



**Multiple Means of Access to Land for Urban Agriculture:
A Case Study of Farmers' Groups in Bamako, Mali.**

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Cities Feeding People Report Series
DECEMBER, 2004

To the memory of my father: Carlos Alberto Vélez V.

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Executive Summary

This research paper proposes that developing countries' cities can greatly increase their efficiency in terms of environmental management, social inclusion, food security, income generation and poverty reduction by integrating the poor's informal allocation and management of land for Urban Agriculture (UA) into formal planning instruments and land policies. The paper also provides information on informal/formal/semiformal practices of access to land for UA and suggests several options to improve land delivery systems by providing planning policy recommendations that legitimize informal practices of access to land. Additionally, a definition of land tenure security for UA is proposed.

The first section (chapter 2) discusses the main types of regulatory land regimes that govern the means of accessing urban farmland in general (Africa and Latin America). This section provides a framework for addressing the degree of formality of the different modalities of access to land per type of regime, in urban and peri-urban areas. Land tenure patterns in developing countries are grouped into customary law, statutory law or a mix of both (hybrid law). Customary law is central for UA in the African context since most UA occurs on land under this regime. Similarly, statutory law is key since municipal planning tools and instruments, as well as land tenure legal frameworks for urban areas, will fall under this category. Hybrid land law is important since indigenous regulatory systems have been entangled with colonially imposed land law. This has resulted in a mixture of legal systems that constrain the land market and encourage informal means of land access and tenure.

Chapter three presents a characterization of the different strategies used by the poor to access urban farmland under different land tenure regimes. Each type of access is exemplified by a city case and classified by spatial location (intra-urban or peri-urban). This section also analyzes and describes the effects of land regimes on the strategies used by the poor to gain access to urban farmland. It is suggested that the informal means of accessing urban land under statutory law replicate rural and pre-colonial systems of land allocation (Africa and Latin America). This emerging informal land allocation system can be defined as neo-customary. Here, rural customary practices are re-interpreted in an

urban context that is increasingly industrial, and include the concept of land rights as market commodities.

Chapter four presents a case study of the strategies used by farmers' organizations in Bamako, Mali to access land under different land tenure regimes and spatial locations. Particular attention was given to the municipal policy environment, programmes and actions that foster or inhibit access to land for UA. Empirical research suggested that security of tenure is not a pre-requisite for producers to create or join a farmers' organization and that land conflicts in urban areas force farmers to organize themselves to protect their livelihoods. Moreover, it is believed that the farming urban poor, organized in associations or cooperatives, are effective in obtaining formal and informal access to land for UA (both under customary and statutory regimes).

This paper ends by discussing different strategies that improve access to land for UA based on the spatial distribution of land regimes. It provides municipalities with some options to formalize informal arrangements of land allocation for UA. The suggested solutions are grouped by regime, spatial location and temporal considerations. These solutions are to be considered in the development of a facilitating framework to integrate UA in municipal planning, which should be built upon a participatory consultation process. This process should allow municipal staff to characterize and map different vacant lands in the municipality in order to identify norms, regulations and main bottlenecks for the inclusion of UA into municipal planning policies and practices.

Acknowledgements

There are many people that made this research project possible. I am particularly grateful to Dr. Luc Mougeot for guiding me through the entire process of this research project. His insight and experience in urban agriculture shaped this research. I am thankful to IDRC's staff and the Cities Feeding People Team for their advice and support. Special thanks to Hamidou Siabana, my Research Assistant in Bamako, for working so hard. Thanks also to ROCARE's staff (Reseau Ouest et Centre Africain de Recherche en Education) for their great help during my stay in Bamako. I am grateful to Dr. Alain Durand-Lasserve, Dr. Juliet Kiguli and Dieudonné Zallé for sharing their insights in urban issues with me. Most of all, I am indebted to the urban farmers and planners of Bamako for kindly helping me in my research tasks.

1. Introduction

In most developing countries' cities, Urban Agriculture (UA)¹ occurs through virtually every possible combination of access, tenure and occupancy rights. Presently, official planning policies, property law and land-use zoning fail to integrate the informal agreements that determine much of the actual access to and use of land in urban areas. Informal land tenure results from an intimate, though contradictory, dialogue with the official legal system. When formal processes are a privilege available only to those with political and economic power, those excluded – the urban poor – have no alternative but informality (Vélez-Guerra, 2003).

Individual behaviours and social practices, even in countries with a tradition of legal positivism (in which the state claims to be the sole judge of what is legal), are often regulated by other, unofficial, criteria (Vélez-Guerra, 2003). As a result, a proliferation of forms of land access² and tenure for urban agriculture, while illegal³, can enjoy greater social and political legitimacy than the official ones. Moreover, there may be several legal systems operating at any one time – each constructed with different meaning and validity, even if ultimately no system takes precedence over the other (Ward, 2003; Fernandes and Varley, 1998).

Lack of security of tenure and access to urban farmland undermines the poor's capacity to practice and sustain UA. This paper puts forward the following definition of

¹ “**UA** is an industry located within (**intra-urban**) or on the fringe (**peri-urban**) of a town, a city or a metropolis, which grows or raises, processes and distributes a diversity of food and non-food products, (re-) using largely human and material resources, products and services found in and around that urban area, and in turn supplying human and material resources, products and services largely to that urban area” (Mougeot, 2000, p.10). UA can be divided in **On-plot** and **Off-plot**. **On-plot Agriculture**: “Farming practiced in the plots around and inside houses, like backyards gardening. It involves mainly crop production” (Mbiba, 2000, p.289). **Off-plot Agriculture**: Farming conducted in public, private open spaces, utility service areas and agricultural allotments (Mbiba, 2000).

Peri-urban Agriculture: The production of crops and livestock in areas outside the city boundary. These areas were formally rural and have been economically integrated into the urban market (land, food and goods) dynamics.

Intra-Urban Agriculture: The production of crops and livestock in areas inside the city's official boundaries. Intra-urban agriculture inside the city can be divided in on-plot and off-plot

² **Land Accessibility**: “Refers to the opportunity for actual use of available land by needy households or groups, taking into account administrative procedures and conflict resolution mechanisms” (RUAF, 2003, p.1).

³ **Illegal land tenure**: When the rights to use or to dispose of use-rights on land do not pertain to the occupant or user of the land.

tenure security for UA. *Secure tenure may be defined as a temporary or permanent agreement between individuals, groups, or institutions to land, which is governed and regulated by a legal and administrative framework. This legal framework is taken to include both customary and statutory law. Security of tenure derives from the fact that right to access and use of land is underwritten by a known set of rules that are justifiable and determine the duration and responsibilities of both the landowner and the tenant* (UNCHS, 1999). Under this framework, access and land tenure arrangements between landowners and producers, either temporary or permanent, should have regard to the compatibility of the scale and intensity of the agricultural production and the surrounding land-uses; the relationship of the activity with the city's land-use plan; the kind of infrastructure allowed onsite (water taps as opposed to housing); the suitability of land for agricultural production (agronomic quality of soils, contamination levels, environmental function); and the profitability of the activity (location, access to inputs and markets). The resulting framework should allow for the secure growing and harvest of crops⁴ and livestock⁵ while taking in consideration public health, environmental management and social inclusion (emphasis on the gender and ethnicity of the farmers in order to improve access for women and migrants).

1.1 Research Objectives and Methodology

The general objective of this project is to assist cities with their efforts to promote and sustain UA by providing information on informal/formal/semiformal practices of access to urban farmland and suggesting several options to improve land delivery systems. The research documents UA producers' social organization and representation by tenure system. Particular attention is given to the relationship between social institutions (i.e. farmers' groups) and informal access to urban farmland. Furthermore, this research provides planning policy recommendations that legitimize informal practices of access to land, improve formal land delivery systems and contribute to the sustainability of UA.

The specific objectives of the research are to:

⁴ **Crops:** A plant that is cultivated for the purpose of harvesting its seeds, roots, leaves, or other parts.

⁵ **Livestock Farming:** System of production based on raising domesticated animals for food consumption. Common livestock include poultry, pigs, turkeys, ducks, sheep, cattle and horses. Other important category is micro-livestock that includes cuyes, vizcacha, guinea pig, agouti and several other rodents.

- Document and analyze different instances where social organizations or farmers' groups, independently from the State, have facilitated access to urban land for agriculture and livestock.
- Document and analyze instances where the State has facilitated the use of urban land by the poor for agriculture and livestock rearing.
- Document and analyze different instances where both social organizations and the State have worked together to facilitate access to urban land for agriculture and livestock.
- Analyze which land delivery system (informal, formal, semiformal) creates long –term access to urban farmland.

The research questions are as follows:

- What means to access urban farmland by the urban poor can be adopted by the State, under different land tenure regimes, to enhance and sustain UA?
- What land tenure schemes can be implemented by the State to support and sustain existing farmers' organizations?
- What land tenure regime hinders women and migrants' access to urban farmland and how can legislation bridge the gap?
- How can the State legitimize informal social arrangements that mediate access to land in order to support UA?

The methodology of this project is based on qualitative methods and has five main components.

1. Develop a research hypothesis and a detailed work plan.
2. Conduct a literature review aimed at classifying the different means of access land for UA. Each type of access is illustrated by a city in Latin America or Africa and classified by spatial location and land tenure regime. Some references to cities in Asia are presented when relevant for this study. The classification of cities is also aimed at selecting a particular city to conduct the fieldwork component of this project.
3. Conduct fieldwork research that uses a set of qualitative methods to confirm or deny the research hypothesis. The fieldwork includes the following research tools.

- Expert interviews with urban planners, politicians, researchers and farmers. The interviews are conducted by a variety of means (personal interviews, emailing, phone calls).
 - A workshop with different stakeholders (farmers, politicians, researchers, NGOs, etc) to find practical solutions to identified problems.
4. Write a final research report including a set of recommendations for improving access to land for UA.
 5. Disseminate final results in a conference in Canada.

2. Land Law and Access to Land

This section discusses the main types of regulatory land regimes that govern the means of accessing urban farmland in Africa and Latin America. Where pertinent, some examples from Asia are presented, however this region is not part of the scope of this research. The purpose of this section is to provide a framework for addressing the degree of formality of different modalities of access to land per type of land regime, in urban and peri-urban areas. The discussion also illustrates the evolution of some types of regimes due to industrialization and urbanization.

Access to farmland by the urban poor has been identified as a critical factor in the development and sustainability of UA (Dennery, 1996; Flynn-Dapaah, 2002; Maxwell, 1998; Mougeot, 2000; MDP, 2001; Quon, 1999; Schiere, Tegegne, and Van Veenhuizen, 2003). Access to urban farmland under different land tenure regimes (freehold⁶, leasehold⁷, customary land holding⁸, etc.) present specific challenges associated with the regulatory system in place (customary or positive law). For instance, in African cities, transfers of land ownership, processes of land access and land-use rights are a dynamic mix of formal and informal transactions that occur under a mix of customary and statutory tenure regimes (MDP, 2001). Here, formal arrangements to access land refer to their adherence to the State's recognized regulatory systems.

⁶ **Freehold Tenure:** The most complete form of ownership of land: a legal estate held in **fee simple absolute in possession** (Oxford, 2002). **Fee simple** indicates ownership that is not liable to end upon any person's death, with the expiration of time, or on the failure of a particular line of heirs. **Absolute** means that the owner's rights are not conditional or liable to terminate on the occurrence of any event. **In possession** means that the owner's rights are immediate, thus future interests do not qualify, but possession need not imply actual physical occupation (for instance, a person in receipt of rents and profits can be said to be in possession).

⁷ **Leasehold Tenure:** "...a form of tenure whereby one party grants to another a right to exclusive possession of land for a specified period, usually thought not necessarily, in return for a periodic payment of money called rent" (Nuwagaba et al., p.45, 2004).

⁸ **Customary Tenure:** The right to use or to dispose of use-rights over land rest neither on the exercise of brute force, nor on the evidence of rights guaranteed by government statute, but on the fact that they are recognized as legitimate by the community, the rules governing the acquisition and transmission of these rights being usually explicitly and generally known, though not normally recorded in writing. Such ownership may occur in any one or a combination of the following ways: 1) discovery and long uninterrupted settlement; 2) conquest through war and subsequent settlement; 3) gift from another land owning group or traditional overlord; or, 4) purchase from another land owning group. Acquisition of land through any of the above means is usually a group activity. Although the allodial interest (estate ownership) is usually vested in the community, the right is exercised by the head of the community (Maxwell. et al., 1998, p.2).

In this paper, formality is central for two reasons. First, in urban settings land becomes a valuable and scarce resource for which a multitude of actors compete to gain access for different uses (housing, UA, infrastructure, greenery, etc). In this context, the poor are at a disadvantage to compete against other urban actors since they lack economic resources and political leverage. Moreover, the legal framework directing the official planning of cities fails to include the poor's strategies to produce income and food. This exclusion results in the poor resorting to informal arrangements and facing constant threats of evictions from the lands they use for UA.

Second, the informal use of urban land for UA due to legal exclusion translates into negative environmental and social impacts in the urban structure of the city. Farmers facing a high degree of tenure insecurity are restrained from investing time and resources in protecting and improving the sites they use. Informality also reinforces social exclusion since their activity is neither regulated nor supported by the government. As a result, the farming urban poor feel alienated from their government, thus reducing their trust in a system that does not represent their interests. Therefore, the lack of formal integration of UA in the urban structure results in a decreased capacity of the activity to achieve its full potential to improve the environmental, social and economic efficiency of cities.

The constraints and opportunities for improving access to land for UA are related to the type of land regimes in place. In general, land tenure patterns in developing countries can be grouped into these types of systems: customary law, statutory law or a mix of both. Each system creates different scenarios of land access, with clear implications for planning strategies that include UA. For instance, in Kampala, Uganda, land can be held under five different tenure regimes (government land, freehold, leasehold, mailo land and customary land) and is accessed through informal and formal means (Nuwagaba et al. 2004). Similarly, in Accra, Ghana, three major categories of land ownership are identifiable: state lands, stool lands and vested lands. Tenure patterns of these lands for UA can be classified as private ownership, lease/rented, borrowed (custodian land), spontaneously occupied land and public land (Djabatey, 1998). Following a discussion on the main legal frameworks directing land access in developing countries.

2.1. Customary Law⁹

Customary law is the main land regulatory system in most African countries. Before colonial rule, land in most parts of Africa was governed by traditional procedures and rules on land utilization, access and transfers commonly known as tribal, traditional or customary land tenure (Kalabamu, 2000). The traditional land tenure system was appropriate for pre-capitalist societies for whom kinship relations provided the coordinating factor of socio-economic life. However, African societies have been trying to adapt to the demands of a free market economy through individualizing, alienating, selling and trafficking land (Mabogunje, 1992). Presently, customary law is recognized by the State in countries such as Mali, Ghana, Uganda and Tanzania. For instance, in Bamako, Mali, intra-urban market gardens are located primarily on lands under customary law. These lands were granted for customary management by colonial authorities to founder families and influential people (Zallé, Meite and Konate, 2003). Similarly, in Accra, Ghana, peri-urban agriculture's farmers on La stool lands make a customary claim to their holdings. These were acquired through inheritance, following a construction of social/political history based upon the rights of first occupation or proving kinship to the first occupiers (Flynn-Dapaah, 2002).

Customary law is central for UA in the African context since most UA occurs on land under this regime. Urban farmers access land for UA in the peripheries of the city by social relations (friendship, kinship, etc). In the case of Bamako, Mali, 75% of UA happens on customary lands, with the remaining on vacant lands under statutory law. What is more, unused public lands under statutory law automatically fall under customary control (D. Zallé, personal communication, August, 2004). Land accessed for UA in the peripheries is transformed to housing uses over time due to urbanization. Along with the changes in land-use from UA to housing, there is also a transformation from customary law to statutory law (B. Tangara, personal communication, August, 2004).

However, customary law has been rejected and replaced by statutory law in several sub-Saharan countries (i.e. Cameroon and Senegal). Persisting access and tenure under this

⁹ “**Customary law** is a legal system based on rights of user and culture. Under this system land belongs collectively to a community. Land management is insured by legitimate and organized institutions that apply rules and decisions” (RUAFA, 2003, p.13).

traditional legal system may remain “informal” in certain cases (Obuobie, Danso and Drechsel, 2003; Flynn-Dapaah, 2002). For instance, in Congo, French administrators did not recognize customary land tenure and only French law was to be applied in the colony. Since independence, land legislation continued to diminish the validity of customary land tenure and, presently, all the country’s land is held by the State in the name of the people (Mabogunje, 1992). Finally, policy makers and politicians have been encouraging statutory land law in many African countries, and this despite the positive views held by many of customary land tenure (Kalabamu, 2000).

