Can current land and water governance systems promote sustainable and equitable large-scale agricultural investments in sub-Saharan Africa?

Timothy Olalekan Williams and Yoro Sidibé
International Water Management Institute (IWMI)
PMB CT 112 Cantonment, Accra, Ghana
Tel: +233 302 784 753
Fax: +233 302 784 752
Email: t.o.williams@cgiar.org
y.sidibe@cgiar.org

Abstract

Ever since the oil, financial and food crises of 2008, sub-Saharan Africa has witnessed a marked increase in large-scale investment in agricultural land. The drivers of this investment are varied and include growing food, water and energy insecurity as well as social and economic interests of investors and recipient countries. The shape of these investments and their eventual outcomes are equally influenced by the existing land and water governance systems in the host countries. Based on field-level research conducted in Ghana and Mali which covered six large-scale agricultural investments, this paper analyzes the current land and water governance systems in these two countries through the lens of land and water acquisition and initial outcomes. It highlights missed opportunities for sustainable and equitable large-scale agricultural land investments due to uncoordinated governance systems and failure to rigorously apply detailed rules and regulations that are already in place. It offers suggestions for revamping land and water governance to promote large-scale investments that will lead to equitable distribution of benefits and sustainable management of natural resources.

Key words: Property rights, institutions, efficiency, equity, sustainability.

Introduction

Large-scale investment in agricultural land in sub-Saharan Africa (SSA) has been on the rise since the oil, financial and food crises of 2008. Growing food, water and energy insecurity as well as economic and social motives of investors and host countries have driven this surge in agricultural land investment. Foreign investors from the Middle East and North Africa, where renewable water resources are acutely limited, have been driven by the need to secure access to water and land to ensure food security in their home countries (Woertz et al., 2008). The same drivers are at play in rapidly growing emerging economies such as China and India, where local water scarcity is beginning to emerge (de Fraiture et al., 2008). However, other investments have been driven by profit or speculative motives, and in some cases by the opportunity to grow biofuel crops to gain from policy changes in favour of bioenergy in Western countries (Cotula et al., 2011; German et al., 2013). At the other end, most SSA countries have actively sought these investments partly in a bid to meet their national development objectives of increased food security, poverty alleviation and employment creation and partly to meet the Comprehensive Africa Agriculture Development Programme (CAADP) target of an average annual agricultural growth rate of 6% by 2015. Governments receiving foreign direct investment in particular have welcomed and viewed it as a way of transforming their poorly performing agricultural sector through the infusion of capital, modern technology and know-how. In theory, these investments potentially offer the host countries opportunities to increase the area under irrigation, enhance national food security, improve livelihoods and raise incomes in rural areas, while

offering attractive profit-making and food supply opportunities to investors. In reality, the process of land acquisition, the nature of land and water use and the outcomes of investment are shaped by the land and water governance systems in the host country. The governance systems determine whether land alone or land and water are jointly taken into account in investment contracts, they stipulate the rights and obligations of all stakeholders and influence how costs and benefits are distributed among investors, existing users and government.

The aims of this paper are twofold: 1) to analyze, based on case studies conducted in Ghana and Mali, the influence and implications of existing land and water governance systems for the process of land acquisition and initial outcomes of six large-scale investments in these countries; and 2) to offer pragmatic suggestions for the development of land and water governance systems that will nurture efficient, equitable and sustainable large-scale agricultural investments in SSA.

Land and water governance in theory

The literature on land and water governance has evolved independently just as the practical administration and management of land and water in many countries. Rogers and Hall (2003) referred to water governance as "the range of political, social, economic and administrative systems that are in place to develop and manage water resources, and the delivery of water services at different levels of society". Water governance in a country reflects the political realities and power relations at the national, regional and local levels and broadly embraces the statutory and customary institutions by which authority is exercised. Put differently, water governance is the set of systems that control decision making on water resource development, use and management. Similarly, land governance has been defined as the "rules, processes and structures through which decisions are made about access to land and its use, the manner in which decisions are implemented and enforced, and the way that competing interests in land are managed" (Palmer et al., 2009). Despite the independent evolution of these concepts, certain key elements are common to the definition of land and water governance. Both governance systems encompass statutory and customary institutions, multiple types of property rights and legal and policy frameworks. Land and water governance is also inherently about power and the manner in which allocative and regulatory politics are exercised in the management of these natural resources. Although governance is conceptually neutral – land and water governance can be functional or dysfunctional, improving or deteriorating – one must look at processes as well as outcomes to determine if governance is effective or ineffective (Palmer et al., 2009). Also, since land and water governance systems are influenced by societal institutions, norms of behavior, culture and conventions, they will vary from one from one country to another.

