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Formal and Informal Property Right Systems: The Case of the Amhara Region of Ethiopia

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Abstract. Amhara regional state of Ethiopia is one of the pioneer regional states in the country to design and to implement progressive land administration systems. Unlike most similar undertakings, the accomplishments of the Amhara land administration system are satisfactory. The strong public support is one of the key features in the Amhara land administration system. The current study focuses on describing both formal and informal settings for better understanding and for generating lessons. The Core Cadastral Domain Model is an initiative to enhance international understanding and to exchange cadastral information. Necessary modifications are applied for easier description of formal as well as informal settings in the Amhara region. The formalization process considers the needs of the landholders as well as existing tradition of the informal setting. The study identifies more similarities than differences between the current formal system and the Irist system, which was the dominant informal tenure system before the introduction of the formal system. The study underlines the importance of considering the existing informal tenure system during introduction of new formal land administration systems in Africa.

Key words and terms. Legal cadastral domain model, informal setting, formal setting, land administration system, Amhara region, Ethiopia, property rights

1 Introduction

Reality surrounding us is considered as infinite in space and time. It is complex and continually changing (Sumrada, 2003; Zevenbergen, 2002). Models are required to represent the complex reality in a simplified form. It is easy to make land

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administration systems complex and on the other hand it is complex to make them simple (Lemmen, 2012). Land management therefore can be understood better, when we consider it as a system. Complex problems such as land management issues need to be investigated at different angles and perspectives (Zevenbergen, 2002).

Land administration systems document the dynamic relations between mankind and land. The relations are governed by the peculiar socio-economic situation of each society. The relation can be created and developed by formal or informal rules (Williamson, et al., 2010). Informal property rights are those without official recognition of the state. In some cases they can even be in direct violation of the formal rules. In informal property right systems the community defines which land-related activities are permitted and which not. The restrictions in the informal setting are imposed by the local society and enforced by social sanctions (Shibeshi, et al., 2013).

The fact that land administration systems are dealing with society specific tenure problems makes it difficult to copy a well working system from one country to the other. Therefore, standardization of models is forced to be at conceptual framework level (Ali, et al., 2010; Van der Molen, 2002). Recently, ISO published the international standard on land administration (Land Administration Domain Model / LADM) that can be used for the exchange of knowledge on this topic (ISO, 2012).

After the approval of LADM, studies are going to be used as input for upgrading. An option for expanding was the LADM with legal profiles (Paasch et al., 2013a) and RRR (rights, restrictions and responsibilities) (Paasch et al., 2013b) can be mentioned as examples. The upgrading of LADM requires the description of many land administration systems as input. One objective of this study was to design a modified version of the legal cadastral domain model developed by (Paasch, 2005; Paasch, 2011; Paasch, 2012) to describe the rights and obligations of the property right system in the Amhara region.

The concept of legal cadastral model is based on the relation between humankind to land, which can be classified by beneficial and limiting rights. Two major interests on land are defined in the model: Public interest and private interest on land. The details about the relation and interests on land are managed differently in different jurisdictions. The upgrading of LADM requires the description of many land administration systems as input. This paper explains formal and informal systems of the Amhara regional state land administration system (as an example for progressive systems from Africa) as input for the upgrading of LADM.

Combining formal and informal systems will continue to be a challenge (Ubink & Quan, 2008). Contextualization of standard framework models is required to understand properly the two systems (Paasch, 2011; Paasch, 2012). In the presented study, the informal rights were categorized into similar groups and criteria for the categorization were developed. The core legal cadastral domain model was customized to describe both the formal and the informal holding right system.

The paper presents the findings of the study based on the review of the legal system. Discussions with professionals and law makers were carried out to describe and to characterize the formal system. The description of the informal setting is based on literature review and on discussion with key informants, purposefully selected for their knowledge on the informal property right system.

2 Brief Description of Test Site and Its Property Right System

The Amhara National Region State (ANRS), here after the Amhara region, is located in the north-western part of Ethiopia. The regional state has an area of 154,708 square kilometers, i.e., the third largest land size of regions in the country. The Amhara region has 18 million inhabitants. Compared to the other regional states, Amhara regional state has the second largest population size. A total of more than four million land holders are registered in the Amhara regional state (CSA, 2007).

The Irist system (kinship based tenure) was the dominant tenure system in the Amhara region up until 1974. During this period all descendants (both male and female) of an individual founder (settler) were entitled for inheritance. This does not mean that distribution or concentrations of the Irist right holders (gebars) in different parts of the regional state was uniform. The concentration of the Irist right holders (gebars) was higher in former Sheoa, Gojjam Gonder and Wag Hemera (part of former Wollo). In contrast, the concentration of Irist right holders (gebars) in South Wollo and Oremia zones was low. Most of the land in Oromia and South Wollo was held by very few and large absentee landlords.

The Irist system was abolished during the era of the Derg (military junta that overthrew the monarchy). The Derg replaced the Irist system with state ownership of land. The current government, following the Derg, also continued the public ownership of land. The operational formal system in the current day Amhara regional state is the holding right system. Though land is public property, the duration of the holding right is in perpetuity. Transfer of land rights using land sale is not permitted in the formal system. The informal system influenced by the former Irist system is also widely practiced at the same time in the Amhara region.

3 Methods

3.1. General

The Amhara regional state was selected as representative sample for describing formal and informal settings mainly because of the leading role the Amhara region has in the land administration sector. Additionally, the suitability of the regional state to draw lessons that can be adopted in similar situations in the developing countries is considered.

The design and implementation of the whole field survey was conducted between June 2011 and October 2013. All structured interviews and discussions were conducted by the corresponding author. He took part in all expert panels and attended all discussion meetings. This was necessary to enable a better understanding for the evaluation and analysis of the system.

3.2 Literature Survey

A literature review deals with both peer reviewed journals and grey literature. The grey literature is mainly unpublished reports and MSc theses on land issues. The review includes, but is not limited to, the evaluation of legal and policy documents, the evaluation of different official reports and publications. The literature review exercise was constrained by limited number of scientific publications that are directly inquiring issues related to the ANRS formal and informal land administration system.

3.3 Key Informants Interview

The key informants are mostly elderly people, who are selected for their especial knowledge about the informal Irist system. They lived through the informal Irist system and are experienced on how the Irist system was operating. As the Irist system had variability due to location, key informants were selected from Gojjam, Wollejo, Sheoq and Gonder (all were former provinces before the Derg era) to access and understand the local variability. Additionally, two groups from Awi and Oromia zones were formed to consider the tribal variability.

The discussants were pre-informed about the major discussion points. Discussions were made in a group so that one complements the other's memories. Most of the key informants were highly respected society leaders in their communities. Giving them respect was necessary to get the intended knowledge from them. The corresponding author facilitated and headed all the discussions with key informants.

3.4 Individual Interviews

The objective of individual interviews was to fathom the effectiveness of the Amhara land administration system at policy, management, and operational levels indirectly by customer satisfaction. Semi-structured individual interviews were outlined to get knowledge about the level of satisfaction of small scale farmers on land administration activities (Simon, 2006). To make the sample representative, 24 randomly selected farmers from six different Woredas (districts) were interviewed. In addition to individual farmers, five members of land administration committees from each selected Woreda (district) were interviewed (in total 30 persons).

