involve joint ventures between the Malian government and Illovo.

Map 2. Map of the PSM project area



Context: The shortfall in sugar production

The PSM reflects the desire at the highest level of government to promote the agro-industrial sector. The fundamental objective of the project, according to the project documentation, is to achieve self-sufficiency in sugar, to export surplus production to neighbouring countries, and to reduce rural poverty through irrigated agro-industrial agriculture.

Annual sugar consumption in Mali is estimated at 155,000 tonnes. There are currently only two sugar production plants in Mali, both located in the Office du Niger area (in Siribala and Dougabougou) and both operated by Sukala SA, a company in which a Chinese company, the China Light Industrial Corporation for Foreign Economic and Technical Cooperation, have a 60% capital stake. The country's current annual output provided by Sukala SA's plants is around 35,000 tonnes. As a result, 120,000 tonnes of sugar need to be imported to meet consumer demand. This situation, especially during the month of Ramadan when sugar consumption increases substantially, forces the Malian government to grant customs

duty exemptions to sugar importers, a drain on the public purse, to avoid vertiginous price rises.

Box 6. The importance of sugar to the Malian economy

On the eve of Ramadan 2010, the Malian Minister of Industry, Investment and Trade made a very apposite joke when he said 'It is true that sugar is sweet, but it is beginning to turn sour'. During his speech, the minister stressed that the present market situation features continuous price rises, due to increased demand in the face of falling supply.

The 2008/2009 season saw a decrease at international level of 7 million tonnes in global sugar output in relation to the 2007/2008 season. Global supply went from 169 million to 162 million tonnes, a drop of 4.14%. At the same time, global consumption rose by 2.2% to 166 million tonnes. A shortfall of 12 million tonnes was forecast for the 2009/2010 season. This drop in production is said to reflect falling output in Europe, down from 18.1 million to 16.5 million tonnes, and drought in Asian countries.

As regards the national market, because local supply is inadequate to meet consumption needs, the shortfall of 114,000 tonnes, 76% of national consumption needs, has to be imported despite the constantly rising price of sugar on the international market. Since January 2009, the price of raw sugar has increased by 30%, with a 15% rise for refined sugar.

Project history: From the feasibility study to the involvement of the ADB

Before coming to the conclusion that sugar was beginning to turn 'sour', the Malian government had launched initiatives designed to meet national demand through local production. This was the background to the first feasibility study on sugar production undertaken in 2001, with funding from USAID. The study was conducted by the Schaffer & Associates LLC International (SAIL) group.

The findings of the study confirmed the potential for setting up an irrigation scheme capable of supplying very good quality sugarcane, together with a processing plant with a production capacity of more than 170,000 tonnes of sugar per year. The study recommended implementing the project in partnership with an experienced operator from the sugar industry.

As a result, in 2003, the Malian government organised a round table in Bamako for investors in the sugar sector. The aim was to present the

project to them and seek expressions of interest. In the end, South African company Illovo Sugar was chosen as the strategic partner for the project. Following various missions and complementary studies conducted by Illovo, the partnership was formalised in an agreement signed on 27 June 2007 between the government of Mali, Illovo Group Holdings Limited and Schaffer & Associates International LLC.

The agreement required Mali to take part in fundraising efforts. So various institutions, including the African Development Bank, were invited to contribute funding. The bank responded positively to the invitation, and its participation induced the project to comply with ABD requirements on social and environmental standards.

The agreement of 27 June 2007, a very complex, technical document, leaves little space for the local community. Following opposition to the project from some villages and following the completion of the ESIA resettlement plan prepared according to the ADB's operational guidelines, important changes were made to project design to address this shortcoming.

According to Malian environmental legislation, the PSM is classified as a 'Category 1' project, subject to an in-depth ESIA and to the preparation of an ESMP. The ADB also considered the PSM as a project requiring preparation of a detailed ESIA. The ESIA reports on the PSM were therefore subject not only to national law requirements, but also to the African Development Bank's environmental and social assessment procedures. In addition, in application of the bank's policy on involuntary displacement of local people, a detailed Poverty Reduction Programme and Resettlement Action Plan (PRP or RAP) had to be developed based on a broad development perspective. Documentation produced by the developer in these regards in May 2009 was accepted by the ADB's project assessment committee.

Technical and financial partners (TFPs) working in the Office du Niger area made both general and specific comments on early versions of the ESIA prepared for the Board of Directors of the African Development Bank. These comments concerned matters such as environmental and social provisions and primary infrastructure, with particular reservations expressed in relation to the issue of water availability. Water was the subject of a further study conducted in 2010.

Following these various initiatives, the loan agreement between the ADB and Malian government was signed in Bamako in June 2011. Under the agreement, the ADB is to contribute an amount of €65 million (around FCFA 43 billion) towards the financing the two major project components - FCFA 23 billion for the agricultural component and 20 billion for the industrial component - against the total cost of FCFA 275 billion (US\$560 million).

This makes the Markala sugar project (PSM) the first PPP development project in the agro-industrial sector to be approved for African Development Bank funding.

Project partners and their motivation

The project brings together diverse players having different motivations. The Malian State is, as noted above, mainly concerned about the country's sugar supply. It sees the project as a good opportunity to solve this problem and to create employment, as well as to make foreign currency savings by importing less sugar and, in general, to promote socio-economic development in the area.

Illovo Group Holdings Limited (IGHL) is, as its name implies, a holding company. The Illovo Sugar group is a South African company and leading sugar producer in Africa. IGHL is registered in Mauritius and has subsidiaries in six African countries. The company is listed on the Johannesburg stock exchange. Illovo Sugar is primarily controlled by Associated British Foods Ltd, which owns 51% of its capital through British Sugar. Participation in the project will undoubtedly enable Illovo to achieve its stated objective of increasing its African sugar production by 50 percent over a five-year period.

Schaffer & Associates International LLC (SAIL) is a private corporation based in the United States which provides international research, management and support services for agro-industrial, energy and infrastructure projects. It is not common for this kind of company to be a direct shareholder in a project where it has carried out the feasibility study. It is understood that SAIL bought shares in the project companies at the request of its Malian partner, who wanted to encourage it in this way to continue and increase its involvement in the project and convince potential investors of the project's benefits.

Differently to the first three players, the African Development Bank (ADB) is not a party to the original agreement. It became involved in funding the project at the Malian government's request, in line with its mission to fund development activities in Africa. More specifically, the Bank wanted to test public-private partnership funding in the agro-industrial field. The project was put together in two complementary stages, as can be seen from an analysis of the original agreement of 27 June 2007 and the essential contributions to project design made with the ESIA and the resettlement action plan (RAP).

The project set-up

A limited company registered in Mali was set up to implement the industrial component. Named SOSUMAR (Markala Sugar Company), its primary purpose was to build and operate a new sugar cane processing plant in Mali; to produce, market and sell sugar and its derivatives (molasses, ethanol, biomass, etc.); and to provide services for CaneCo, the second company to be set up as part of the PSM.

Article 3.1.3 of the 2007 investment agreement provides that the majority of SOSUMAR's capital will be held by a strategic private foreign investor. On the date of signature of the agreement, shareholders in SOSUMAR were the Malian Chamber of Commerce and Industry, IGHL, SAIL and an

individual. At that time, IGHL held a minority share in SOSUMAR. However, IGHL had a purchase option to acquire the majority of the company's capital. It also made commitments concerning the future supply of technical services to SOSUMAR and CaneCo.