A deeper understanding of the interplay of these factors and how they work to influence outcomes of investments can be gained by analyzing the broad country context, the resource ownership and use rights and the legal, policy and organizational frameworks. By using case studies to review the practical administration of land and water in relation to large-scale agricultural investments, an avenue is opened up to highlight the positive and negative aspects of current governance systems and proffer suggestions on how they can be reformed to promote better investment outcomes.

Methods

A three-part methodology was used to collect data for this study. First, three large-scale agricultural land investments in each of Ghana and Mali were selected based on background information collected in-country and from the Land Matrix database (www.landmtarix.org). These investments were selected because they met at least two or all of the following criteria: 1) acquisition of at least 5,000 hectares of land for commercial food or biofuel crop production, 2) current or future planned use of water resources for irrigation, and 3) land acquisition resulted in the displacement of existing, poor land and water right holders. Second, field surveys involving key informant and focus group interviews of communities from whom land was acquired or who were impacted and officials of investment companies and government regulatory agencies were conducted between September and November 2011 in Ghana and between December 2013 and January 2014 in Mali. The interviews were conducted to gain better understanding of the land acquisition process, the mandatory assessments required by statutory agencies before land acquisition can be approved, the food security and livelihoods implications of land acquisition for existing land and water rights holders, the impact mitigation plans of the investment companies, dispute resolution procedures and monitoring and compliance methods put in place by statutory agencies. Third, a review of government policy documents, legislative acts and published reports was conducted. The acts establishing the agencies charged with the responsibility of administering and managing land and water and other legislation governing their activities were analyzed to determine their mandate and authority and the extent of collaboration between these agencies.

Land and water governance in practice in Ghana and Mali

Land and water in both study countries are governed under separate but parallel legal, policy and organizational frameworks (Djiré, 2006; Djiré et al., 2012; Williams, 2012; Adamczewski et al., 2013). Within each broad framework, multiple property rights regimes, including common property, state property and private property coexist and are operated simultaneously. For instance, in Ghana two types of land ownership systems, private and public, exist side by side. Private lands in most parts of the country are in communal or customary ownership, held in trust for the community by a 'stool' or 'skin' (traditional chiefs) or by a family. They are administered on the basis of customary law, which is recognized as a source of law in the Ghanaian Constitution. Under customary law, all lineage members of the community, regardless of sex, have inherent access and usufruct rights to the lands held in trust by the 'stool', 'skin' or family head (Sarpong, 2006). Land under customary ownership constitutes about 80% of the total land area, with the remaining 20% controlled by the state (Kasanga and Kotey, 2001). In contrast, all land is vested in the state in Mali, though this authority may be delegated to a lower tier of government (e.g. local government) or a government agency (e.g. Office du Niger). The land law, "*code domainial et foncier*", however recognizes customary land rights and asserts that no one may be deprived of his/her rights, except in cases of public interest, in which case fair compensation is required to be paid to affected individuals.

With regard to water, prior to the enactment of the Water Resources Commission (WRC) Act of 1996 in Ghana, ownership of water, in line with customary law, was vested in stools, skins and communities (Sarpong, 2004). Customary water rights for agricultural purposes were considered a subsidiary component of land rights. However, the WRC Act abolished the pre-1996 customary water rights and instead vested ownership, management and control of water in the state via the WRC, thereby decoupling water rights from land use rights. Thus from 1996 onwards, prospective water users needed to obtain a permit from the WRC, although exemptions were given for agricultural water use

on land areas not exceeding one hectare (Water Use Regulations, 2001). Similarly, water is considered a public good in Mali and is regulated by law *"code de l'eau"*. It cannot be appropriated except in accordance with prevailing regulations and in recognition of customary rights of rural populations. Except for domestic use and for volumes not exceeding an amount specified by the Minister in charge of water, any proposed use must be submitted for prior approval. The state has the right, for reasons of public interest, to transfer or take back a part of its water domain and assign it to an agency as in the case of Office du Niger.