Formal land allocation under customary law can be defined as follows: a formal land transaction that adheres to the group’s traditions or to a decision taken together by the chief of the village, the council and the heads of the traditional families (A.Z. Coulibaly, personal communication, August, 2004).

2.2. Statutory Law¹⁰

Statutory law is the main land regulatory system in Latin America (except for Ejidal lands, and First Nations’ land reserves). In Africa, statutory law competes with customary law for the regulation of land. Access to land under statutory law is either formal or informal and is ruled by a set of ordinances. Legal access to land under statutory law (i.e. purchase) is rarely used for urban agriculture¹¹. Instead, it is used for estate development and other land-uses that need land titles in order to secure land ownership and protect economic investments. Informal access to land under statutory law is an important strategy of the poor to access urban farmland in Latin America and Africa.

It must be stressed that informality does not necessarily mean insecurity of tenure. Recognition of land rights by the community itself is often considered more important than recognition by public authorities for ensuring secure tenure. B. Tangara states that the problem with the statutory regime is that it fails to integrate customs where land possession equals land title (personal communication, August, 2004). For instance, in Kibera, Nairobi’s largest informal settlement, none of the urban farmers pay money to the

¹⁰ **Positive or statutory law** is the body of law imposed by the state (Oxford, 2002).

¹¹ **Statutory Land Tenure:** Land rights automatically belonging to a landowner or leaser, violation of which constitutes an actionable nuisance that can be challenge in court.

government of Kenya or the bearer of the land title for the plots they use for UA (Dennery, 1996). Furthermore, Dennery (1996) states that producers were fully aware of the fact that they did not own the land they farmed. Similarly, in peri-urban Harare, Zimbabwe, most land on which people cultivate belongs to the City of Harare, or in some few cases to private owners, and is accessed through spontaneous occupation (Mudimu et al, 2003).

Statutory law is central in this paper since municipal planning tools and instruments, as well as land tenure legal frameworks for urban areas, will fall under this category. Statutory law is the general legal framework under which modern governments operate and is particularly important in the management of urban land, as opposed to peri-urban lands, which often are subjected to customary management (African context).

2.2. Hybrid Land Law System¹²

Africa's indigenous regulatory systems have been entangled with colonially imposed land law. This has resulted in a mixture of legal systems that constrain the land market and encourage informal means of land access and tenure. Payne and Fernandes (2001) state that tenure systems consist of a continuum of often overlapping options, some of which are rooted in indigenous traditions and others on imported concepts. In Africa, post-colonial States have either acknowledged or rejected indigenous regulatory systems. However, statutory law has increasingly expanded, thus creating areas where both systems coexist.

Uganda offers evidence of such an entanglement of land law. In peri-urban Kampala, land is primarily held under mailo tenure system (virtually freehold tenure). This system of tenure is subject to both customary and statutory law and permits a separation of land ownership and ownership of developments made by *bonafide* occupants (Nuwagaba et al. 2004). In mailo land the separation of the ownership of the land, and the development of it by the tenants, creates a deadlock between mailo owners and tenants, which may prevent landowners to allow UA fearing that land improvements would hinder their ownership. On the same note, in Divo, Ivory Coast, peri-urban land is where customary and statutory rights meet, thus land rights get muddled often in detriment of disadvantaged social groups (Idelson, 2003). In Kano, Nigeria, it has been observed that UA develops especially in

¹² Similar to Hybrid Tenure, Split Tenure results when land rights rest both on customary owners and the State (Maxwell. et al., 1998).

peri-urban areas where land use rights are ambiguous, due to overlaps between customary and statutory regimes (RUAF, 2004).

The importance of this case for this paper is that land under different regimes restricts the control of the government, induces boundary disputes and obscures people's rights, thus affecting UA. Finally, it is important to point that regulatory land systems bear a great influence on the poor's means to access land. As it will be discussed, the poor's means to access farmland are predominantly informal and socially mediated.

2.3. Conclusion

It is suggested that the means to access urban and peri-urban farmland, and their related degree of formality, depend on the regulatory land regime in place. The advancement of free-market economies in developing cities has induced changes in land tenure patterns: from communal land holdings to individual landownership. As a result, the customary land regime has either been replaced by statutory regimes or it has evolved to adapt to the idea of land rights as market commodities. The entanglement of different land tenure rights in many places has resulted in hybrid regimes. The latter resulting from the application of statutory law onto customary lands.

Obscure land rights induce land boundaries disputes, hinder secure tenure and constrain the land market. The expansion of statutory regimes, while advantageous for real estate development, threatens the poor's traditional means to access farmland. As a response, a number of informal arrangements exist that replicate customary land allocation in urban and peri-urban areas. The next section will discuss in detail the different means of accessing urban and peri-urban farmland by regime. The cases are further analysed by degree of formality in order to illustrate the flexibility of each regime in accommodating the poor's needs. The spatial distribution of each means of access to farmland (intra-urban or peri-urban) is presented in order to illustrate the changes in land regimes and related coping strategies utilized by the poor.

3. Urban Poor's Means to Access Farmland

This section presents a characterization of the different strategies used by the poor to access urban farmland under different land tenure regimes (customary, statutory and hybrid). These means can be further divided by formal, informal and semi-formal access (somewhere in the spectrum ranging from formal to informal). As it has been stated, the degree of formality is related to the producers' arrangements to access land and its adherence to the State's recognized regulatory system or the definition of formality in customary law (see 2.1 Customary Law). Each type of access is exemplified by a city's case and classified by spatial location (intra-urban or peri-urban). The main actors providing or accessing land are presented accordingly with the degree of formality used to hold or allocate land. The purpose of this section is to analyze and describe the effects of land regimes on the strategies used by the poor to gain access to urban farmland. The degree of formality provides an indication of the flexibility of a determined regime to respond to the needs of low-income groups. The spatial location illustrates land use and user intensification, and changes and overlaps in land regimes due to urbanization and industrialization. Finally, the classification of actors by degree of formality provides insights into the relationship between social organization and regulatory regime.

Access to land is influenced by land ownership patterns. Under statutory law, land can be held by individuals, cooperatives, companies, public corporations or institutions, municipalities, national or regional governments, etc. Under customary law, land is held by the community, however land users can range from individuals to organizations.

The means to access land encompass different degrees of formality. Within formal access to farmland, the farmer's rights to produce are protected under the law and forced evictions deemed illegal. On the other end, informal access obeys paralegal arrangements that offer different degrees or perceptions of tenure security. Here, producer's rights are socially recognized and mediated. However, under these informal arrangements, the landowner is not legally accountable to the producer and the producers' tenure rights are not protected. For instance, in Kano, Nigeria, land tenure arrangements range from individual to family ownership (where tenure is secure) to tolerated and illegal spontaneous occupation (where tenure is insecure) (Olofin and Tanko, 2003). Following is

a classification of the strategies used by the poor to access land for UA in urban and peri-urban areas of developing cities, per degree of formality of access and per prevailing regulatory system of tenure.

Table 1: Typology of the Urban Poor’s Means to Access Farmland

Degree of formality vs. regulatory regime	Informal	Semi-Formal	Formal
Customary Law	<ul style="list-style-type: none"> ▪ Spontaneous occupation ▪ Renting ▪ Borrowing 	 	<ul style="list-style-type: none"> ▪ Customary allocation <ul style="list-style-type: none"> ✓ Borrowing ✓ Inheriting ▪ Leasing and Renting
Hybrid Law	Information gap	<ul style="list-style-type: none"> ▪ Political influence on land access ▪ Customary Allocation <ul style="list-style-type: none"> ✓ Unrecognized legal system 	<ul style="list-style-type: none"> ▪ Purchasing ▪ Leasing and Renting Donations and inheritance
Statutory Law	<ul style="list-style-type: none"> ▪ Spontaneous occupation <ul style="list-style-type: none"> ✓ Pioneer wave of occupiers: “Colonization” of vacant land. ✓ Second wave of occupiers: Invasion of idle land from other <i>de facto</i> tenants. ✓ Continuous practice: Transfers of occupancy rights to next of a kin. ▪ Tolerating (Laissez-Faire) ▪ Renting (No contractual agreement) <ul style="list-style-type: none"> ✓ Share cropping ✓ Fee payment ▪ Borrowing <ul style="list-style-type: none"> ✓ Custodian tenant 	 	<ul style="list-style-type: none"> ▪ Leasing and Renting ▪ Purchasing ▪ Donations ▪ Inheritance

3.1. Formal Access to Urban Farmland

Formal means to access farmland are site specific and determined by officially recognized regulatory systems. People participating in formal means to access farmland are mainly from medium or high-income groups since most of the transactions require land ownership or the capacity to accumulate monies for down-payments or fee payments. However, these groups do not rely on these strategies alone to access land for UA. For instance, in Kampala and Accra, formal access to farmland refers mainly to purchase, donations (gifts), leasing, inheritance and customary rights –the latter being formally recognized in Uganda and Ghana contrarily to some sub-Saharan countries (Flynn-Dapaah, 2002; Obuobie, Danso and Drechsel, 2003). A description of the different formal means to access land for UA follows.

3.1.1 Under Statutory Law

3.1.1.1 Leasehold and Renting

Public lands under statutory law are “ideally” accessed through leases. Privately owned lands can be accessed through renting with a contractual agreement, which provides farmers with formal access to land and tenure security. Producers are normally notified in advance as to when the land will be needed and they are given enough time to harvest their crops. It is believed that there is an increasing growing market for renting and leasing urban agricultural plots (Mudimu, 2004). For instance, in Kenya, the Kenya Railways (KR), a parastatal institution, developed a system of land leasing for farming purposes in order to allow the general public access their vacant lands (MDP, 2001). Similarly, in Kampala, over half of the land within the city limits is public land on which an applicant can be allocated a long-term, renewable leasehold. Maxwell (1995a) states that although few people acquire leaseholds on public lands for purely agricultural purposes, there is evidence of leased land being farmed in Kampala. As for privately owned lands, Djabatey (1998) states that renting or leasing from individual landowners is the second most common form of land tenure among intra-urban gardeners in Accra.

3.1.1.2. Purchase

Access to farmland through purchase is associated with the wealthy social strata. However, middle and lower-income groups may purchase land for housing and practice on-plot UA. It is believed that the land market discourages investments in urban land for purely agricultural production. Notwithstanding, the wealthy may seize urban land for speculative purposes and practice or encourage UA on their land as a means of protection against squatting (see Borrowing 3.4.1.4). For instance, in Accra, gardening on privately owned land situated in the backyard of residential buildings owned by the gardeners is the most common form of UA (on-plot UA). Note that people from lower income groups are only able to purchase lands in peri-urban areas, where it is relatively affordable compared with more central locations. For instance, Njambi (2001) states that in Kenya individuals create ‘land-buying’ companies or cooperatives for purposes of purchasing peri-urban lands for UA, with each member contributing a certain amount of money.

3.1.1.3. Donations

Access to land through donations is not a common means to access land. Donations can occur between individuals or organizations. Strong social ties underpin such a system of land distribution. For instance, Nuwagaba et al. (2004, p.61) states that in Kampala “[f]reehold rights which are normally under the jurisdiction of institutions such as churches and schools can be given out as gifts. This is normally done to long serving members of the institution or its staff”. Other land donations are related to personal relationships or altruistic actions. The landowner may transfer her/his land titles to a relative or a friend. Similarly, well-off landowners may transfer landownership to groups of farmers or associations. Finally, the State may re-distribute lands among landless urban peasants, at no cost, as a means to bridge social inequities. For instance, land reforms addressing land tenure disparities among rural peasants and landowners have been on the political agenda of several Latin American governments. However, urban land redistribution has not been addressed or explored.

3.1.1.4 Inheritance

Inheritance provides access to land through relatives, with men being predominantly the beneficiaries. In many African countries, land ownership transfers via inheritance obey the traditional patricentric nature of the family. This can be exemplified in Uganda, where women do not have access to land ownership. In Kampala, rich single women and widows, who were born or married to Ganda royalty or chiefly families, inherited land titles from their fathers or husbands and then passed those on to their children (Nuwagaba et al., 2004). Maxwell et al. (1998) states that women's land rights are insecure in peri-urban areas of Ghana, but their access to land is reasonably guaranteed under customary tenure and inheritance via their male relatives. In Kinondoni, Tanzania, most women accessed land through inheritance compared to other means (Malongo, Komba, Geho, and Kimei, 2004). In general, in Africa, women access land through their male relatives, where the latter hold the ownership of land.

3.1.2. Under Customary Law

3.1.2.1. Customary Allocation

As it has been stated, customary lands play a central role in Africa's tenure regimes, especially in peri-urban and rural areas. Customary access to land adheres to traditional principles based on kinship and friendship. What is more, it requires permission from the land chief or customary authority that, in turn, receives a token in exchange for the use of the land. Individuals accessing land under customary law have only user rights as opposed to freeholds, however they can pass these rights to their children or other members of the family. For instance, in peri-urban Bamako, Mali, and peri-urban Niamey, Niger, land for UA is accessed through customary allocation (see section 4.2.3). Similarly, Bamako's intra-urban farmlands, granted by colonial administration to notable families (mainly Niaré and Touré), are allocated using customary traditions (Zallé, 1999). It has been observed that access to land under customary allocation is more common in peri-urban areas than in intra-urban areas (IAGU, 2002).

3.1.2.2. Borrowing

Customary lands can be borrowed by foreigners following customary traditions and with the approval of the land chief (tokens only). Borrowing customary land can be a complex process; therefore the degree of formality varies depending on the nature of the transaction. Borrowing customary land with the approval of the customary authority and heads of the customary families is formal. Conversely, borrowing land from a tenant on customary lands or accessing land through a customary landowner without the authorization the land chief is informal. It has been observed that borrowing land in intra-urban Bamako for UA is most common under customary lands than under other regimes (IAGU, 2002).

3.1.2.3. Leasing and Renting

As it has been stated, the degree of formality under customary allocation is difficult to determine given the nature of the transaction, which is based on customary principles and often lacking documentary evidence. For instance, in Mali, what it is formal for a traditional Bambara community may not be formal for Dogon or Bozo community. Zallé (1999) indicates that renting customary lands in intra-urban Bamako for UA is less common than renting land under statutory law (see section 4). On the other hand, in intra-urban Accra, land is leased from customary authorities and security to land is achieved to the extent that the local chiefs or traditional leaders do not sell such lands to a real estate agent or are not expropriated by the State (Djabatey, 1998).

3.1.3. Under Hybrid Law

3.1.3.1. Purchase

It has been observed that customary mechanisms of land allocation and management are deteriorating, leading to fragmentation and sales of communal lands (RUAF, 2004). Changes in land regimes from customary to statutory exemplify hybrid regimes since the transaction is made under both systems. This case is evident in peri-urban Kampala, where customary lands are being purchased from customary chiefs by individuals (Nuwagaba, 2004). However, purchase of these lands for pure urban agricultural production is uncommon. Similarly, Kampala's mailo lands exemplify hybrid tenure regimes since land

is subjected to both customary and statutory law. Formal access to mailo land is usually through purchase. Nuwagaba et al. (2004) states that in peri-urban Kampala about one third of the surveyed producers were farming on mailo land they had acquired through purchasing, and that they belonged to the wealthy social strata.

3.1.3.2 Leasing and Renting

Renting or leasing lands under hybrid law can occur under several arrangements. These arrangements tend to be informal due to the lack of clarity in the legal framework that embodies these transactions. Nonetheless, an exemplification of this case can be found in Kampala. Kiguli et al. (2003) state that the majority of the poor gain access to land as customary tenants on privately owned land in peri-urban areas of Kampala, a form of land tenure unique to Buganda known as bibanja (plots) in mailo land.

3.1.3.3 Donations and Inheritance

Land under hybrid land law systems can be formally transferred via donations and inheritance. This is possible to the extent that land ownership rights are recognized by the State. As a result, individuals or groups can transfer ownership to others using legal provisions that appertain to their land. For instance, Kampala's mailo land can be inherited from a landowner following the specific legal provisions of mailo land.