The individual interviews had been constrained by the availability of randomly selected interview partners. Especially it was difficult to get a proportional number of female respondents.

3.5 Expert Panels

Expert panels are discussion forums with Woreda (district) and zonal experts and groups. Experts' panels guided by open ended questions were conducted with 15 expert groups in seven Zonal offices and in eight selected sample Woredas (district). A total of 70 experts attended the panels. The discussion with the professionals was focused on getting knowledge about the formal system.

3.6 Questionnaire Survey

Questionnaires were distributed to 128 zone and district offices. 118 offices responded. The general aim of the questionnaire survey was to get knowledge on the implementation status of the formal system. In particular, the questionnaire also included questions to analyze the status of the acceptance of legal and of policy provisions by users.

4 Result and Discussion

4.1 The Hierarchy of the Legal System in Ethiopia

The highest governing law in Ethiopia is the constitution. The federal government and the member states have the legislative, executive, and judicial power. The house of people’s representatives is the highest power, to be elected every five years by direct popular vote. There is also similarly organized law making body at the regional state level commonly known as the state council (FDRE, 1995).

The hierarchy of the legal system is generally organized in two categories, namely the federal state and the regional state level laws. The formal land

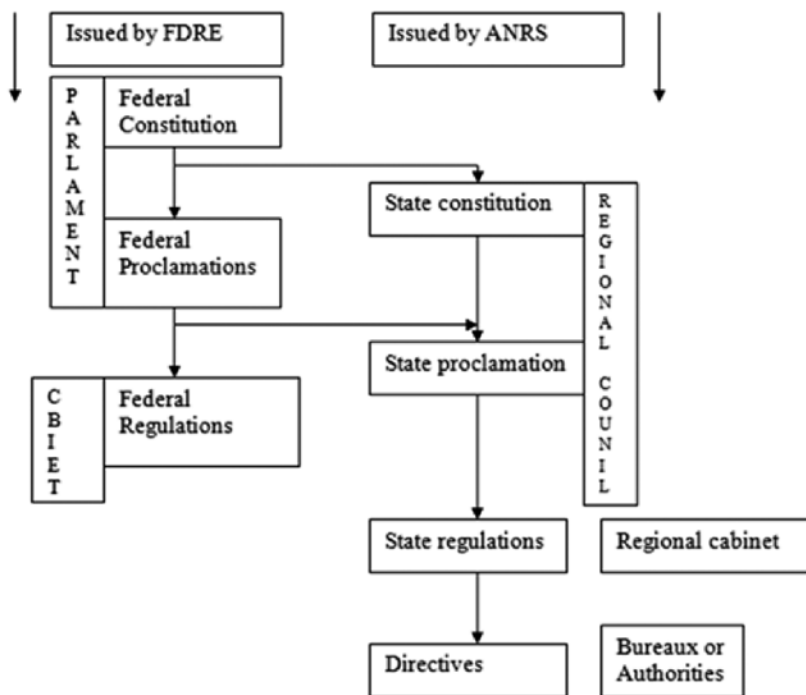


Figure 1. Hierarchy of federal and regional laws.
 Acronyms: ANRS – Amhara National Regional State
 FDRE – Federal Democratic Republic of Ethiopia
 CBIET – Cabinet

Source: Anderson, 2005

administration system is part of this hierarchy of laws. The member states have the right to develop their own constitution. The major objective of developing a constitution at the regional state level is to have a possibility for modifications based on site specific situations and peculiar needs (FDRE, 1995). The most pronouncedly used legal institutions in Ethiopia are the court, the civil administration and the local organizations.

The regional laws have to comply with the federal framework laws. In cases of contradiction between the two legal strata, the federal level has always the overriding power (Andersson, 2005; Ambaye, 2013).

The cabinet of ministers at federal level – under the leadership of the prime minister – and the regional cabinet – composed of selected bureau heads chaired by the regional presidents – are the major executive bodies responsible for enacting regulations.

Directives are other important components of the legal system. The directives shall be developed based on the regulation. The responsibility for developing directives is mostly given for the implementing ministerial office at the federal level or the bureau or authorities at the regional level. The directives are supposed to show the exact hand and arm movement in the implementation of the higher level laws. The formal property right system is governed by laws at all level of the hierarchy.

4.2 History of the Formal System

The tenure structure during the Imperial period was quite complicated and in parts of the country highly exploitative (Mesfin, 1991; Ashenafi & Leader-Williams, 2005; Rahmato, 2005). During this feudal period there were on the one hand small-scale owner-cultivators, and on the other hand large landholders, who in many instances obtained their possessions through political means. Such landholders were members of the nobility and the local gentry. The nobility were absentee landlords while the gentry resided close to their property. The system is said to be exploitative, because nobility and land lords contribute no part in the production process but demand the highest share of the benefit from agriculture. The shares they demand were ranging from one third to two thirds of the product especially in the southern parts of the country. Complete and irreversible defeat of landlordism was the greatest achievement of the military dictatorship Derg (Rahmato, 2005). The socialistic change during the Derg time eradicated all the class relations, but also removed the growth attempts of the enterprising farmers. During the Derg era, the focus of the transformation was highly influenced by equity issues and suppressed the efficiency needed for agrarian development (Rahmato, 2005; Ashenafi & Leader-Williams, 2005).

The periodic redistribution and the ban on the renting of land and on the hiring of labour as well as grain requisitioning forced villagization and cooperativization were the major burdens on the production system. Nowadays, after they have been abandoned, class differentiation within the peasantry became a thing of the past.

The past rural policies were not in a position to encourage the creative skill and productivity of the landholders. To the contrary, the policy forced them to

live in abject poverty. The rural economy has undergone a shift towards micro-agriculture in the last three decades. Because of the wrong policy, the peasant farm was growing smaller, producing less, and increasingly losing its fertility. The average household gained fewer farm assets and was much more vulnerable. This evidence also was confirmed by key informants and by the analysis of the questionnaire. Matters have been made worse by high rates of population growth and severe demographic pressure on the land leading to what one might call the “saturation of rural space” (Ashenafi & Leader-Williams, 2005).

The past three political upheavals in Ethiopia were strongly influenced by the land issue. One of the most popular mottos of the socialist revolution was “Land for the tiller” (Meret larashu). On 4th of March 1975, the Derg proclaimed the nationalization of all rural land through the rural land proclamation number 31/1975; since then land is under the ownership of the government. The same proclamation is the base of the establishment of Kebeles (parishes), the lowest administrative units in Ethiopia. The Kebele (parish) administrations were responsible for land reallocation and resolving land related conflicts during the Derg era. The current government included most important land policies in the constitution.