In addition to these legal provisions, in both countries there is a plethora of policies and institutions covering land and water governance. Some organizations, for example, the Environmental Protection Agency (EPA), have regulatory, monitoring and sanctioning powers over the management and use of land and water. In Ghana, the land regulatory and management functions of the EPA include the issuance of environmental permits to land investors who have conducted Environmental Impact Assessment (EIA) and ensuring compliance with conditions laid down in the EIA during the planning and implementation of the stated production activities. Also, the EPA and WRC are expected to collaborate when a proposed water use requires an EIA and an environmental management plan. A water permit will not be issued unless evidence that the necessary requirement has been met is produced and attached to the water permit application. In Mali, the law pertaining to environmental impact studies (EIS) specifies that all land development of more than 10 hectares should be subject to EIS. No investor, according to the law, can start a project without submitting EIS approved by the relevant authorities and the EIS must be made public. The investor must also submit an annual report on the environmental state of the area affected by the agricultural land lease.

The brief review here reveals a number of pertinent points. First, is the chasm between modern water rights regimes and land rights regimes. Second, while the laws, policies and operational rules, at least on paper, appear relevant and adequate for sound land and water governance, their effectiveness depends on how well they are aligned, coordinated and applied. As will be shown in the next section, they are poorly coordinated and are not rigorously applied partly due to the parallel systems of land and water administration and partly because the organizations charged with the responsibility of applying the rules lack the necessary human, technical and financial resources to be effective.

Comparative analysis of land acquisition process and initial outcomes of large-scale agricultural land investments in Ghana and Mali

The three large-scale agricultural investments studied in Ghana were owned by Solar Harvest Limited, Ghana, located in the Yendi district of the Northern Region; ScanFarm Ghana Limited, situated in the Asante Kim North Municipality in the Ashanti Region; and Kimminic Estates Limited, based in Pru and Nkoronza South districts of the Brong-Ahafo Region. The first two companies are subsidiaries of Norwegian companies, Solar Harvest AS and ScanFarm AS, respectively, while the third company is a subsidiary of a Canadian company, Kimminic Corporation. The large-scale agricultural investments surveyed in Mali were owned by Malibya, a Libya-Malian joint venture private company; Moulin Moderne du Mali (M3-SA), a Malian private company; and Petrotech-ffn Agro Mali, a subsidiary of Petrotech-ffn, USA. All three companies were located in the Office du Niger (ON) zone, an expansive irrigation area (approximately 2,458, 506 ha) created by the government of Mali and managed by a semi-autonomous parastatal of the same name.

Table 1 provides a comparative analysis of the process of land acquisition and preliminary outcomes of the large-scale investments in terms of potential or actual impact on livelihoods and food security

of existing land and water rights holders, and on water resources. A few pertinent issues come to the fore.

All three companies in Ghana acquired their privately-owned lands in similar ways through direct negotiation with the customary land owners. Through this process, land can be acquired without the direct involvement of statutory agencies such as the Lands Commission, EPA and WRC that can provide relevant technical information and advice on water requirements of crops to be grown, impact of production activities on water rights of other users, their livelihoods and the environment. In Mali, although all the three companies acquired land in the ON zone, Malibya investment was negotiated at the highest government level in flagrant disregard of the law that stipulates that all land within the ON zone must be acquired through ON. Even for those that ostensibly obtained land through ON, it was not clear that the mandatory EIS were conducted as they were not in the public domain as stipulated by law.

In terms of consultation and information sharing with existing land users to obtain their consent before lands were leased out, the study did not find much evidence that this took place across the six investments. This lack of consultation led to the displacement of poor smallholder farmers in four out of the six investment schemes studied. In each case of displacement, either no compensation or inadequate compensation was paid. The loss of farmland meant that some of the displaced farmers had to migrate or cultivate degraded lands with consequent reduction in crop yields and farm income. Overall, the local communities around these investment schemes claimed that they had not experienced any real livelihood or social benefit from the operations of the companies.

In Ghana, in two of the investment schemes, the issue of water rights was not explicitly discussed in the land negotiations with the Traditional Councils. It is equally instructive to note that all three companies initially leased large-scale lands to grow Jatropha, a relatively less water-demanding crop but have ended up diversifying into other crops that require full or supplemental irrigation to obtain optimal yields. In Mali, the location of all three companies in an irrigation zone meant that access to water was of prime interest to the investors and was negotiated into their land contracts. But even here, the water to be extracted was not specified and water pricing was not related to the volume extracted, even in the case of Malibya where the authors estimated that up to 4 million cubic meters of water per year could be extracted if the whole 100,000 ha allocated were to be cultivated for rice production. This would have implications for water availability for smallholder farmers downstream.

