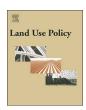
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### Contested commons: Agricultural modernization, tenure ambiguities and intra-familial land grabbing in Ghana



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#### ABSTRACT

Agricultural land in northern Ghana is a common pool resource predominantly governed by longstanding customary land tenure provisions. Following the renewed emphasis at achieving a new green revolution for Africa since the last decade, the government of Ghana has prioritized the provision of improved land preparation technologies to smallholder farmers. Although the uptake of these technologies has introduced speed and efficiency in land preparation, there are concerns about the impacts on customary land tenure systems. Drawing on the experiences of smallholder farmers (n = 60) in northern Ghana using in-depth interviews, we examine the dynamics in contemporary agricultural land access and governance following decades of progressive agricultural modernization. Our findings show that agricultural modernization has intensified agricultural land use and exposed the customary land governance system to more rival claims over agricultural commons that were previously owned and cultivated collectively under the extended family system. Given the current ambiguities in the interpretation of customary tenure and concomitant intra-familial land grabbing among smallholder farmers which we term 'intimate dispossession', most farmers have resorted to diverse personal tenure protection strategies towards enhancing their land use rights at the expense of co-family members. We advocate a land reform that prioritizes formal registration of agricultural lands to avoid future ambiguities in ownership and a cycle of farmland take-overs. With increasing pressure from other competing land uses, land banking should be prioritized to ensure tenure security for smallholder farmers, particularly weaker social groups and individuals within families who are often at risk of intra-familial land grabbing.

#### 1. Introduction

While modernization of smallholder agriculture in sub-Saharan Africa (SSA) has intensified in the past two decades (Collier and Dercon, 2014; Hall et al., 2017; Yaro et al., 2017), there is limited empirical analysis of the implications on customary land tenure systems. In an era of increasing pressure from competing resource uses, governing common pool resources has become a challenge in many areas of SSA where livelihoods mostly depend directly on natural resources such as land, forests, and water resources. With the renewed emphasis at achieving a new green revolution for Africa, the deployment of modern agricultural technologies has been prioritized by the government of Ghana in collaboration with the Alliance for a Green Revolution in Africa (AGRA) towards transforming subsistence agriculture (FAO, 2017). Specific policies for advancing this agenda of agriculture

modernization and expansion in the Ghanaian context include the establishment of Agricultural Mechanization Service Centers (AMSECs) and the National Fertilizer Subsidy initiative in 2005 and 2008, respectively. The government imports and allocates tractors to AMSECs located in selected farming communities across the country to provide subsidized and timely ploughing services to farmers in surrounding localities (Benin, 2015; Diao et al., 2012; Houssou et al., 2016). The Fertilizer Subsidy Programme also facilitates access to subsidized chemical fertilizers and weedicides at the local level through district assemblies (Banful, 2009; Yawson et al., 2010).

As a result of these interventions, there has been a steady progress in the adoption of mechanized land preparation technologies among smallholder farmers in northern Ghana.<sup>2</sup> For instance, findings from a World Food Programme survey in 2008 indicate that 44% of households reported using tractor services in land preparation (Diao et al.,

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<sup>&</sup>lt;sup>1</sup> These are second-level administrative units below the regions, established by the 1992 Constitution of Ghana to promote local governance.

<sup>&</sup>lt;sup>2</sup> Used to collectively refer to the three administrative regions (Upper West, Northern and Upper East Regions) in the northern part of Ghana.

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2014). Ngeleza et al. (2011) also find that, 77% of maize farmers in northern Ghana reported the use of tractor services for ploughing. Similarly, a survey by the International Food Policy Research Institute in four districts of the three northern regions indicates that about 95% of maize farmers interviewed hired tractor services for land preparation (Akramov and Malek, 2012). This increasing adoption of tractor technology in northern Ghana is rooted mainly in a number of salient ecological and edaphic conditions. Compared to southern Ghana where the relatively high predominance of tree cover and softer forest ochrosol soils does not support tractor use among smallholder farmers, the relatively drier soils of the savannah ecological zone in northern Ghana necessitates the use of tractors for easier land preparation (see Kansanga, 2017). Also, unlike southern Ghana with a double maxima rainfall regime which support crop cultivation throughout the year, the increasingly erratic single maxima rainfall regime in northern Ghana further necessitate the use of improved land preparation technologies to ensure expeditious land preparation in order to prevent crop failure. According to Owusu et al. (2013), this ecological make up of the northern savannah coupled with increased soil degradation have significantly influenced agriculture towards extensification as smallholder farmers have to cultivate more land to be able to make meaningful gains.

With the increasing use of tractors in northern Ghana, land use intensity has concurrently been evolving. Available data shows an overall expansion in the total cultivated area from 2.9 million hectares in 1990 to 6.7 million in 2011 (World Bank, 2015). In a recent study on land use change in the Upper East Region, Kleemann et al. (2017) report a 16.55% increase in overall cultivable area between 2001 and 2013 and observes further that agricultural expansion had reached its limits – a situation which clearly suggests intensifying pressure on cultivable land.

