



# Land consolidation on Ghana's rural customary lands: Drawing from The Dutch, Lithuanian and Rwandan experiences



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## ABSTRACT

Land consolidation is argued as a tool for increasing food security. However, past attempts to consolidate Sub-Saharan Africa's rural customary lands disregarded the existing land tenure system, and actually undermined food security: land fragmentation, which supported the traditional farming system, was not considered a problem, and more importantly, the projects merely attempted to transfer Western European land consolidation without taking local conditions into account. In response, this study aims to identify the factors that need to be understood when developing a land consolidation strategy for the specific case of Ghana's rural customary lands. The determining factors when selecting a land consolidation strategy are identified for three countries with existing land consolidation strategies: The Netherlands, Lithuania, and Rwanda. Subsequently, these are set against Ghana, which has no land consolidation strategy, but has customary lands. It is found that certain determining factors in Ghana - such as the state of the economy, and the farming technology - matched with the strategies of other countries. However, other factors including: the government support; the prior existence of conventional land markets; an individual land tenure system; and the coverage of a functioning land information system - were all absent in Ghana. The study concludes that the factors that differ require ways to be addressed and adapted in order to develop a responsible land consolidation strategy for Ghana's customary areas.

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## 1. Introduction

Whilst land consolidation has been shown to increase food productivity in several European, Asian and African countries (Muhinda and Dusengemungu, 2013; Tang et al., 2015; Van Dijk, 2003), its use in Sub-Saharan Africa's rural customary lands has been limited (Makana, 2009): Application has largely failed to support delivery of increased food productivity, or has tended to disrupt the pre-existing customary land tenure system (Blarel et al., 1992; Muhinda and Dusengemungu, 2013; Swynnerton, 1955; Takane, 2008; Thurston, 1987). This study explores whether and how experiences from the Dutch, Lithuanian and Rwandan land consolidation strategies can be adapted to Ghana's rural customary

lands.<sup>1</sup> In this paper, the definition of land consolidation by FAO (2003) is adapted and is defined as *a land management activity that involves all the procedures for exchanging, rearranging, realigning<sup>2</sup>, and expanding farm parcels<sup>3</sup> in rural areas with the goal of increasing food productivity*. Despite definitions such as Bullard (2007) and Demetriou (2014) that broaden the definition to the focus on the goal of integrated rural development, the above definition is applied in this study as the goal in the study area is increased food productivity. In addition, the concept of land fragmentation also requires definition: application of land consolidation is often driven by land fragmentation - a key inhibitor of food productivity. Land fragmentation is defined here as the dispersion of a single farm-holding<sup>4</sup> into several distinct farm parcels, as well

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<sup>1</sup> Ghana's rural customary lands will be hereon after referred to as customary lands. Reference to customary lands elsewhere in the world will be specified.

<sup>2</sup> Land Realignment - The manipulation of land parcels in a rural area where land parcels are exchanged and boundaries are regularized, but without a significant (if any) change to the size of the farm holding.

<sup>3</sup> Farm parcel is a single contiguous expanse of farmland.

<sup>4</sup> Farm-holding is a collection of farm parcels farmed by one (or a group of) farmer(s).

as a discrepancy between land use and ownership (Binns, 1950; King and Burton, 1982; Van Dijk, 2003).

Studies agree that land fragmentation exists on Ghana's rural customary lands and that this undermines food productivity: 90% of farm parcels are held by smallholder farmers with less than 2 ha (Abubakari et al., 2016; Blarel et al., 1992; MoFA-SRID, 2013). However, how best to increase food productivity has been a point of debate contention for several decades (Ansoms et al., 2008; Holden and Otsuka, 2014; Migot-Adholla et al., 1991; Thurston, 1987). Land consolidation sits amongst soil improvement programs, fertilizer schemes, and mechanisation as one of many options. Previous studies by Abubakari et al. (2016) and Blarel et al. (1992) find that land consolidation experiences in Europe are not applicable to customary lands. Two key reasons are found to undermine the application of land consolidation on customary lands. First, land fragmentation was often not seen as a problem among the local farmers: fragmented land holdings favour the traditional agricultural system – shifting cultivation – and also offer for better risk management for smallholders (Bizimana et al. 2004; Blarel et al., 1992). Second, and perhaps more importantly, previous attempts at land consolidation in sub-Saharan Africa have failed as they directly transplanted Western European-style land consolidation methods – ignoring the underlying customary land tenure systems – during implementation (Abubakari et al., 2016; Coldham, 1978; Nothale, 1986; Ostrom, 1990). Meanwhile, land consolidation experiences outside Western Europe, such as in Lithuania and Rwanda demonstrate the ability to adapt conventional land consolidation approaches to areas outside Western Europe – with good results. A knowledge gap is therefore evident: what were the conditions that made land consolidation applications in other areas suitable, and how do those conditions manifest on Ghana's rural customary lands?