3.2 Actors Providing Formal Access to Urban Farmland

The State, NGOs, farmer's organizations, private landowners and customary land chiefs (Africa) are the main actors providing formal access to urban farmland. Formal access to land for UA is an important means of access for the poor, although limited in the number of arrangements and flexibility. The State's role in the formal access of urban farmland is key for the perpetuation of UA. Hitherto, it has played a timid role in acknowledging UA as an important survival strategy of the poor, thus hindering formal access to urban farmland.

3.2.1 The State

The state is the most important actor in facilitating access to land under statutory regimes. The State enables UA by allocating vacant land for farming in intra-urban and peri-urban areas as well as developing mechanisms for land distribution. This enabling role of the State is evident in several Latin America's countries. For instance, in Rosario, Argentina, the local government in conjunction with the National University of Rosario and local NGOs and CBOs have developed a legislative framework to facilitate land access and tenure for UA on public and private vacant lots. Following a City Ordinance, private landowners can lease their vacant land to the municipal government and obtain tax exemptions. In turn, the municipality signs a sub-lease agreement with farmers' groups and grant them temporary user rights. As for public lands, farmers can get leases directly from the municipality (IDRC, 2004; Dubbeling, 2003). Likewise, Cuba and Brazil have official municipal programs to allocate and optimize vacant urban land for UA (IDRC, 2004). In Cagayan de Oro, Philippines, allotment gardens on private vacant land are being made legally available by city authorities to producers' associations through leases in order to be used for vegetables, fruits and cut flowers cultivation. Moreover, the municipality, through a City Ordinance, provides tax incentives to landowners renting their private vacant land for UA. The Ordinance also requires that space be reserved in new residential developments for allotment gardening (Holmer, Clavejo and Dongus, 2003). For a discussion on governmental programmes to facilitate access to vacant land for UA, see section 5.

3.2.2 NGOs

Similarly to governmental actors, NGOs' contribution to access land has been documented on lands under statutory regimes. NGOs, and other grassroots organizations, can help urban farmers to organize themselves into associations with a legitimate, credible voice in order to engage in formal negotiations to access land, mediate land disputes and influence land legislation (marginal group's empowerment). For instance, in Zambia, the Copperbelt Urban Livelihood Project (CULP), a CARE-Zambia initiative, has helped peri-urban farmers of Ndola and Kalulushi districts to get organized in farmers' associations with legal status, leadership and credibility; thus allowing farmers to have a legitimate

voice to negotiate land access (through renting), and mediate land disputes with private landowners. Nonetheless, acquiring urban farmland through formal means, even with the support of NGOs, is rather limited due to the lack of governmental support¹³ and recognition of UA, and the low income of urban farmers. In this respect, the role of NGOs is more related to empowerment of the poor to reverse land tenure inequities than to raise funds to purchase/lease land for UA. On this note, influencing legislation in order to allow public land to be leased for UA is an important cause. For instance, in Bogotá, Colombia, ENDA Latin America supported several UA's women associations, farming on schools plots, to document their experiences and influence urban planning. The project objective was to include women's perceptions and needs into the municipal planning and to extend UA to other marginal settlements of the city (Bustos and Solano, 1997).

3.2.3 Farmers' Organizations

In Latin America and Africa, farmers' organizations have played a central role in empowering the poor, influencing planning policies and legitimizing UA (see chapter 4). Organizations allow for better land access and tenure security. Through organizations, urban producers obtain funds and technical advice, engage in education programmes, gain political influence and develop, manage and sustain UA projects. For instance, in La Paz, Bolivia, a farmers' cooperative (CASOL-Cooperativa Agrícola Solidaridad), organized by

¹³ According to Quon (1999) governmental support of UA can be divided in:

Enabling: The State provides tangible institutional and policy support and encouragement for UA, with or without restrictions or regulations. In general, planning institutions, policy framework and stakeholders support UA, and combine to provide the context and atmosphere to actively encourage and promote the practice.

Permissive: The State supports UA in principle, and allows it to occur without posing impediments. UA is positively recognized in the policy framework, and generally accepted. However, the institutional organization and institutional capacity are not available to actively support or encourage UA; resources to facilitate UA are not available.

Neutral: Neutral circumstances for UA occur where there is a lack of (formal) acknowledgement of UA, whether positive or negative. There is a lack of discussion about the activity, and a lack of action in response to the practice either positively or negatively. Under these circumstances, UA is ignored.

Discouraging: The State acknowledges UA but view the practice in a negative light. This position may or may not be explicit in the policy framework; the prohibition of other activities or simply the failure to name UA activities in any zone may mean it is illegal.

Prohibitive: It presupposes that UA is acknowledged but viewed in a negative light. Prohibitive circumstances differ from discouraging circumstances in having the means and will to act to stop or disrupt UA activities.

women and a local parish, secured financial and technical support from the European Union for a community garden project (Valdés, 1997).

Similarly, in Quito, Ecuador, the community of El Panecillo (a shantytown located in the historical district of the city) developed a farmer's Centre with the support of the municipality (CEPAU- Centro Ecologico para la Agricultura Urbana). The Centre provided support for leasing private and public vacant land for UA. Moreover, the Centre developed a farmers' network in order to replicate the initiative, influence municipal planning policies, help in the commercialization of the production, improve waste management techniques and empower the community (See also section 5).

Likewise, In Kampala, Uganda women have formed associations at village level to improve their welfare and involvement in urban agriculture. Some women's associations collect small funds and pool them together to assist each other. Other women, led by a local council woman representative, meet on a monthly basis to invent the way forward for their farming social support organization. With a focus to better their lives, these women, belonging to different ethnic groups and cultures, came together with common aims on urban farming and developed a farmers' association (Nuwagaba, 2004).

Mudimo et al. (2004) states that in Harare farmers' organisations have raised the issue of community participation in local governance. This is the case of the Musikavanhu Project, which groups 30 families farming in Harare's low-income suburb of Budiro and Glen Norah. The farmers organization's objectives are to: lobby local authorities to include farming in their land use planning, in line with the changing socio-economic environment; provide food security and income to the marginalized through the growing of mealies and cash crops, in a sustainable way; network with all stakeholders who support their programme; and empower the urban voiceless, especially women (Gabel, 2002).

Similarly in Hyderabad, India, the Bhagya Nagar Kisan Sangh (BNKS) Farmers' Association has worked towards stimulating recognition by local government agencies of the benefits of UA on the livelihoods of a diverse group of people, which represent different casts and a broad spectrum of social classes. The organization functions as a platform to exchange information and consult on legal issues related to land (Buechler, Devi, Raschid, 2002). Finally, it is believed that effective farmers' associations influence local authorities to create an enabling environment for the community to carry out urban

agriculture. This includes producing laws and policies that accommodate urban agriculture, while being mindful of environmental implications and livelihoods.

3.2.4 Private landowners

Private landowners are actors only under statutory regimes and, with some exceptions, on hybrid regimes. Landowners include government agencies and individuals with vacant urban lands in urban and peri-urban areas. Private landowners rent and use their undeveloped land for UA as a means to protect their property from being squatted upon. Moreover, it is well known that private landowners in developing cities encourage UA in lots kept undeveloped for speculative purposes (see section 4). Obuobie, Danso and Drechsel (2003) state that the benefit of UA to landowners is that continuous cultivation keeps the land clean of weed and prevents encroachment as well as urban sprawl as the cultivator provide the “on-site enforcement against unofficial settlement”. For instance, in Harare, urban farmers lease land under statutory regime from private urban landowners based on a set of conditions that include payment of a fixed fee (Mudimo et al., 2004). The degree of formality of the arrangements between the landowner and the tenant in turn determine the security of tenure. Renting being more formal, thus the characterization under this heading. However, lending and other less secure strategies to allocate private land are discussed under 3.4.1.3. Renting (No Contractual Agreement).

3.2.5 Customary Land Chiefs and Traditional Authorities

The formal actors providing access to lands under customary law are customary chiefs or traditional families. In most of Africa, traditional families and land chiefs retain a legitimate role in land management, sometimes also acting as “landowners”. Customary land rights rest on elaborate traditions and customs, which served to enforce group control over the use and disposition of land (Nugawaba et al., 2003). In this sense, land chiefs allocate land to members of the community or the family. Land allocation depends on a number of factors: marital status, age, inherited rights, relationship with the community (in the case of foreigners), etc. For instance, a foreigner can be integrated in the community via friendship or marriage and be allocated land-use rights. Therefore, access to urban and peri-urban farmland is regulated and ensured by membership (IAGU, 2002).

Table 2: Formal Access to Farmland Cases by Tenure Pattern

Regulatory Regime	Statutory Regime				Hybrid Regime			Customary Regime			
	Land Tenure vs Facilitating Actor	Purchase	Leasing and Renting	Donation	Inheritance	Purchasing	Leasing and Renting	Donations and Inheritance	Borrowing	Leasing and Renting	Customary Access
Gov. Agency and the State		Intra/peri-Nairobi Intra-Kampala Intra-Accra Intra-Harare Intra-Rosario Intra-Cagayan de Oro									
Private Owners	Intra-Accra Peri-Nairobi	Intra-Accra		Peri-Accra Peri-Kampala Intra-Kinondini	Peri-Kampala	Peri-Kampala	Peri-Kampala				
NGOs		Peri-Ndola Peri-Kalulushi Intra-Bogotá									
Farmers' organizations		Intra-Quito									
Religious Inst.			Peri-Kampala								
Customary Chiefs					Peri-Kampala			Intra-Bamako	Intra-Bamako Intra-Accra	Peri/intra Bamako Peri-Niamey	

3.3 Semi-formal Access to Farmland

Semi-formal access to urban farmland represents a middle ground in the spectrum of possible means to access land for UA and is a crosscutting theme among the different land tenure regimes. Semi-formality includes access to land under customary law (when the State rejects it) and politically sponsored access to public lands. Political support to access public vacant lands is not completely formal when UA producers lack legal documentation or official (municipal staff, other politicians) recognition for land access and tenure. However, political support offers some level of formality related with the dialogue between State and farmers. Under this access arrangement, farmers gain political leverage that offers them improved tenure security and a sense of empowerment.

An example of semi-formality under statutory law can be found in Zimbabwe. Mudimo et al. (2004) state that in Harare, City Councillors have been instrumental in identifying public land for UA with their constituencies and redistributing it to some residents. Moreover, Councillors, who supported access to vacant public land, have clashed with the Mayor's office when restrictive policies on UA are enforced. Similarly, in Kano, Nigeria, cultivation on vacant lands was ushered in political discourses (1976's Operation Feed the Nation and 1980's Green Revolution). Olofin and Tanko (2003) state that these farmers are *de facto* tenants whose informal land tenure is insecure due to the lack of written legal documentation.

Table 3: Semi-formal Access to Farmland Cases by Tenure Pattern

Regulatory Regime	Statutory Hybrid and Customary Regimes (Recognized by the State)		Customary Regime (Unrecognized by the State)
Means of Land Access Facilitating Actor	Politically Supported Land Grabbing (Public Vacant Lands)	Violations to Land-use By-laws	Customary Allocation
Politicians	Harare Kano		
Customary Authorities			Dakar
Private Landowners		Harare	

Another case of semi-formality is provided by access to land under customary regimes, given that this regulatory system is not recognized by the State (i.e. Dakar, Senegal). Security of tenure for individuals accessing land under this arrangement may be quite high; however urban development

processes and governmental policies to regularize land tenure, seriously threaten the continuity of this practice. For instance, the government can enforce compliance with statutory law in order to provide land titles and pave the way for urban development. Finally, urban land can be acquired for uses that comply with zoning by-laws, but used by landowners or tenants for UA (given that UA is not a permitted land-use). This is the case of Harare, Zimbabwe, where the Town and County Planning Act does not recognize UA as a legal land-use (RUIAF, 2004).

3.4. Informal Access to Urban Farmland

The urban poor, in the absence of a legal system that fairly represents their realities, develop parallel regulatory systems that mediate land tenure and land-uses (Vélez-Guerra, 2003). As a result, informal practices of land allocation by social institution (kinship, ethnicity, marriage, etc) determine who accesses land and under what conditions. Flynn-Dapaah (2002, p.30) suggests that "formal land acquisition may be far too complicated and lengthy a process for urban cultivators seeking off-plot land, and that informal land acquisition, mediated through relationships, is the preferred practice for accessing a plot of land". This paper suggests that informal means of accessing urban land under statutory law replicate rural and pre-colonial systems of land allocation (Africa and Latin America). This emerging informal land allocation system can be defined as neo-customary. Here, rural customary practices are re-interpreted in an urban context that is increasingly industrial, and include the concept of land rights as market commodities. Under this context, neo-customary processes of informal land allocation combine traditional practices with other modern concepts. Thus, a variety of actors mediate access and tenure of public and private vacant spaces using trust, which assures the land user that others will support his/her land claims. Trust is embedded in the traditional social relationships that mediated former land delivery systems (A. Durand-Lasserve, personal communication, April 29, 2004). It is important to notice that trust can only be maintained on a community level, where informal actors maintain close relationships. As urban spaces evolve to integrate a more diverse and mobile population, trust on "moral agreements" may be replaced by a set of legal rules that can be enforced by legal institutions.

Neo-customary practices are the result of urbanization effects on traditional practices of land governance in rural areas. They represent and illustrate the adaptability and ingenuity of the poor to adapt their customs to a modern reality. Neo-customary practices are evident in suburban and peri-urban areas, particularly in relation to access to land for UA or housing. In intra-urban areas, lands may have been already allocated and land prices will result in people preferring statutory land transactions.

The conversion of customary into statutory land tenure regimes seems to disproportionately benefit the urban rich and transforms poorer rural communities into wage dependent labour. Impacts are particularly acute in peri-urban areas with negative impact on rural social structures. Neo-customary practices combine elements of customary system that are close to the poor's realities and social context, while responding to ineffective governance of resources. Transformations from customary to statutory law are "recent" in the African context, whereas in Latin America these processes started earlier and were accelerated due to the fast pace of urbanization (80% of Latin Americans live in cities). Hence, much of land law in Latin America is statutory. Nonetheless, neo-customary means of land access in Latin America are also evident in the wide spread informal land negotiations based on trust.

Neo-customary practices retain some advantages of customary land allocation: cheap, fast and simple access to land and a grassroots land management body that can mediate and arbitrate land disputes. Governmental inefficiencies in land control, allocation and management result in communities regulating access and land tenure by neo-customary principles. Community-based informal land delivered systems replaces centralized government statutory land regimes. In this context, the customary regime evolved by incorporating new practices and concepts and providing decentralized management of scarce local resources.

Nonetheless, informal access to land presents a number of constraints to the not farming poor that wish to obtain a plot for UA. Access to UA by the poor is made difficult by factors such as informal 'gate-keeping' relationships among early urban residents with negative impact for poor recent immigrants to the city (Mbiba, 1995). Information regarding land availability and access itself depends mostly in informal social network which migrants lack. It has been observed that former residents, and established farmers, control and mediate informal access to land. For the newcomer or the landless poor lacking social networks, developing social ties with residents and established farmers is the only possibility to access land. The following discussion introduces a characterization of a number of informal arrangements to access land in developing countries.

3.4.1. Under Statutory Law

3.4.1.1 Spontaneous Occupation

Spontaneous occupation on public, private or environmentally sensitive land is the principal means to access urban farmland by the poor (i.e. Latin America and Africa) (IDRC, 2004). This informal mean to access farmland is an opportunistic response of the poor that put vacant urban spaces awaiting

development to more productive uses. The allocation and use of spontaneously occupied land is not unregulated. Here, the poor develop paralegal systems, governing access, tenure and transfers of land, based on social relationships and/or customary principles. *de facto* land tenure for UA can be divided in three categories. First, “colonizing” which refers to the first wave of farmers that claim an unused piece of land for UA. Second, invasion of idle land from other *de facto* tenants, which refer to the second wave of farmers using vacant land. And third, continuous practice, which refers to transfers of *de facto* rights from farmers to the next of a kin. (see **3.4.1 Long-Standing *de facto* Tenants**).