The constitution delegated the details of land issues to be proclaimed separately. Proclamation no 89, later on amended by proclamation 456, was the result of the constitutional provision. In proclamation 456/2005, it is proclaimed that land is not subject for sale or any other type of exchange in Ethiopia. The ownership to land is exclusively vested to the state and to the peoples of Ethiopia. It is only the holding right that is given to individual citizens (FDRE, 2005).

By the framework law, power is given to the regional states to enact their own land administration and use the proclamation in accordance with the federal law. The regional laws are supposed to take into account the site specific conditions and to achieve the regional objectives. The proclamation also enables regional states to establish their own institutions pertinent for the implementation of the proclamation (FDRE, 1995).

The new regional state land law (133/2006) was developed based on the provisions given by proclamation 456/2005. Many consultations with the major stakeholders were made before enactment. The needs and interests of different stakeholders were at most considered during the drafting process. The development of the legal system subsumes the need for high technology, participation, justice and proper information dissemination, and training of the land holders. As the system is the combination of complex technical and social issues, the efficacy of the system will increase, if it is developed and implemented in a participatory process.

Proclamation 133/2006 is an improved version of proclamation no 46/2000. The law was amended based on the experiences gained during the implementation of proclamation no 46/2000. It attempts to resolve the problems encountered during the implementation and it guarantees better rights for landholders. These efforts of the governments were noted by all the participants of the expert panels and confirmed by the results of the questionnaire analysis.

The ultimate objective of the current proclamation is to attain tenure security and to enable sustainable development.

4.3 History of the Informal System

Indigenous land tenure systems in Ethiopia were varied and evolved through a complex of processes. The major forms of land rights and land tenure systems operated in Ethiopia were *Atsme Irist* and *Gult* (Ambaye, 2013). The key informants in different sample areas also defined *Gult* as the right to administer an area, mostly assigned for the members of the royal family. The *Gult* system was a decentralized taxation system, where the *Gult* right holder has the right to levy and collect tax on behalf of the central government. The tax used to be paid in kind. Usually the *Gult* holder adds some margins on the proportion for covering his administrative costs. The commonly used proportion was one tenth of every product. The *Gult* right holders have the right to exempt *Irist* right holders (*gebars*) from taxes. In general, the *Gult* right holders are responsible for the overall administration of the area, but they have no right or power to give or take land from *Irist* right holders (*gebars*) (Mesfin, 1991; Ambaye, 2013).

The *Gult* system was abolished during the Imperial period after the Italian invasion and replaced by a centralized taxation system, which continues up until the end of the Derg period.

Atsme Irist commonly known as *Irist* is a hereditary ownership system of land tenure. The *Irist* right holder (*gebar*) is the kinship group of the first settlers of the area. The individuals in the kinship group have their own private holdings, but they cannot transfer their right to an outsider without the consent of the group leaders. The *Irist* system was the most dominant system in Amhara National Regional State. Most respondents interviewed for the current study do not know about the system before the *Irist*. But all of them assumed that land was an abundant resource before the *Irist* period and there was no need of establishing rules to regulate the social relationship with land. The land being not occupied by the *Irist* holders was declared to be under the control of the central government.

There was a system of allocating unoccupied land for different government services as a salary for the military and for civil servants. This type of land was known as *Maderia*. Unlike *Irist*, *Maderia* land was not hereditary, though the services sometimes were inherited. The land was reallocated, when the service to the government ended. *Maderia* covers only the interest in the estate, while *Gult* is the right to tax and administer land, including *Maderia* land itself. The government also allocated land for church services. Sometimes the government allocated unoccupied land to the church as a *Gult* area. Then the church was allowed to collect taxes from users as a compensation for running the church services.

The church services givers are divided mainly into two groups: firstly the priests and deacons, locally called *Kedash*, and secondly the locally called *Debteras*, who are assigned and educated to render the administrative and educational services. As reported by key informants, in some of the sample areas (*Aw*i, *East Gojjam*, *North Sheoa*) all the church services are hereditary. When the right holder is not educated or no male member is available in the family (only males are qualified

to be priests, but females can be Debteras), an appropriate person has to be hired to accomplish the service. In other areas, such as Oromia, South Wolleto, and Wag Hemra, the right is not hereditary and the land was reallocated if the right holder failed to give the required services by him.

In almost all cases the land allocated for the church services is within the vicinity of the church so that the service giver is easily available whenever required. Most of these lands are still in the hands of the churches, even if the management system now is quite different. All the land allocated for church services are tax exempt.

Based on the results of the current study, the individual land tenure situation before the land reform proclamation may be broadly described as follows – apart from different types of land allocated for different types of social services:

- People had no right to own land (such as an artisan group);
- Landless peasants were operating as tenants;
- Gebar or Irist holders operated their own small plots of land;
- Landlords, mostly absentee landlords, had some thousands of hectares; and
- Commercial farmers – originally not from the farming community – were operating modern large scale farms, often leasing the land from the government (Rahmato, 2005).

Since the Irist period, a decision on transaction of land was under strict control by the local community. The Irist system is believed to be the first tenure system in the region. The key informants interviewed for the elaboration of this study reported that land was free to everyone before the Irist system. Their argument to support this logic is the literal meaning of the word Irist itself, which means the place to rest. They also argue that Irist holders are the descendants of the first settlers in the area, to whom the right to hold land was given.

4.4 Formal Landholding Right

Formal property rights are those that are explicitly acknowledged by the state and which may need government authorities for enforcement (Williamson, et al., 2010; Dale & McLaughlin, 1999; FAO, 2002). The key difference between formal and informal holding rights is the enforcement mechanism when the rights are violated.

In the Amhara region, the formal land administration system is designed and implemented on basis of the federal and regional laws, namely the federal land proclamation (456/2005) and the regional land law (133/2006).

The constitution boldly underlines that the right to sell or buy land is not included in the bundle of rights given to the landholder. However, the landholder can be the owner of both movable and immovable properties developed on his land. The intention of legislators, while restricting the ownership right, is to protect the peasants from eviction caused by distress sell (as proved by the results of the questionnaire and in discussion with experts).

There is no land in the Amhara region without any designated holder. The holder of the land can be a natural person, a legal person, a group of people, or the state. According to the proclamation 133/2006 land holder is defined as “an

individual, group of people or community, government body, social institution, or other body with a legal personality having a holding right over rural land” (ANRS, 2006). De facto open access areas in remote locations normally belong to the state lands, as confirmed by experts, key informants, and individual farmers.

The landholders shall never lose the occupation without proper compensation, though some variability is reported in practice (Yersaw, 2012; Ambaye, 2013). The constitution states the subject in point as “Ethiopian peasants have the right to obtain land without payment and the protection against eviction from their possession... (FDRE, 1995)”

The right to hold property is also stated in the constitution Article 40/7. This right is given for every Ethiopian and the protection includes all immovable improvements made by the citizen. The improvements can be caused by his labour, creativity or capital inputs on land. His rights include the right to alienate, to bequeath, to transfer and to remove his property, when the right to use the land expires (FDRE, 1995).

