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## **Smallholders and Land Tenure in Ghana**

Aligning Context, Empirics, and Policy

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### INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

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#### **ABSTRACT**

For decades, policymakers and development practitioners have debated benefits and threats of property rights formalization and private versus customary tenure systems. This paper provides insights into the challenges in understanding and empirically analyzing the relationship between tenure systems and agricultural investment, and formulates policy advice that can support land tenure interventions. We focus on Ghana, based on extensive qualitative fieldwork and a review of empirical research and policy documents. Comparing research findings is challenging due to the use of different indicators, the varying contexts, and the diversity of investments. The interaction between land rights and investment make establishing causality extremely difficult. Setting policy priorities and strategies requires more and better insights into the diverse responses of different stakeholders and the tenure and cropping systems involved.

Keywords: tenure insecurity, agricultural investment, customary tenure, land market, Ghana

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#### 1. INTRODUCTION

Classical economic theory predicts that stronger land rights and higher tenure security have a positive impact on farmers' investment, productivity, and income. Improved land rights could spur investment incentives for farmers, allow them to use their land as collateral, and/or increase gains from trade (Feder and Feeny 1991; Besley 1995; Place 2009). Given the critical importance of agriculture in the economies of Africa south of the Sahara and the livelihoods of its rural people, improving land tenure could be a promising avenue to improving the lives of millions of Africa's poor.

For decades, land tenure and its impact on agricultural productivity and investment have been the focus of scholars, development practitioners, and policymakers. Optimism about the potential of land reforms has been counteracted by critics arguing that state interventions may not be able to achieve better tenure security and the intended productivity increases. Empirical work, rather than clarifying the discussions, has mostly delivered inconclusive and/or contradicting results (Bromley 2008). This forces policymakers and development practitioners into siding with "believers" and "nonbelievers," and allows cherry-picking of research findings to back up any of the preferred arguments.

The debate on formalization of property rights through registration of land, private versus customary tenure systems, and which system would best address the needs of vulnerable groups is also ongoing in Ghana. About 80 percent of land in Ghana is under customary tenure (Pande and Udry 2005). Several case studies were conducted in Ghana that empirically analyzed the impact of increased tenure security on agricultural investment and productivity. A quick glance at these studies shows puzzling and seemingly inconsistent results. On the one hand, Goldstein and Udry (2008) and Abdulai, Owusu, and Goetz (2011) show that insecure land tenure is associated with greatly reduced investment in land fertility and consequent reductions in productivity. On the other hand, Place and Hazell (1993) and Besley (1995) warn against viewing land rights as a panacea for improving agricultural investment and productivity. Otsuka et al. (2003) find that traditional land tenure institutions are not inefficient for investments in tree planting or management of tree crops, but they find some inefficiency regarding fallowing in shifting cultivation. Pilot projects on land administration have so far faced different degrees of success.

This paper aims to provide insights into the challenges in understanding and empirically analyzing the relationship between tenure systems and agricultural investment, and formulates policy advice that can support ongoing and future land tenure interventions. Building on the smallholder farmer's perspective on land tenure in different regions in Ghana, we shed light on the disparate empirical findings of case studies in the country. We enumerate the wide diversity of tenure systems, the different languages that researchers use to describe tenure systems and tenure insecurity, the varying contexts and diversity of investments that are considered, and the empirical strategies used for data analysis.

In the next section, we explain the research approach. The third section describes the different tenure systems in Ghana from a farmer's perspective, based on extensive qualitative fieldwork and literature review. In the fourth section, we illustrate how seeming inconsistencies in the literature on the impact of land tenure on investment and agricultural productivity in Ghana make sense taking into account diverging definitions of land rights, tenure insecurity, and the nature of investments. The fifth section illustrates the challenges in developing land policy interventions in Ghana. The sixth section concludes.

## 2. RESEARCH APPROACH AND METHODS

This paper is based on a review of the existing literature and qualitative data collected by the authors in rural and peri-urban areas of Ghana. The literature consulted consists of both qualitative and quantitative studies, as well as relevant policy documents and project reports. The technical discussion in section 4 is based on an exclusive set of rigorous quantitative empirical studies investigating the link between tenure arrangements or tenure security and agricultural investments. We limit the number of studies in section 4 to those published in high-ranked, peer-reviewed journals (Q1 or equivalent).

The qualitative fieldwork was aimed at developing an in-depth understanding of how Ghanaian smallholder farmers access land, their experience of tenure insecurity, and how this affects investments in agriculture. It was specifically intended to grasp the diversity in tenure systems throughout Ghana. The gained insights eventually had to inform the results of existing quantitative empirical studies and Ghana's land policies. We focused on four different concerns: (1) the appropriateness of commonly used indicators for tenure arrangements and tenure security; (2) the contradictions between theoretical frameworks and empirical quantitative research findings, and among different quantitative empirical case studies in Ghana; (3) the generalizability of case study results; and (4) the role of Ghana's legal framework in addressing smallholder farmers' tenure problems.

Qualitative research was conducted from February to August 2015, using key informant interviews and focus group discussions. Gender-separated focus group discussions on land tenure were held with 42 groups of 8 to 15 participants in seven different regions in Ghana (Figure 2.1). Care was taken to conduct interviews in all four agroecological zones, with a diversity of ethnic groups (Figure 2.2), and in remote areas as well as in more urbanized areas. A few locations were chosen based on their proximity to case study sites of previous empirical work on land tenure (such as Wassa in the Western Region or Akwapim in the Eastern Region). A discussion guideline with key questions was prepared for the focus group discussions. Discussions were primarily aimed at developing an in-depth understanding of land tenure systems rather than filling out a predefined community questionnaire. As qualitative work advanced, and in combination with the systematic review of existing literature, new issues came up and the guidelines were adjusted to accommodate further points of interest. Each group discussion lasted 1.5 hours to a maximum of 2 hours. In some communities where land tenure systems were diverse and complex, such as in the Western Region, we could not acquire all the necessary information in one group discussion. After having asked about the basic categories of land and modes of acquisition, detailed subquestions had to be divided among neighboring communities.

In addition to the group discussions, we interviewed a number of key informants. We discussed tenure issues with customary chiefs, a queen mother, and individual farm households in the Eastern Region, and customary chiefs in the Volta Region, Upper-West Region, and Upper-East Region. We also interviewed land commissioners in Accra, Ho, and Tamale and a representative of the Civil Society Coalition on Land (CICOL). The Lands Commission is responsible for the management of all public and vested lands (lands vested in the president in trust for a landholding community, such as in the case of unresolved land conflicts). In addition, the Lands Commission plays a supervisory role in the registration of transactions of customary land. Registration of customary land with the Lands Commission is voluntary, not mandatory.

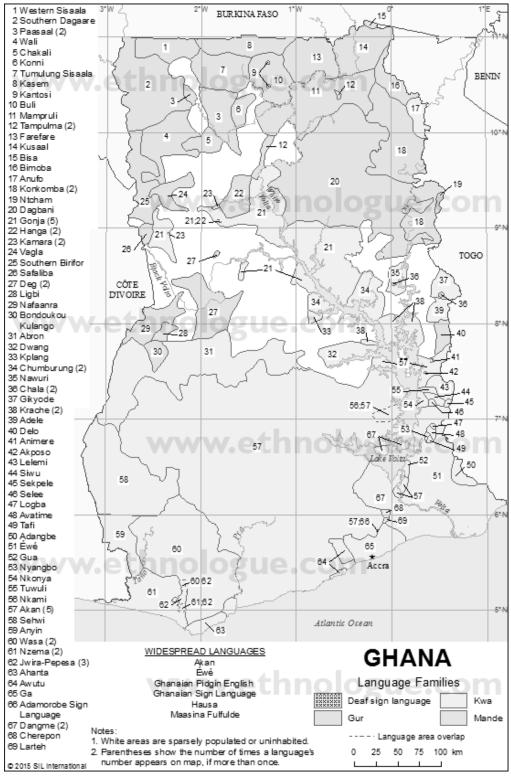


Figure 2.1 Approximate fieldwork locations (lighter grey) and case study regions (grey with letter)

Source: (A) Anloga studied by Migot-Adholla et al. 1994, Place and Hazell 1993 and Besley 1995; (E) Ejura studied by Migot-Adholla et al. 1994 and Place and Hazell 1993; (G) Akwapim studied by Goldstein and Udry 2008; (Q) Western Ashanti studied by Quisumbing et al. 2001a; (R) Southern Brong-Ahafo studied by Quisumbing et al. 2001a; (S) Sefwi studied by Quisumbing et al. 2001a; (T) Techiman and Nkoranza studied by Abdulai, Owusu and Goetz 2011; (W) Wassa studied by Migot-Adholla et al. 1994, Place and Hazell 1993, Besley 1995, Quisumbing et al. 2001a and Otsuka et al. 2003.