According to Zallé, Meite and Konate (2003) spontaneous occupation of urban land for UA occurs on lands that are not being exploited such as fringes, areas liable to flooding or on which no building can be erected. Encroachment on environmental sensitive lands is widespread in Africa and Latin America with dire consequences for the environment and the farmers. For instance, access to farmland on vacant public open spaces, wetlands, streams banks, etc., have been documented in Accra, Harare, Nairobi (Kibera), Bamako and Kampala, Kano (Dennerly, 1996, Flynn-Dapaah, 2002, Mudimo et al., 2004, Nuwagaba et al., 2004, Olofin and Tanko, 2003; Zallé, 1999). Spontaneously occupied land requires continuous use in order to maintain the *de facto* tenants’ “rights” to the land. Poor farmers wishing to expand their production, or neophyte farmers wishing to obtain a plot, promptly access land left unused by long-standing farmers; hence the continuous use of spontaneously occupied public land. For instance, farming in some public areas of Accra (i.e. Abossey Okai) have continuous UA practice for more than 25 years (Flynn-Dapaah, 2002). Although spontaneous occupation on public land makes for most of urban poor’s means to access farmland, some governmental entities are permissive of UA.

3.4.1.2. Tolerating (*Laissez-Faire*)

An important means to accessing farmland occurs on land owned and controlled by a government agency that voluntarily, although informally, gives access to land, sometimes through the mediation of a third party, for temporary agricultural uses. Informally acknowledging UA uses creates a sense of tenure security among producers, contrarily to producers that are completely ignored by landowners (squatters). For instance, in Accra, land located under high-tension electricity’s transmission lines (utility land), and belonging to the Volta River Authority, is used by farmers for UA. Although this public corporation does not openly condone farming, they “officially turn a blind eye”. As a result, the poor have been farming the site for over thirty years (Flynn-Dapaah, 2002). However, most farming on

public land is not officially encouraged due to the fear of farmers building housing on public vacant lands and creating squatter settlements.

Tolerating UA without acknowledging farmers current land-uses creates high levels of tenure insecurity among farmers. This is the predominant case in developing countries, with the majority of farmers on public lands being completely disregarded and facing constant treats of evictions. For instance, in Harare most of the UA activities (79.6%) occur on public lands without official recognition (Mudimo et al., 2004). In Bamako, the banks of the Niger River are used by farmers to practice UA without any legal recognition by the municipality (See chapter 4). As a result, the poor develop coping strategies to counter evictions and harvest losses. Dennery (1996) states that several farmers in Kibera, illegally farming on public lands, have more than one plot as a form of insurance against eviction, which occurs without prior notification of compensation. Evidently, tolerating reinforce the *de facto* tenants' marginal status in society by creating a sense of unlawful tenancy and by threatening the poor with violently taking away their *de facto* rights and crops.

3.4.1.3. Informal Renting (No Contractual Agreement)

Informal access to farmland by renting private land is another important mean for the poor to gain access to farmland and for landlords to protect their unused land from spontaneous occupation. Land can be rented under two different informal arrangements: fee payment¹⁴ and sharecropping¹⁵. In urban Bamako, parcel renting on private lands by paying fees is the second most important way of accessing farmland by the poor. D. Zallé states that renting is a symbol of people lacking social ties with the landowners, while informally accessing land through social relations results from the in-existence of a municipal bureau for borrowing or renting vacant land (Personal communication, August 2004).

It has been noted that renting occurs mainly on private lands (See section 4.2.2; IAGU, 2002; Zallé, Meite and Konate, 2003). For instance, in peri-urban Accra, farmers engage in sharecropping tenancy arrangements, which requires that the tenants give a third (*abusa*) or a half (*abunu*) of the total farm produce to the landlord as a payment for the use of the land (Uboubie, Danso and Drechsel, 2003).

¹⁴ **Fee payment** refers to an informal market transaction by which a landowner lent his land to an UA producer in exchange of cash.

¹⁵ **Sharecropping** refers to a type of farming whereby the tenant pays his rent to the landowner in produce rather than in cash. The landlord often provides seeds, stock, and equipment in return for a fixed proportion of the output.

3.4.1.4. Informal Borrowing (Custodian Tenant)

Contrarily to renting land, borrowing requires no fees from the producers. Djabatey (1998) states that this arrangement occurs between an absentee or speculative landowner, and an urban gardener (custodian). The custodian is entrusted with the land as caretaker and she/he is “assured” that, even if future use-rights are withdrawn, she/he will not be subject to summary eviction but given enough time to harvest her/his crop. This arrangement is more common in suburban and peri-urban areas where there is greater concentration of speculative lands. Landowners benefit from this informal arrangement by protecting their land from squatting and assuring her/his land rights without litigation. For instance, custodian tenancy has been observed on privately owned lands in intra-urban Accra (13%). However, this form of tenancy was more common on peri-urban areas (88%) (Djabatey, 1998).

3.4.2 Under Customary Law

3.4.2.1 Spontaneous Occupation

Spontaneous occupation of customary lands is an important mean to access land for UA. Interviews with expert planners in Bamako, Mali suggest that squatting on customary lands is a common means of access to land since customary landowners only use the more fertile and productive lands for UA while the less productive lands are left unattended and thus spontaneously occupied (See chapter 4, D. Zallé, personal communication, August, 2004). In Kampala, Uganda, it has been observed that women are more likely to have access to customary lands as squatters (IDRC, 2004). Spontaneous occupation of customary lands is more important among women given that under customary law women do not have a right to hold land.

3.4.2.2. Informal Renting

It has been noted that one of the main problems related to secure tenure is related to the informality of land access, which enables the landowner to claim his/her land without prior notice and gives no legal options for the tenant. In this context customary land can be rented to foreigners without documentation, thus creating insecure tenure. For instance, in Peri-urban Abidjan, Ivory Coast, land chiefs rent customary land to foreigners under a “moral agreement” (IAGU, 2002a). It has been noted that such an arrangement provides a higher degree of tenure security. However, land chiefs selling land, competing customary land claims or government’s expropriation campaigns could affect tenure under this arrangement. For instance, in Jos, Nigeria, the Hausa farmers are being pushed away by local

customary chiefs, who previously rented their land to these vegetable specialists, due to competing customary claims on the land.

3.4.2.3. Informal Borrowing

Land can be lent under customary law to foreigners. However, it is important to notice that the informal character of borrowing here refers to the informality of the arrangement between the producer and the customary landowner. For a transaction to be formal in customary law, it has to be approved by the land chief and the heads of the family of the community if the person getting access to land is a foreigner to the group. Such informality creates a certain degree of insecure tenure for the producers; therefore farmers can be evicted without prior notice by the landowner. Informally accessing land under customary law prevents tenants from getting support on his/her land claims by other member of the community and the land chief. In Bamako, borrowing land for UA occurs mostly on customary lands (IAGU, 2002). Frequently, a token (sugar, oil, etc) may be given to the landowner as demonstration of gratitude and respect.

3.4.3 Under Hybrid Law

The literature review for this paper suggests that there may be a gap in knowledge related to informal practices of access urban and peri-urban farmland under hybrid regimes. The lack of available studies illustrating this case is perhaps related to the infrequent occurrence of access and tenure of land under this regime. Another possibility is that attention has been centred on the dichotomy statutory/customary without paying much attention to the transitional stages between these two systems (i.e neo-customary practices).

3.5. Actors in the informal access to urban farmland

The informal means to access farmland by the urban poor comprise a multitude of dynamic strategies that evolve to respond to the deficiencies of the State, the constraints of the market and the opportunities offered by social networks. The actors using and allocating urban farmland are further determined by the location (intra-urban, suburban or peri-urban). Peri-urban areas, which have not yet been affected by rapid increases in land market values or urbanization pressures, maintain rather traditional means of land allocation (prevalence of customary law). As urbanization proceeds and land prices soar, the actors struggling to gain access to land grow in numbers and their strategies to access

land intensify (prevalence of neo-customary land allocation and statutory regimes). The poor and their strategies of land access (popularly referred as “*el rebusque*” in Spanish) are adaptive, flexible and dynamic, thus rapidly responding to changes and challenges as these appear.

3.5.1 Long-standing *de facto* Tenants

Farming urban land, without landowner authorization and based on first come first serve basis (*colonization*), has been a reality in developing cities not only for UA but also housing. Over time, a sense of land ownership develops as the *de facto* tenant maintains farming practices. Other farmers wishing to acquire land for UA acknowledge long-standing *de facto* rights. Dennery (1996) points out that the allocation of farmland to new farmers by long-standing *de facto* tenants on Kibera’s public lands responds to social ties. “Who one knows becomes crucial to obtaining a plot. Individuals who do not have the appropriated social ties are shut out of food production altogether” (Dennery, 1996, p.194).

Despite of the informality and illegality of the *de facto* rights, land can re-allocated, inherited, borrowed and even rented following social norms that are accepted and respected by other *de facto* tenants. For instance, *colonizers* assume the right to pass on some of their plots to their offsprings, friends, neighbours, church mates, or house tenants (Mudimo et al., 2004). Dennery (1996) reports a case in which a long-standing UA *de facto* tenant, upon retiring, passed her plot on to her niece.

It is believed that these paralegal means of land regulation replicate established local customary practices. Olofin and Tanko (2003) state that in Kano, Nigeria, *de facto* tenants farming on open spaces adjacent to utility lands (i.e. railways lines) feel they ‘own’ their plots in the sense of having user rights over them. This perception may be borrowed from pre-colonial times when land tenure was purely communal and members of the community had rights over all unclaimed lands. Thus, once an individual used a piece of land he/she had exclusive occupancy rights; these were reverted to the community if the individual ceased to use it. Moreover, during this period entitlement to land was exclusively through kinship and membership in the community. In this context, land allocation follows pre-existing social relationships and ties that have already been established by farmers.

3.5.2. Women

Access to land is a major discriminating factor for women. Women, who comprise most of the urban farmers in Latin America and Africa, see their access to land constrained by the traditional sexual division of labour (Dennery, 1996; Mougeot, 2000, Mbiba, 1995; Schiere, Tegegne, and Van

Veenhuizen, 2003). Women tend to be associated with the food needs of the household and represent the bulk of urban unemployed people. Food production becomes an extension of women's "duty" to feed the family, thus their active role in UA production. However, women face patricentric norms in the family structure that prevent them from obtaining land ownership. For instance, in Uganda, women provide 70% of the agricultural labour while only 7% own land. In Harare, women, predominantly *de facto* tenants and borrowers, represent the majority of the producers (60%) (Mbiba, 1995). Buying land is further constrained by the women's household labour, which provides neither stable income nor a mode of saving. Additionally, women's limited education hinders their understanding on how land law constrains their rights to use land, thus exposing them unknowingly to forced evictions (Nugawaba, 2004).

In Africa, the majority of the women are landless or if they do have access to land, do not have decision-making rights. Most women access land through a male relative (father, husband or brother), who in turn decides how the land is to be used. For instance, Nugawaba et al. (2004) state that in Kampala married women would use the land next to their house for urban agriculture but their husbands will determine what crops to grow and how to utilise the output. Similarly, women, who gained access to land through inheritance, may own land but they cannot sell it since such land belongs to the family and selling requires written documents (Nugawaba, 2004). In peri-urban Hyderabad, India, land is normally held by the husband and inherited by the male members of the family. Only in case that the family has no sons or if the sons are still under 18, the women get the land title. In case of divorce, the land title remains with the husband (RUAFA, 2004).

3.5.3 Migrants and Ethnic Groups

Migrants and ethnic groups usually resort to safety nets, constructed with their relatives, neighbours and fellow countrymen, to solve their most pressing needs (access to food and shelter). Migrants and ethnic groups have in common their marginal status in society. Socially excluded ethnicities see their access to land hindered by ruling groups in host urban settings. For instance, In Divo, Ivory Coast, local perceptions of land scarcity by landowners, and fear of migrants, have resulted in land being rented (fee payment), whereas before it was allocated, free of charge, by local chiefs (Idelson, 2003). The latter suggest that changes in tenure regimes, from customary to statutory, have constrained access to land for minority and low-income groups. Similarly, Flynn-Dapaah (2002) states that a group of long-standing [*de facto* tenants] farming on public open space in urban Accra, originally

from Burkina Faso, allocated plots to their fellow newcomers based on social ties such as kinship or friendship.

3.5.4. Private Institutions

Private institutions have informally supported UA twofold: by allowing the poor to access their undeveloped lands and by managing the use of these premises informally. Mudimo et al. (2004) states that private institutions in Harare, such as schools, hospitals, churches and industries, have been allowing the poor to access their land with the consent of the respective manager. In Accra, Ghana, there is evidence of employees borrowing land from their employers for small-scale UA. Flynn-Dapaah (2002) states that the administration at the School of Hygiene permits food crops and even fruit trees. Additionally, school staff looking for land to farm admits that they do not have the right to take land away from those already cultivating it, thus protecting the tenure rights of the producers.

3.5.5 Family members

Similarly to the case of women, who access land through male relatives, other family members access land through a next of kin. Family relationships provide the poor with extended networks to access resources, particularly in times of severe economic hardship. For instance, lack of access to formal employment forces the youth and women to engage in UA. Mudimo et al (2004) states that in Harare young people are increasingly getting involved in UA due to high levels of unemployment. Youth access land through their relatives by inheriting, borrowing or renting a plot on family lands, which in turn can be formally, semi-formally or informally held.

3.5.6 Farmers' Organizations

Empirical research in Bamako, Mali, has demonstrated that farmers' organizations are instrumental in providing individual farmers with informal access to land (see chapter 4). Farmers' organizations help producers by establishing an extended network for accessing land informally. Farmers lacking social relations to access land may approach the leader of a farmers' organization in order to obtain help in finding a plot to cultivate. In Bamako, Mali, farmers' organizations locate vacant land for their members and provide them with contact information of landowners willing to rent their land temporarily under verbal agreements. In case of farmers' eviction without compensation, the farmers' organization take the case to court in order to defend the rights of its members.

Table 4: Informal Access to Farmland Cases by Tenure Pattern

Regulatory Regime	Statutory Regime				Customary Regime		
Land Tenure vs. Social relation mediating informal access to Land	Spontaneous Occupation (Public and Private land)	Borrowing (Custodian Tenant)	Tolerating	Renting	Spontaneous Occupation	Renting	Borrowing
Kinship	Intra-Nairobi (Kibera) Intra-Kano Intra-Bamako Peri-Kampala Peri-Harare				Intra-Bamako		
Marriage	Intra/peri Harare	Intra/peri Harare					
Ethnicity	Intra-Nairobi (Kibera)					Peri-Jos	
Gender	Intra-Harare				Intra-Kampala		
Nationality	Intra-Accra			Intra-Divo			
Friendship	Intra-Nairobi (Kibera)					Peri-Abidjan	Intra-Bamako
Private Institutions (Schools, Entreprises, etc)		Intra-Accra					
Gov. Agency			Intra-Accra, Intra-Harare Intra-Kano				
Private landowner		Intra-Accra Intra-Bogotá		Intra-Bamako			

3.6 Conclusion

The number of formal/informal access arrangements under each land regulatory regime illustrates the capacity/incapacity of the system to respond to the needs of the urban poor. The research also illustrates that land allocation under statutory regimes lacks the flexibility of customary land delivery systems in terms of providing communities with a grassroots body for land management. The number of informal practices to access farmland under statutory regimes suggest that centralized governance of land may be inefficient and that there is a need for local governance structures that allocate and manage urban land and solve land disputes. It has also been observed that the poor, organized under associations or cooperatives are more effective in obtaining formal and informal access to land for UA (both under customary and statutory regimes).

In the Latin American and African contexts, the urban poor's formal access to urban and peri-urban statutory lands is mainly provided by governmental programmes leasing or subleasing public, private or institutional lands, at low cost or free of charge, under certain conditions. Where these governmental programmes do not exist, lands are accessed through informal neo-customary land delivery systems. Neo-customary processes of informal land allocation combine customary practices with other informal and formal practices and are based on trust, which assures the land user that others will support his/her land claims.

Spontaneous occupation of public and private intra-urban land is the most prominent means of land access by the poor. Informally borrowing intra-urban farmland for UA from private or institutional landowners is a widespread practice. Informal access to customary lands is a less common practice due to the decentralized management of land provided by customary authorities. Informal access to land under hybrid regimes has not been documented in the literature reviewed, thus suggesting an information gap. The most important means of accessing land by semi-formal means is politically supported public land occupation. In all regimes, migrants and women are particularly discriminated against in the formal/informal allocation of land for UA. Finally, it has been observed that as densification increases in intra-urban areas, land prices rise and the more land intensive forms of urban agriculture are displaced to areas where land-uses are less intensive (suburban and peri-urban areas).