The federal framework land law, based on the constitution, defines holding right as the right of any peasant farmer, semi-pastoralist, or pastoralist, to use the rural land for the purpose of agriculture and natural resource development. It allows to lease and to bequeath the land to members of his family or other lawful heirs. It includes the right to acquire property produced on his land by his labour or capital and to sell, exchange and bequeath same (FDRE, 2005). In Ethiopian context, holding right refers to the right given on land, and property produced on his land refers to fixtures. According to the constitution, fixtures are subject to sale while holding right is not. Due to this vague statement, land holders, especially in the urban areas, are capable of transferring their right on land together with a building or a house, or any improvement on land during sale.

Most property related laws, including land laws, are very much influenced by the civil code of the country promulgated in 1960. The socio-political setting in the country changed very much since the enactment of the civil code. As a result, some of the provisions in the civil code are outdated and not applicable. However, the definition of immovable in the civil code is still valid. The civil code defines the immovable as lands and buildings. Fixtures in the civil code are termed as intrinsic elements of goods. These elements include anything that by custom is believed to be a part of a thing and things that are materially united with a thing. Trees and crops are also intrinsic elements of a thing (EoE, 1960).

The holding right is the highest right for the holder that encompasses all transfer rights except land sell. The right normally has no time limit and hence it is different from a lease system. It is different from use right, as the use right can be obtained by renting land from the landholders or the state. The use right is for an agreed and defined period. The maximum period is 25 years in the case of Amhara region, but – as reported in the expert panels – the terms can be renewed by the agreement of the two involved parties.

The holding right of any person is respected by law. No person shall be expropriated from his holding without his consent, unless it is done by redistribution according to the decision of people or for the purpose of public interest.

The term public interest is often debatable. Adequate compensation is supposed to be paid for expropriated land before land acquisition. The controversy is on what is adequate for the subsistence farmer, whose life is entirely dependent on his holding (Yersaw, 2012; Ambaye, 2013).

In the case of the Amhara region the concept of real property will be modified as the combination of person, holding right and land. General relations of rights and obligations linked to the holding right are contents of the current study.

A better understanding of rights and restrictions linked to holding rights requires a more detailed classification of the simplified model addressing benefits and limitations on the holding right as well as the legal origins of rights and obligations. The model has to cover aspects like beneficial rights, limiting obligations, public advantages and public regulations.

Figure 2 outlines a model of the legal cadastral model of Paasch (2012) adapted by the authors. It is tailored to the legal situation of the Amhara formal system. The system reflects the findings gained in interviews with experts and farmers as well as the results of an analysis of the Ethiopian and Amhara regional law. The beneficial rights of the holding right are the common right, the right on others' property, the right on users, the latent right, and the collateral right. The term limiting rights used by Paasch (2012) has to be changed to obligations in accordance with a proper description of the relation in the Amhara land administration system. The types of obligations on the holding right are common rights, the right on others property, the right on users, the latent right, and the collateral right. Brief definitions for both, beneficial rights and obligations on the holding right, are given below.

4.4.1 Benefits and Limitations on the Formal Holding right

The holding right is linked with beneficial rights and obligations, which may differ between the different kinds of landholders. So, e.g., the state holdings can be transferred to investors by lease contracts. The investors can be domestic or foreign individuals or companies with an investment licence for doing business in Ethiopia. The transfer of holdings under service, given to institutions like schools, hospitals etc. are limited to landholders who can legally run the outlined service. The existence of the common right, the right on others' property, the right on users, the latent right, and the collateral right as a benefit or as obligation has to be considered, as well as the fact that rules and regulations can cover the issue completely or partially.

Experts reported that obligations imposed on the holding right are more pronounced than obligations on ownership right, due to the fact that land sale is not allowed in the holding right.

Commons

Common, according to Paasch (2012) is defined as, a relation between two or more real properties and land legally attached to them. Common right does not describe the situation where local community owns a piece of land together. However, the definition of common right in the context of this paper is the right

to use a piece of land in common. Use can be for short time, e.g. free grazing on crop lands, or for permanent use, e.g. common pastures, community forests, and service areas. The right to use commons is related to the membership to the local community.

Proclamation 133/2006 defines the common holding as rural land not under the ownership of the government or of any private holding, but used by the local people in common for grazing, forestry and other social services. In most cases, communal holdings are governed by traditional rules and by-laws. As stated by experts and farmers, the traditional administrative mechanisms are acknowledged by the land law of the region to reduce conflicts due to resource competition. According to the regulation the local society is entitled to establish by-laws based on local circumstances. The decisions based on these local rules are legally valid unless or until they are in contradiction with established formal law.

The regional land law has also provisions how to transform communal holdings into individual holdings. Legal restrictions in the transformation process are the agreement of the rightful users of the concerned area and the perpetuation of the existing land use type after individualization. Additionally, the transformation process has to be approved by the authorities to minimize possible environmental consequences (ANRS, 2006).

The common rights in Amhara land law are normally given to specific Kebele (parish) membership, but in some cases the rights are limited to specific groups within the Kebele. Common rights are linked to the place of residence. The landless dwellers of the Kebele have full right and responsibility to use the common pool resources within their vicinity.

Common pool resources in the region are grazing lands, community and conservation forests, market places and other service areas, river banks, and water bodies. In practice – as told by the interviewed experts – the right to use the common pool resource is not exclusively given to the landholding rights in the Amhara legal system, but it is a beneficial right with a weak connection to the holding right.

Right on Others' Property

Right on others' property is the use right of the dominant land holder on the holding of the servant land holder. Examples of rights on others' property are right of way and easements. The servant holding is usually compensated for possible losses.

Land owners frequently desire to restrict the access of others to their holdings, often caused by the need for privacy and territorial imperatives. The local society and the state attempts to regulate these needs for the benefit of other community members. The relationship can be termed as the *property owners' golden rule*, saying: "I shall use my property as I think fit. The authorities must not interfere in my activities. My neighbours may use their properties, as long as they don't cause me any harm. It is the authorities' duty to protect me from my neighbours" (Kalbro, 1996).

However, regulations of the Amhara land law allow the holder the right to use other holders' land, if he has no other possibility to access the public infrastructure, e.g. roads. Another case to use others' land is to pass runoff of water, if the contour

and drainage pattern forces him to do so. And finally, a land holder has the right to establish irrigation channels on the land of his neighbours for watering his plot.

The rights of the holder described in the regulations are similar to the right of way and easements in other countries. The difference lies in the development of specific societies and in the variation of needs on infrastructure and services.

The right on users is the right of the land holders on the users of their holdings. It is the obligations of the tenants to serve the land lord. The service can be carried out in the form of labour, of extra holiday gifts, or of material supply for different occasions. This type of relation was totally abolished during the Derg era.

Right on the Users

There is no provision or practice in Amhara land law, where a land holder has any right on the users of his property. He only has the right to rent his land. The maximum legally permitted period for a rental agreement between the landholder and the tenant in a single term is 25 years. The right for sublease of land is dependent on the prior contract agreement. The landholder has to be notified, when the tenant is subleasing the rented holding with the possibility to cancel the contract, if he is against the subleasing.