Note: Lighter coloured pins without letters are fieldwork locations. Grey pins with letters indicate empirical case study regions. These are approximate, not exact, indications of locations. Especially for the empirical case study areas it was not always possible to determine the exact location of the study.

Figure 2.2 Main language groups in Ghana (coinciding with main ethnic groups of Ghana)



Source: SIL International (2015).

## 3. TENURE SYSTEMS, INSECURITY, AND INVESTMENT IN GHANA: THE SMALLHOLDERS' PERSPECTIVE

In this section, we focus on smallholder farmers' perspective on land tenure in Ghana. We first describe farmers' basic classification of land. Second, we explain different modes of land acquisition. Third, we focus on land rights. Fourth, we describe the individualization of land. Finally, we bring together these concepts and relate them to tenure security and investment.

## Allodial Title to Land: Famers' Basic Categorization of Farmland

Farmers primarily categorize farmland as stool land or skin land, family land, and private land. Further probing reveals the occasional occurrence of government (public) land, including forest reserves that some farmers get access to for farming under strict conditions. This classification refers to the allodial title to land. Final authority over the land resides with the chief or Tendana, family head, the individual holding the land, and the government, respectively. In this paper, we will refer to stool/skin land and family land as customary land.

The authority lent to the chief and Tendana is explained by the history of the community. The story is similar in all regions of Ghana. Originally, land acquisition was mainly through discovery or occupation of uncultivated land. The first person to settle on the land and start the community took the role as "custodian" or caretaker of the land (Bakang and Garforth 1998). Upon his death, the role of chief or Tendana was passed on to one of his descendants. The chief or Tendana decided on the allocation of land according to the perceived needs of kin and migrants seeking land. When land was still abundant, the chief or Tendana could allocate specific portions of land to families or allow them to acquire any portion of land in the community that they were able to clear.

Stool or skin land is land directly under the custody of the chief or Tendana and should be used to benefit the clan or community. Historically, much of the land has been divided among and allocated to different extended families. These areas are now being classified as family land. Within each family, land is generally (but not always) subdivided among nuclear households or specific family members. In some communities, skin/stool land or family land is sold. After the sale, this is considered private land. Generally, the chief or Tendana cannot take away family or private land without consent of the family head or landowner (Quan, Ubink, and Antwi 2008). Yet, as head of the community or spiritual caretaker of the land, he can still exercise power over land, mostly in cases of dispute settlement. We encountered one exception in Savelugu-Nanton district (Northern Region), where the chief does have total control over all land, including family land. He can decide to reallocate fallow land to another farmer or to sell any farmer's land for developmental purposes.

Smallholder farmers know of all categories of land, but not all categories are present in each community. In many communities, all land is divided among existing families or clans, and no stool or skin land remains. Family land is the only category that is found in all the visited communities (Table 3.1). In the communities we interviewed, we encountered skin lands in some communities in the North, but none of the communities in the South had stool lands (the Southern equivalent of skin lands). Yet, the absence or presence of stool or skin lands in any of the visited districts or regions should not be generalized. In several communities that did not have stool/skin lands themselves, our respondents mentioned neighboring communities that did have stool or skin lands. In the rest of the paper, we focus on family land, stool/skin land, and private land, since they are the most prevalent categories of land used as farmland in the communities we visited.

<sup>&</sup>lt;sup>1</sup> Most communities in the Northern, Upper-West, and Upper-East Regions have both a chief and a Tendana. The Tendana, also called Tendamba, is the spiritual caretaker of the land. As explained by our respondents: "The Tendana takes care of the land; the chief takes care of the people." This land is called skin land in the Northern Regions, but stool land in the Southern Regions.

Table 3.1 Land categories and mode of acquisition in visited communities

Region		Ashanti			Eastern	1	Western
District	Ejisu- Juaben Municipal	Sekyere East	Kumawu	Akuapem North	West Akim	Kwaebibrem	Bibiani Ahwiaso Bekwai
Community	Asotwe	Nsutam	Kumawu	Adawso	Asukye rema	Temagya	Asawinso / Afemu, Nkaties, Humijibre
Type of land							ridinijibic
Family land	yes	yes	yes	yes	yes	yes	yes
Stool/skin land	yes	yes	yes	no	?	yes	no
Private land	yes	yes	yes	yes	no	no	yes
Government land (incl. forest reserve	no e)	no	no	no	no	yes	yes
Mode of acquisiti	on						
Free allocation	?	?	?	?	?	no	yes
Inheritance— matrilineal custom	yes	yes	yes	yes	yes	yes	yes
Inheritance— patrilineal custom	no	no	no	no	no	no	no
Borrowing	no	yes	no	no	no	no	yes
Rent	yes	yes	yes	yes	yes	yes	yes
Sharecropping of annual crops	yes	yes	yes	yes	yes	yes	yes
Sharecropping of cash tree crops	yes	yes	yes	yes	yes	yes	yes
Purchase	yes	yes	yes	yes	no	yes	yes
Gift	no	yes	no	no	no	no	yes
Is there enough land in the community?	yes	yes	yes	?	no/yes	?	no
Do farmers fear losing their land?	yes	no	yes	no	no	no	yes

Region	Northern		Upper East	Upper West			Volta		
District	Savelugu	Yendi	Bolga- tanga	Sissala East	Jirapa	Ho Municipal	Hohoe	Hohoe	Hohoe
Community	Diare	Gmafudo	Kulbia Kunko	Nanyuan	Hang	Akrufo	Gbe Wegbe	Akpafu Odomi	Lekpe
Type of land									
Family land	yes	yes	yes	yes	yes	yes	yes	yes	yes
Stool/skin land	yes	yes	yes	yes	no	yes	no	yes	no
Private land	no	no	no	no	no	no	yes	no	yes
Government land (incl. forest reserve)	no	no	no	no	no	no	no	yes	no

**Table 3.1 Continued** 

Region	No	orthern	rn Upper Upper West Volta East		ta				
District	Savelugu	Yendi	Bolga- tanga	Sissala East	Jirapa	Ho Municipal	Hohoe	Hohoe	Hohoe
Community	Diare	Gmafudo	Kulbia Kunko	Nanyuan	Hang	Akrufo	Gbe Wegbe	Akpafu Odomi	Lekpe
Mode of acquisitio	n								
Free allocation	yes	yes	yes	yes	yes	yes	yes	no	no
Inheritance— matrilineal custom	no	no	no	no	no	no	no	no	no
Inheritance— patrilineal custom	yes	yes	yes	yes	yes	yes	yes	yes	yes
Borrowing	yes	yes	yes	yes	yes	yes	no	no	no
Rent	no	no	no	no	no	yes	yes	no	yes
Sharecropping of annual crops	no	no	no	no	no	yes	yes	yes	yes
Sharecropping of cash tree crops	no	no	no	no	no	yes	yes	yes	yes
Purchase	no	no	no	no	no	no	yes	no	yes
Gift	no	no	no	no	no	no	no	no	no
Is there enough land in the community?	no	yes	yes	yes	yes	yes	?	no	no
Do farmers fear losing their land?	yes	no	no	?	no	no	yes / no	yes	no

Source: Author's summary from qualitative field work.

Note: ? means that results from the discussions did not provide a clear answer; yes/no indicates different responses in male and female groups.

### **Modes of Acquisition**

Farmers acquire land through different channels. Originally, land was acquired through settlement, but there is no unclaimed land remaining in Ghana (Bakang and Garforth 1998). The most common methods of acquiring land are allocation or inheritance of land. Other "nonmarket" systems that exist are borrowing of land and gifts of land. Renting, sharecropping, and purchasing land are "market" channels of land acquisition that are known but not necessarily practiced in all communities. The prevalence of each of these modes of acquisition differs greatly throughout the country.

## Nonmarket Land Acquisition

To varying degrees, farmers have free access to customary land belonging to their community, clan, or family. Each member of a family or landowning group should be able to access customary land, whether freely allocated, inherited, or borrowed. The respective chief, clan, or family head can allocate available land to a family or community member to farm as long as the person wants to stay on the land. Although the term "allocation" suggests the specific involvement of an authority assigning land to a farmer, this can also consist of an individual choice of a farmer to cultivate unoccupied land within the common landholdings. Only a few communities allocate customary land permanently to recent migrants.