The next chapter presents a case study of farmers' organizations means to access land in Bamako. The discussion is focused on the means of access land per spatial location and its relationship with land tenure regimes. Particular attention is given to the degree of formality of land tenure arrangements, therefore illustrating the previous chapters' discussions.

4. A Case of Study on Farmers' Groups Means to Access Land: Bamako, Mali.

This section discusses the strategies used by farmers' organizations to access land under different land tenure regimes and spatial locations. It also addresses the municipal policy environment, programmes and actions that foster or inhibit access to land for UA. Particular attention is given to the characteristics of farmers' groups, the degree of organization of farmers per land regime, the spatial distribution of land regimes and women and migrants' land rights by spatial location. The first part of this section presents the characteristics and means to access land of three different farmers' organizations located in different geographic areas of Bamako, Mali. This section ends with some conclusions and recommendations to improve access to land for organized groups of farmers.

The fieldwork for the case study was conducted in urban and peri-urban Bamako. The rationale for choosing Bamako for the fieldwork was that the legal system in Mali recognizes customary and statutory land regimes, and presents land law entanglements that are particular to countries with similar legal systems. This is not the case of other African countries, where customary law is not recognized by the State, although its use is widespread in urban and peri-urban land allocation processes. Therefore, Bamako better exemplifies the constraints and advantages of having formal land management under different land regimes and the implications for farmers' means of accessing land.

Mali is located in Francophone West Africa and is one of the least developed countries in the world. The Human Development Index (HDI) ranked Mali 174 out of 177 countries in 2002. The country's total population is close to 12 millions whereas in Bamako, the national capital, is 1,2 million. The official language of the country is French but the majority of the population speaks Bambara as their first language. The population is particularly young with more than half of the people being younger than 20 years old (UNDP, 2004). Several of IDRC's supported projects had indicated the importance of UA in Bamako's economy, with around 14,000 farmers in the city (IDRC, 2002b; IAGU, 2002). During this fieldwork it was established that there are at least 22 farmers' groups in intra-urban Bamako.

4.1 Fieldwork Methodology

The methodology of the fieldwork was the following: Firstly, a survey of farmers groups and land regimes was conducted in intra-urban, suburban and peri-urban lands in order to determine the existing land regimes per spatial location and select the farmers' groups to work with during the rest of the fieldwork. The identification of farmers' groups was accomplished with the assistance of a local NGO (APROFEM – Association pour la Promotion de la Femme et l'Énfant au Mali) and the logistical

support of the NGO ROCARE (Reseau Ouest et Centre Africain de Recherche en Education). Two farmers' groups per spatial location were prospected and one was retained. The selection process consisted of unstructured interviews with the leader of the farmers' groups, with the specific objective of determining their degree of organization (including structure of the group, number of members, history of the group, future perspectives, etc), land tenure concerns, relationship with the government and land chiefs, record of land evictions, location and related land regime.

Secondly, six structured interviews (three leaders, three producers including a woman) were carried out with each selected farmers' group, for a total of eighteen structured interviews with three different producers organizations: one on intra-urban statutory lands (land titles), one on hybrid regimes in the suburbs (customary and statutory lands) and one on the peri-urban area (customary lands only).

Thirdly, the policy and political environment surrounding access to land for UA was documented by conducting seven expert interviews: three with customary land chiefs, four with urban planners (municipal staff), two with politicians (one ex-mayor, one councillor), one with a chief of the regional bureau of agriculture.

Finally, a workshop was organized to analyze the problematique of access to land, propose some solutions and develop an action plan. Sixteen people attended the workshop: two politicians (one ex-mayor and the president of the regional bureau of agriculture), two municipal planners, one customary land chief, three professionals from NGOs, six farmers (four leaders and two women producers) and a note taker.

4.2. Characteristics of Farmers' Groups and Means to Access Land.

During the fieldwork it was observed that security of tenure is not a pre-requisite for producers to create or join a farmers' organization. Land conflicts in urban areas force farmers to organize themselves to protect their livelihoods. Moreover, the farming urban poor, organized in associations or cooperatives, are effective in obtaining formal and informal access to land for UA (both under customary and statutory regimes).

Two of the three farmers' groups studied in this research were located inside Bamako's official boundaries. It was observed that the organization degree and means of access to land among farmers' groups inside Bamako differ greatly from their counterparts in peri-urban areas. On the one hand, locating organized groups of farmers outside the city was difficult since distances were greater, transportation and road infrastructure inadequate and farmers' organizations disperse and scarce. On the

other hand, farmers in the peripheries have few connections with NGOs and municipal officials, thus making the information about their groups difficult to find.

4.2.1 Cooperative Yiriwaton

Characteristics and Membership.

The Yiriwaton is a formal, well-established and politically active cooperative of farmers located in intra-urban statutory lands (see map on page 53). The group was created in 1970 with the objective of collectively saving money and redistributing it among its members (a collective financial strategy directed towards individual gains). In 2001, the group was transformed into a formal cooperative with the mandate of promoting UA, regulating the activity and supporting farmers. Yiriwaton has 160 members of which 40 are women and 120 are men. The agricultural production is concerned with gardening for income generation (commercialization). Lettuce, carrots, potatoes and cabbage are the most common crops. There is no livestock production and few high crops (corn, millet, etc). It is important to notice that high crops are forbidden inside the city boundaries by the municipal planning office since it is believed that these crops provide thieves and other bandits with a place to hide (M. Coulibaly, personal communication, August, 2004). The main concern of the Cooperative is land tenure insecurity, wastewater irrigation and access to credits.

Most of farmers were unemployed before practicing UA, however several farmers were also retired from the army or bureaucratic jobs. Some farmers joined the activity right after moving to the city from rural areas. Agriculture was their first urban job and they remained in the activity because the profits they made were higher than the salaries they could get from formal employment. A farmer stated that after twenty years as an urban producer, he was able to generate enough profits to buy two houses with land titles and another two houses in informal settlements. A woman joined the group after her husband had an accident and could not support the family anymore. She was able to support her husband, and send her children to school with money she made from UA. Most Yiriwaton farmers were experienced middle-aged farmers well connected to the informal and formal economical and political networks of the city.

The Cooperative has clear procedures for regulating the activities of the organization. The Cooperative is formally registered with the Ministry of Municipalities and has internal statutes that guide the management of the group. For instance there is a monthly fee of 500 FCFA to be paid by each member to cover the expenses of the management of the Cooperative. Similarly, there is a registration

fee and a savings' programme. Members have access to credits for seeds and farming tools with the Cooperative. They also lend money to members in case of illness or calamity.

Membership to the group is open to women, men and migrants and there are formal procedures to join the group as well as clear obligations and rights. Farmers are expected to pay the monthly fee and respect the statutes of the organization. Producers interested in joining Yiriwaton can approach the leaders in order to be considered for membership. Some farmers have employees in their plots to help them cultivate the land; others work with their children or other relatives. The Cooperative has several specialized secretariats dealing with issues such as management, conflict resolution, external relations, commercialization, credits and partnerships. The Cooperative does not impose crop choices but it has a say on environmental management. For instance, the use of wastewater for irrigation is strongly discouraged. Moreover, middlemen do not buy vegetables that are irrigated with wastewater.

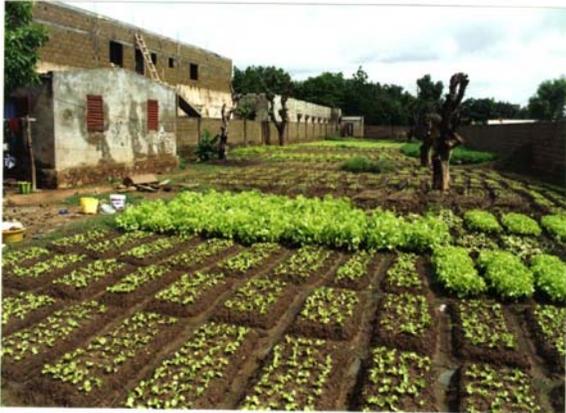
The Cooperative is extremely active in defending the land rights of its members and lobbying government offices to obtain and secure access to land. The Cooperative takes cases of eviction without compensation to court in order to recover the farmer's production and investment costs. For most of the Yiriwaton farmers UA is the only source of revenue and defending land rights means protecting their livelihood.

Access to Land, Evictions, and Institutional Relationships.

Yiriwaton producers cultivate on vacant statutory land (land titles) in intra-urban Bamako. Most lands are privately owned subdivisions for housing. Access to land is exclusively based on informal renting agreements between individual farmers and landowners. Renting fees are due every month and the average monthly price for a 30mts by 25mts plot is 5,000 FCFA. Security of tenure is extremely low and evictions common. Farmers faced constant incertitude since landowners can build on their vacant land or sell it to other people. A paradox lies in the formality of the Cooperative and the informality of land tenure and access among its members. Similarly, previous research on individual farmers' means of accessing land in intra-urban Bamako indicated that renting a parcel on private lands by paying fees is the second most important way of accessing farmland by the poor (See section 3.4.1.3 and IAGU, 2002, Zallé, Meite and Konate, 2003).

The Cooperative does not have land of its own, nor does it have agreements with landowners in representation of its members. However, the leaders of the Cooperative help producers to find suitable vacant land that can be informally rented for UA. The Cooperative provides producers lacking social

relations with a network to obtain a plot to practice UA. The strategies used by Yiriwaton to provide its members with land for UA is not limited to informal networks and agreements.



UA in intra-urban Bamako. Source: author's picture.

Yiriwaton has been effective in lobbying the local government in order to gain access to public lands for UA in the peripheries of Bamako. Following a directive from the central government of Mali, the municipality of Bamako is studying the possibility of leasing to farmers 600ha of public land located near Bamako International Airport (B. Tangara, personal communication, August, 2004). If the plan to allocate these lands for UA is approved by the municipality, Yiriwaton could have access to 100ha for its members.

While the official decision is taken, Yiriwaton continues to lobby to secure its share of this land and to develop clear guidelines for the distributions of plots among its members. Membership in the Cooperative has increased since rumors about Yiriwaton possibility to access these lands became known. Nonetheless, the Cooperative's principal criterion to distribute this land is based on numbers of year as member of the group.

Yiriwaton maintains a close relationship with the local bureau of agriculture, local NGOs and the municipal government. The leaders of the Cooperative believe that the management of urban lands zoned for agriculture should be the responsibility of the bureau of agriculture as opposed to the municipality. Most of the members of the group do not trust municipal government since public lands used for UA are being sold for housing even though they were zoned for agriculture or green spaces. The leaders of the group believe that working with NGOs to develop programmes to improve access to land can succeed. However there has not been a precedent in relation to this matter, yet they have participated in initiatives of NGOs concerned with local governance and decentralization.

The Cooperative preferred strategy to improve access to land and land tenure is leasing public and private lands inside the city. They are particularly concerned with distance from downtown since profits can disappear if transportation costs are high. Leasing customary land is not a good strategy from their point of view since they prefer to deal with the government than with land chiefs. They

believe that customary chiefs will not respect legal agreements and that their investment on customary lands can be lost.

4.2.2 Association Dyen Te Don.

Characteristics and Membership.

Dyen Te Don is a well-organized and politically active association of farmers located in suburban hybrid lands (statutory and customary regimes) (see map on page 53). The Association was established in 1971 with the objective of helping producers to resolve their land problems, assist in the commercialization of the production and mediate in conflicts. The Association was formally registered with the Ministry of Municipalities in 2001 and it has 114 members (64 women and 50 men). The Association's principal concern is land tenure insecurity, access to equipment and the irrational use of pesticides. The latter concerns Dyen Te Don leaders since many farmers are illiterate and use more pesticide than the recommended dose.

Dyen Te Don farmers have a wide range of agricultural production for income generation and food security. Most farmers cultivate vegetables such as beans, lettuce, onions, potatoes and beets. However, millet and corn are quite common during the rainy season regardless of the prohibition of the municipal planning office to cultivate these crops inside the city. There is some livestock production (chicken and goat), however, the practice is not very significant considering that many families in Bamako raise goats in their homes to provide the family with fresh meat.

The Association has clear regulations governing the functioning of the organization. There is a monthly fee of 250 FCFA to cover the administrative expenses of the Association. Dyen Te Don also provides its members with credits for seeds and it actively defend the land rights of farmers in case of conflict with landowners. B. Tangara states that farmers inside Bamako know better their rights and are more politically active (personal communication, August, 2004). In the case Dyen te Don, evictions are not common but urban planners that are opposed to the use of urban land for UA constantly threaten them. The Association has several secretariats dealing with issues such as management, conflict resolution and group activities. The Association does not place requirements on crop choices except in the common field where they cultivate the crop that is more profitable that year. The decision as to what is going to be planted in the common field is taken together every year between farmers and leaders.



Cooperative Dyen Te Don. Source: author's picture.

A farmer from the Association commented that he preferred UA than other jobs since it allows him to increase production overtime thus making more money than other jobs.

Members of Dyen Te Don are mostly people that live in the area, however there are some members that are non-residents of the neighborhood. Migrants and women can join the Association by approaching the leaders of the organization. Women play a central role in the Association since they not only cultivate land but also commercialize the production, the latter being the traditional role of women in Mali. Some farmers work with their families and there is a strong sense of community among the members of the Association.

Access to Land, Evictions, and Institutional Relationships.

Dyen Te Don members access land through a variety of strategies. Most farming occurs along the margins of the Niger River, which are public lands zoned as green spaces. The general area is zoned as Rural Concession thus it is destined for agricultural purposes and people can obtain land titles by following a legal procedure (République du Mali, 2001). As a result, some lands are statutory public lands (margins of the Niger), privately owned statutory lands (individuals with land titles) and customary lands (land chief and traditional families). Customary land tenure is the most common type of tenure in the area. Dyen Te Don's members face similar land problems as individual farmers in other African countries (See section 3.4 and Dennery, Flynn-Dapaah, 2002, Mudimo et al., 2004) however the advantages of belonging to a group greatly increase their chances of securing additional land and protecting existing land rights.

The Association provides rural migrants with an opportunity to infiltrate the urban network through generating income with UA. Most farmers in Dyen Te Don are rural migrants, retired officials and traditional families farming their land. For some farmers UA is a profitable option in relation to other urban jobs, for others agriculture is the only activity they know.

Perception of land tenure security among the members of Dyen Te Don is somehow higher if compared to Yiriwaton. For most farmers, security of tenure depends on customary owners not building on their land. Additionally, producers feel threatened by the municipality selling public lands from the margins of the river for housing. B. Tangara states that construction projects are more important for planning staff than UA activities (personal communication, August, 2004). It is important to notice that public lands in this area remain under customary control. During an interview, a farmer indicated that he squatted the land he uses for UA. He did not ask for permission to use this land from the chief of the neighborhood or a traditional family. Also, he was not clear if he needed an authorization from the municipality to use this land. None of the farmers in the area have formal agreements with the municipality to use the banks of the river for UA, yet this area is reserved for agriculture and environmental protection. Like the rest of the farmers along the Niger River, he is informally farming in an area where UA is permitted but without the permission of customary authorities.

The main means of accessing land among members of the Association is borrowing customary lands from the heads of traditional families or from the chief of the neighborhood (formerly land chief). Land scarcity and the overlaps of land regimes induce a myriad of strategies to access and hold land. The main concern of farmers is that urbanization is transforming agricultural lands very rapidly. Presently, the area is highly urbanized and most agricultural lands have been occupied for housing. Land agreements between customary owners and producers are oral; and farmers use borrowed land until the customary owner needs it to farm or build a house (see 3.4.2.3 and IAGU, 2002, IDRC, 2002b)

Inheriting customary lands is the second most common mean of accessing land. There are some cases of borrowing statutory private lands. “Squatting” occurs on public lands along the banks of the Niger River, but it is not a common practice. As opposed to the case of Yiriwaton, Dyen Te Don’s farmers rarely rent the land they use. Moreover, gifts to customary owners lending their land to producers are not required. Gifts are given to customary owners from time to time as a symbol of respect and friendship.

Passing land-use rights among members of the group is a common practice. Some of the members of Dyen Te Don are customary owners that give access to land to other members of the Association. There are also members farming on borrowed customary lands who during the rainy season give access to other members while they take time off to do other activities. The Association also helps their members to obtain access to land by indicating vacant land availability to landless producers and providing them with connections with customary owners, the chief of the neighborhood

and other members. However, the most common practice for obtaining land is individual farmers approaching landowners to request access to their land.