The proclamation or other lower level laws, such as regulations, include no rights and/or obligations of the lessee, when the holding right is subleased. Therefore, conflicts related to subleasing have to be resolved by the provisions in the civil law. A clearly stated tenant protection provision is missing in the current Amhara legal system, as experts stated during the panel discussions.

Latent Right

Latent right is the “right not yet executed on a real property” (Paasch, 2012).

In the legal system of the Amhara region, the holding right cannot entertain pre-emption rights due to the legal prohibition of land sale. Expropriation of the holding rights is possible, if land is needed for public services. The expropriation of holdings is defined as “... taking the rural land from the holder or user for the sake of public interest paying compensation in advance by the government bodies, private investors, cooperative societies, or other bodies to undertake development activities by the decision of the government body vested with power” (Ambaye, 2013; FDRE, 2005; Yersaw, 2012).

According to the law, the compensation has to be paid in advance. In practice – as reported by the experts – some of the projects causing the expropriation are delayed and the previous holders are using the plots until the projects are launched. This practice cannot be classified as a latent right as it is not legally permitted.

Collateral Right

Collateral right is the right to borrow money from financial institutions or individuals by using the holding right as a guarantee.

In the Amhara region, mortgage law is limited to investors/land users, who are leasing rural land for a specific period from the government. Individual holding rights are given mostly to peasant farmers. Normally they are not able to outline

convincing projects, which are a prerequisite for receiving a loan from the banks. Financial institutions – except micro finance institutions – are not willing to address the issue of mortgage for small scale farmers. Both, the financial institutions and the small scale farmers are not ready to practice mortgage. Therefore, at this point in time, it is practically meaningless to proclaim collateral rights, which are far away from being applied. However, capacity development of both small scale farmers and financial institutions is necessary to benefit from the contributions of mortgage for increased investment.

Public Advantage and Public Regulation

Public advantage and public regulation are interrelated. Public regulations normally are intended to protect the general benefits of the society and to contribute cohesion in the society. The public advantage to specific land holders accrues, when the public regulation is linked to a certain group of land holders. For example, the land use plan may restrict the upstream land holders to cultivate their land only with trees, perennials, or grass to protect the downstream users from damage caused by excess runoff. The other example in the rural context is the construction of diversion ditches. The ditch will occupy land from certain land holders for the benefit of many others. The public regulation imposed on certain holdings benefits many holdings.

The public advantage in Amhara region often is obtained by the development of the area. Titled land makes a significant difference on the value of the holding compared to untitled land. Planning and infrastructure developments in areas have significant positive impact to land values and to rental amounts. As the benefit is not distributed in the same manner to all landholders in the area, a legal regulation for balancing this unfairness was proposed during the expert panels.

Most public regulations in Amhara legal system are related to land use controls and environmental protection measures. These regulations are common to all concerned and are included in the land law. Regulations based on the local level land use plan are binding for the landholders. Landholders are obliged to implement the land use plans as developed for their area. According to the land law of the Amhara region, the local level participatory land use plans are binding after approval by authorities.

The obligations of the landholder specified in the land law are targeting proper land use, sustainable development, and the protection of shorelines and riverbanks, e.g.:

- to plant trees at the boundaries of his holding,
- to control erosion using different technical mechanisms,
- to protect water sources and wet lands from drying out,
- to exercise proper care for wildlife and birds sheltered on his holding (ANRS, 2006), and
- to plough the land by leaving a protective margin from river or gully side.

The public regulations in the Amhara legal system have the power to benefit or to restrict the land holders. Therefore, public advantages as well as public regulation are identified in the Amhara formal system.

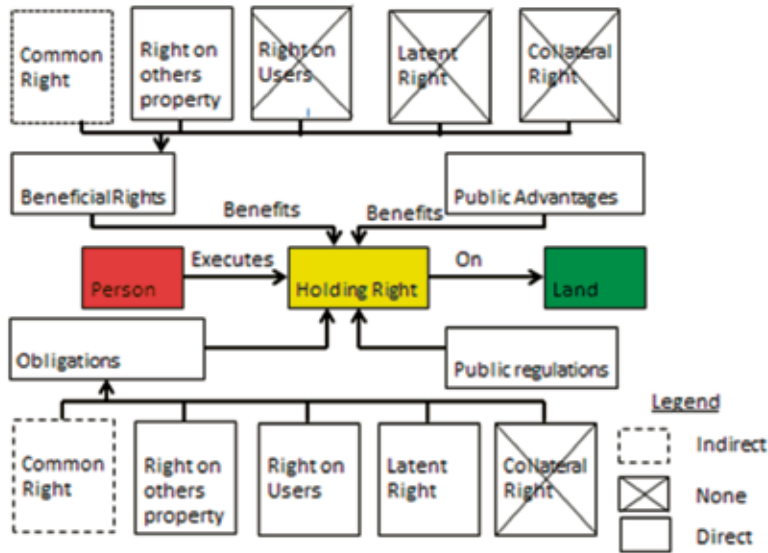


Figure 2. The legal cadastral domain model after modifications to address the holding right of formal setting in Amhara region (adapted from Paasch, 2012).

4.5 Informal Landholding Right

Informal (traditional) property rights are rights without any recognition of the state. In some cases, informal property rights are held in direct violation of the formal law. In the traditional setting, the community defines what activities are permitted and what not. Restrictions in the informal setting are imposed by the local society and by its culture rather than by the land law (Lemmen, et al., 2009). It is not fencing or guarding a property that is important to assure ownership in the informal setup. The local society has to approve and accept the act (FAO, 2002). The informal system employs a shared control, while a formal system relies on external forces to enforce decisions. Disregarding the informal rights of the local society by rating them as irrational relics of an early age is no more logical (Lane, 2001; Onoma, 2008; Franklin, 2012).

The central right for the explanation of the informal setup of land issues in the Amhara region is the informal holding right. The relationship or the informal setup is – same as in the formal setup – the relation between the subject (person), holding right, and the object (land). Though the central right in both systems is a holding right, the holding right in the informal setting allows the transfer of properties within the Irish holding group. It also enables land transfers outside the group, but only with the consent of the group leader. In contradiction to the formal law, the holding right of the informal law includes land sale and mortgage (Rahmato, 2005; Mesfin, 1991).

The major holding parties in the informal setting are individuals, groups of the community, the Orthodox Church, and other service giving institutions, such

as the Kebele administration. The land holding parties are similar to those of the formal system. Most of the holdings under individual holdings are crop lands. The holdings of certain groups of the society are either forests or grazing lands.

4.5.1 Benefits and Limitations on the Informal Holding Right

Benefits and limitations on the informal holding right includes: the existence of the common right, the right on others' property, the right on users, the latent right, and the collateral right as a benefit or as obligation.

Commons in the Informal Setting

The discussion on commons in the context of this paper is about the benefits and burdens of individual landholders in relation to common pool resources management. The common pool resources are mostly linked with membership to the local society. However commons are defined by Paasch as a relation between two or more real properties and land legally attached to them. Common right, according to Paasch, does not describe the situation where local community owns a piece of land together (Paasch, 2012).