Inheritance of land generally occurs according to customary rules. In matrilineal ethnic groups, kinship, inheritance, and allocation of family land follow female bloodlines. Hence, individuals inherit from their mother and maternal relatives, but not from their father or paternal relatives. Patrilineal ethnic groups follow male bloodlines, inheriting from their fathers and paternal relatives (Kutsoati and Morck 2012; La Ferrara and Milazzo 2012). In the customary system, especially in matrilineal communities,

there are typically a number of candidates for inheriting land. Land is not split among all claimants of the land, but there is an established set of rules that determines the order of siblings (and their children) to whom the land will go. Again, these rules differ within clans and communities, and even within a specific family or clan the rules are easily modified. It is at the discretion of the family elders to decide who will inherit the land.

In communities that are still relatively land abundant, landholders can temporarily give out land for free to relatives, friends, or strangers who have no customary rights to the land. In our paper, we refer to this as borrowing of land, but it is often called "begging for land." Despite there being no agreement about cash or in-kind payments, the farmer is expected to provide a gift to the landowner after harvest to express his or her gratitude for the use of the land.

In 1985, the government of Ghana approved the Intestate Succession Law (ISL) (PNDCL 111). The law states that any self-acquired property, except for the house and household items, should be distributed according to the following rule: 9/16<sup>th</sup> to the children, 3/16<sup>th</sup> to the surviving spouse, 1/8<sup>th</sup> to the surviving parents, and 1/8<sup>th</sup> according to the customary tradition. The more common interpretation of the law is one-third for the spouse, one-third for the children, and one-third for the customary family line (Quisumbing et al. 2001a). Prior to the passage of the law, inheritance of any intestate property (that is, property for which no oral or written will is prepared) would automatically follow the customary rules. While the law was groundbreaking at that time, in practice its impact on land has been limited. Most land is customary land, not private land, and hence the law does not apply (Berry 1997). Also, a large part of the population has no or incomplete knowledge of the law (Kutsoati and Morck 2002). Finally, challenging traditional norms may attract social repercussions (Kutsoati and Morck 2002).

Customary inheritance does not necessarily allocate the land to the person that the deceased holder of the land had preferred. Either he/she might have preferred another heir from the customary kin or someone who is not part of the kin. There are two practices that can be used by landowners to explicate the choice of inheritors: preparing a will or handing over land as a gift during the life of the owner. A will can be oral or written. Similarly, a gift may or may not be documented. An oral will must be communicated to the family elders and/or other witnesses during the person's lifetime. Typically, the heirs of family land proposed in the will must still be members of the respective matri- or patri-clan (Takane 2002). Only in a few communities can non-kin be given land in a will. Men in matrilineal kin often transfer land to their wife or children by making a gift (Quisumbing et al. 2001a; Takane 2002). The family members must formally approve this gift during the ritual sharing of a drink (Takane 2002).

### Market Land Acquisition

Access to customary land, by virtue of lineage or community membership, does not always satisfy the need for land. Farmers may seek a larger acreage of land, land of different soil fertility or crop suitability, or land closer to their homestead, or they may have preferences as to the type of land they acquire. These farmers can gain permanent access to land through purchasing of land, or temporary access through borrowing, renting, or sharecropping of land.

In the North, smallholder farmers rarely pay for the use of land. In Southern Ghana, purchase, rental, and sharecropping contracts are common (Table 3.1; Tsikata and Yaro 2013). The terms "purchase" and "sale" of land are ambiguous in most cases. The Constitution prohibits the sale of customary land; hence, any sale or purchase of land must be under the form of a long-term lease, typically a period of 50 or 99 years. After this period, the law states that the land must return to the original owner (Fred-Mensah 1999). In practice, this is regarded as a permanent transfer of the land (Ubink 2008; Crook 2008), especially among smallholder farmers in rural areas. Once land is sold it will not return to the previous owner after the maximum leasehold period has ended, regardless of whether it

<sup>&</sup>lt;sup>2</sup> This means that since the 1992 Constitution came into effect, stool or skin land cannot not be sold. Note that any land that was family property before 1992 is considered private land according to the Constitution. Our interviews with the Lands Commission and farmers show that there is confusion over these terms. Family land and stool and skin lands are commonly interpreted as customary land, as opposed to government land and private land.

is customary land or private land. Because we are focusing on the smallholders' perspective, we will maintain the use of the terms "sale" and "purchasing" of land and consider this as a permanent transfer rather than a temporary possession in the form of a leasehold of the land.

A number of alternative modes of acquisition exist. First, we find sharecropping arrangements that do not fully fit the classical sharecropping definition. Sharecropping is generally explained as an arrangement in which the tenant pays a predetermined share of the harvest to the respective landowner (Ellis 1993). Such arrangements occur frequently for annual crops such as maize or cassava. However, other variations in sharecropping arrangements are common, especially for tree crops. In a first sharecropping variation, after the establishment of the farm by the tenant, the trees are divided into two equal parts. Landlord and tenant then independently manage these two equal parts. As long as the trees remain on the farm, the tenant has full control over that land. Upon his death, his relatives can inherit the trees. Once the trees die, the land returns to the landowner. In a second variation, the land is shared, rather than the trees. This means that the land remains with the tenant, even after the trees die (Takane 2002).

Second, we encountered three distinct cases in which the entire community, or all of its farmland, is rented or sharecropped (not included in Table 3.1). In these communities, the residents are not indigenous to the area in which they live, and therefore do not have any customary right to cultivate the land. In Adukofe (Volta Region), a community of nonindigenous farmers collectively rents land from the traditional chief of the area. Every year, the head of the community collects rent from the respective members and pays it to the chief. They can grow any crop they wish, including tree crops. When land is left fallow, another community member can decide to cultivate on the land. Takane (2002) describes a similar arrangement for a community in the Eastern Region. In Abodom Bomso (Eastern Region), farmland also belongs to the chief of a neighboring community. Originally, land was rented out on a community basis. However, the community members now pay rent individually to the Lands Commission based on the specific size of the land they cultivate. The Lands Commission collects the rent and gives the appropriate share to the chief, while keeping part of the rent as land tax. In Afabeng (Eastern Region), none of the community members owns his/her land. However, each tenant individually engages in a renting or sharecropping contract with the specific owner of his/her parcel.

Over time, the same land can change categories and can be acquired in different ways. When customary land is sold (by or with permission of the chief or family head), this land becomes private land. In some of the cocoa-growing regions, a husband can reward his wife or children for their hard work on his family land by giving them a portion of the land, conditional on the approval of his family. By transferring land as a gift, family land becomes private land. Similarly, private land can become family land after being inherited following the customary inheritance rules. In exceptional cases, family land or private land can become stool land. We met with a community in Savelugu-Nanton district (Northern Region), where the chief appropriates land if disputes over the land remain unresolved. In Hohoe district, a clan had moved away and abandoned its land, which was then claimed by the chief and converted to stool land.

When transferring land, especially for permanent and semipermanent transactions, formalities are fulfilled to prevent possible future disputes. In case of the sale or gift of land, it is customary to perform a traditional ceremony and present sheep and local gin to the previous landowner in the presence of the village head and witnesses from both sides. Additionally, documents are prepared to certify the change of ownership. Witnesses on both sides must sign these documents (Takane 2002). For tree sharecropping arrangements, documents are also prepared and signed by both parties and their witnesses.

The Lands Commission can only provide land title registration for properties within the Greater Accra Region. In the other nine regions, land transactions (leases, assignments, mortgages, and so on) can be documented more formally through the Lands Commission in the form of deed registration. Registration of farmland is mostly done by large-scale investors, but is less common among smallholder farmers. Nevertheless, written documents are common for permanent transactions in all communities we visited.

## **Land Rights**

Land rights received a lot of attention in empirical economic studies on land tenure (see section 4). Land rights include use (also called cultivation) rights and transfer rights. In the literature, use rights are generally understood as the right to cultivate on the land. Subcategories include the right to make improvements to the land and the right to plant trees. Transfer rights consist of the right to borrow, rent out, give out for free, pawn, use as collateral, sell, and bequeath. The rights a farmer holds to a specific plot are closely associated with the category of land, the mode of acquisition, and the type of crop (Migot-Adholla et al. 1994), but the specific arrangements differ among communities, clans, and families.