The Association actively searches for land for its members with the government and with customary owners outside the city. The political leverage of Dyen Te Don is lower if compared with Yiriwaton. They lack connections in governmental offices and devote less time to lobby politicians and government staff. Evictions are less common since they farm mostly customary and public lands. However, members of the Association feel that the organization is effective in protecting their rights since their leaders will take unsettled land conflicts to court. The Association has studied the possibility of using customary peripheral lands for agricultural production but they had found that the transportation cost would offset the profits.

The case of Dyen Te Don farming public lands without official recognition is a typical case of tolerating UA under statutory law (see section 3.4.1.2). The leaders of Dyen Te Don believe that an official agreement with the municipality to use public lands would be of great advantage by providing secure tenure, allowing farmers to invest in equipment, increasing productivity and protecting the environment since farmers will take more care of the land during their tenancy.

Women do not have the same opportunities as men for accessing land since the main mean to access land in Dyen Te Don is individually borrowing land from customary landowners. Women are disadvantaged because under the local customary law women do not have a right to hold land. The chief of the neighborhood commented that only widows are allowed to hold land by themselves and women should farm the land of their husbands. In the case of a widow not having inherited land from her husband, she could access land by requesting one of her brothers or male relatives to approach a customary landowner and intercede for her.

The Association believes that leases on public land (parkland, margins of river, etc) for UA are a good option to improve tenure security. The leaders of the organization suggested that the government should create a legal instrument to grant farmers temporary land-use rights for UA on public lands. This “temporary land-use title” or “title of exploitation” will allow producers to be officially recognized by the government and to have legal protection from forced evictions. The title should determine rights and obligations for both parties, the duration of the tenure, type of infrastructure permitted on the sites and mandatory environmental management practices (IDRC, 2004). Accessing land through customary landowners on peri-urban areas is acceptable for the Association, however they prefer to work with the government since customary owners will eventually claim their land back. Additionally, peri-urban

lands pose a problem since revenues will be offset by transportation costs, thus making the activity non-profitable.

4.2.3 Benkadi Farmers' Group

Characteristics and Membership.

Benkadi is a farmers' group located in peri-urban Bamako. The group was established in 2002 and it has 65 members (12 female and 53 male). The farmers have not registered their group with any governmental institution nor it has any internal regulations or codes. The level of organization of the group is low if compared with the Yiriwaton and Dyen Te Don. Most farmers expressed that they have difficulties working as a group since this is the first time they are trying to organize. The mandate of the group is to promote agriculture and obtain access to credits and organizational training. Furthermore, the main concern of the group is access to water and education, and developing organizational skills to reinforce their group.

Benkadi's farmers are part of a small village and are related to each other by kinship. The main economic activity of the village is agriculture, thus the members of the group have been farmers prior to joining Benkadi. Most of the farmers are younger than producers in urban Bamako and lack the skills to perform another economic activity other than farming.

Benkadi's agricultural production provides for income generation and food security. The main crops among members of Benkadi are: corn, millet, potatoes, tomatoes, onions and beets. The group does not place requirements on the type of production of its members. Women sell the agricultural production to middlemen in a local peri-urban market, which is located several kilometers away from the village. The final destination of the production is Bamako's food markets. Benkadi's producers expressed that income from agricultural production was sufficient to provide for the basic needs of their families, however, their living conditions were lower than they counterparts in Bamako. For instance, children had signs of malnutrition; most of the people from the village do not have access to education; and they do not have access to potable water and electricity.

Benkadi is neither politically active nor it has connections in municipal offices or the regional bureau of agriculture. Since the creation of the group they have been trying to develop ties with other farmers' organizations, a local political leader and the bureau of agriculture, however they reported little progress on this front. However, the group has been receiving agricultural training through a local NGO as part of national programme coordinated by the Ministry of Agriculture.

The group's principal constraint in developing organizational skills is illiteracy. Among all the leaders of the group, only one person knew how to read and write French, the official language of the government, and most farmers only speak Bambara. Benkadi's members believe that the principal advantage of being organized is to exchange ideas and the possibility to obtain access to credits with the government or other institutions. Presently, the farmers' group does not provide its members with any service nor it has implemented any special initiative.

Membership to the group is open to women and men from the community only. There are no migrants (women or men) in the group. In order to join the group, foreigners need to become part of the community first by following customary practices (i.e marriage). Benkadi's leaders say they are willing to consider different ways to integrate non-residents into their group, however, this is not something they have considered before this fieldwork nor they can see the advantages of sharing their land with foreigners.

Land availability and access is not a concern for members of the group. The reasons for farmers not having land problems are twofold. First, urbanization has not reached the area, lands remains under customary land tenure and no land transactions exist with non-residents. Second, members of the groups have secure access to land through customary land allocation based on kinship, plus the village has more land than farmers use for agriculture.

Access to Land, Evictions, and Institutional Relationships.

The principal means of accessing land among Benkadi's producers is customary land allocation (see section 3.1.2.1). The area has no other type of tenure other than customary holdings and lands are either the property of the chief of the village or traditional families. Most of the farmers inherited land rights from their families. Borrowing land from other members of the group (customary landowners) and the land chief was the second most common means of access.

Access to land follows customary procedures where a male wishing to obtain a plot approaches the customary landowner with 10 nuts of cola in order to request a piece of land. If the person seeking land is part of the community, the landowner can give access to his land without authorization from the land chief. However, if the person seeking land is a foreigner, the customary landowner needs authorization from the land chief and the other heads of families. Women cannot hold land by themselves, except in the case of widows, and most women access land through their husbands. When asking a male farmer about the reason for women not having land rights, he cited two reasons. First,

traditionally men and women have different roles in the family structure. Second, women “are not responsible enough to have land by themselves”. On the other hand, when asking a female producer about her perceptions of customary regimes versus statutory regimes, she pointed out the advantages that statutory regimes give to women but also indicated that she preferred to remain with her community even if that implied less rights. She also indicated that female farmers wish that the government could implement programmes aimed at providing women with land rights. The marginal status of women in the community also has implications in the functioning of Benkadi: women do not participate in the group meetings probably less out of interest, and more so due to the fact that male farmers do not take them in consideration.

Land transactions between farmers are oral and security of tenure high. Benkadi’s producers expressed that land is not a concern in terms of availability or accessibility. They have never feel threatened by evictions and they feel safe on their land even in the face of Bamako’s urban expansion. In relation to the latter, the community is trying to get support from the local government to develop a land-use plan or schema in order to protect the community from urbanization. Most importantly, farmers are strongly opposed to selling land to non-residents since their livelihood and traditions depend on this resource.

Most group members believe that governmental decentralization of land management should rest in the hands of the village chief. Farmers indicated that the chief knows well the realities, traditions and land rights of the community and that he is effective in managing the community’s land. Similarly, they stated that the role of the municipal government should be related to providing the community with land-use planning and agriculture technical advice.

Benkadi’s farmers are unwilling to implement programmes to give access to their lands to people from the city. The main reason is fear of losing the control of their lands. A possible solution is to develop a programme with participation from the community (chief of the village, heads of the families, producers,etc) to give temporary access to non-residents to practice UA on their lands.

Figure 1: Map of Bamako. Source: National Geographic Institute of Mali, 2003.

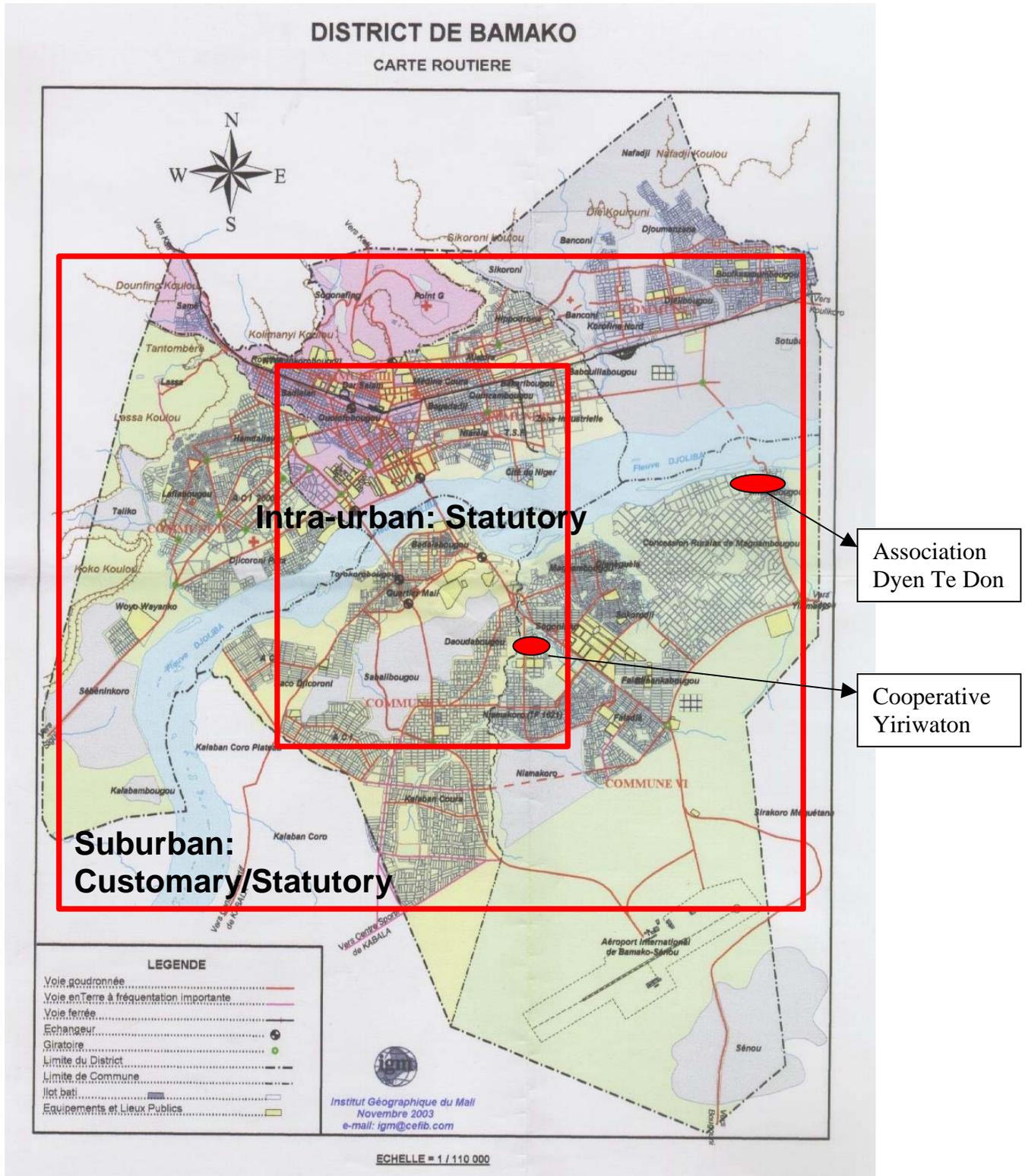


Table 5: Bamako, Mali, farmers' organizations means to access land summary table.

Group/Location	Land Regime	Main Means of Access
Yiriwaton (Downtown)	Statutory	Only Renting
Dyen Te Don (Suburban)	Statutory/ Customary	Mostly Borrowing. Squatting, inheriting, buying, few renting cases.
Benkadi (Peri-urban)	Customary	Mostly owning. Some borrowing.

4.3 Conclusion

These differences between farmers' tenure arrangements and their related degree of organization suggest that insecure land tenure induces farmers' organization and political involvement as a mean to protect their land rights in the face of competing land uses, land scarcity (urbanization) and evictions. Security of tenure is not a pre-requisite for farmers' organization, yet farmers' organizations are central in providing informal and formal access to land to their members, particularly to those lacking an urban network. An important paradox is that one can find formal farmers' organizations practicing UA under informal, even illegal, tenure arrangements.

It has also been observed that farmers' level of organization decreases from intra-urban statutory lands towards customary peripheral lands. However, most UA happens on customary lands (suburban and peri-urban areas). On the contrary, women's land rights decrease as distance from downtown increases.

The means for accessing land depends on the type of land tenure regime in place and the level of urbanization. Access to private lands under statutory regimes is mainly through informal renting agreements. The only relationship between landowners and farmers is a commercial transaction. Public statutory lands (i.e. banks of the river and railway lands) remains customary in people's minds. Squatting is common here since customary families/chiefs do not use unproductive or distant lands. Moreover, the government turns a blind eye until the land is needed for housing or building infrastructure. Access to customary lands is mediated by membership in the group and women are excluded from landownership.

There are socio-economic differences among farmers' groups depending on their spatial location. For instance, intra-urban farmers are older, more established in the business and better off than farmers in the peripheries. Suburban farmers receive a constant influx of migrants who join UA through social relations.

Finally, urban farmers expressed the need to formalize UA by creating legal instruments (i.e. title of exploitation) and planning programmes that allow them to have secure tenure over determined periods of time. A general concern among all the farmers' groups is the need to create a federation of farmers' organizations in order to influence legislation and to obtain access to land, secure tenure and protect their livelihoods.

The next section links the discussed constraints of each land regime with urbanization forces, land economics, urban form, and municipal urban planning. Depending on the land regime and the spatial location of land, some solutions to improve access are presented.

5. Municipal Urban Planning and Access to Land for UA.

This section discusses different strategies to improve access to land for UA based on the spatial distribution of land regimes. The first section outlines the different constraints to access land for UA in urban and peri-urban areas. The solutions to these constraints are proposed according to land regime, spatial location and temporal considerations. The section concludes with a discussion on land-use policies and its relationship with tenure security. The purpose of this section is to provide municipalities with some solutions to formalize informal arrangements of land allocation and tenure.

On a broad level, urban land accessibility is determined by an interplay of land laws, social customs, planning policies, land market forces and urbanization. This is evident in the different arrangements to access land and their related degree of formality per regulatory system and spatial location. For the poor, these macro-elements have real implications in the form of actors influencing and allowing access to land, thus affecting tenure security, crop choices and environmental protection.

Under statutory regimes, the variety of informal tenure arrangements between landowners and *de facto* tenants reflect the adaptive and flexible strategies used by the poor to cope with poverty and poor governance. Moreover, the absence of specific legislation regulating and enabling UA not only hinders environmental protection by not regulating agricultural land-uses but also creates forced evictions. In several Latin American and African countries, UA is not included in official municipal plans or planning policies. Furthermore, planning offices, more often than not, discourage or prohibit UA. As a result, farmers face harassment from government authorities and landowners (Smit, Ratta and Nasr, 1996).

The planners' logic for excluding UA from official policies includes health risks, urban efficiency, economics of land-use management, and the proliferation of squatter settlements. Planners fear that agriculture would lead the urban poor to construct permanent infrastructure, thus creating illegal settlements. Similarly, the allocation of more land to UA encourages urban sprawl, creates more waste to be disposed of, competes for resources (water, land, labour and energy) and creates incompatible urban land-uses (smells, noises, pollution, spreading diseases) and takes up land that should be used for housing. (Hubbart and Onumah, 2001).

These perceptions of UA land-uses, influenced by developed countries currents of thoughts, hinder the development of UA (Smit, Ratta and Nasr, 1996). Nonetheless, urban resident's opinions on urban agriculture are influenced by other, more local factors. Banning UA is unrealistic since it represents a real, and widespread, coping strategy of the poor for food intake and income generation. Under

restrictive policy environments, problems associated with UA remain unattended while its potential is not fully utilized (Schiere, Tegege, and Van Veenhuizen, 2003). Moreover, environmental consequences of urban agriculture are manageable, given a supportive urban administration (Drakakis-Smith, 1997). Following a discussion on the limitations and proposed solutions to access and hold urban farmland per spatial location and per land regime.

5.1 Land Access and Tenure Constraints

The principal factors constraining access to urban (intra-urban and suburban) and peri-urban farmland that need to be considered in policy-making are as follow: densification and the land market, land law entanglements (Africa in particular), UA prohibitive land-use by-laws, land information management systems (location of available land, tenure status, access procedures).