The origin of the common pool resources in ANRS is related to state lands of the imperial period, which used to be allocated by the state for different services as a compensation or payment. Before the fall of the Imperial regime there were de facto open access areas in every Kebele. According to the legislation at that time, these areas were named as state land. Sometimes the right to administer vacant spaces was given to the church in the Kebele.

According to the witnesses of key informants, land plots without clearly defined owners were more rare in densely populated areas, e.g. in North Sheoa. During the Derg regime – after the fall of the Imperial system, Kebeles were established as a grassroots level of formal administration. Land holdings with no clear claimants, state lands, and/or lands allocated for the church were transformed into communal lands. In the informal setting of some areas, such as South Gonder and North Sheoa, land users still give the sale of certain products or pay some money for the communal land, which was allocated to the church during the Imperial period.

The current legislation in the Amhara region acknowledged the importance of the traditional rules for managing common pool resources. Investigations gave evidence of differences in the management of these resources dependent on the location. The differences are inherent to the tradition of local society and historical reasons. The rules in the informal setting are different, because the right to develop by-laws for administration of common pool resources was given to the local society. According to the proclamation 133/2006, by-laws governing common pool resources of a given local society can be different from others as long as they are not in contradiction to the formal law (ANRS, 2006). In some sites, such as North Sheoa and South Gondar, religious rules are influencing the management of common pool resources.

The common right in the formal setting can be said to be the reflection of the common right in the informal setting. The description and use of common rights

in the informal setting are nearly identical to the common right described in the formal setting. But common right in the informal setting normally is not directly associated with the holding right of individuals.

According to the results of the group discussions, the right to freely graze animals on the holdings of others is a common practice all over the regional state. But the traditional rules for free grazing are varying between areas, as outlined investigations in the four sample areas brought to evidence. So, e.g., the starting date of the free grazing is different in all sample sites. The date is related to the agro ecological zones and the types of potential crops in the area. The definition of the date is based on the final crop harvest date and even this can vary depending on the length of the rainy season. The local societies have no clearly defined forum or delegated group to decide the date for the beginning of the free grazing. In practice, the agreement is reached on consensus every year and no conflict is reported on the seemingly vague decision making process. The landholders are obliged to collect their crop before the commencement of the free grazing. The landholder has the priority to graze his animals or collect and store the crop residue – if necessary – only until the beginning of the free grazing day. The free grazing right is an obligation on individual holdings as a servant. Free grazing right is also a benefit to graze on others' fields.

The free grazing right is not a localized right and it is not given to specific landholders. Every member of the local society can make a claim on the right. In this regard there is a similarity between common right and the free grazing right apart from the fact that the free grazing right is just for a defined period of time. This indicates that commons exist in the informal system as a beneficial right as well as an obligation.

An Informal Right to Use Other's Holdings

An informal right to use other's holdings exists as an obligation as well as a beneficial right. The relationship is direct. The right for the access to grazing lands, to water points, and to the main road, can be mentioned as examples for the informal right to use other's holdings.

The Right on Land Users

The right on land users was abolished by the Derg proclamation (PMGE, 1975). During the Imperial period landlords had tenants (serfs) on their land. Landlords had the right to transfer their tenants together with the land or to order them to perform labour works on other locations. The landlords have the right to force the tenants to pay items that were not commonly included in the traditional agreements. These types of exploitative rights and relations were legally abolished during the Derg regime and they were also abolished in the informal setting. Personal right does not exist as a beneficial right in the informal setting. Nevertheless, due to social protection of the rights of share croppers and of other informal land rentals personal right as obligation still exists.

Informal Latent Right

Land sale during the Irist system was strictly regulated by the local society. The priority for sale was given to people of the same group of right holders. Outsiders only could buy land, if they were accepted by the group. The system therefore gave the pre-emption right to members of the group and accepted outsiders. The practice was abolished by the Derg proclamation.

Informal land sale is reported from all of the sample sites. According to the tradition, the previous landholder has an informal pre-emption right – before the most recent land redistribution. In some areas this right was extended to the former Irist right holders (gebars). In the informal system, the current landholder is allowed for socially accepted sale by informing the previous landholders and the neighbours. He is allowed to sell the land to others, if the previous landholders and the neighbours are either not interested to buy the land or they are not able to pay the requested amount. By tradition, the current landholders are expected to accept a reasonable reduction of the price for the previous landholders and for neighbours.

Expropriation of landholdings for public purposes is legally possible. As mentioned above, some of the projects do not start in a timely manner the use of the expropriated holdings. In such cases, the former land holder informally continues to use the expropriated land until the realization of the projects.

Some infrastructure projects, such as power line construction, usually pay compensation for land along the whole line. Normally, the previous landholders informally continue cultivating annual crops under the power line. The power line authorities only act, when they observe some interference to their project. So, the power line projects are examples of partial utilization of the expropriated holdings. It is said partial, because the previous landholders are not allowed to plant big trees or to make any type of construction.

Road authorities expropriate land for the road and some additional free land along the road line. The previous landholders usually continue to cultivate the unconstructed area informally. This is also partial use, as the previous landholders are allowed to use only parts of their previous holdings until the land is required for the development of the road authority. In contradiction to the formal setting, there is recognition of latent rights (both as a benefit and an obligation) in the informal setting. Therefore, in the informal setting latent rights exist both as a benefit and as a burden.

Collateral Right in the Informal Setting

According to the results of the current survey, nearly everyone in the rural areas is the owner of the house he or she is living in. The villages are mostly formed by very closely blood related people with strong social relations. People from outside the village are not capable and not willing to buy houses due to the difficulties to assimilate with the villagers. As a consequence to the limited market, rural houses have less value as collateral for formal as well as for informal credit organizations.

The current study outlined that cultivated landholdings are used as collateral in the informal credit market. The creditor can either sell the land in the informal market or use it in the case of default. Therefore, unlike the formal system,

collateral right exists as benefit as well as obligation to a holding right in the informal setting. The beneficial right is related to the possibility of using the property as a guarantee to get loan from informal lenders.

Social Advantage and Social Sanctions

In the legal cadastral domain model public advantage is defined as advantage for ownership. For the purpose of the discussion of the informal setting in this paper, the term public advantage has to be modified to social advantage. The social advantage is the added asset and/or benefit to the holding right due to social relations. The social benefits are supposed to serve the common goods of the local society. The individual holdings are the beneficiaries of the general outcomes of the sanctions as members of the local society. Maintaining peace and order in the local society by establishing accepted norms is the purpose of social sanctions. The individual holdings benefit from implemented sanctions since the objective is the common good of the local society.

The members of the local society are responsible for supporting the elderly. Landholders are benefited by negotiation roles of the elderly. The church also has a significant role in strengthening the social bond. The local society members are responsible to attend church ceremonies, where most of the conflicts are resolved. The church defined some days to be off working days. These holidays are the time for the landholders to gather, to share information, and to solve different kinds of problems. Market places are also used for communication and passing information between each other.