During group discussions and stakeholder interviews, we frequently heard expressions such as "Nobody owns the land," "We didn't come with the land, the land was there to meet us," or "The crops are yours, not the land. "In fact, individuals do not have rights over the land as such, but they have the rights to resources generated on the land through their own efforts<sup>4</sup> (Sjaastad and Bromley 1997). On customary land, individual ownership is recognized for standing crops, but not for the soil itself (Pande and Udry 2005). Stronger rights are rewarded to a person investing labor on the land (Pande and Udry 2005). As a consequence, farmers' land rights can change in relation to the farming strategies they employ. Only owners of private land can exercise all land rights without need of approval from others.

Different people simultaneously or consecutively exercise different and/or similar rights on the same piece of customary land (Fred-Mensah 1999; Takane 2002). Individual claims over land often overlap, and who cultivates the land is the outcome of a process of negotiations (Goldstein and Udry 2008). Typically, multiple people will have cultivation rights to the land and can make claims to the land, and often several people could have transfer rights. Some lands are not clearly or only temporarily assigned to one farmer or nuclear family, so multiple people can claim access to the same land. Farmers' rights over their standing crops are generally secure (Goldstein and Udry 2008). Farmers should not be chased off the land as long as their crops are growing. Our respondents indicated that this is respected to such an extent that even if farmers have illegally encroached land for farming purposes, they will not be chased away as long as their crops are growing. When previous farmland is used for construction or development, the same line of thinking is applied: due to the permanent character of construction, land enters the private sphere. Yet, once land is uncultivated (either after harvest or for fallowing), who will next cultivate the land is possibly renegotiated.

A distinction must also be made as to whether land rights can be exercised individually or only with lineage or family approval. Due to the interpretation of some land rights as common rights, the holder of the land must seek permission from family or lineage elders or all those exercising some rights on the land before planting trees or temporarily or permanently transferring land. Again, for which actions and to whom permission must be asked differ according to communities, kin, and family. Throughout our qualitative discussions, being able to decide on the land independently from family or other authorities was frequently cited as a major advantage of private versus customary land.

## From Customary to Private Systems: Individualization of Land

Existing literature and our observations from the field point to increased individualization of land rights under increasing population pressure and market integration in Ghana (Bakang and Garforth 1998; Bugri 2008; Otsuka et al. 2003; Quisumbing et al. 2001a). We find that as individuals acquire more continuous claims to the land, they acquire stronger land rights and are entitled to make more exclusive decisions on the land rather than seek consent of family members or traditional authorities.

Customary land is regarded as a common resource of members of a specific group based on lineage or community (Place and Hazell 1993; Pande and Udry 2005). However, in most cases, land in a community is neither entirely communal nor exclusive private property (Bakang and Garforth 1998). As

<sup>&</sup>lt;sup>3</sup> Note that Takane (2002) talks about the acquisition of land rights, rather than the acquisition of land.

<sup>&</sup>lt;sup>4</sup> Although one could question the use of the term "land rights" in this case, we will continue to do so for the sake of comparison with the existing literature.

the user group of land increases, land is split in different sections and allocated to different groups. These subgroups can be different clans, extended families, or nuclear families. Usually, authority over the land is then allocated to the head of these subgroups. Within these subgroups, land allocation can be temporary and ad hoc, determined by patterns of shifting cultivation, or land can be permanently allocated to specific households or individuals. In other words, at one point in time, land is cultivated by only one household or farmer. Instances in which extended family members jointly cultivate land have become very rare. Yet, in some areas, different family or community members can cultivate the same land in subsequent seasons.

We met several communities where land markets, both formal and informal, are virtually nonexistent. According to customary law, farmland cannot be sold or rented out, neither to indigenous nor migrant farmers. Rather, the land will be given for free to any smallholder farmer to use temporarily (as long as the crops grow) or permanently (as long as the farmer wants to farm there, or as long as the farmer lives) (Table 3.1). Especially in more remote and scarcely populated areas in the North (such as in Yendi district in Northern Region, or among the Dagaaba in Upper-West, also described by Bakang and Garforth [1998]) and in the Volta Region, we find communities where any farmer seeking land to feed his/her family can consult the respective chief or family head and acquire land on either a temporary or a permanent basis. Respondents in these communities argue that one cannot refuse a farmer access to land to feed his family. This applies to all customary land, and as a consequence no private land exists. Amanor (2008) describes how migrant farmers in the Brong-Ahafo Region can acquire land for a small annual fee. The fee is for formalizing permission to cultivate and recognition of the landlord, but it is not linked to the area cultivated. Villagers can cultivate any land in the settlement area where no other farmers are currently cultivating or are managing fallow land.

In more densely populated areas and closer to urban centers, where the demand for land is high, a more extensive land market has developed. It is in these areas where we find a higher share of privately owned land and where customary land is more "individualized" with stronger and more exclusive land rights. The evolution to more individualized ownership is well documented in the cocoa-growing areas (see, for example, Quisumbing et al. 2001b; Otsuka et al. 2003). Originally, when population density was low and virgin forests were abundant, migrants were allowed to clear forests for cultivation. Because forest clearance requires much effort, this was rewarded with relatively strong individual rights to the land. The establishment of permanent crops further strengthened land rights. Between 1910 and 1940, thousands of people engaged in growing cocoa. Forests were cleared at an increasingly high rate, leading to a rapid reduction of virgin forests (Quisumbing et al. 2001b; Pande and Udry 2005).

More and more, farmers tend to move away from supporting the extended family and lineage to protecting their nuclear family. Traditionally, the Akan, the largest ethnic group in Ghana, has followed matrilineal inheritance. Land was mostly owned by men and was inherited by his maternal nephews or other maternal family members. Wives and children did not have any rights to their husbands' land if he died intestate. During the past 30 to 40 years, appropriated community land and allocated or inherited family land are increasingly transferred to one's wife and children as gifts, seen as a reward for their labor contributions on cash tree plantations (Otsuka et al. 2003). This process recategorizes land from family land with already very strong rights to private land.

As land rights become stronger, continuous, and exclusive for one individual, others see their rights and access to that land being reduced. The process of individualization of land is accompanied by a large number of contestations over land within families and clans, among different ethnic groups, and between indigenous and migrant farmers. In some areas, traditional authorities or family heads had originally transferred substantial amounts of land to migrant farmers in the form of sales, sharecropping arrangements, and so on. As availability of land reduced, customary contracts and the nature of the contracts were renegotiated or reinterpreted, and tension arose between "stranger" farmers and indigenous landholders (Quan, Ubink, and Antwi 2008; Berry 2009). As the value of land goes up, chiefs and family heads may become tempted to make substantial profits from the sale of land that was previously meant to support the community or extended family (Ubink and Quan 2008; Quan, Ubink, and Antwi 2009).

## Land Rights, Tenure Security, and Investments: What Do Farmers Care For?

Based on our group discussions, we find both positive and negative responses to farmers' experience of tenure insecurity ("Do you fear losing your land?") (Table 3.1). Reasons why farmers fear losing their land include insecurity about tenants' renewing their rental or sharecropping agreements, insecurity about whether children or spouses can inherit the land, the existence of multiple customary or statutory claims to the land, and insecurity about landowners or tenants' renegotiating their land agreements. What matters for tenure security are not necessarily the quantity of land rights, but rather specific dimensions of land rights. We discuss this in the following two subsections.

## The Nature, Continuity, and Exclusivity of Land Rights

Land rights include various kinds of entitlements, and farmers have different levels of concern about each of these rights. Use rights simply refer to the right to farm on the land. Transfer rights allow the farmer to transfer land temporarily or permanently to another user. There is some hierarchical order in these rights (Otsuka et al. 2003). For example, when a farmer has the right to sell his/her land, he/she also has the right to rent out the land, but not vice versa. Yet, this is not always straightforward. For example, it is commonly assumed that only those with the right to sell the land can use their land as collateral. However, in several communities (for example, in Kwaebibirem district, Eastern Region), we find that farmers can use family land and sharecropped land informally as collateral, even when they are not allowed to sell the land. Overall, our fieldwork has given little direct evidence of the importance of the right to formally use land as collateral. Respondents would not raise this issue unless we would explicitly put forward any question on collateral.