According to article 3.1.5 of the 2007 investment agreement, SOSUMAR is to set up CaneCo, the primary aims of which will be to establish plantations to produce cane sugar exclusively for the plant managed by SOSUMAR. Shareholders in CaneCo will be SOSUMAR (10% of capital) and the Malian government (90%). So the Malian government controls the company running the farming component of the venture, with control over the industrial component being in the hands of the investor once financing has been secured.

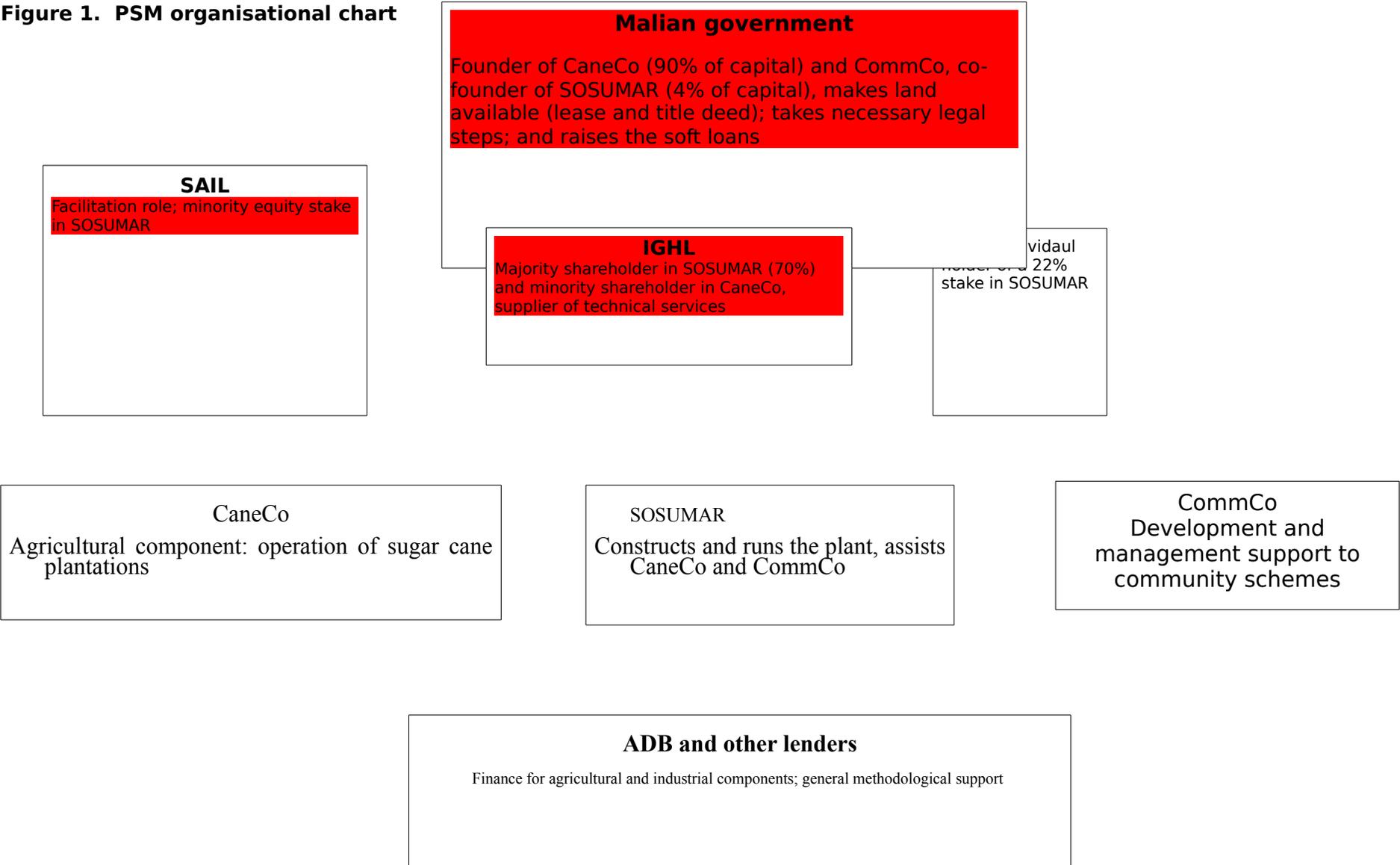
While CaneCo had not yet been established on the date of signature of the 2007 agreement, it was meant to approve the rights, benefits and commitments pertaining to it and be able to demand their enforcement in its favour. Similarly, although SOSUMAR is not party to the agreement, it can accept and take advantage of the rights, benefits and commitments pertaining to it in the agreement.

The financing structure of the project is quite complex. As regards funding of the necessary working capital, it is specified that: SOSUMAR will endeavour to ensure that CaneCo's working capital requirements are met by means of loans that CaneCo and SOSUMAR may conclude with lenders; and IGHL will endeavour to ensure that SOSUMAR's working capital requirements, including the amounts needed for CaneCo, are met by means of loans that SOSUMAR may conclude with lenders.

As regards the soft loans required for the project, article 6.3.2 of the 2007 contract stresses the government's responsibility to obtain them in order in its turn to provide sufficient financing to SOSUMAR and CaneCo to ensure that the project is fully funded. However, according to article 6.3.2.2, if the Malian government is not successful in obtaining the entire amount of funding required, it will attempt together with IGHL to make up the shortfall by means of loans from financial institutions or other sources.

CaneCo, which will initially be incorporated with the minimum capital required for registration, is to be set up by the government and SOSUMAR, which will be its sole shareholders. The share capital of CaneCo is then to be increased and the Malian government will take a 90% stake in the company's capital by means of a contribution in kind consisting of a long-term lease granted to CaneCo on the land allocated to that company, with an agreed value of FCFA 2,050,000,000. Following this, SOSUMAR is to pay cash for a 10% stake in CaneCo's share capital.

Figure 1. PSM organisational chart



Under the 2007 agreement, SOSUMAR has the following obligations:

- To build and run the plant and provide technical support to CaneCo pursuant to a technical services agreement to be concluded;
- To build the plant in such a way that it has capacity to crush 7680 tonnes of sugar cane per day and produce high-quality sugar in line with reasonable market standards;
- To supply the Malian government with six-monthly reports during the construction period on the progress of the work, staff training and any difficulties encountered;
- To employ at least 5000 people in SOSUMAR and CaneCo activities when the latter have reached full production capacity.

Although it is not directly a party to the agreement, SOSUMAR declares in article 8.2 of the contract that it expects to create 7200 jobs for the project and to produce 195,000 tonnes of sugar and 15 million litres of ethanol per year. It also states that the estimated cost of the industrial facility is US\$167 million and the estimated total cost of the agricultural facility is US\$150 million. Again according to SOSUMAR estimates, the date at which the plant should be able to commence crushing sugar cane is 1 December 2009.