Social groups are formed to facilitate practices and services that hardly can be performed on individual basis. For example, groups are responsible for harvesting at peak seasons, for organizing funeral ceremonies, and for creating local saving institutions. The group formations are indirectly related to holdings by simplifying the burdens of individual landholders.

Property rights as a set of social rules are tools for the effective use of scarce resources. Scarce resources are often subjects for conflicts. Individual landholders benefit by reduced litigation in case of conflicts as a result of the social sanctions.

The common pool resources are in most cases governed by the by-laws of the local societies. Sanction of the society on improper use of common pool resources by local society members is beneficial. So, for example, grazing lands on swampy areas only can be used efficiently for grazing during the dry seasons. As a result of social sanctions, these areas are protected. The protection of valuable trees by societal rules has similar advantage for the landholders. The exploitation of community forests for traditional medicine products, farm implements, construction material, fire wood, and the like is mainly managed by social rules.

Free grazing and herd management is another example, where land and individuals benefit from the existence of social sanctions. The labour required for keeping animals is drastically reduced when groups are formed. Similarly the labour required for the protection of crop lands from wild and domestic animals is reduced when the whole adjacent fields are covered with crops. Groups for keeping herds on a rotational basis are formed by landholders in the neighbourhood.

Border strips are left between neighbouring landholders as boundary marks. Strips are protected by traditional rules from cultivation. The fodder produced from such strips is specifically given for the oxen that are used as drought power. The individual landholders are benefited by balancing the fodder requirements of their animals with crop production. The border strips are also used as a bound for erosion control that can contribute to the productivity of the individual holdings.

Therefore, public advantage, after being modified to social advantage, can be seen as a beneficial right for the holdings in the informal setting.

The informal setting is not regulated by the state or its representatives. So it is difficult to assume public regulation in the informal setting. The local society has its own sanctions on the individual holdings that are important for the common good. The protection of common pool resources, the water ways and cut of drains, the area closures on steep slopes, the protection of selected tree species, the plantation of hedge rows along the border lines, the protection of the natural forests in and around the church compounds are some of the examples of culturally approved practices reported during the survey for the common good of the society.

The sanctions to enforce social rules are multi-layered and dependant on the level of violation. Usually, for the first violations advices and warnings are given by the influential members of the society. Labour contributions and monetary payments for the affected parties are second level of punishments to enforce sanctions. The third level of punishments contains exclusion from herd management membership, taking away farm implements temporarily, exclusion from social activities and the likes. Key informants also reported that in case of continuous violation of the rules sometimes the local society burns the house or slaughters the animals of the breaker of the social rule. It has to be said that most of these punishments are against the formal law.

The social sanctions implemented by the local society are not uniform in all the sample sites. The sanctions are dependent on the socio-cultural context of the particular society and furthermore, these sanctions are dynamic in nature. The same local society can implement different sanctions for the same thing according to different situations. The sanctions are targeting the common good of the local society. The sanctions shall be implemented even if they are obligations on individual holdings. The landholder will protect the tree even if the tree harbours birds that can affect his crop. He has to maintain border strips even if they harbour rodents and if he loses some land. The landholder has to attend social ceremonies and meetings even if they are not directly relevant to him. He has to respect the order from the informal local leaders and he has to help the weak, specially the elderly.

Some of the social activities such as celebrating the holidays, attending the church ceremonies and prayers, hosting guests, and helping neighbours while organizing big festive events, are not directly related to the holding right. But the landholder is expected to fulfil all the social requirements to be considered as an active member of the local society.

The social sanctions have similar effect to the informal setting as the public regulations in the formal setting.

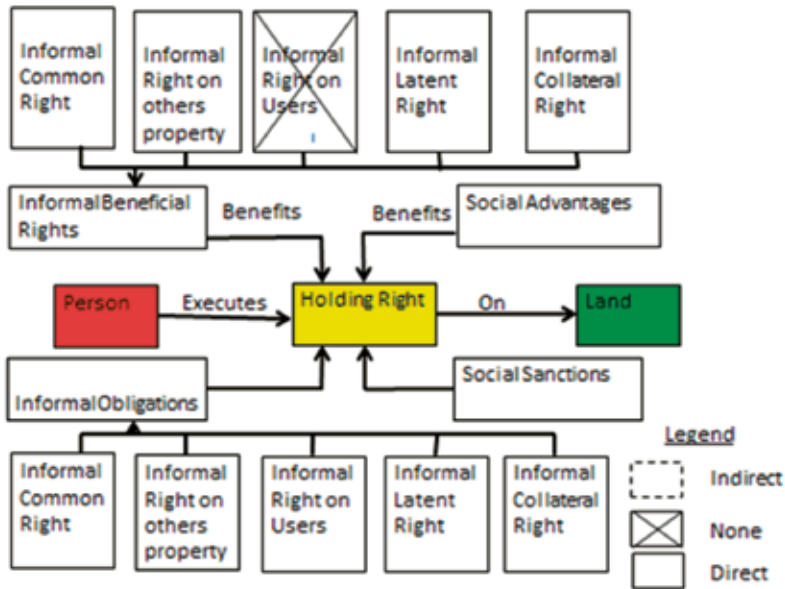


Figure 3. The legal cadastral domain model after modifications to address the holding right of informal setting in Amhara region (adapted from Paasch, 2012).

The holding right of the informal setting of Amhara region can be described by a modified legal cadastral domain model. This version was developed by considering information and findings gained in discussions with key informants, farmers, and land administration experts.

5 Conclusion

Both, formal and informal settings in the Amhara region can be described using the legal cadastral domain model. The description using the model revealed the similarity between both systems. As main differences social advantages and sanctions in the informal setting can be identified. The two seemingly different systems can be integrated at the grassroots level by incorporating the rules of the informal setting into the directives of the formal one. The directive is capable of addressing the flexibility, needs, and the peculiar nature of the rules of the informal setting in time and space.

The formalization process has special significance to countries, where the major insecurity problems are associated with state sponsored land redistribution. The formalization process or the introduction and implementation of the formal system have to be based on the basic rules of the informal setting. The integration of the two systems is possible only if there is a proper understanding and description of each.

The reconciliation of legality in the formal setting with the legitimacy of the informal setting is important to get public acceptance during the implementation of

the formal setting. The innovative informal structures cannot be simply dismissed as illegal activities. Eliminating or replacing customary tenure is often neither necessary nor desirable. The investigation of the existing system is important to capitalize on the available knowledge and to avoid the attempt of reinventing the same wheel.

The similarity of the formal and informal property right systems can be identified as one of the strong reasons for the successful accomplishments of the design and implementation of the formal land administration system in the Amhara region. We recommend for every introduction of a new property right system in Africa to describe carefully the informal setting in the area and to try to incorporate as many rules as possible into the newly developed formal system.