The rights to bequeath or gift land are of special importance to farmers, and are often not adequately represented in conceptual models on land rights and investment. In response to whether they fear losing their land, farmers often referred to uncertainty over the use of their land by their children or spouse after their death. Before establishing a cash tree plantation, farmers with access to different parcels of land carefully consider who will retain the parcel in case of divorce or death. When no will is expressed, private land will automatically be inherited by the spouse and children, or according to the Intestate Succession Law (ISL), where people are knowledgeable. If farmers do not have any suitable private land for tree planting, they may have access to customary land from the husband or wife's family. In patrilineal societies, households are more likely to establish the plantation on the husband's family land, which ensures not only children's inheritance of the land but also men's preferential access to the land after divorce. A male participant from the Hohoe district (Volta Region) in a patrilineal community explained this as follows: "It is in the woman's interest to cultivate on her husband's land for the sake of your children so that when the woman dies, the children can enjoy. In case of cash crops, you [woman] don't put it on your family land, you put it on your husband's land so that anytime you die, your children can enjoy. Because if you [woman] keep it on your family land and you die, it goes to your [woman's] family."

In matrilineal societies, children's inheritance is only assured on the wife's family land. Farming on the wife's land might be a strategy to ensure that any investments in land will also benefit the children. Yet, when a household farms on the wife's family land, the male spouse is likely to lose the land in case of divorce. The explanation from a female participant in Kumawu district (Ashanti Region) illustrates the impact of the matrilineal system: "When there is separation and the farm is established on the woman's family land, the family members might not allow the man to have access to the farm so in that instance, the husband will think twice in establishing such perennial crops on the woman's family land. We [women] too would not like to establish perennial crops on our husband's lands because if anything happens and our husband is no more, our husband's family members will not allow us [women] to have access to the produce. If the husband is no more, we [women] take care of the children, so if it is on our land, we can have full control over the produce to help take care of the children, but if it is established on the man's farm, the moment he dies, his family takes over that farm." As explained above, it is especially in matrilineal societies that alternative systems of transferring plantations have developed.

Uncertainty over renewal of a tenancy contract or continued use rights over land are an issue when it comes to investing in land cultivated with short-duration and annual crops. Farmers often rent or sharecrop the same parcel of land for multiple cropping seasons. Yet, even when both parties have a good relationship, there are times when landowners feel pressured not to renew the contract with the tenant in order to give a relative access to the land. In Ejisu-Jubaen Municipal (Ashanti Region), migrant rice farmers expressed their concern over continuing to farm in the area. Several neighboring farmers were expelled from their land for the establishment of a factory and a hospital, while others had been evicted when their landowner wanted to establish an oil palm plantation. The migrants tried to negotiate a rental contract of longer duration with their landowner, but did not succeed. They explained that the uncertainty over the continued use of the land prevents them from investing in irrigation channels. Similar stories were heard in other communities, and are also mentioned in other case studies of Ghana (such as Antwi-Agyei, Dougill, and Stringer 2015).

A recurring issue is the concurrent claims of multiple parties to customary land. Ideally, each ethnic group controls a territory that is clearly demarcated under the ultimate custody of the paramount chief as the head of the ethnic group. In reality, each ethnic group is built hierarchically, with several layers of divisional and subdivisional chiefs under the paramount chief. These chiefs are entrusted with the task of managing the land within their communities (Takane 2002). Especially in the Northern Regions (Pul 2003), but also described for the Western Region (Boni 2008), there is no exact or undisputed delineation of land not only across neighboring ethnic groups but also across neighboring chiefs within ethnic groups and among different layers of the chieftaincy hierarchy (paramount chief, divisional chief, subdivisional chief, and so on). Several people feel entitled to decide on the transfer or allocation of land. There is substantial anecdotal evidence of such problems for large-scale land acquisitions as well as for the allocation of land to smallholder farmers (Belden 2010; Schoneveld and German 2014).

Also, within extended families, clans, and lineages, several members can have use rights and transfer rights to a plot of land. For example, after the death of a farmer, several persons hold customary or statutory claims to the land. Commonly, inheritance rules are not rigid but open for negotiation and discussion. Competing claims are negotiated and certain members of the community or family are recognized as having the power to arbitrate such conflicts (Pande and Udry 2005). This allows flexibility to allocate land to those perceived in need or to those who are expected to make the best use of the land. However, it also leaves room for disputes. Especially within the matrilineal groups, there is often tension between the spouse and children of the deceased versus the matrilineal kin (Otsuka et al. 2003; Quisumbing et al. 2001a; La Ferrara and Milazzo 2012; Takane 2002).

Although one person may have use or transfer rights to a specific parcel of land, other family or kin members may have the same or other rights to the land (Fred-Mensah 1999; Takane 2002). In many cases, it is not clear whether land is individually held or is allocated to an individual while it remains lineage or family property (Takane 2002). Having multiple people with the same customary claims to the land increases uncertainty over the continuity of its use (Goldstein and Udry 2008). A female participant in Kumawu district (Ashanti Region) explained: "With my siblings, initially when they see that I am establishing the plantation on that land, they will not complain. But when I finally establish the plantation, at least one of my siblings will complain that the land is for our mother so he/she would want a portion for himself or herself." In most regions, it is socially unacceptable to refuse another family or community member use of the land when it is uncultivated. Hence, where land is left fallow, any other family, lineage, or community member has the right to start farming on the land (Quisumbing et al. 2001b). A male participant in Hohoe District (Volta Region) explained: "For instance me, I am growing cocoa on part of my land right now for one simple reason: when I am no more, the children will inherit that. But then if it is just rice, rice, rice, when I am no more, someone else jumps into that rice field and might even claim it because none of my family is interested in that rice, so they leave that portion fallow."

In other communities, farmers do not experience this as tenure insecurity. Among the Dagaaba in Upper-West and in many other areas where market transactions of land are not accepted, farmers have guaranteed possession over their land as long as they wish to continue farming, without fear of litigation

or losing the land. Access to land is assured by virtue of belonging to a family of the landowning group (Bakang and Garforth 1998). In Upper-East, Bugri (2008) finds that most farmers do not feel insecure about tenure. Indeed, when asking farmers if they could lose their land, we often heard, "The land is mine, nobody can touch it." Yet, the understanding of individual ownership diverges from the typical Western definition. Rights are not specific to a particular piece of land, but to a share of land in the community. Farmers clarified this as follows: "Even if you leave [the community], your land remains yours. If somebody is farming on your land when you return, you will just be given another piece of land . . . so you cannot lose your land."

## Clarity, Respect, and Enforcement of Land Rights

Clarity, respect, and enforcement of land rights are key determinants of tenure security. Key concerns over land mentioned by group participants were boundary disputes, encroaching of land, multiple sales of land, and renegotiation of agreements. All of these issues can occur either deliberately or inadvertently. The family head and family elders settle most land disputes (Boni 2008). If the dispute cannot be resolved within or among families, then the village head, chief, or Tendana is consulted. It is rare for farmers to proceed to court. This also implies that those who are better connected with the traditional and political office have more secure rights, with women and migrants being less secure than indigenous male farmers (Boni 2008; Goldstein and Udry 2008).

Flowers, trees, streams, paths, or other landmarks typically demarcate boundaries. As these are part of the natural landscape or cropping pattern, or can easily perish or be destroyed, confusion and conflict over boundaries frequently arise. Yet, respondents also emphasized the ease with which boundary disputes are solved by consulting neighbors and village and family elders as witnesses. Many farmers live at a considerable distance from their fields. Constant supervision of the land is therefore not guaranteed. Moreover, shifting cultivation is strongly embedded in the cropping system such that some fields are left fallow for one or several seasons. Other farmers can willfully take the opportunity to encroach on the land of an absent landholder, or they can mistakenly assume that fallow land has been abandoned and start farming it.

Multiple customary claimants to the same land lead or contribute to multiple sales or rental agreements of family land or private land. Either willfully or unknowingly, relatives and/or other rent seekers sell the same parcel of land multiple times (Boni 2008). Many farmers expressed their fear of revocation or renegotiation of agreements, especially when a new chief or family head is appointed. If land transfers are not documented and witnesses involved in the transaction have passed away, then questions may arise as to the permanent nature or conditions of land transfers. Migrants are most severely affected by this difficulty of defining land rights and enforcing formerly established contracts (Boni 2008; Fred-Mensah 1999; Goldstein and Udry 2008).

Despite being perceived as tenure secure, purchased land frequently suffers boundary and ownership disputes. Informal documentation and even formal registration at the Lands Commission cannot ensure the absence of multiple or disputed transactions. Group participants, chiefs, and officers at the Lands Commission emphasized the need to seek permission and help from the respective village or family head and to perform the customary rituals in order to avoid problems of multiple sales and costly litigations.