Under statutory regimes, urbanization is linked to the land market by providing land rights as market commodities. The land market, which allocates land to the best use possible in terms of profit-making, induces high land price increases on land suitable for development. “The retention of urban land, encouraged by speculators that obtain exceptional land value increases as a result of public investment in infrastructure, has created scattered development in many of Latin America’s cities” (Vélez-Guerra, 2003, p.24). As a result, land speculation creates vacant urban spaces, which are privately owned, where UA can be practiced (IDRC, 2004). Nonetheless, as urbanization proceeds and intensifies in urban cores, the more space-intensive forms of UA migrate to more peripheral or less valued locations.

Densification in urban statutory lands, a natural cause of land price increases, forces UA to move from on-plot to off-plot in order to respond to the demand for housing and the related opportunities for income earning. For instance, Mudimo et al. (2004) states that in high-density suburban areas of Harare there is a massive conversion of residential front and backyards plots to housing units for renting. Densification not only affects the spatial location of UA but also the types of agricultural production. UA in high-density areas is more space intensive and produces more profitable harvests (i.e. livestock, medicinal plants, etc). In the African context, densification is also related with the consolidation of statutory regimes. In the case of groups of farmers, land scarcity and competition are a trigger for political involvement and producers’ organization. These strategies not only depend on the spatial location of the lands and the land-use policy environment (encouraging or prohibiting) but also on the regimes that govern them (see chapter 3 and 4).

In Africa, the suburban area is where customary and statutory regimes meet, thus being the domain of transitional hybrid regimes. These entanglements of land law can benefit UA since investments in real estate may be discouraged, therefore maintaining vacant spaces (whether public or private) where UA can be practiced. Nuwagaba et al. (2004) state that in Kampala the complex tenurial patterns have constrained the land market, thus inducing artificial land shortages. Nonetheless, complex tenure regimes can also work against the poor by stimulating informal means of access, thus affecting security of tenure, environmental protection, access to land by excluded groups (migrants, women) and governmental control and management of land. In addition, obscure land rights lead to disputes, unplanned and uncontrolled land development, environmental degradation and a reduced municipal tax base.

Peri-urban lands maintain a rather traditional way of land allocation. Competition to access land is less intense among different actors on cities' periphery, if compared to intra-urban or suburban areas. This is due to the fact that customary regimes act as a grassroots land management institution and that land is more readily available (see Benkadi case in chapter 4). Nonetheless, urban expansion pressures increasingly permeate traditional livelihoods, thus fragmenting customary land tenure and traditional livelihoods. Land price increases on the periphery induce the selling of communal lands, thus changing landownership patterns and the governance of land. This is particularly acute due to enormous demand for cheap land for housing and the need to secure freeholds for shelter.

Regardless of the land tenure regime, access to land for UA is further constrained by zoning by-laws that exclude agricultural land-uses, create barriers for the production of food and income, and threaten the poor with forced evictions. In intra-urban areas, the situation is more dramatic depending on the type of UA practiced, with livestock farming being more proscribed than horticulture¹⁶. For instance, in Kano, Nigeria, access to land in urban areas is vested with the State Governor through a Land Use Decree, which makes no provisions for the use of urban lands for UA. As a result of this policy, governors have deprived urban cultivators of access to land through expropriation (sites with land titles) or evictions without compensation (spontaneously occupied sites) (Olofin and Tanko, 2003).

Strict enforcement of planning regulations generates forced evictions and inhibits UA development and perpetuation. Evictions produce two types of effects on farmers: psychological effects, derived from the loss of crops/livestock and labour input, that discourage the poor from re-engaging in UA; and land "scarcity" effects resulting from public and private landowners' unwillingness to allow UA on their

vacant lands. UA is often destroyed by the authorities on environmental grounds: it is claimed to induce soil erosion and silt or pollute streams and water bodies (Drakakis-Smith, 1997).

D. Zallé states that there is a need to create a partnership between the municipality and the producers in order to avoid evictions due to informally holding land for UA (personal communication, August, 2004). Land used for UA protects idle lands from spontaneous occupation for housing. In this regard, municipal planners in Bamako pointed that there are more than 22 squatter settlements due to the informal access of customary lands for housing (M. Coulibaly and Z. Sanogo, personal communications, August, 2004).

Information availability plays a central role in access to land for UA since vacant land in cities can be scattered and difficult to locate. Equally important is information regarding access procedures, whether informal or formal. For poor migrants and women information represents a serious obstacle they have to overcome. Informal networks provide the poor with information regarding land availability and access procedures. However, for the newcomers and female-headed households lacking extended social networks, such as family or friends, informal/formal access is hindered by ignorance of where and how to obtain a plot to practice UA.

As for formal access to farmland, information regarding land availability is tied to municipalities' capacity to map current urban land uses and provide the public with accurate information, which is rarely the case due to the high cost of having updated geographic information systems. Besides, official information on availability and access procedures may be out of reach for the poor, who are often illiterate, and feel alienated from governmental structures.

Finally, commuting distance can limit access to land since transportation costs, both in terms of time and money, prevent the poor from accessing farmland (see Dyen Te Don case in chapter 4). As a general rule, developing countries' cities lack efficient transportation infrastructure, especially in marginal settlements where most of the farmers live. Trips to distant plots demand great amount of time and resources that the poor could use in other activities. Distance to plots also influences the amount of money that farmers are willing to pay for rented lands, let alone decreasing profits to a point where the activity does not offer any advantage for the poor. Zallé (1999) states that distance from residence, and the plot size and the relationship with the landowner, affect the fee payment, either in cash or kind, for rented agricultural plots. In general, the proximity of vacant land determines its accessibility and efficiency results in the poor farming the closest vacant land. For instance, in Rosario a high percentage

¹⁶ **Horticulture:** System of production that depends on the cultivation of plants such as growing of vegetables, fruits, seeds,

of urban gardens (spontaneous or fostered by the Municipal Urban Agriculture Programme) are located in shantytowns and are managed by residents (IDRC, 2004). Some ways to improve access to urban lands under different regimes are suggested in the next section.

5.2 Proposed Solutions: What Municipalities Can Do?

Solutions to improve access and tenure of urban (intra-urban and suburban) statutory and hybrid lands can be divided in two groups:

1. **Temporary** use of private and public vacant lands for UA;
2. **Permanent** public spaces for UA;

On the other hand, improved access to peri-urban farmland under customary regimes can be divided in two groups:

1. **Temporary** use of customary lands by foreigners for UA
2. **Permanent** UA on customary lands by the community.

These solutions are not possible under prohibitive UA by-laws and planning policies; therefore municipalities should create a **Positive UA Policy and Planning Environment (Land-use By-laws)**. This positive policy environment should be based on a **Facilitating Framework** build upon a participatory **City Consultation process**. The Facilitating Framework should allow municipal staff to characterize and map different vacant lands in the municipality in order to identify norms, regulations and main bottlenecks for the inclusion of UA into municipal planning policies and practices. Following an **Action plan** should be formulated and implemented.

The first step in developing this City Consultation, Facilitating Framework, and a related Action Plan, is to create a team that will coordinate the entire process. The team should be multidisciplinary and engage different urban actors by formalizing their involvement in the project. The second step is to implement participatory diagnoses of urban spaces. The information collected allows municipal planners to create a typology where problems related to land tenure, access and actual and potential productive uses of different cultivable and cultivated areas are identified and analyzed (Facilitating Framework). Then an Action Plan should be elaborated in order to determine with the community the activities, objectives, methods and strategies in order to mobilize the resources to tackle identified problems and developing related solutions. Finally, a series of pilot projects could be implemented in order to obtain concrete results in the short term that will reinforce the commitment of the involved

actors and permit the institutionalization of the programme and policies. The expected results should influence municipal planning as to include UA in the Official Plan and budget of the city and improve the legislative framework by creating regulations that improve access and tenure of land¹⁷ (IDRC, 2004). The following section presents some ideas to be considered in the development of a framework to include UA in the official planning of developing cities.

5.2.1 Temporary UA Land Uses in Urban Areas (Statutory Regime)

For temporary UA land uses, Mougeot (1994) points to the enormous amount of vacant and underutilized land in developing cities on which UA can be practiced. This is the case of Rosario, Argentina, where 35% of the total municipal area is vacant land (IDRC, 2004). Moreover, UA is an adaptive and mobile land-use that can be encouraged on private lands which cannot be developed for some time, thus contributing to better environmental management and a more productive use of land than otherwise. For instance, it has been observed that in Bogotá, Colombia, the poor informally practice UA on vacant private lands, which are kept undeveloped for speculative purposes (Bustos and Solano, 1997). Speculation should be discouraged fiscally by providing incentives (i.e. property tax exemptions) for UA. Similarly, public lands kept vacant for future developments can temporarily be used for UA.

Temporary uses of public vacant lands for UA can be implemented through **leasing** land to organized groups of urban farmers (cooperatives and associations). In order to integrate the informal means of land allocation under statutory regimes, municipal governments should hand over the governance of public vacant lands to farmers' associations, which in turn should recognize existing *de facto* land claims as a pre-condition for transfer of decentralized governance of the leased land.

As a decentralized body of land management, farmers' cooperatives or associations should be autonomous in regulating land transfers, land-use and environmental management and resolve land disputes based on a facilitating framework (see above). Thereafter, the farmers' organization should have enforceable administrative powers during the tenancy of the lease. However, the municipally should sign an agreement with farmers' groups based on series of conditions identified and developed in the facilitating framework before granting the "decentralized-governance lease". Some conditions to be considered in the development of a framework implementing this case scenario are: permitted physical structures, environmental management practices and agricultural types and intensities.

¹⁷ For more information on this approach to include UA in official city plans, visit the Urban Management Programme at <http://www.pgualc.org/> or contact Marielle Dubbeling (mdubbeling@wanadoo.fr) or Luc Mougeot (LMougeot@idrc.ca).

It is important to stress that the development of the framework should be open to all the municipal offices with a stake in land management, as well as to other social actors with a stake in the process (NGOs, universities, international organizations, community etc). In addition, participatory planning processes must address discriminative practices of land allocation, by identifying excluded social groups and providing them with enhanced access to land.

It is suggested that leases to farmer's organizations be granted for public lands at nominal prices in order to provide for salaries of the decentralized land management body. Farmers are willing to pay for the use of land if only they can have secure land tenure (Mudimo et al., 2004). The period of the lease should be carefully analysed by the municipality since it has been established that longer periods allow for better environmental management, determine the kind of crops used, and the farmer's levels of planning. It also has been observed that a longer period lead to commercial agriculture as opposed to a shorter period where UA is more for subsistence (RUAF, 2004). Allowing temporary uses of public vacant lands for UA has the advantage of allowing producers to invest and modernize their practice (UMP, 2003). It also responds to a need identified by farmers' organizations (see "title of exploitation" on chapter 4). Finally, "decentralized-governance leases" on public lands should be renewable upon revision by the municipality of good-management practices of the leasee (farmers' organization).

The creation of a temporary lease agreement (provisional permits or titles of exploitation) is the land access strategy preferred by farmers and planners in Bamako. For instance, Z. Sanogo, Municipal Planner, states that provisional permits, like in the case of booths of commerce, can be implemented in order to give notice to farmers before the land is needed for other land-uses (personal communication, August, 2004).

Presently, there are several examples of different approaches to lease public land to producers. For instance, in Harare, leaseholds on public lands are granted to individuals and cooperatives for periods of 2 years under the condition that no permanent development will be erected (Mudimo et al., 2004). Similarly, the municipality of Teresina, Brazil, conceded 92 hectares of public land to 2300 poor and landless farmers for an indefinite period of time (UMP, 2003). In the Municipality of Curaçá, Brazil, a group of farmers organized themselves in a collective basis to request the municipality for help to solve their food problems. The farmers association, called Hortivale, gained formal access to public lands; and requested further support for their agricultural activities. Their main concern was to effectively organize themselves as a group in order to strengthen the association and face problems together. As a

See Annex for more details.

result of their negotiations, the Municipality provided them with water supply, infrastructure maintenance and a local administrator acting as communication and organization link between staff and the association (IDRC, 2000; UMP, 2001).

Participatory planning is central for the success of the above-suggested solution. Land tenure and land-use issues could potentially be addressed if contact between producers and policy-makers were made easier (Dennerly, 1996).

In Argentina, the Municipality of Rosario, implemented a successful planning project that allowed the poor to access and use urban public vacant land for Urban Agriculture (UA). The project's objective was to use participatory planning processes to include UA into municipal policies and programmes and the municipal's regulatory framework. Planning tools adopted by the municipality included participatory consultations with urban farmers, comprehensive design workshops, and typologies of accessibility and usability of municipal vacant lands, etc. The programme's main outcomes so far have been the inclusion of UA in the municipal Master Plan, setting up a land bank for UA and a decentralized system for the management of vacant land (IDRC, 2004).

The importance of transferring land management to organized groups of farmers under a lease agreement has the benefit of facilitating decentralized governance.

The farmer's organization will be responsible, among other important aspects, to resolve land disputes and formalize informal land tenure arrangements, protect the environment and set guidelines for land transfers and access among their members.

The farmers' organization will act as liaison between the formal system for accessing farmland and the informal networks in order to provide newcomers, women and ethnic groups with standard procedures to access land and other necessary resources for UA.

It is for the efficiency provided by decentralized land management, community organization and empowerment of the poor that leasing public land to groups of people is suggested as opposed to individual farmers. As Suzuki and Ordonéz (2001) state, the vision for the perpetuation of UA includes membership in an association as a requirement for the organization of productive units, interaction between civic and public entities and the dissemination and recognition of UA.

Public lands also comprise environmentally sensitive lands (i.e wetlands), utility lands (railway lands, road sides, buffers zones, etc) or degraded lands (lands with high risk of flooding or landslides), which are left undeveloped due to environmental or utility reasons. As for utility lands, the general approach to decentralize land management to organized groups of farmers is recommended. However, environmentally sensitive lands require more strict control by the municipalities, thus leasing these lands should be done using the approach suggested for temporary uses of private vacant lands (below). Here, the contractual agreement (a renewable lease) between municipalities and farmers (either individuals or groups) should have particular considerations to the ecosystem and soil characteristics where UA is practiced.

5.2.2 Temporary UA Land Uses in Urban Areas (Hybrid and Statutory Regime)

Temporary uses of private vacant lands, taxation incentives could be used in order to regulate the land market and promote UA. Land left idle for speculative purposes should be highly taxed in order to encourage landlords not interested in allowing access to their vacant lands to build (densification) or to allow UA on their premises. The implementation of this potential solution is bounded to the existence of a municipal land taxation base (cadastre), which is not always available in certain cities of Africa and Latin America (i.e. Bamako, Mali).

It is suggested that **privately owned lands** be leased to municipalities, which in turn will sub-lease them to community groups, women farmers' co-operatives, unemployed people and individual farmers (de Zeeuw, Guendel and Waibel, 2000; UMP, 2003). It is strongly suggested that municipal programmes that sublease privately owned lands give priority to female-headed households, as they are the poorest of the poor. Notwithstanding, in situ participatory consultations to evaluate the poor's needs should be implemented in order to account for local realities and existing informal allocation systems (i.e. inclusion in the Facilitating Framework). For instance, requests for temporary use of vacant land for UA in the Municipality of Rosario are qualified and prioritized using the criteria defined in the participatory consultations with urban farmers, which are mainly poor slum dwellers (IDRC, 2004).

Similar to leasing public lands, a contractual agreement between farmers and the municipality should impose a series of conditions before granting the sublease. These conditions should address allowed physical structures, environmental management practices and agricultural types and intensities. Land management in this case remains in the public domain, with municipalities being responsible to private landowners for the appropriate use of their land. Nonetheless, farmers' organizations may approach individual landowners and enter into a direct lease agreement to use their vacant land for UA. This

agreement will need to be validated by an appropriate municipal authority, since land management (i.e. disputes, environmental protection, etc) will remain a responsibility of the local government.

For instance, in Cagayan de Oro, Philippines, the so-called ‘barangay’, which is the smallest local government unit (LGU) in the Philippines, approaches a private landowner and ask him/her if the land could be rented for the purpose of allotment gardening for urban poor constituents (i.e. land to be used for food production only and not for housing). If an agreement is reached to rent the land, the owner, the LGU, the allotment garden association and the local public university sign a memorandum of agreement as stakeholders of the project (R Holmer, personal communication, 29 April, 2004).