For its part, IGHL undertakes to supply the necessary technical services for the efficient operation of SOSUMAR and CaneCo, and to provide SOSUMAR with its expertise to enable the latter to achieve the project objectives in terms of job creation, training and establishment of a drinking water and electricity supply for the benefit of other users.

SAIL undertakes to 'do everything necessary and required to ensure that the suspensive conditions mentioned in Article 6.2 are fulfilled' (our translation). Amongst other things, these conditions relate to:

- The signatories' commitment to make every effort to facilitate signature by 31 December 2007 of the subsidiary agreements enabling the other conditions of the project to be fulfilled;
- Negotiation of the financing arrangements for SOSUMAR and CaneCo on the terms and conditions accepted by mutual agreement between the parties and all the project funders;
- Signature of a shareholders' agreement between the government, SOSUMAR and the other company shareholders, on the terms agreed between them, together with signature of the annexes to that agreement; and
- Establishment and registration of CaneCo and signature of the deed of incorporation and articles of association.

Given that the establishment of SOSUMAR is the responsibility of IGHL, according to the agreement, SAIL's role can be interpreted as supporting the process and playing the role of facilitator in relations between the project partners.

The Malian government undertook to contribute FCFA 1,500,000,000 towards the share capital of SOSUMAR, in the form of an assignment to the company of a title deed covering 857 ha of land, plus a long-term lease on 134 ha of land to be identified by SOSUMAR in the Markala area. The plant and related infrastructure would be built on the land covered by the title deed. This transfer of ownership and the granting of the lease represent the contributions in kind, in two instalments, of the Malian government, which is not required to make any direct cash contribution.

In addition, article 12.6.1 of the 2007 contract stresses that if a future extension of the project requires additional funding, the government undertakes to grant SOSUMAR, under a long-term lease, an option giving it the exclusive right to occupy and use the additional land for fifteen years. The amount of the charge for the duration of this lease will be capitalised in SOSUMAR and represent payment of the Malian government's subscription to the SOSUMAR capital increase. The project extension may include contiguous or non-contiguous land to be chosen by SOSUMAR within the zones marked as Zone A, Zone B and Zone C on a map annexed to the 2007 agreement. SOSUMAR undertakes to exercise or renounce the option to extend the project area within 15 years from signature of the agreement (article 12.6.3). The government warrants that, over the same period (15 years from signature of the agreement) and until SOSUMAR has exercised its rights in relation to the extension, the land concerned will not be used in any way that could compromise SOSUMAR's rights and the planned use. The lease covering the project extension, like the one granted to CaneCo, will be for a renewable term of 50 years. Legitimate doubts may be raised about the value of granting an investor option rights over a 'land reserve' in an area that is subject to heavy pressure on land. Should the investor decide not to exercise this option, Mali would sustain significant opportunity costs.

According to the 2007 investment agreement, the Malian government is to make a 90% capital contribution in kind to CaneCo, in the form of a long-term lease on the land granted to CaneCo with a value of FCFA 2,050,000,000. Once the lease has been signed and registered, SOSUMAR will pay cash for new shares in CaneCo, becoming a 10% shareholder in that company.

This renewable 50-year long lease will, according to article 13.2 of the 2007 agreement, cover 19,254 ha of land, on which CaneCo will conduct its agricultural operations. The terms of the lease contract will, inter alia, authorise the company 'to use its rights over the land as surety' to obtain future loans to develop its activities (our translation). Similarly, the terms grant CaneCo the right to sublet some of the leased land to other sugarcane producers, including SOSUMAR.

Following changes to project design made following the ESIA and RAP, in addition to SOSUMAR and CaneCO a third entity, 'CommCo', will be set up to develop 5,600 ha to be allocated to the local communities. The area will be developed as an outgrower scheme, though this component has not yet been initiated. One part of this area will be used to grow cereals and vegetables and the other to produce sugarcane. Plots will be specifically

allocated to women. The creation of this entity provides the PSM with its community dimension in addition to the original public-private partnership model.

In article 18.1 of the 2007 agreement, the Malian government acknowledges the need to adopt legal measures to protect the national sugar market. It undertakes to preserve sugar's status as a sensitive product and take the necessary steps to protect the national market as detailed in Annex D to the agreement. However, both parties acknowledge that UEMOA regulations could prevent enforcement of all these stipulations. If implementation of any provision of Annexe D would mean a breach of UEMOA norms by the Malian government, the government undertakes amongst other things to attempt to exert a positive influence and obtain permission from other UEMOA member states to take steps to protect and preserve the status of sugar as a sensitive product.

Concerns about water

A key issue in the contract relates commitments entered by the government of Mali with regard to water. According to article 15.1, the Malian government undertakes to ensure that SOSUMAR and CaneCo each have access at all times to a water supply for the needs of their respective operations. In addition to this overall commitment, the government warrants that it will do everything necessary to ensure that the two companies are granted full rights of access and extraction with regard to water from the Macina canal or any other canal bringing water from the river and/or another source of water close to the site, at an initial maximum rate of 20 m³/s every day of the year (increased to 35 m³/s if the site is extended as mentioned above).

The government is also to make every effort to ensure that the water charge is set at a rate that will not affect project viability or exceed the price paid by other major consumers of agricultural water in the Markala area. The rate must take account of the proportional length of the canals used by the project and reflect the comparative efficiency of using central pivot irrigation. Notwithstanding these clauses, however, if drought results in inadequate flow in the river Niger to meet domestic water demand and the requirements of international treaties, an emergency system of concerted water management will be implemented.

According to articles 15.2.1 and 15.2.2, once the minimum flow requirements laid down in international treaties have been met, the requirements of SOSUMAR and CaneCo on the one hand and Sukala on the other will be met in proportion to their respective areas of sugarcane plantations, 'with absolute priority rights over the quantities of water available in the Office du Niger scheme' (our translation). So SOSUMAR and Sukala have priority access to water in the event of drought - for example, vis-à-vis other agroindustrial developments and local farmers. Article 15.2.2 goes on to stipulate that the absolute priority rights will apply up to the total maximum agreed requirements of Sukala, SOSUMAR

and CaneCo 'before any other user can be supplied with water by the Office du Niger'.

Social and environmental standards

SOSUMAR and CaneCo warrant and give an undertaking to the government that they will do everything in their power to comply with environmental legislation applicable to the project. According to article 22.3, SOSUMAR, CaneCo and IGHL must each be classified in the agricultural category and sector as regards the employment and social security requirements laid down in the respective laws. The government will facilitate the conclusion of a collective agreement once a trade union has been set up. Each of the companies agrees to observe and comply with all laws and regulations applicable to labour and employment.

However, the contract also features a very broad stabilisation clause. When not properly formulated, broad stabilisation clauses can raise concerns about the ability of the Malian government to improve social and environmental standards over project duration (see Cotula, 2011). According to article 7.3, the Malian government warrants that no law can nullify the agreement or any one of its terms, or cause it or any one of its provisions to cease to have effect. To this end, the terms of the agreement will continue to be applicable and enforceable and 'take precedence over any new law enacted after signature of the agreement, the enforcement of which might affect the continuation of the project or cause the agreement or any one of its provisions to cease to have effect'. So the contract prevails over national law. In article 4.4, the Malian government warrants that it will do everything necessary to ensure that the provisions of the agreement 'shall bind the government and local authorities and all other authorities or government or similar bodies in Mali...'. More specifically, article 4.4.1 states that 'the provisions of clauses 12 to 15 of the agreement [concerning the land and water rights aspects of the project] bind and shall bind the Office du Niger' and undertakes to do everything necessary to ensure that the latter complies fully with those clauses.