In response, this paper aims to identify the factors that need to be addressed to develop a land consolidation strategy<sup>5</sup> that fits the local demands and requirements of customary lands to increase food productivity. In the next section, a review of current understandings relating to the nature and the causes of land fragmentation on customary lands is undertaken. In addition, contemporary efforts to increase food productivity in these areas are also examined. The third section describes the methodology adopted in the study, as well as the profile of the study areas. Section four lays out an analytical framework for assessing the factors that influence the development of a land consolidation strategy. In this regard, in Section 5, the current land consolidation strategies in the Netherlands, Lithuania, and Rwanda are set against Ghana with respect to the analytical framework. The implications of the comparison are discussed in section six. Section seven concludes the paper with an acknowledgement of the factors that need attention in the case of Ghana, suggesting future research areas.

## 2. Land fragmentation and food productivity on Ghana's rural customary lands

Land fragmentation is often seen as a serious hindrance to agricultural development as it obstructs mechanisation and reduces productivity, resulting in large costs in assuaging these effects. Studies identify two main forms of land fragmentation; physical and tenure fragmentation. Physical fragmentation is described as the spatial dispersion of farm parcels over a large area of land (also known as scattering) and the division of farm parcels into small near-unproductive parcels (sub-division) (Bullard, 2007;

King and Burton, 1982). The second, tenure fragmentation, is described by Van Dijk (2003) as a discrepancy between land use and ownership. Land fragmentation has also been shown to have some positive impacts on farm productivity as evidenced by Blarel et al. (1992) and Netting (1972) in studies focused on Ghana, Rwanda, and Switzerland. As such, McPherson (1982) groups the causes of land fragmentation into two – supply-side and demand-side causes. The supply-side causes view land fragmentation as a result of external forces such as population growth and cultural systems which may result in partible inheritance and land scarcity, as has been the case of most of Western Europe (Van Dijk, 2003); and a change in government policy that results in a breakdown of common or communal property systems as happened in Central and Eastern Europe and Eastern Nigeria (Hartvigsen, 2015b; Udo, 1965). In general, areas with land fragmentation caused by external forces have resulted in negative social, economic, and environmental impacts and outcomes. However, demand-side causes result from farmers' choices, due to the positive impacts and benefits they reap from land fragmentation. These benefits include the spreading of risk, especially in volatile areas, spreading of land parcels to take advantage of different types of soil for crop diversification, the level of technology available to them, the practice of shifting cultivation, and enabling better allocation of labour over the seasons as happens in the Swiss mountainous regions (Blarel et al., 1992; Netting, 1972).

Land fragmentation has always been prevalent in the agricultural system of customary lands, however its articulation as a problem is a recent occurrence (Eastwood et al., 2010; Headey and Jayne, 2014; Pingali et al., 1987). Despite this, recent studies examining food productivity in customary lands rather focus on the mechanisation of farms and fertilizer use than dealing with land fragmentation (Baudron et al., 2015; Binswanger and Pingali, 1989; Houmy et al., 2013; Nothale, 1986; Thurston, 1987).

### 2.1. Ghana's customary land tenure, agricultural system and land fragmentation

Land fragmentation on customary lands has two key causes – the customary land tenure (a supply-side cause), and the agricultural system (a demand-side cause).

Customary land tenure is based on the customs and traditions of a group of people, reflecting the socio-cultural, and spiritual connection among generations; present, past and future – fuelling the belief that the current generation is merely a caretaker, steward, or protector of the land (Arko-Adjei, 2011; Asiama, 1981; Elias, 1956). It is recognized by the 1992 Constitution of Ghana (Article 38) and covers 80% of the lands in Ghana with the remaining 20% being public lands vested in the President in trust for the people of Ghana (Kasanga and Kotey, 2001). The main interests in customary land tenure that relate to farming are the Allodial Title, the Customary Law Freehold or Usufructuary interest, and Tenancy (Fig. 4) (Arko-Adjei, 2011; Chimhowu and Woodhouse, 2006; Land Title Registration Law, 1986). The allodial title is held by the community and managed by its leaders under customary law, free from any restrictions and obligations, except such imposed by the laws of Ghana. The allodial interest cannot be transferred as this is restricted by the 1992 constitution of Ghana and the customs, and it is exclusive to the community or tribe that holds the rights. The usufructuary interest is exercised by individual members of a community to take possession of vacant land of which the community is the allodial owner subject to certain restrictions and obligations, upon payment of nominal consideration or free of charge (Ollennu, 1962). The usufructuary interest is transferable within the allodial land owning group under certain strict circumstances. The tenancy can be acquired by any person, indigene

<sup>5</sup> Land consolidation strategy is the manner through which the land consolidation is used to reach a specific objective in a country context.

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