This draws attention to the flip-side of agricultural modernization. In fact, despite the positive impacts of these mechanized technology provision initiatives in predominantly rainfall-dependent agriculture settings in SSA, their uptake has raised social and environmental sustainability concerns including intra-family conflicts over shared cultivable lands (Clay, 2017; Kahan et al., 2017; Sims and Kienzle, 2017). Concerns over agricultural land access are particularly crucial since land is a necessary but fixed factor of production. Given that land in northern Ghana is a shared resource at the family level governed by customary institutions, agricultural expansion by smallholder farmers has the potential to deepen competition over cultivable land and engender land-related conflicts in the face of other competing land uses. Nonetheless, neoclassical economists argue that the tension between land rights and mechanization is one that is straightforward and resolvable through the automatic allocative ability of the market economy (Barbier, 2013; Vermeulen and Cotula, 2010). To this school of thought, increased mechanization will play out in favour of relatively efficient farmers over the less productive. Further, privatization and commodification of land rights would push farmers to diversify into other alternative ventures (McCaulcy, 2003). Despite its global appeal, this thesis is however not universally applicable. In northern Ghana in particular, agricultural land access dynamics are not straightforward processes subject to the dictates of the free market economy but entail longstanding customary practices that have structured and continue to structure land use among diverse actors (Akaateba et al., 2018; Asiama et al., 2017; Kuusaana and Eledi, 2015a,b; Yaro, 2010).

In spite of these unique land tenure dynamics, agricultural modernization studies in Ghana have largely concentrated on the demand and supply aspects of modern technology adoption (see Banful, 2009; Benin, 2015; Diao et al., 2014). There is very little research on the distributional impacts of agricultural expansion on land tenure

practices especially in northern Ghana, where agricultural land is a common-pool resource governed by customary provisions and held by the chief (in some cases the Earth Priest<sup>4</sup>) in trust for extended families with individuals having user rights (Abubakari et al., 2016; Kasanga and Kotey, 2001; Yaro, 2010). Meanwhile, existing studies have shown that the land fallow system that characterize farming in northern Ghana is rarely practiced in recent times as almost all agricultural land is under permanent use (Kleemann et al., 2017; Kuuire et al., 2016; Kuusaana and Eledi, 2015a,b; Owusu et al., 2013; Yiran et al., 2012). Traditional land governance systems have as a result come under intense pressure lately as smallholder agriculture is increasingly being modernized (Kleemann et al., 2017; Nyantakyi-Frimpong and Bezner Kerr, 2017).

Of course the land tenure arrangements, mechanisms of accessing agricultural land and emphasis on modernization agriculture in northern Ghana as described above do not vary significantly compared with other parts of Ghana. For example, throughout Ghana, approximately 80% of land is held under customary tenure with the remaining land areas owned privately or by the government (Berry, 2017; Ghebru and Lambrecht, 2017). Noteworthy here however is that, coupled with declining soil fertility, ecological conditions in northern Ghana restrict farming to a shorter period of 5 months per year during which farmers strive to bring more land under cultivation using mechanized technologies (Kansanga, 2016). Amid other competing land uses in this context, the increased mechanization of farming and the associated extensification creates (or is creating) new resource access manoeuvres and struggles that affect security of tenure for weaker social groups, especially within families. This is significantly and spatially different from other parts of Ghana where ecological conditions support yearround crop production (sometimes 2-3 times per year).

Given the increasing pressure on agricultural land, this paper examines the challenges confronting the customary land governance system of northern Ghana amid the increasing modernization of smallholder agriculture. Specifically, we focus on understanding the complexities that underscore the struggle for shared agricultural land at the family level. The paper also highlights how smallholder farmers are positioning themselves within existing traditional land governance structures and re-inventing custom to secure access to shared agricultural land at the family level, and thereby dispossessing weaker individuals of their land – either partially or fully. Using Navrongo as a case study, we argue that, agricultural commercialization has opened the customary land governance system in the northern savannah to multiple interpretations and competing claims at the family level among smallholder farmers, who by customary provisions have equal user rights to family land.

#### 2. The political ecology of land access and control

As stressed by Chikozho and Mapedza (2017), given the increasing rate of agricultural modernization in Africa, there is the crucial need for rigorous analysis into how institutional governance mechanisms of common pool resources may be evolving with such policy changes. These governance mechanisms entail formal and informal rules expressed in customary practices, ownership domains, policy frameworks, and relations of power and authority in a given context, that structure access to and control of common pool resources (Agrawal and Ostrom, 2001; Baggio et al., 2016; Bunge-Vivier and Martínez-Ballesté, 2017).

This study draws on the actor-oriented approach in political ecology (Bryant and Bailey, 1997) to investigate the implications of agricultural modernization for existing customary land tenure systems in northern Ghana, and how smallholder farmers as social actors are adapting to

 $<sup>^3</sup>$  This is one of the ten administrative regions in Ghana and the region where the study was conducted.

<sup>&</sup>lt;sup>4</sup> Spiritual custodian of the land who performs traditional rites to confer user rights or ownership over customary land, consults the ancestors to interpret customary land tenure codes, and prescribes sanctions in the event of violation of tenure regulations.

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