However, article 7.5 of the agreement stipulates that, if the government of Mali adopts any measures more favourable to SOSUMAR and/or CaneCo and/or their shareholders, the latter may individually or collectively adopt the more favourable arrangements provided that they adopt them in their entirety.

Final remarks about project design

Overall, IGHL and SAIL have been able to negotiate very favourable clauses for SOSUMAR and CaneCo, as regards to land and water rights as well as the stabilisation of the provisions of the agreement. This makes the 2007 investment agreement look like a 'classic' contract where emphasis is on providing the company with legal rights and with safeguards for the protection of its investment. However, project design underwent

significant changes at the financing stage, particularly following the involvement of the ADB. The arguably one-sided nature of some of the provisions in the contract was partly rebalanced through the changes induced by the ESIA and the RAP. Among other things, changes in project design involve the planned establishment of an outgrower scheme for 5,600 ha of the plantation land, and of a third entity, 'CommCo', to complement SOSUMAR and CaneCo and run the above-mentioned outgrower scheme. At least in its design, the project has therefore evolved from a straight PPP to a more innovative public-private-community partnership.

The socio-economic outcomes of the project

The project is expected to become fully operational in 2017. It is far too early to assess its livelihood impacts on the ground. However, it is possible to outline a few considerations based on the ESIA and on our fieldwork.

The overall catchment area of the project encompasses the territory of a total of six rural municipalities, with a population of some 156,000 inhabitants (African Development Bank, 2009). According to the ESIA, the population of 64 localities (1718 households) will be directly concerned by the major negative effects of the PSM, including people subject to physical displacement. The latter come from 23 hamlets comprising 127 households (1644 people), while around 4294 other households will be indirectly affected.

There are not enough health centres in the project area and living and working conditions are extremely precarious. Given the heavy dependence on the river Niger and Macina canal as sources of water supply for the population of certain villages and hamlets, waterborne diseases are extremely prevalent in these municipalities.

The area's economy is essentially based on the primary sector, which accounts for more than 90% of economic activities. Cropping (46.1%) and herding represent the major sources of livelihood. Although cereals occupy more than 95% of the cultivated area, yields are quite low and this means that PSM area has a considerable deficit in cereal production in relation to consumption patterns in the Ségou Region.

Alongside these two main activities, communities undertake secondary activities to meet their economic needs. Women in the PSM area engage in gathering and vegetable growing, which represent their major sources of income and make a substantial contribution towards meeting family needs. Herding and small-scale trading, engaged in by 2.02% and 1.75% of the population respectively, are just as important sources of income for certain families. Both men and women engage in small-scale trading and craft activities.

Fishing is practised in the River Niger and the irrigation canals of the Office du Niger, but income from this source is falling constantly due to the reduced fish stocks in the river. Analysis of average annual household income structure shows that cropping (83%) is the primary source of cash

income, followed by herding (12%); remittances (3%) come third, followed by non-agricultural activities (2%). Wages and rents make a negligible financial contribution to household income.

According to the ESIA report, the main impacts of the agricultural component of the project will be the loss of community land; the introduction of monocropping, which will bring about an irreversible loss of fauna and flora; and risks of soil erosion and proliferation of grain-eating birds. All community sources of income will be affected and there will be potential disruption to ecosystem balance.

The impacts of the industrial component are wide-ranging, affecting the air, soil and water and health and safety. However, the ESIA found that the industrial optimisation practices proposed by the developer, consisting of water saving, cogeneration of energy, composting, wastewater treatment, emission control and monitoring of performance indicators during production, should help to reduce these negative impacts.

During the construction phase, the main impacts discussed in the ESIA include massive loss of vegetation cover when laying out the pivots and setting up the plant, psychological disturbance induced by displacement and the destruction and reconstruction of homes, loss of immediate cash income due to the halt in economic activity during the displacement and resettlement period and, finally, the loss of socio-economic infrastructure.

The production phase is expected to cause a massive influx of foreign seasonal or permanent workers into the area. The arrival of large numbers of foreigners, most of whom will be single men, is likely to result in the emergence of new habits and changes in behaviour. There will also be a high risk of increases in sexually transmitted diseases such as HIV/AIDS, together with a high risk of industrial accident in the sugarcane fields and plant, or during operation of machines introduced downstream for new economic activities (metalworking, mills, rice hullers, threshers, etc.). It is also likely that the increased population will cause local prices to rise sharply and encourage inflation.

In addition to these findings of the ESIA report, the agro-economic study estimates that the PSM will affect cropping, grazing and fishing areas. It is likely that some of these losses will be offset over time through new income-generation opportunities created by the project, together with the introduction of services such as electricity, schools and preventive health.

Nevertheless, community food production is expected to fall at least during the transition period, i.e. the time from actual occupation of the land to develop the sugarcane plantations and purchase of the cane by the plant until effective implementation of the poverty reduction project which is to improve cereal production (African Development Bank, 2009).

The ESIA also estimates that the sugarcane plantations will cause the destruction of several woody species of considerable economic and social value to the local community.

Analysis of the water management situation included in the ESIA shows that users' water needs in the dry season could only be met without major

difficulty through measures to increase water availability (namely, construction of the Fomi dam upstream in Guinea), and that palliative measures would need to be put in place pending construction of the dam.

The environmental and social management plan and resettlement scheme include relevant measures to mitigate these negative impacts. According to the project documents, positive impacts at national level are expected to include currency savings of over FCFA 31 billion per year as a result of reduced sugar imports. Similarly, the project should generate around FCFA 4 billion in tax revenue for the national budget; promote income-generating activities and benefit 20,000 people through the introduction of economic activities directly or indirectly connected with sugar production; promote entrepreneurship; and establish favourable conditions for the development of small and medium enterprises.

From the social perspective, the project could help to reduce seasonal migration from rural areas and regional, national and international emigration as a result of the creation of local job opportunities; reinforcement of existing infrastructure; promotion of the local area; self-sufficiency in energy; and local development.

The PSM hopes to contribute to qualitative and quantitative changes in the agricultural sector through the introduction of mechanisation, security of tenure, training and access to the means of production. For example, irrigation pivots could be transferred to local people who would operate them and sell the sugarcane produced to SOSUMAR. In addition to SOSUMAR and CaneCo, a third company, CommCo, will be set up by the state for the benefit of local producers.

As a result, activities to implement the PSM at local level could, if carried out as planned, offer the affected communities an opportunity to improve their livelihoods. An increase in income is expected, especially for women, given that some activities such as planting and weeding the sugarcane fields will be mainly done by women. There could also be an expansion of retail and wholesale trade.

Hoped-for positive impacts on health reflected in the ESIA include the opportunity for local people to take advantage of the new health infrastructure, which will be partly funded by the project in connection with the planned development of facilities.

The compensation measures planned under the RAP go beyond legal requirements under national law. A community development programme will be set up to fight poverty. Support measures are planned, including capacity-building in respect of intensive production for rural producers (rice and vegetable farmers, foresters, herders and fishermen) in the affected areas, to compensate for the other losses caused by the project.