# 4. THE EMPIRICIST'S QUEST TO DETERMINE THE IMPACT OF TENURE SYSTEMS

Ghana spans four agroecological zones, hosts roughly 100 ethnic groups, and has population densities as low as 35 persons per square mile in the Northern Region to as high as 224 persons per square mile in the Central Region (Ghana Statistical Service 2012). It should come as no surprise that tenure systems differ throughout the country. This diversity poses challenges to the analysis of the impact of tenure systems. In this section, we first discuss the need to find the right land tenure indicators for empirical analysis. Then we zoom in on the importance of context and the characteristics of the investment under consideration. Finally, we discuss the difficulties in developing an adequate methodology for analyzing investment decisions.

## The Right Indicators for Land Tenure?

Both drastic as well as subtle differences in tenure systems occur throughout Ghana. Yet, any analysis of the impact of land tenure must necessarily make abstraction of this diversity and identify unique categories or indicators that represent the critical points of interest. In theory, the discussion of the role of land tenure on agricultural investment and productivity centers around tenure security, use of land as collateral, and gains from trade (Besley 1995). How to translate this into testable hypotheses depends on the context and the available data.

In their introductions, Migot-Adholla et al. (1994), Place and Hazell (1993), Quisumbing et al. (2001a), Otsuka et al. (2003), and Abdulai et al. (2011) write about land tenure institutions or arrangements. Besley (1995) and Fenske (2011) mention property rights, and Goldstein and Udry (2008) talk about the impact of ambiguous and contested land rights. The indicators used in the empirical analyses for Ghana are indices of land rights (Place and Hazell 1993), mode of acquisition (Migot-Adholla et al. 1994; Quisumbing et al. 2001a; Otsuka et al. 2003), or both (Abdulai et al. 2011; Besley 1995; Fenske 2011). Whereas the previous are *de jure* proxies of tenure security, Goldstein and Udry (2008) are unique in looking at *de facto* tenure insecurity, measured by the risk of losing the land if it is left fallow (see Table 4.1).

Defining tenure insecurity is challenging, if not problematic (Arnot, Luckert, and Boxall 2011; Place 2009). Most studies implicitly or explicitly assume that mode of acquisition is related to land rights, and/or that plot holders with more land rights have stronger tenure security. Fenske (2011) shows that the mode of acquisition also alters investment outcomes through channels other than land rights. Generally, those with more land rights have stronger individual claims to the land. However, individualization of land and tenure security do not necessarily go hand in hand. Ultimately, tenure security is about the nature and substance (that is, nature, continuity, and exclusivity) of land rights as well as about the assurance (that is, clarity, respect, and enforcement) of these rights (Arnot, Luckert, and Boxall 2011). The two subsections below describe how these measures are applied in the existing empirical studies in Ghana.

Table 4.1 Key indicators and outcomes of empirical studies on land tenure and agricultural investment and productivity in Ghana

Reference	Year of data collection	District (Region)	Key measure of interest, tenure system	Other included measures of tenure	Investment	•	Impact on roductivity	Correct for endogeneity
Migot-Adholla et al. (1994)	1987/ 1988	Wassa (Western)	Mode of acquisition		Tree planting	No	No	No
,		Èjura (Ashanti)	Mode of acquisition		Tree planting Destumping	No	No	No
		Anloga (Volta)	Mode of acquisition		Drainage Excavation improvement	N/a	N/a	No
Place and Hazell (1993)*	1987/ 1988	Wassa (Western)	Complete with/out approval, preferential limited transfer rights	,	Tree planting	Yes	no	Fixed effects – multiple parcels per hh
,		Ejura (Ashanti)	Complete, limited transfer rights		Destumping Tree crop improvement	No	No	Fixed effects – multiple parcels per hh
		Anloga (Volta)	Complete with/out approval, limited transfer rights		Drainage Excavation	Yes	No	Fixed effects – multiple parcels per hh
Besley (1995)	1987/ 1988	Wassa (Western)	Land rights with/out approval		Tree planting	Yes	n/a	Instruments for land rights + hh fixed effects
		Anloga (Volta)	Land rights with/out approval	Inherited / not inherited	Drainage Manuring Land excavation Irrigation Mulching Shallot beds	Yes, but finding are not robust	gs n/a	Instruments for land rights + hh fixed effects
Goldstein and Udry (2008)	1996– 1998	Akwapim (Eastern)	Individual's political and social position	Mode of acquisition	Fallow duration	Yes		
					Fallow duration		Yes	Instruments for fallow duration
Quisumbing et al. (2001a)	1996/ 1997	Wassa and Sefwi (Western), (Brong- Ahafo), (Ashanti)	Mode of acquisition, matrilineal or patriline	eal	Tree planting	Yes (but posit for allocated family land)	ive Yes	No
Otsuka et al. (2003)	1996/ 1997	Wassa (Western)	Mode of acquisition, matrilineal or patriline	al	Proportion of plot planted to cocoa Fallowing	Yes	No	Fixed effects and random effects
Abdulai et al. (2011)	2003	Techiman, Nkoranza (Brong- Ahafo)	Ownership with full/less land rights, sharecropping, fixed rent		Tree planting Mulching Manuring Mineral fertilizer	Yes	Yes	Yes – instrumental variables

Source: Authors' summary of selected empirical case study results.

Note: n/a means not answered. \* This result is also described in Migot-Adholla et al. (1994).

## Nature, Continuity, and Exclusivity of Land Rights

The traditional argument for the link between tenure security and investment is that farmers will only invest in their land if they expect to reap the benefits of their investment (Besley 1995). This does not mean that farmers necessarily need transfer rights to the land, but they do require use rights of a sufficiently long duration to benefit from returns on investment. Conscious about this argument, Migot-Adholla et al. (1994) collected information on the right to cultivate perennial crops, to make permanent improvements, and to grow annual crops over many seasons. Yet, within each case study region these rights did not vary much across parcels, rendering them useless in empirical analyses. Goldstein and Udry (1998) asked their respondents whether, and for how long, they could leave their land fallow without fear of expropriation. The variable has a large and significant impact on the fallow duration.

The lack of (variation in) available data about use rights has forced most empirical studies to focus explicitly on transfer rights. Having information on the impact of a particular transfer right could clarify some of the investment pathways. Being able to use the land as collateral is one of the three major economic rationales underlying the call to strengthen land rights and/or register land (Feder and Feeny 1991; Besley 1995). The collateral argument is straightforwardly linked to the right to use land as collateral, while gains from trade require transfer rights, such as the right to sell (Besley 1995). The right to bequeath or gift land would inform us on the extent of spousal or parental motivation to invest more in land that will be inherited by the spouse or children rather than by more distant relatives, such as nephews or nieces (Quisumbing et al. 2001a).

A count number of transfer rights, as used in Otsuka et al. (2003) and Besley (1995), gives little information on the exact substance of these rights. The bundles of transfer rights defined by Migot-Adholla et al. (1994), Place and Hazell (1993), and Abdulai et al. (2011) inform us only partly on the specific content of the bundles, but not on the importance of a particular transfer right. Besley (1995) also analyzes investments using disaggregate land rights, but a high correlation between these rights warrants caution in attributing any investment effects to a particular right. Many studies struggle with the lack of variability of land rights for parcels within the case study regions.

### Clarity, Respect, and Enforcement of Land Rights

Next to the specific land rights that a farmer can hold on a parcel, the assurance of tenure rights is critical for tenure security. Part of the uncertainty over use rights is captured in the mode of acquisition, especially by those controlling for plots that are rented or sharecropped (for example, Abdulai et al. 2011; Quisumbing et al. 2001b; Goldstein and Udry 2008). It is inherent to the nature of renting and sharecropping of annual crops<sup>5</sup> to have short-term tenure arrangements that can be renewed at the discretion of the landowner. In many cases, the tenancy arrangement explicitly formulates which crops (annual vs. tree crops) can be cultivated or which investments can or cannot be made on the land. Leaving the land fallow makes little sense under seasonal tenure arrangements. Making firm conclusions on tenure security based on these measures can be deceptive, as it is the owners rather than the tenants who have land rights (Migot-Adholla et al. 1994).

In the context of customary tenure systems, it is relevant to ask not only who, but also who else, has specific rights to land. Place and Hazell (1993) and Besley (1995) distinguish between land rights that do and those that do not require approval from other family members or from the family or village head. Finding the right measures of *de facto* tenure security can be even more challenging than determining *de jure* tenure security based on land rights or mode of acquisition. Not reporting the right may not mean that the person can never exercise this right. For example, a farmer may not have a formal right to bequeath (*de jure*), but this does not mean that he may not have the opportunity to (*de facto*) bequeath his land

<sup>&</sup>lt;sup>5</sup> Note that sharecropping of tree crops compared to sharecropping of annual crops does involve long-term and relatively secure land rights.