Although each company in Ghana submitted an EIA report, a review of the reports revealed that potential impacts were not thoroughly assessed. More importantly, due to limited human and financial resources, the EPA was unable to independently verify what was in the EIA nor monitor and ensure compliance with the environmental management plans drawn up by the companies to mitigate economic, social and environmental risks created through their land acquisition and production activities (Williams et al., 2012). In Mali, no company made public its EIS and this meant that the potential or actual impacts of their activities and measures drawn up to mitigate negative impacts could not be verified.

Based on this short analysis, it is obvious that land and water governance is uncoordinated in Ghana and Mali and, as presently implemented, does not provide sufficient incentives and sanctions to promote efficient, equitable and sustainable large-scale agricultural land investments. There are too many loopholes which can be exploited by unscrupulous investors to the detriment of existing poor customary land and water rights holders. This leads to the question: what can be done to improve coordination of land and water governance to promote better outcomes that will benefit local communities, host countries and investors? This is the issue discussed in the next section.

Table 1: Comparative analysis of land acquisition process and initial outcomes of six large-scale agricultural land investments in Ghana and Mali

Country	**Ghana**			**Mali**		
Investment scheme	**Solar Harvest**	**ScanFarm**	**Kimminic Estates**	**Malibya**	**M3-AS**	**Petrotech-ffn**
Processes & Outcomes						
Land granting authority	Chiefs of local communities	Agogo Traditional Councl	Traditional Councils of the Area	The State, Mali	ON	ON
Contract type, area, duration	Leasehold title, 38,000 ha, 50 years	Leasehold title, 13,000 ha, 50 years	Leasehold title, 43,000 ha, 50 years	Convention, 100,000 ha, 50 years	Ordinary Lease, 7,400 ha, 30 years	Ordinary Lease, 10,000 ha, 30 years
Type of land acquired and acquisition process	Communal land; direct negotiation between investor and Traditional Council; key statutory and regulatory agencies, e.g. regional land commission, WRC and EPA come in after land contract has been approved	Communal land; direct negotiation between investor and Traditional Council; key statutory and regulatory agencies, e.g. regional land commission, WRC and EPA come in after land contract has been approved	Communal land; direct negotiation between investor and Traditional Council; key statutory and regulatory agencies, e.g. regional land commission, WRC and EPA come in after land contract has been approved	Land in ON zone in Macina. Unclear whether all agencies played their role as directive to grant land came from higher up authorities.	Land in ON zone in Sansanding. Likely that all relevant agencies were involved in the land acquisition process, but no evidence was found	Land in ON zone in Macina. Likely that all relevant agencies were involved in the land acquisition process, but no evidence was found
Primary and secondary crops grown	Jatropha initially; subsequently vegetable and food crops	Jatropha initially; subsequently maize, soya bean and rice	Jatropha inter-cropped with soya bean, cowpea, groundnut and maize	Rice, wheat, soybean, maize	Wheat	Jatropha
Water rights and water management system	Water rights not included in land contract. Water permit required but not yet obtained as at the time of study.	Water rights explicitly included in land contract.	Water rights not included in land contract, but company has started exploiting water on the land without water permit	Water rights included. No restriction on water use June-December. Flat rate per ha water pricing.	Water rights included in land contract. Flat rate per ha water pricing.	Water rights included in land contract. Flat rate per ha water pricing.