The project documents suggest that the PSM, in line with ADB policies in respect of involuntary resettlement, has involved the people affected by the project (PAP) in designing the resettlement scheme. The aim of this scheme was 'to ensure that compensation measures, the choice of resettlement sites, development plans and service provision take account of their needs, priorities and development aspirations'. With a view to

raising awareness amongst the PAP and helping SOSUMAR to put the scheme together, local government bodies in Ségou Region set up a local technical committee to help preparation of the resettlement action plan (*Comité Technique Local d'Appui à l'élaboration du Plan d'Action pour la Réinstallation des Populations* - CTLA). According to project officials, the CTLA was able to organise consultations during which local people could express their concerns.

As a result, the project is expected to only relocate fewer than 100 people. People involved with economic activities incompatible with sugarcane production can be resettled at their own request. A community development programme was set up to enhance RAP activities. Among other things, the project will rebuild PAP housing entirely in conventional, more durable materials, to enable them to re-establish and improve their living standards. The project will also allocate either rice or sugarcane fields, at their choice, to people who have lost their arable land. Grazing areas will be relocated to two rangelands located 54 km and 56 km respectively from the most remote places in the PSM area.

The community development programme should have positive consequences for employment and generate business opportunities. It is to be accompanied by a Poverty Reduction Programme for people directly affected by the Markala sugar project (PRP). The programme will run for 10 years and should help 6,012 households in 85 localities in the project's catchment area to pursue or commence economic activities. The programme's objectives could be described as ambitious, insofar as it will work in a wide variety of fields, including cropping, herding, fisheries, forestry, agro-forestry, conservation, product packaging and processing, energy, education, water, health, transport infrastructure and income-generating activities (OECD, SWAC, 2010).

As project implementation has now started, albeit still on a limited scale, it is possible to start tracking outcomes on the ground. In the village of Welentiguila, for example, 70 hectares of land have been taken to set up sugarcane nurseries. Field research suggested that compensation paid to villagers (at a rate of FCFA 50,000/ha/year), coupled with the wages earned by farm labourers working in those nurseries, have resulted in relative income growth in the area. However, compensation amounts are one-off payments rather than regular incomes, and longer-term impacts remain to be seen.

The positive features of the venture do not mean that the project has had no local opposition. According to our fieldwork, during the local consultations some villagers did not want to be relocated or become sugarcane growers and expressed fierce opposition to the project. Evidence also suggests, however, that this opposition was partly related to local political and clan struggles. Two major lineages in the area have been at loggerheads since the colonial era. As the municipal council of Sansanding is headed by a member of one of the two competing families, members of the other family have stirred up their allies against the project, arguing that the council, which is in favour of the project, had 'sold off' community land cheaply to foreigners. During the field research, some

of the people who have been interviewed raised doubts about the project's ability to carry out its planned activities. These doubts have been fed by delays in project implementation.

Advantages and limitations of the project

It is still far too early to assess the socio-economic impacts of the PSM. Certainly, the project has gone a long way towards taking account of community interests in project design and implementation. In the project area, there is now a major investment project with important development components in places where there had been virtually no alternatives. If the measures recommended by the various studies carried out at project design stage are fully implemented, they could make a substantial contribution to socio-economic development in the area. However, the project has suffered major delays and has also met stiff opposition from some villages. There are also questions about the fairness of some important clauses included in the 2007 investment agreement. Only more implementation time will enable a more comprehensive assessment of the social, economic and environmental outcomes of this project.

4.2. A private-community partnership: The case of Mali Biocarburant SA

The second case study examined by this report concerns a partnership between a company and a cooperative of family farmers. The venture is led by the company Mali Biocarburant SA (MBSA). Differently to SOSUMAR, the project is located outside the ON area, and is implemented in the Koulikoro Region. The project involves the production of biodiesel from jatropha for the national market. The company has invested in a processing facility, and sources jatropha nuts from local farmers on the basis of contract farming. So the project does not involve land acquisition for farming purposes. The farmers are organised in a cooperative that has an equity stake in the Malian subsidiary of the company, and thus representation on the company board. This section outlines the context of the biofuel sector in Mali, the history of the project, key features of the business model, the implementation of the business venture and the its early outcomes, advantages and limitations.

The institutional context for biofuels in Mali

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.

Even before the widespread interest in biofuels, jatropha was already known in Mali under the local name 'bagani' and was used as live hedging. Over the period 1990-2000, the German co-operation supported projects to plant jatropha, with the nuts being used to produce oil to power mills and generators in several villages in the Koulikoro Region. In its quest for alternative energy sources, the government became interested in the sector. Two ministries were initially involved: the Ministry of Mines, Energy and Water and the Ministry of Agriculture. The Ministry of Environment and Sanitation became involved in 2006. Within the Ministry of Mines, Energy and Water, CNESOLER (the Malian solar power and renewable energy centre) has always been responsible for research programmes relating to biofuels (mainly jatropha). The centre runs the national jatropha energy programme (*Programme National de Valorisation Energétique du Pourghère* - PNVEP). As part of this programme, CNESOLER has promoted biofuel supply chain development for local rural use, for example through the Kéléya project (Geres, 2007). It is also worth mentioning the Malian agency for domestic energy development and rural electrification (*Agence Malienne pour le Développement de l'Energie Domestique et l'Electrification Rurale* - AMADER), which is a public administration body. AMADER's primary task is to manage and monitor domestic energy consumption and develop access to electricity in rural and peri-urban areas. AMADER runs a rural electrification programme, through which it funds and grants electrification concessions to private operators. Many such operators have installed generators and are now confronted with a rise in diesel prices that cannot be passed on to rural customers because of their low purchasing power (Geres, 2007). AMADER is closely following biofuel developments, but this is seen as a long-term solution that cannot be relied on to address the short-term shortages faced by operators.

The Ministry of Agriculture leads a multi-year programme known as the jatropha sector support project (*Projet d'Appui de la Filière Pourghère* - PADEP), which started in 2008. Also, the Rural Economics Institute, which is a public technological, scientific and cultural institution run under the auspices of the Ministry of Agriculture, provides services to the various projects. This institute also carries out research on jatropha.

Finally, a national biofuels development agency (*Agence nationale pour le développement des biocarburants* - ANADEB) was set up in March 2009 with the mandate of promoting biofuels. Within this context of policy and institutional support for the development of the biofuel sector, and in the absence of significant public funding to promote operational projects, several private initiatives have been started, including both development projects and business ventures. Mali Biocarburant SA (MBSA) is a prime example of the latter.

Origin of the initiative

MBSA is the result of a not entirely accidental encounter between a private company and local producers in Koulikoro Region who, against a backdrop of energy crisis and renewed interest in biofuels, were looking for a

partnership. Koulikoro is the second administrative region of Mali, straddling the Sudanian and Sahelian agro-climatic zones (Western Sahel). Millet, maize and sesame form the mainstay of its agro-pastoral economy.