(Besley 1995). Similarly, although a farmer may have a specific land right, it is not a given that this right will be respected.

Goldstein and Udry (1998) find that those who have stronger social and political connections are less likely to lose their land after fallowing, and are therefore considered to be more secure over their use rights of the land. This also relates to the fact that land is not seen as individual property, but that there are multiple claimants who have rights to the land. Other studies mention the experience of land disputes, but do not use this as a key explanatory variable in their analysis. Overall, finding adequate and meaningful measures of the assurance of land rights is challenging and requires both an extensive dataset as well as in-depth knowledge of the local tenure system.

#### **Characteristics of Investment**

Tree planting and fallowing are the most frequently studied investments in Ghana. Other investments analyzed are destumping, continuous manuring, drainage, irrigation, mulching, land excavation, and making shallot beds (see Table 4.1). Each of these investments comes with a set of different attributes that are important for understanding investment decisions (Sjaastad and Bromley 1997; Knox et al. 2002). The land rights a farmer holds to a parcel and different aspects of the local tenure system will likely be influence by the type, sequence, and intensity of investments made on the land (Sjaastad and Bromley 1997; Knox et al. 2002). Farmers with fewer land rights or who are less secure may choose an investment that maximizes the combined effect of productivity and tenure security increase. Farmers that have sufficiently strong and secure land rights may be concerned only with productivity (Sjaastad and Bromley 1997).

The most distinctive characteristics in this context are probably "inconspicuous" or passive investments compared to visible, active investments. As explained previously, rights are guaranteed over standing crops, and labor investments are rewarded with stronger land rights. In their papers, Otsuka et al. (2003) and Goldstein and Udry (2008) describe fallowing as a soil fertility enhancing investment. However, when leaving the land fallow, no visible investments are made in terms of labor, and there are no standing crops remaining. Inevitably, rights to the land will weaken when left fallow. In the other extreme, we find tree crop planting. Establishing a plantation requires substantial investments in labor and guarantees standing crops for several decades. Naturally, establishing tree crops enhances farmers' land rights and tenure security. However, although farmers are relatively sure to hold the established plantation during their lifetime, they may want their children to benefit from the plantation once they die. Hence, investments will still be made strategically, as described earlier.

We also distinguish between essential investments, land-conserving investments, and yield-enhancing investments (Place and Hazell 1993). Some of the investments analyzed, such as planting trees or making shallot beds, are essential to the crops that are cultivated. Farmers cannot have cocoa plantations on their land unless they or their predecessors planted cocoa trees. Likewise, anyone growing shallots in Anloga will establish shallot beds (Place and Hazell 1993). In these cases, investment and cropping choice are intertwined. Draining and excavation improvement are land-conserving investments and destumping is a land-improving investment. Fertilizer, manuring, and mulching are profitability-increasing investments. Fertilizer results in quick, short-term increases in crop productivity, while manure and mulch have a slower effect but of longer duration (Abdulai et al. 2011).

## **Empirical Methods**

For many research questions, establishing causality and measuring impact are methodologically challenging. Empirical difficulties that plague research on land tenure and investments are primarily unobserved heterogeneity and reverse causality, but so are working with binary dependent variables, collinear measures of land rights or tenure, little variation in investment and land rights variables, confounding effects of property rights with other variables correlated with property rights, and small

sample sizes (Fenske 2011; Place and Swallow 2002). Equally critical is the appropriate interpretation of the empirical results (Place and Swallow, 2002).

Reverse causality, or the impact of investment on tenure security, is especially strong in the case of tree planting, which is analyzed in all case studies except Goldstein and Udry (2008). Establishing a tree plantation generates strong land rights. Otsuka et al. (2003) explain that tree planting is a prerequisite for transferring land as a gift. Hence, there is clearly a case of "strategic planting of crops" (Quisumbing et al. 2001a). Other investments that can increase land rights or tenure security are destumping, drainage, and land excavation. Furthermore, farmers can decide to improve boundary demarcation and write documents and/or involve witnesses.

The study by Besley (1995) was one of the first studies to assess the sensitivity of the analysis to endogeneity. He reworked data collected by the World Bank, also used by Migot-Adholla et al. (1994). His work shows the importance of correcting for reverse causality. The original study concluded that tenure security has a positive impact on investment in Anloga but less so in Wassa, while Besley concluded the opposite, with better land rights facilitating investment in Wassa, but not convincingly so in Anloga. In his study on land tenure, Besley (1995) concludes: "The findings suggest that the measured rights variables that appear, at first sight, to affect investment may actually evolve symbiotically with investment. Rights may also be affected by other, unobserved, actions. . . . Thus rights should properly be regarded as something that farmers affect, not as exogenously given conditions, which reinforces the importance of studying the determinants of rights, effective and nominal, and not just their consequences."

Typically, employing an instrumental variable approach solves reverse causality. Yet, not all studies have exogenous instruments at hand (see, for example, Place and Hazell 1993). Fixed-effect or error component models that exploit the existence of multiple parcels per household only control for household-level, but not for parcel-level unobserved effects. Moreover, sample size is further reduced in fixed-effect models (Otsuka et al. 2003; Place and Hazell 1993).

## **Case Study Setting**

There is a remarkable diversity across Ghana, but also within regions and districts. Many regions or communities differ either substantially or subtly from each other in terms of tenure systems, cropping patterns, investment types, and so on. For example, the right to sell or rent out land does not exist in some communities, matrilineal inheritance practices are only present among the Akan ethnic group, and we find the practice of gifts of land only among the Akan in the cocoa-growing regions in the West. Throughout Ghana, where land is sufficiently available, fallowing is still practiced for annual crops. Other investments are limited to specific agroecological zones, depending on crop suitability. Tree crop plantations, for example, only occur in the Forest zone. Shallot cultivation is largely concentrated in Keta district in the south of the Volta Region.

The World Bank data collected in 1987/1988, and used by Migot-Adholla et al. (1994), Place and Hazell (1993), and Besley (1995), give information on three (two for Besley) very different case study settings in the Western, Ashanti, and Volta Regions. Quisumbing et al. (2001a) and Otsuka et al. (2003), originally intending to create a panel of the World Bank data, focus again on Wassa in the Western Region. Quisumbing et al. (2001a) also include neighboring districts in the Brong-Ahafo and Ashanti Regions. Abdulai et al. (2011) look at two other districts in the Brong-Ahafo Region, and Goldstein and Udry (2008) focus on Akwapim in the Eastern Region. Only Fenske (2011) uses nationally representative data for Ghana in his meta-review on land tenure in West Africa.

As much as we hope to extrapolate case study results, we must also acknowledge the specificity of each study and critically assess its contribution to the wider policy dialogue (Place and Swallow 2002). Geographically, the case study areas do not represent all regions of Ghana (see Table 4.1, Figure 2.1), nor do they represent all agroecological zones or all major ethnic groups (see Figure 2.2). We find no studies in the Central Region, and Anloga is the only case study in the Coastal Zone. There are no accounts of the Ewe, one of the main ethnic groups in Ghana living primarily in the middle or northern Volta Region.

More strikingly, there are no empirical case studies in the Northern, Upper-West, and Upper-East Regions, which are home to different ethnic tribes and a unique agroecology. In order to understand the relationship between land tenure and investment in Ghana as a whole, and especially before formulating policy advice, tenure issues must also be examined in those areas.

Case studies are not only limited geographically, but they also often focus on one specific, or a limited subset, of possible investments, cropping systems, or land under specific modes of acquisition. For example, Goldstein and Udry (2008) explicitly analyze fallowing on fields for maize-cassava cultivation. Farmers in their study region also cultivate pineapple for export and a variety of other crops. If these contribute significantly to household food consumption and/or income, then we also need to know the impact of tenure security on these crops before making any policy suggestions. Besley (1995) limits his sample to owner-operated farms, in stark contrast to the work of Abdulai et al. (2011), where renting and sharecropping arrangements are considered to be key independent variables of interest in explaining investment decisions.

<sup>&</sup>lt;sup>6</sup> There are a number of qualitative case studies looking at land tenure and agricultural investments in the Northern and Volta Regions. See, for example, Bakang and Garforth (1998) with a study among the Dagaaba in Upper-West; Antwi-Agyei et al. (2015) looking at Bongo district in the Upper-East Region; Bugri (2008) in Bongo and Bolgatanga districts in the Upper-East; and Fred-Mensah (1999) in the Volta Region.