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References

- Alemu, T., 2005. *The Land Issue and Environment Change in Ethiopia*. Addis Ababa, Ethiopia: Adis Abeba University, Department of economics.
- Ali, Z., Tuladhar, A. & Zevenbergen, J., 2010. Developing a Framework for Improving the Quality of a Deteriorated Land Administration System Based on an Exploratory Case Study in Pakistan. *Nordic Journal of Surveying and Real Estate Research* 7(1), pp. 30–57.
- Ambaye, D., 2013. *Land Rights and Expropriation in Ethiopia*, PhD thesis, Stockholm: Real Estate Planning and Land Law, Department of Real Estate and Construction Management, School of Architecture and the Built Environment, KTH, Royal Institute of Technology.
- Andersson, B., 2005. *Future Framework of Land Related Laws in Amhara Regional State: Study to Support Law Development*. Bahir Dar: SIDA-Amhara Rural Development Program, Ethiopia.
- ANRS, 2006. *The revised Amhara National Regional State Rural Land Administration and Use Proclamation. No.133/2006*. Bahir Dar, Ethiopia: Zikre Hig.
- Ashenafi, Z. T. & Leader-Williams, N., 2005. Indigenous Common Property Resources. *Human Ecology*, 33(4), pp. 539–563.
- Bromley, D., 2008. Formalising property relations in the developing world: The wrong prescription for the wrong malady. *Land Use Policy* 26, pp. 20–27.
- CSA, 2007. *Census report*, Addis Abeba: Central Statistics Authority, Ethiopia.

- Dale, P. & McLaughlin, J., 1999. *Land administration*. Oxford: Oxford University Press.
- EoE, 1960. *Civil Code of the Empire of Ethiopia, Proclamation No. 165/1960*, Addis Ababa, Ethiopia: Birhanena Selam Printing Press.
- FAO, 2002. *Land Title and Rural Development*, Rome: FAO.
- FDRE, 1995. *The Constitution of the Federal Democratic Republic of Ethiopia, Proclamation No.1/1995*. Addis Ababa, Ethiopia: Birhanena Selam Printing Press.
- FDRE, 2005. *A Proclamation to provide for the expropriation of land holdings for public purposes and payment of compensation*. Addis Ababa: Berehanena Selam Press.
- FDRE, 2005. *Rural Land Administration and Land Use Proclamation No 456/2005*. Addis Ababa, Ethiopia: Birhanena Selam Printing Press.
- Franklin, O.-O., 2012. Land reforms in Africa: Theory, practice, and outcome. *Habitat International*, pp. 161–170.
- Hodgson, S., 2004. *Land and Water-The Right Interface*. Rome: Food and Agriculture Organization of the United Nations, LSP Working paper 10. FAO.
- ISO, 2012. *ISO 19152:2012, Geographic Information – Land Administration Domain Model. Edition 1*, Geneva, Switzerland.
- Kalbro, T., 1996. *Aspects of Permit Procedures for changes in Land Use. In Land Law in Action, A collection of contributions by Participants in the Seminar on the Theme land 87 Reform including Land Legislation and Land Registration*. Stockholm, Sweden, The Swedish Ministry of Foreign Affairs, Division for the Central and Eastern Europe and The Royal Institute of Technology.
- Lane, M., 2001. *Indigenous Land and Community Security: A (Radical) Planning Agenda*, Land Tenure Center University of Wisconsin-Madison, Working paper 45.
- Lemmen, C., 2012. *A Domain Model for Land Administration, PhD thesis*, Delft, the Netherlands: ITC, Sieca Repro BV.
- Lemmen, C., Augustinus, C., Haile, S. & Oosterom, P. van, 2009. The Social Tenure Domain Model – A Pro-Poor Land Rights Recording System. *GIM*.
- Mesfin, W.-M., 1991. *Suffering Under God's Environment, a vertical study of the predicament of peasants in North-Central Ethiopia*. Berne, Switzerland: The African Mountain Association and Geographica Bernensia, Institute of Geography, University of Berne.
- Onoma, A., 2008. The use of land to generate political support. *Africa Development*, 33(3), pp. 147–155.
- Paasch, J., 2008. Standardization within the Legal Domain: A Terminological Approach . In: *Euras Yearbook of Standardization, vol. 6*. online publication, pp. 105–130.
- Paasch, J. M., 2005. Legal Cadastral Domain Model. An object-orientated approach. *Nordic Journal of Surveying and Real Estate Research*, 2(1), pp. 117–136.
- Paasch, J. M., 2011. *Classification of Real Property Rights. A Comparative Study of Real Property Rights in Germany, Ireland, the Netherlands and Sweden*, Stockholm: KTH, Royal Institute of Technology.

- Paasch, J. M., 2012. *Standardization of Real Property Rights and Public Regulations. The Legal Cadastral Domain Model*, Stockholm, Sweden: KTH, Architecture and the Built Environment Real Estate Planning and Land.
- Paasch, J. , Oosterom, P. van, Paulsson, J. & Lemmen, C. ,2013a. Specialization of the Land Administration Domain Model (LADM) – An Option for Expanding the Legal Profiles. Abuja, Nigeria, FIG.
- Paasch, J., Oosterom, P. van, Lemmen, C. & Paulsson, J. ,2013b. Specialization of the Land Administration Domain Model (LADM) – Modeling of Non-formal RRR. Kuala Lumpur, Malaysia, FIG.
- PMGE, 1975. *Proclamation for Public Ownership of Rural Land in Ethiopia*. Addis Ababa, Birhanena Selam Printing Press.
- Rahmato, D., 2005. *From Heterogeneity to Homogeneity: Agrarian Class Structure in Ethiopia since the 1950s*, Adis Abeba, Ethiopia: Forum for Social Studies.
- Shibeshi, G. B., Fuchs, H. & Mansberger, R., 2013. *Participatory and Pro-Poor Land Administration System of the Amhara National Regional State of Ethiopia: Lessons and Evaluation of the Current Status*. Washington DC, The World Bank.
- Simon, D., 2006. *Your Questions Answered? Conducting Questionnaire Surveys Doing Development Research*. London. V. Desai and R. B. Potter Sage Publication Ltd.
- Sumrada, R., 2003. Conceptual Modelling of Cadastral Information Systems.. In: *The Ontology and Modelling of Real Estate Transactions*, pp. 115–126.
- Ubink, J. & Quan, J., 2008. How to combine tradition and modernity. *Land Use Policy* 25 (2), pp. 198–213.
- Van der Molen, P., 2002. The dynamic aspect of land administration: an often-forgotten component in system design. *Computers, Environment and Urban Systems* 26, pp. 361–381.
- Williamson, I., Enemark, S., Wallace, J. & Rajabifard, A., 2010. *Land Administration for Sustainable Development*. New York: ESRI Press.
- Yersaw, B. A., 2012. Expropriation, Valuation and Compensation Practice in Amhara National Regional State (ANRS) – The Case of Two Cities (Bahir-Dar and Gonder). *Nordic Journal of Surveying and Real Estate Research* 9:1, pp. 30–58.
- Zevenbergen, J., 2002. *Systems of land registration. Aspects and effects. PhD thesis*, Delft, The Netherlands: Delft University of Technology.
- Zevenbergen, J., 2004. A systems approach to Land Registration and Cadastre. *Nordic Journal of Surveying and Real Estate Research*.