The project developer and MBSA manager, a Dutch researcher and agro-economist, has worked in Africa for a long time, initially in East Africa (five years) and then in Mali (four years), focusing on the development of value chains. According to his own account, he has always been interested in setting up a 'win-win enterprise' in which both farmers and the investor would benefit. This concern led him to study various investment models adopted in both East and South Africa. He found that none of these models ensured genuine producer representation or provided them with worthwhile benefits. He concluded that 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.

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. According to the MBSA manager, the studies found that the production of the main staple crop, millet, in the Koulikoro Region did not provide farmers with adequate income and could not always even keep them fed all year round (50% of the households covered by the studies were unable to feed themselves throughout the year). It was thought that, because growing jatropha does not, in principle, require great effort, combining it with food crops could help to bridge the gap. 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*, ULSPP).

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. Indeed, according to the president of the ULSPP, he had already planted 5 ha of jatropha before the MBSA initiative got under way. It was at this time that the Dutch developer got in touch through SNV with the Regional Chamber of Agriculture to present the project. 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. The Chamber used this fund to finance the preparation of the business plan and the purchase of processing equipment. It also assisted with the establishment of several co-operatives, including the ULSPP co-operative union.

The ULSPP was set up on 9 February 2007 and registered in Koulikoro. It currently has 15 co-operative society members in Koulikoro District, five

co-operative society and four group members in Dioila District and one co-operative society member in Kolokani District, covering a total of 2500 producers comprising 500 women and 2000 men (ULSPP, sans date). Also 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.

Jatropha planting started in the rural municipalities of Dinandougou, Doumba, Koula, Meguetan and Sirakorola, all in Koulikoro District, in 2007, and expanded in 2008 to cover the municipalities of Tougouni, Tienfala and Nyamina in Koulikoro and Dioila Districts.

Project design and business strategy

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.

The initial shareholders in MBSA were the Dutch developer, who was also the managing director of the company, the Dutch Royal Tropical Institute (KIT); the Dutch railway company pension fund Spoorwegen Pensioenfonds (SPF); and the private companies Power Packs Plus (PPP) and Interagro. Together, these shareholders held 80% of the company's capital, while the ULSPP held the remaining 20%. So from the beginning, the union of farmer co-operatives held a significant equity stake in the company. As per standard practice, the company is run by annual general shareholders' meetings; a board of directors comprising representatives of the various shareholders; and a general manager.

The co-operatives produce jatropha seeds that the co-operatives union buys and then sells on to MBSA. MBSA processes the seeds to produce biodiesel and sells the end product. In the original set-up, the ULSPP was responsible for extracting the oil from the seeds, while MBSA was to process the oil to produce biodiesel; but given the union's difficulties in performing processing, the company now does all processing. The purchase price of the jatropha seeds is set by mutual agreement between the ULSPP and MBSA.

According to the MBSA manager, the biodiesel produced is sold to HUICOMA and Grands Moulins du Mali, two industrial enterprises based in Koulikoro, and to the 'dourounis' (public transport minibuses) in the town. The company is also canvassing for business from Air France and other enterprises interested in biofuels. Apart from biodiesel, MBSA also produces glycerine, which is used by a women's co-operative belonging to the ULSPP to produce soap.

In addition to income from sales of biodiesel, MBSA generates revenues through the carbon credit market. For example, MBSA signed a contract for carbon credits with KIA Motors Netherlands. 80% of all revenues from carbon credits are to be passed on to the member co-operatives in the form of equipment. Technical support is also provided to farmers by MBSA

and the ULSP with the aid of the government technical services and extension workers trained for this purpose.

While the key features of this initial set-up remain valid to this day, some important changes have occurred as a result of a corporate restructuring in 2011. Indeed, the first few years of operation revealed that the model had some limitations: jatropha production was not sufficient to supply the processing plant; and some Dutch shareholders began to ask questions about the sustainability of the scheme. The risk of side-selling, whereby farmers receive training and technical support from the company and then sell to other buyers offering higher prices, was seen as a particular concern. According to the MBSA manager, governance challenges within the ULSP heightened the partners' concerns. Meanwhile, the company was initiating operations in Burkina Faso, thereby losing its original exclusive focus on Mali's Koulikoro Region.

In light of these considerations, the company was restructured along the following lines:

- Mali Biocarburant SA was transformed into a holding company controlling two subsidiaries, one in Mali (Koulikoro Biocarburant) and one in Burkina Faso (Faso Biocarburant);
- Two foundations were established - Fondation Mali Biocarburant in Mali and Fondation Faso Biocarburant in Burkina Faso;
- The equity stake held by ULSP in MBSA was converted into shares of Koulikoro Biocarburant - in other words, ULSP now holds shares in the local subsidiary, not in MBSA itself;
- Measures were adopted to clarify relations between the producer co-operatives, the MBSA subsidiaries and the foundations.

As a result of this corporate restructuring, the set-up is now as follows. At the centre of the venture is the holding company, MBSA Holding. Its shareholders are KIT (48%), SPF (30%), PPP (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. Activities in Burkina Faso are beyond the scope of this research. In Mali, activities are led by Koulikoro Biocarburant. Ownership of this subsidiary is as follows: MBSA Holding 79%; ULSP 20%; and a Koulikoro Biocarburant executive 1%. Koulikoro Biocarburant 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 Koulikoro Biocarburant. Producers also receive support from the Koulikoro Regional Chamber of Agriculture and from the government's technical services.

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. The foundation supervises producers and helps the farmer co-operatives to integrate jatropha in production systems without compromising food security. According to information on the MBSA website, the foundation is in direct contact with producers to encourage them to obtain equipment and training through farmer field schools. The foundation is 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.

Both MBSA and Fondation Malibiocarburant have various partners and funding sources. The foundation has received financing from the KIA Motors Company, which is linked to the enterprise by carbon credit contracts negotiated before corporate the restructuring; by 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).

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 (see Box 7).

Box 7. MBSA's research co-operation to promote sustainable development of the jatropha value chain

MBSA is a member of a research consortium led by Forest & Landscape in Denmark with Copenhagen University. Begun in January 2009, the project is mainly concerned with research; assessment; conservation; and sustainable production and use of the genetic resources of *Jatropha curcas* to produce biodiesel in Mali and discover any other species that could meet the same objectives.

MBSA is taking part together with Mali's Rural Economics Institute in research funded by USAID to assess the potential of inter-cropping jatropha with drought-resistant maize varieties. It is also taking part in research led by the Earth and Environmental Sciences Department of Leuven University.

In June 2010, with support from the FACT Foundation, Mali Biocarburant launched an innovative project combining ethanol and biodiesel production. The project aims to produce fatty acid ethyl esters at MBSA's biodiesel production unit in Koulikoro, using anhydrous ethanol produced in Mali.

In co-operation with FACT Foundation and ANADEB, Mali Biocarburant has also begun a project designed to produce rural energy in the form of

biogas from crop residues, jatropha seedcake (a by-product of jatropha after extracting the oil) and cow dung.