# 5. LAND AS A POLICY PRIORITY IN GHANA: WHICH POLICY AND WHICH PRIORITY?

Land reforms have long been on the policy agenda of the government of Ghana and the donor community. Ghana approved its first comprehensive land policy, the National Land Policy, in 1999 (Ghana, Ministry of Lands and Forestry 1999). Its first poverty reduction strategy paper (PRSP) (2003–2006) mentions "land administration reform to improve security of land tenure by addressing issues of land title and land security" as a priority, and similarly Ghana's PRSP for 2006–2009 and 2010–2013 mention reforms to land acquisition and property rights as priority interventions. In 2003, the World Bank and other partners embarked on a long-term Land Administration Reform Program in Ghana. Ghana was one of many African countries solicited in the African Union's Land Policy Initiative (LPI) in 2006, and jointly with other African heads of state it endorsed the Framework and Guidelines on Land Policy in Africa in 2009. It was also one of the 10 African countries that were assessed using the Land Governance Assessment Framework (LGAF) by the World Bank and its partners in 2011 (Deininger, Hilhorts, and Songwe 2014; Bugri 2012).

As of now, Ghana's legal framework for land is affected by 166 pieces of legislation, several of which are contradictory and/or overlapping. Land is essentially governed by a pluralistic legal system in which both customary and statutory systems are recognized and overlap. The duality between statutory and customary rights is especially problematic due to the lack of effective practical administrative linkages between traditional and governmental authorities (Quan et al. 2008). Although it is beyond the scope of this paper to provide an in-depth discussion on land policy, we bring up three issues reflecting the lively discussion on the past successes and future directions for land policy in Ghana: the 1985 Intestate Succession Law (ISL), the World Bank's Land Administration Reform Programme, and the Customary Land Secretariats (CLS).

The Intestate Succession Law (ISL), enacted in 1985, provided a major milestone in Ghana's legal history to formalize property rights of the nuclear family, rather than the extended family. In essence, this can be seen as an individualization of land rights in the form of intergenerational transmission of land from parents to their children. While this did not differ drastically from the customary practices in patrilineal societies, it did provide a major change in the customary practices by the matrilineal Akan. La Ferrara and Milazzo (2012) find that the introduction of the ISL reduced overinvestment in human capital and increased the probability of Akan males becoming farmers. On the other hand, its influence has been questioned by those claiming that few effectively practice the ISL (for example, Kutsoati and Morck 2012).

The implementation of the Land Administration Reform Programme, started in 2003, was called the Land Administration Project (LAP-1), and a second phase (LAP-2) was launched in 2011. The development objectives stated in LAP-1 included enhanced land tenure security; a more sustainable system of land administration; more efficient and cost-effective services; and a need for fairness, transparency, and sustainability. The project aimed to strengthen simultaneously government land administration services through decentralization as well as customary authorities with a pilot of customary land secretariats (Independent Evaluation Group 2013; Quan et al. 2008). As noted in Deininger et al. (2014), "The justification for doing so [that is, the LAP] is that weak land governance may affect cultivators' (often women's) ability to invest in enhancing land productivity." In contradiction, earlier research funded by the World Bank in Ghana concluded: "Policies that encourage the development of formal markets in land, in contrast to customary methods of acquisition, or policies that forbid tenancies, are not justified on grounds of enhancing land improvements" (Migot-Adholla et al. 1994).

Much attention goes to respecting customary rights to land, justified as being the most appropriate way to protect the land rights of the most vulnerable in society (Ubink and Quan 2008). The LAP has initiated the concept of customary land secretariats (CLSs) to enhance transparency of land transactions and ensure accountable and equitable land administration. In a few pilot areas where traditional authorities are willing to collaborate with the project, the project supports activities such as

systematic customary boundary demarcation, documentation of rights to all parcels, and the automation and proper management and documentation of land transactions (Bugri 2012). Yet, the approach is under substantial scrutiny by those arguing that traditional authorities may sometimes act out of self-interest, rather than striving toward an equitable and fair distribution of land (Ubink and Quan 2008).

Looking back at the objectives stated in the PRSPs and LAP policy documents, a set of divergent reasons for strengthening tenure rights are highlighted and several beneficiaries are detected. Land reforms are expected to improve agricultural performance through more investments and innovation, enable the use of land as collateral and result in gains from trade, and reduce conflicts over land. They are expected to improve access to land for foreign and local large-scale investors, support private-sector entrepreneurs in both agriculture and industry, benefit smallholder farmers, and secure access to land for the most vulnerable people (women, youth, and the poor). This set of possible outcomes is borrowed from conceptual, theoretical frameworks centered on land rights and tenure security. All of these outcomes are highly desired, and few would not want to support such a diverse group in society. However, some of the objectives, such as improving access to land for vulnerable people and improving access to land by large-scale investors, are possibly contradicting each other. Moreover, none of the envisioned outcomes of land reforms has been confirmed or supported, if not outright contradicted, by empirical case studies in Ghana and even neighboring countries.

## 6. CONCLUSIONS

Tenure matters. It is the focus of costly policy interventions and the cause of disputes between ethnic groups, community members, and family members. Yet, how tenure affects smallholder farmers' investments and productivity, and which policy interventions are needed to improve tenure, is not as clear. Theoretical models show how tenure security and improved land rights can increase agricultural investment and productivity, but empirical evidence does not always support these models. In this paper, we investigate how empirical research and policy interventions can better inform each other for the case of Ghana.

Starting from the smallholders' perspective, we find that land tenure systems in Ghana are diverse and dynamic. We find communities where land is abundant and land markets are virtually nonexistent as well as communities where land is scarce and land markets are well developed. The rights that farmers hold to their land depend not only on the history of acquisition and ethnic and cultural background, but also on cropping patterns and investment choices. Both drastic as well as subtle differences exist in how land is governed. Farmers' experiences of tenure insecurity are related to the specific nature of land rights; the continuity and duration of land rights; the exclusivity of land rights; and the clarity, respect, and enforcement of land rights.

The diverse and dynamic nature of tenure systems poses challenges for empirically analyzing their impact. Different case studies analyzing the impact of tenure security or land rights on agricultural investment and productivity in Ghana come to different and sometimes contradictory conclusions. They often do not confirm the underlying theoretical model, and even those using the same data have found different effects. We attribute inconclusive evidence and perceived inconsistencies in the empirical literature to challenges in finding the right indicators for tenure security, the different contexts and characteristics of investments studied, and the difficulties in devising adequate empirical strategies.

Similarly, policymakers within and across institutions are indecisive as to whether tenure should be a priority, and which track Ghana should follow to improve its tenure (Amanor and Ubink 2008). There is a strong belief that land matters, but it is not clear how much can reasonably be achieved by reforming land policies. It is also unclear how land governance could be improved and what, given all the expected benefits and beneficiaries, should be prioritized. Considering the variety of tenure systems, the cultural diversity, and the range of cropping systems in Ghana, it is unlikely one can find a single solution that will benefit all. Policymakers may eventually need to formulate clear goals or priorities in terms of target population, region, investment type, and crops.

Ideally, such policy decisions are based on firm evidence of what can reasonably be achieved. If tenure security is key to our theoretical motivations, then we need to understand what hinders or improves tenure security for farmers. Coherent language, clear indicators, and sound methodologies are critical to understanding impact pathways and comparing results from different studies. Although challenging, including variables capturing specific land rights and finding indicators that reflect assurance of land rights would shed light on how land rights affect investment and which types of policy interventions are needed to encourage investments.

Moreover, for this highly contested topic, we argue for more attention to bridging the gap between national land policy and the local case study–specific context and results. To understand the possible impacts of national policies, nationally representative studies or a substantial number of case studies would be most appropriate. Pilot interventions in the ongoing land administration program have already provided a wealth of qualitative information. We have much reason to look forward to what we can learn from ongoing and future processes.

Finally, many of the issues discussed here are not unique to Ghana, but apply equally to other countries in Africa south of the Sahara. Most African countries contain a diverse set of tenure systems, agroecological conditions, and ethnicities. Similar to Ghana, studies on land tenure within and across African countries have shown contradicting results (Fenske 2011; Place 2009). The sensitivity of farmers' investment incentives to the specific context suggests that much is likely to be learned from matching case studies across countries in similar agroecological and cultural conditions. Such an exercise could shed much-needed light on land tenure issues in varying regions of the country, and how those issues affect a range of investment options and cropping patterns.

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