Country	**Ghana**			**Mali**		
Investment scheme	**Solar Harvest**	**ScanFarm**	**Kimminic Estates**	**Malibya**	**M3-SA**	**Petrotech-ffn**
Processes & Outcomes						
EIA and mitigation measures by investor	Yes, but poorly done.	Yes, but poorly done	Yes, but poorly done	No EIS report	No EIS report	No EIS report
Monitoring of compliance with economic/social impact assessment and mitigation measures submitted by investor	Environmental Protection Agency (EPA) does not do on-the-ground verification of EMP	Environmental Protection Agency (EPA) does not do on-the-ground verification of EMP	Environmental Protection Agency (EPA) does not do on-the-ground verification of EMP	No on-the-ground monitoring	No on-the-ground monitoring	No on-the-ground monitoring
Consultation and information sharing with customary land and water users	No prior consultation before land contract was signed	No prior consultation before land contract was signed	No prior consultation before land contract was signed	No prior consultation	No prior consultation	No prior consultation
Displacement and compensation	No displacement for land under Jatropha Yes for newly acquired lands for food production. Compensation promised	Displaced farmers were not compensated. Others made to rent out land at one Ghana Cedi/acre/annum, with a review every 3 years	Displaced farmers were not compensated	One hundred and fifty households displaced. Only 50% of those displaced compensated, but claimed compensation was inadequate	Land users displaced leading to protests and intra-community conflicts	No displacement as land acquired is marginal land
Actual or potential impact of land acquisition on livelihoods of customary land users	Not yet known as at the time of study	Displaced farmers moved to other villages. Those employed by the company claimed poor remuneration compared to past farm income	Reduced land area to cultivate; some pushed to degraded lands with resulting lower yields and incomes; others migrated to other villages	Households not compensated lost their lands and livelihoods. No social amenity provided except for a 40 km road	Loss of land with no or inadequate compensation. But a bridge connecting two villages was built	No activity yet on the land, so likely impact unknown.
Actual or potential impacts of land deals on water	Full-scale irrigation planned, with likely impact on water availability to farmers downstream	Full-scale irrigation planned, with likely impact on water availability to farmers downstream	Potential negative impact on local water bodies from biofuel processing operations	Up to 4 million m^3 per year of water could be extracted, with implications for farmers downstream	No massive water extraction as at the time of study	Not yet known

Towards coordinated land and water governance

Although parallel and separate systems of land and water administration could be an obstacle, this structure should not in principle lead to ineffective governance as long as there is alignment and coordination of policies, procedures and programmes across systems. But this is easier said than done. The two study countries, just like many other countries in SSA, have long adopted Integrated Water Resource Management (IWRM), which seeks to promote the coordinated development and management of water, land and related resources, but have not made much progress in actualizing it in a meaningful way. There are political, economic, institutional and organizational barriers to joined-up implementation of oversight, regulatory and advisory activities that can lead to improved land and water governance. These barriers will need to be tackled bearing in mind the realities on the ground in each country. But effective land and water governance requires more than this. Many of the statutory organizations with regulatory functions in matters pertaining to land and water governance are poorly resourced in human, financial and material terms and this makes them ineffective in the discharge of their regulatory duties. Innovative financing schemes involving buyers and sellers of land and the state will need to be developed to allow these organizations to play their role effectively. More importantly, the lack of transparency, accountability and participation of those whose livelihoods will be affected by large-scale land investments puts into question the fairness and equitableness of the governance system. From earlier writings on the principles of effective water governance (Rogers and Hall, 2003) and good land governance (Palmer et al., 2009; Deininger et al., 2012) to recent Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests (FAO, 2012) and Principles for Responsible Investment in Agriculture and Food Systems (FAO, 2014), the key concepts of inclusiveness, consultation, transparency, accountability, respect for existing land and water rights, avoidance and mitigation of negative social, economic and environmental impacts, fair compensation and effective appeal mechanisms have always been emphasized. These concepts and principles are required to ensure that land and water governance provides the right conditions for sustainable and equitable large-scale agricultural land investments in SSA.

Conclusions

This paper analyzed the adequacy of current land and water governance systems in Ghana and Mali in light of recent increase in agricultural land investment in these countries and much of SSA. The analysis showed that land and water are independently managed and administered in the two study countries, possibly reflecting the independent evolution of modern land and water governance systems. While this arrangement, in theory, should not lead to ineffective land and water governance, the reality is that lack of policy coherence and alignment of activities across systems leads to weak governance which, in turn, undermines the establishment and development of efficient, sustainable and equitable large-scale agricultural land investments. The upshot is that existing land and water rights holders and the environment get short-changed and the objectives of host government and investors also become compromised. Given that land and water governance is ultimately shaped by social, political and economic factors, there will be no one-size-fits-all solution for improved land and water governance. But there are known principles which, if adopted, can lead to effective and coordinated land governance that can improve the benefits of large-scale agricultural land investment in SSA. Adoption of these principles will require political will, finance, innovativeness and participation of all stakeholders – governments, investors, existing land and water users and civil society – in agriculture and food systems.

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