Finally, mention should be made of the toxicity assessment and neutralisation of phorbol esters in the jatropha seedcake by-product and processing flow project, developed with Michigan State University

Early outcomes, advantages and limitations

Although the venture has been running since 2007, it is still early days to assess its longer-term outcomes. Important positive contributions are already visible. MBSA has created an entire jatropha value chain in Koulikoro Region where previously none existed. It has catalysed the organisation of rural producers. Today, the ULSPP has 2500 members. The company has established an industrial jatropha oil production unit and a soap factory using the glycerine obtained during processing. The soap factory is managed by a women's group. 55 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. For example, the aggregate area planted with jatropha for 2009 was forecast to be 1,000 ha; but by the end of that season, 2,028 ha were under cultivation, more than double the initial target. The end-of-season figure for 2010, the latest available to the study, was 2,020 ha against a forecast of 2,000 ha. Despite this slowdown, several co-operatives have submitted applications for ULSPP membership.

The company has paid particular attention to gender, by actively promoting women's participation in the process. The iterative approach to the business, reflected in the various changes made to the original set-up, and the extensive collaboration with research institutions underlie a genuine commitment to learning and innovation. The venture also contributes to realising Mali's aspiration to tap into renewable energy sources and reduce its reliance on imported oil. Planting activities and the carbon credit scheme can provide a contribution to mitigating climate change, and jatropha has been shown to produce benefits in terms of soil improvement and regeneration. The innovative nature of MBSA's business model has attracted considerable international interest, as reflected in the company's international partnerships and in direct mentions in several international research reports and United Nations documents.

Challenges have also emerged, however, which highlight the difficulties of making company-community partnerships work on the ground even in the presence of innovative and committed private sector players. A first such challenge concerns the limited success of the venture in raising income for rural people. As it might be recalled, this objective was an important consideration at project design stage. The assumption was that, when inter-cropped with food crops, jatropha farming can help farmers to increase their income without compromising food security. The project

developers expected that, between 2009 and 2014, more than 20,000 farmers would earn an aggregate income of around €5 million, with estimated extra income of between €1.14 and €1.90 each per day. In addition, producers would receive dividends from the profits made by the company, from their equity participation in the company, and revenue from the sale of carbon credits.

While the project is still at an early stage and 2014 is still a long way away, and while production has not yet reached full capacity, our fieldwork suggests that producers are beginning to become impatient. First of all, productivity is hampered by several factors. One of the underlying assumptions in jatropha production projects in general is that the plant can be grown successfully on marginal land with limited water. But in the arid or semi-arid zones of Koulikoro Region, producers need to water the crop during the dry season. Lack of equipment is also a constraint on productivity, and so are the white termites which destroy the seedlings in many areas and seriously compromise production. Some of the producers interviewed complained about the poor quality of the seeds used, though we could not verify these statements.

Pricing is another factor that adversely affects the project's ability to increase local incomes. Given the production costs of biodiesel, farmers can sell jatropha seeds at a very low price (FCFA 50/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.

As the company has not yet turned a profit, no dividends have been paid to shareholders so far. The revenues received from the carbon credit scheme have been used to dig wells and provide basic equipment such as carts or tanks for a small number of farmers, selected on the basis of their production. Some farmer field schools have also been set up. In the longer term, these activities may result in higher productivity and hence incomes, but did not provide a direct contribution to raising those incomes in the shorter term and at scale. Some of the beneficiary producers expressed dissatisfaction about the support received. Some producers claim to have received carts with no animals to draw them. More fundamentally, some farmers felt that these interventions did not address one of the most critical issues, white termites. Farmers do not have the means to purchase the insecticides necessary to deal with this problem. According to the MBSA manager, a solution is now being developed to address the termites problem. But many of the producers interviewed for this research appeared disillusioned. Given the income challenges faced by the farmers, some of the carbon credit revenue might have perhaps been distributed directly to producers, rather than invested in equipment.

Another challenge that emerged during the fieldwork relates to the functioning of the institutional set-up. 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. Avenues for communication and negotiation are 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. Communication challenges between the company management and ULSP management have emerged. For example, the terms for awarding equipment funded from carbon credit revenue do not appear to be fully understood by producers and have caused disagreements between MBSA manager and the ULSP leader. ULSP officials also felt that MBSA management had taken some decisions without prior consultation of the ULSP. An example cited was the decision to post extension workers to the villages, which was apparently taken without the knowledge of the ULSP – though the MBSA manager disputes this point. The Union opposed this move until the details could be worked out together with company management. The extent of the communication challenges between MBSA and ULSP management is illustrated by the minutes of an extraordinary meeting held on 13 December 2010, which the research team had access to. Even at that advanced project stage, the minutes reflect discussions about the size of the ULSP's equity share in Koulikoro Biocarburant, a matter which one would have expected to be very clear by then. There also appear to be communication challenges in relations between ULSP management and its members. When interviewed, several members of the Union did not seem to be well informed about the business venture. Finally, some observers and development practitioners interviewed during the study felt that extending the business to Burkina Faso despite the challenges faced by the Malian enterprise reflected a desire of MBSA management to tap into the many public funding streams in the green energy sector.

Despite these limitations, MBSA still offers much potential. The co-operatives union has plenty of competent members who have gradually built their negotiating and management skills and whose commitment guarantees that the process will be taken further. The manager is a socially committed businessman who retains a marked research bent and is continually looking for innovations. The model's chances of success are boosted by the manager's in-depth knowledge of biofuel marketing circuits and networks and of the carbon markets. The manager's ability to mobilise the numerous partnerships described above holds promise for MBSA's ability to overcome its challenges. And despite their disillusionment, producers say they are ready to continue involvement with the venture because they have put in a great deal of effort from which they are still hoping to get benefits.

5. CONCLUSION

This report has discussed trends, drivers, legal frameworks and two case studies of agricultural investments in Mali. The country has great potential for agricultural, forestry and pastoral production. Faced with major challenges in mobilising the resources required to finance an ambitious agricultural modernisation strategy, the Malian government has made concerted efforts to attract private (and particularly foreign) investment in agriculture. But the ensuing wave of large-scale agricultural investments is taking place in a national context that still appears ill-prepared to ensure that benefits are maximised and risks properly managed. For example, legislation adopted to manage the social and environmental impacts of large-scale investments has faced major implementation challenges.

Even more importantly, the recent wave of large-scale land acquisitions for agricultural investments has taken place in a land tenure context characterised by growing conflict and major governance challenges. In Mali, land tenure is governed by two main systems: the formal system under written law established by the state and customary systems that are most widespread in rural areas but differ from place to place. There are bridges between the two systems, for example when holders or acquirers of customary rights undertake formalisation procedures provided by national law.

Despite efforts to legislate in ways that take account of the diversity of contexts and tenure patterns, many provisions of national law are incomplete, ineffective and out of touch with the local socio-economic reality, particularly in rural areas. Some national law norms are so ambiguous that they lead to confusion, resulting in conflicts and abuses, and in the ensuing tenure insecurity and poor land governance.

On the ground, multiple pressures are exacerbating competition for valuable lands and increasing the number and intensity of land conflicts between communities and the state, and between different communities. These pressures also have a negative influence on the quality of land governance, creating fertile ground for land speculation and corruption, abuses of all kinds and insecurity of tenure for the most disadvantaged groups.

While the recent wave of land acquisitions affects the whole of Malian territory, the number and size of investments and acquisitions vary significantly from one area and region to another. In the absence of comprehensive information on developments across the national territory, the trends analysis focused on the Office du Niger (ON) area, where the most iconic cases can be found. The Office du Niger area hosts a major share of Mali's irrigation potential, and is considered to have attracted particularly intense investor interest.

Given the diversity of the types of investments and farms in the Office du Niger area, this area can be seen as a laboratory where various forms of tenure can be tested, and a breeding ground for the country's future land policy. Two main categories of agricultural investment can be identified, each with several subcategories: (i) public investments made by the state with or without support from donor agencies; and (ii) private investments made by large-scale investors, whether national or foreign, with or without state involvement, and private investments made by small-scale private investors or farmer groups.

Until recently, all schemes in the ON area were publicly funded. Following the global food and financial crisis and the related renewed interest in private agricultural investment, together with the biofuels boom, the Office du Niger has become a favourite target for private investment. Over the period 2004-2009, 871,267 ha were allocated to investment projects, with the pace accelerating after 2007. These allocations were made either by the Office du Niger or by the central state, in the main to large investors, on a permanent (50,419 ha) or provisional basis (820,848 ha). They cover an area almost 10 times the size of the irrigation schemes set up since the creation of the ON in colonial times.

There is much diversity of institutional entry points (the authority that negotiates the contract, for instance) and of form and content of the agreements concluded between investors and state. Manifest gaps between law and practice in the process of implementing contractual arrangements have also been documented. Generally speaking, legal requirements on managing the environmental and social impacts of investment projects are often sidestepped or ignored. 'Letters of intent' and even actual land leases are given out in the absence of strategic planning. The size of some large land allocations, compared to the neighbouring areas allocated to family farmers, raises serious equity concerns.

The land governance challenges raised by these dynamics have been recognised to some extent by the ON and by the government. This is reflected in the recent establishment of a new Secretary of State, attached to the Prime Minister's office, responsible for the integrated development of the Office du Niger area (SEDIZON, from the French name of the institution). It is also reflected in the initiation of a revision of the ON management decree, and in the cancellation of a number of letters of intent for which investors had not complied with requirements to carry out feasibility studies within an agreed timeframe.

In addition to these recent developments, ongoing initiatives related to the implementation of the Framework Law on Agriculture (LOA) and of the deliberations of the 'Etats Généraux du Foncier' (Malian Land Tenure Congress, EDF) offer opportunities to improve land governance in the Office du Niger area and beyond.

While much attention in earlier research has focused on the more worrying experiences with agricultural investments in Mali, this study deliberately focused on two experiences that are widely recognised as part of better

practice. One such experience is a sophisticated public - private - community partnership involving a sugar cane plantation and processing facility in the ON area - the Markala Sugar Project (PSM). This project has two components: a farming component involving the establishment of a 14,132-hectare sugar cane plantation with sprinkler irrigation, designed to produce 1.48 million tonnes of sugar cane per year; and an industrial component involving the establishment of a processing plant for the production of 190,000 tonnes of sugar and 15 million litres of ethanol per year, together with cogeneration of 30 MW of electricity. The plantation would involve a combination of estate production and outgrower schemes. Involvement of a multilateral lender involved application of international social and environmental standards. An ambitious development programme accompanies the investment.

The second experience studied is the work of Mali Biocarburant SA (MBSA) in the Koulikoro Region. This experience involves the production of biodiesel for the national market. The company has invested in a processing facility, and sources jatropha seeds from local farmers on the basis of contract farming. In other words, the venture does not involve land acquisition for farming purposes. Farmers intercrop jatropha with food crops. So although based on promoting a cash crop, the venture is not, in principle, detrimental to food security. The farmers are organised in a co-operative that has an equity stake in the Malian subsidiary of the company, and thus representation on the company board.

Both projects are based on innovative institutional designs. Both have gone a long way towards promoting inclusion of local farmers and consideration of social and environmental issues. While both projects are still at an early stage, they both have strong potential to benefit local groups through development opportunities. In the case of MBSA, the venture provides a potential source of additional income for smallholders. The profit-sharing principle on which this experience is based should help to reduce poverty in the medium to longer term. The project also offers opportunities for combating soil erosion. Similarly, SOSUMAR is an ambitious project that can bring multiple developmental benefits - from job creation to development of processing capacity, from opportunities for smallholders and local businesses through to improved energy access.

Both projects also present major challenges, however. In the case of SOSUMAR, for example, some clauses in the contract with the Malian government appear to disproportionately favour the investor. Also, opposition from part of the local community and the slow pace of implementation provide cause for concern. In the case of MBSA, problems in communication lines between the company, the management of the farmer co-operative and co-operative members, as well as difficulties in agricultural production, raise challenges for the inclusiveness and sustainability of the venture. The two experiences show that even where inclusiveness is integrated in the design of the business model, making it work in practice is riddled with difficulties, and positive outcomes cannot be taken for granted.

For a country like Mali, the renewed interest in agricultural investment presents important opportunities but also major risks. It is critical to tackle the challenges affecting the governance of land relations at both local and national level. Measures must be taken to fill the gaps in the governance of land tenure and agricultural investments. Steps need to be taken to accelerate the implementation of the land tenure provisions of the Agricultural Orientation Law (LOA). This law requires the government to develop a rural land policy to secure local land rights. Steps are also needed to strengthen institutional arrangements to monitor and ensure compliance with existing legislation. This applies particularly to regulations concerning environmental and social impact assessments and management plans. Finally, there is a need to strengthen the mechanisms to promote accountability in decision making affecting land relations. At the national level, the government has experimented with the '*espace d'interpellation democratique*' - a forum that enables civil society and citizens at large to bring concerns to the government and hold decision makers to account. Similar arrangements can be developed in relation to institutions involved with land governance at the local level - from local government bodies to the Office du Niger, through to deconcentrated government departments.

In addition to measures to improve the governance of land in general, several important steps can be taken to specifically address issues linked to large-scale land acquisitions. Land allocations should be subject to the free, prior and informed consent of local landholders. This would require going beyond current consultation requirements already included in legislation regulating impact assessment studies. Investment contracts with companies should also make it very clear that any land acquisition requires the consent of local landholders. There is a need for a coherent and comprehensive policy on agricultural investment, bringing together scattered provisions from different policies and laws. National policy should set land area size ceilings on land acquisitions. The duration of land leases, which is currently standardised (30 and 50 years, renewable, in the Office du Niger), should be tailored to the economics of investment projects, including based on nature of the economic activity and land area size. While local landholders at best obtain one-off compensation for their losses, thought should be given to arrangements for ensuring equity participations for local landholders, so as to enable ongoing sharing of project benefits. Land allocations above a certain size should be approved by parliament, and all contracts should be published. The capacity of government agencies to negotiate contracts with investors should be strengthened.

More fundamentally, there is a need to look at a wider range of models of agricultural investment. Family farmers have shown they can invest. In the Office du Niger, there are experiences of cooperatives acquiring land for their members. For example, Association Niéta has obtained a lease for about 300 hectares that will benefit some 100 farmers. Smallholder farmers account for the bulk of agricultural production in the Office du Niger. Yet their landholdings are shrinking with demographic growth, and their tenure is insecure. National farmer associations are developing tools to enable family farmers to have access to leases (i.e. the same type of contracts that are granted to large investors) for new land areas. They are also providing legal support to their members whose land rights are being threatened. These efforts deserve to be supported.

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