UA on vacant **institutional lands** (hospitals, schools, enterprises) can also be formalized through leases and taxation incentives. Here again, the governance of land remains in the public domain and the municipality will approve agreements between farmers and institutional landowners before taxation incentives are granted to institutions. In doing so, institutions will lead formalization of access, farmers will be granted secure tenure, and municipalities will control land-uses.

For instance, in Harare, Zimbabwe, lease arrangements with private and institutional landowners have been successful. Leasing is advantageous for landowners since their compounds are well maintained and protected from external influences (squatting) (RUAFA, 2004).

Sub-leases or leases on **private lands** should be renewable and vacant lands should be allocated under short-term and medium-term leases for agricultural purposes. For instance, in Rosario, a Public Ordinance invites private landowners to facilitate the use of their vacant lands for UA. The landowners, leasing land to the Municipality for a period of 2 years, are exempted of paying property taxes over the land (IDRC, 2004). Since municipalities retain their role in the governance of land, they should create a neutral body that mediate UA land disputes, particularly where land rights are obscured by entangled legal systems (i.e hybrid regimes in Africa).

Municipalities could encourage farmers associations or cooperatives to mediate land disputes. Local UA associations or cooperatives could elect a community leader per district who will be in charge of advocating for UA, protecting farmers from forced evictions and crop slashing, securing farmer’s tenure

rights and mediating land disputes. The leader not only will have political leverage in local politics due to his/her role as a representative of this particular constituency, but also will have moral authority to solve disputes. For instance, in Cagayan de Oro, Philippines, the LGU mediates between the community (allotment gardeners and neighbours), landowners and the local university. Here, the LGU has appointed a specific “barangay coordinator” for the allotment garden project that also updates the barangay chairman and the barangay council on all activities. The barangay chairman has a very important role and is usually highly respected within the community. Hence, he/she is not only the legal but also the moral authority if there are any conflicts (R Holmer, personal communication, 29 April, 2004).

Equally important is the availability of information regarding access procedures and land location. Access to information should be directed and tailored for marginalized groups, thus ensuring that women, immigrants and ethnic communities benefit from equitable means to access to land. Municipal cadastral departments should maintain geographic information systems (municipal finances permitting) with up-to-date land-use information. This is particularly important in relation to privately owned lands, which can be scattered due to land speculation. Geographic Information Systems (GIS) allow planners to identify, quantify and qualify urban vacant lands, thus providing the basic information for participatory planning processes that determine which lands are suitable for UA. The suggested outcome of the process is to create **access frameworks** (who are the beneficiaries and how land will be allocated) and land banks (stock of lands suitable for UA) (IDRC, 2004).

Land availability information and the implementation of UA planning projects can bring landowners and farmers together, thus allowing land to be used temporarily or permanently for UA by those who need it. In Governador Valadares, Brazil, the municipality implemented a project for the optimization of vacant land for UA using participatory planning processes (IDRC, 2004). This project developed a typology and an inventory of existing vacant lands. What is more, the project identified UA lands on private properties, conservation areas, institutional private/public lands, green areas on institutional lands, utility lands, islands, etc. Based on the quantification and qualification of UA lands, the municipality implemented a regularization strategy for the access and tenure of land. The optimization strategy included the creation of a municipal forum (integrated by farmer’s association, community organization and municipal departments), fiscal incentives, legal reforms (inclusion of UA in the municipal plan), vacant land banks, technical support, environmental education, waste recycling,

water treatment and financial support (credits). Finally, the project not only determined the location of available land but also the type of UA activity allowed on specific sites.

Finally, a top-down approach to support associations and individuals practicing UA is provided by the Argentinean government. The Pro-Huertas programme, established in 1990 by the National Institute of Agricultural Technology (INTA- Instituto Nacional de Tecnología Agropecuaria), encouraged and promoted UA. The objective of Pro-Huerta was to improve the poor's food consumption by providing technical advice, training, inputs provision and support for agriculture in urban centers. Pro-Huerta worked with farmers' organizations and other government agencies and had benefited half a million urban farmers by 1994 (Smit, 1996, INTA, 1997). The programme is still active, thus offering continuous support to family, community, institutional and group farming (INTA, 1997, INTA, 2004).

5.2.3 Permanent UA Land Uses in Urban Areas (Statutory Regime)

Permanent public spaces for UA can be integrated into the urban form in order to provide for parkland, environmental management and a source of employment. It is suggested that municipal planning offices integrate the poor's coping strategies for income generation and food security into low-income housing developments and slums upgrading projects. As for self-help housing and spontaneous settlements, which comprise most of housing stock in developing countries, regularization programmes should include UA as part of the physical upgradings. With the extension of public services, roads and greenery; pieces of municipal parkland or neighbourhood land should be set-aside for UA. Providing public spaces for UA benefit the poor twofold: it encourages and perpetuates UA and bridges environmental inequities since the poor will have access to greenery (upper middle class neighborhoods in Colombia can have as much as 200 times more square meters of greenery than squatter settlements) (Vélez-Guerra, 2003). In relation to new low-income housing developments, spaces for UA should be provided inside or outside the dwellings. For instance, the municipality of Rosario, Argentina, developed some proposals to integrate UA in housing programmes as part of the mainstreaming of UA in their municipal urban planning (IDRC, 2004). Most low-income housing projects tend to have small built areas due to budgetary and land constraints. Nonetheless, these housing projects can use open spaces in lieu of backyards, frontyards, balconies, etc. for community gardens.

Municipalities could implement UA programmes on parkland by providing long-term occupancy licenses to individual farmers or groups under certain conditions. The advantage for the municipality in this case is that farmers will maintain the parks, thus saving scarce resources that can be used elsewhere. For instance, the Municipality of Vijayawada, India, has started to involve farmers (mainly urban) in

order to develop and maintain their parks since most Indian cities are unable to do so. Similarly, the municipality of La Havana, Cuba, has established a “food forest” in municipal parks as demonstration/promotion of sites for citizen’s initiatives (RUAFA, 2004).

Another important permanent initiative is urban greenbelts. Greenbelts can function as densification boundaries, thus intensifying urban uses and limiting urban growth. From a social and environmental perspective, greenbelts provide the poor with land for UA and urbanites with clean air. Land on greenbelts could be provided to farmers’ associations and cooperatives through long-term contractual agreements (long-term leases or occupancy licenses, concessions, etc). A small fee can be charged to farmers in order to repay the cost of creating the greenbelt. It is recommended that management be granted to a farmer’s organization following the considerations discussed under “temporary uses of public vacant lands” (above). It is believed that groups can obtain better lease conditions from municipalities than individuals. In addition to prioritizing women and migrant’s access to land, land should be allocated accordingly to commuting distances for farmers. Notice that the location of plots is of special importance for the women involved because of safety, cost of transportation (time and money), and the possibility of combining UA with other household activities.

Worldwide there are several interesting examples of appropriate uses of greenbelts. In Beijing, China, the local government reserves a certain amount of inner suburban land for agricultural land-uses in order to maintain a sustainable urban ecological environment and to provide urbanites with vegetables. The Municipal Ordinance that created this initiative also requires that groups and individuals be strictly forbidden to leave land idle or with wastes (RUAFA, 2004). Similarly, in Bangalore, India, the concept of greenbelt has been used for many years for the protection of vineyards and orchards. With urbanization pressures, efforts are being made to safeguard these areas by introducing the Agri-Park Concept: the orchards and vineyards are developed into a green, recreational space, for outings, ecological education, etc. Here, the municipality leases the land to farmers who bid for a contract and, who under guidance of a multi-disciplinary steering group, apply organic farming with reuse of organic wastes, rainwater harvesting, controlled flooding/drainage, etc. (RUAFA, 2004).

5.2.4 Permanent UA Land Uses in Peri-Urban Areas (Customary Regime)

The principal constraint in terms of accessing customary lands in peri-urban areas are related to allowing foreign members to the community to access lands (see 4.2.3 Benkadi Farmers’ Group). In order to solve this problem, municipal governments could use the green belt concept on customary peripheral lands in order to ensure that communal lands will not be fragmented by changes on land

regimes and land-uses. Using green belts will also help municipalities to control the expansion of urban land-uses by zoning the area as low-density, “rural” land uses and maintaining communal landownership. In that case, municipalities could approach customary authorities and negotiate the re-zoning of the communal lands as green belts in exchange of certain conditions. The municipality will also guarantee customary authorities that the government, for purposes of transfer land to the State or implement titling programmes, will not expropriate customary lands. D. Zallé (personal communication, August, 2004) states that creating a green belt in the peripheries of Bamako is a desirable alternative. The development of greenbelts should be tied to providing transportation infrastructure for urban farmers.

Several land chiefs in Bamako state that in order for customary authorities to receive the management of lands, the role of customary chiefs has to be politically reinforced. In this regard, a City Councilor in Bamako states that land chiefs can act as a liaison between the government and the population. For instance, they can solve local conflicts without approaching city hall. Presently in Bamako, if there is important political decision to be taken in a neighborhood, the land chief have a meeting with the heads of the traditional families to determine the position of the community. Following, the position of the community is put forward by the lands chief in city hall. This point to the important political role of land chiefs in urban areas, even if there is fragmentation of customary lands.

The conditions to negotiate with customary authorities are as follows: first, a number of farmers’ organizations or individuals will be allowed to use vacant customary lands designated “green belt zones” for farming under the supervision of land chiefs. Here, farmers’ organizations and individuals will negotiate leases with customary authorities, which will be in charge of solving land disputes, approve leases renewal and protect the environment. Second, green belt areas designated for foreigners must have continuous agricultural use. Since farmers’ organization or individuals are leasing lands under temporary agreements and green belts are a permanent feature, leases must be renewed or made available to other producers. Third, a certain percentage of the producers must be women and recent immigrants (either from rural areas, other regions or nations). Fourth, priority should be given to foreign local residents, however no percentages will be attached to this condition since economics (i.e. transportation costs) will encourage locals to apply for this land. Finally, access procedures should be written and information be available in municipal offices indicating the location of vacant customary land, name and address of the land chief in charge of managing this land and information regarding the access procedures and tenancy agreement (producers-land chiefs). These procedures, tenancy

agreements and the location of available and suitable customary vacant lands are to be developed following the Facilitating Framework concept (see above).

5.2.5 Temporary UA Land Uses in Peri-Urban Areas (Customary Regime).

Temporary uses on peri-urban lands could be related to formalizing informal renting (sharecropping, fee payment) and borrowing arrangements. Similar to sharecropping in privately owned lands, sharecropping on customary lands can be used in order to protect lands from squatter settlements and to keep lands clean and healthy. A Z. Coulibaly, land chief in the neighbourhood of Magnanbougou in Bamako, stated that customary authorities are willing to lend land to foreigners under temporary arrangements during the rainy season, when customary owners practice other activities (personal communication, August, 2004).

As it has been stated, urbanization plays a central role in changing land uses and fragmenting customary landownership. Municipalities can formalize renting and borrowing on customary lands by creating a municipal liaison office that will bridge governance issues. For instance, a liaison officer could be in charge of collecting land tenure information from customary authorities, recording in writing the land transactions, mediating land disputes between customary tenants and land chiefs, enforcing land-use by-laws, advocating in municipal planning offices for customary claims on land being illegally occupied by foreigners and ensuring that marginal groups have access to land. This liaison office can also be used to coordinate the strategies described in “UA Land Uses in Peri-Urban Areas”. The importance of the liaison officer is to strengthen local governance by creating communication channels between municipal offices and customary authorities, and mediating between customary tenants and land chiefs.

5.3. Positive UA Policy Environment (Land-use By-laws)

Regardless of the land regime and the location of lands, municipal land-use policy environments affect the degree of formality of UA. Under prohibitive land-use by-laws, UA is discouraged and UA is not regulated, although informally practiced. It is the informal tenure of land that leads to forced evictions. It is suggested that supportive legal frameworks that integrate UA into the physical planning of cities underpin the perpetuation of UA in developing countries. Municipal planning offices should eliminate legal restrictions, such as exclusive zoning by-laws, thus allowing access to unused public, private (hybrid and statutory) and customary lands for pasture and horticulture. Moreover, government support is central to encourage and sustain UA land-uses. It is believed that mixed land-uses is an

important tool to promote UA since it recognizes the dynamic and adaptive use of urban land. UA is practicable on many constructed lots (on-plot) and vacant lands (off-plot), thus using land extensively and intensively. For instance, in Bogotá, Colombia, shantytowns' dwellers practice UA (livestock and crop farming) in backyard and on balconies (Bustos and Solano, 1997).

Sawio (1998) suggests the inclusion of mix-use zoning in planning legislation as to permit and legitimate UA. Zoning which includes UA land-uses should specify types of farming permitted and the intensity of the production. Such considerations must have regard to health, pollution and sustainability issues as well as integration with the existing urban form. Another important issue to be addressed is the integration of gender and minority groups' needs and representation into the urban planning processes (see **Facilitating Framework** above). Mudimo et al. (2004) state that women are not well represented on boards that came up with policies and legislation, which is also the case of migrants. For instance, in Cuenca, Ecuador, the Municipal government implemented an urban agricultural programme (CUAP) based on an analysis of the local realities and taking into account the demands and potentials of both the multiple institutional and community actors. Through meetings and surveys, stakeholders decided on the types of UA activities for the programme, which in turn were supported by commitments and resources from the municipality (UMP, 2003; Cruz, 2001).

Municipalities should integrate UA in official plans, based on baseline studies and participatory processes (see **Facilitating Framework** above). In Latin America there are several examples of the integration of UA into the physical planning of urban centres. Among the most successful examples are Rosario, Argentina, Govenador Valadares, Cuba, Quito, Ecuador, and La Havana and Cienfuegos, Cuba (IDRC, 2000; IDRC, 2004). In Africa, Dar es Salaam, Tanzania, is an outstanding example of the integration of UA in urban planning. The City, through a participatory consultation process, designated special land zones for agricultural uses, and revised municipal by-laws and regulations in order to support UA. Moreover, the City encouraged vertical expansion to free some space for UA in built up areas and in potential areas for city expansion (Kitilla and Mlambo, 2001). Finally, urban agriculture by-laws should restrict production intensity per location in order to protect residents' health and the environment. Enforcements of Environmental Protection Acts and urban agriculture by-laws are central to avoid conflicts with other land uses and to protect resident's health.

5.4. Conclusion

The solutions suggested were grouped by regime and spatial location. These solutions are to be considered in the development of a Facilitating Framework to integrate UA in municipal planning,

which should be built upon a participatory City Consultation process. This process should allow municipal staff to characterize and map different vacant lands in the municipality in order to identify norms, regulations and main bottlenecks for the inclusion of UA into municipal planning policies and practices. The integration of this solution in the Facilitated Framework can be implemented through a series of small-scale pilot projects.

The first proposed solution is aimed at **statutory public intra-urban vacant lands** that can temporarily be leased to farmers' organizations, and land management be delegated to producers' organization. The organizations will have autonomy in regulating land-uses, environmental management and land disputes. The framework for delegating land management to farmers' organization needs to be developed through participatory processes involving all the actors with a stake in the project.

The second solution targets **privately owned urban (intra-urban and suburban) lands under hybrid or statutory regimes** that can temporarily be used for UA by providing **taxation incentives**. Land left idle for speculative purposes can be highly taxed whereas land used for UA can benefit from tax exemptions. Here municipalities can lease lands from landowners and sub-lease them to individual or groups of farmers. Here, land management remains on municipal hands. Nonetheless, land disputes can be solved through community leaders acting as a liaison between producers and municipal offices.

The third solution proposes to create **permanent UA land-uses** and initiatives in urban areas under statutory regimes that can be integrated in shantytowns' upgrading programmes and new low-income housing developments. **Allotment gardens** can be created in open spaces thus providing shantytowns with greenery and a source of income and food security. As for new developments, **agricultural parkland** can be provided in lieu of balconies, backyards, etc. Existing urban parkland can also be used for UA by providing the poor with long-term occupancy licenses with certain conditions. **Green belts** can be created to contain urban sprawl and provide the poor with lands for UA. Here, lands can be made available to farmers' organizations under long-term agreements and certain conditions. Land management can be delegated to farmers' organizations following the procedures described for the temporary use of public vacant lands.

The fourth solution is related to **permanent land uses** for UA in peri-urban customary lands. This can be implemented through greenbelts on customary lands in order to re-zone the area as low-density agricultural lands. Municipalities should guarantee that customary lands will not be expropriated in order to provide for freeholds. Farmers' organizations and individuals that are

foreigners to the community should be able to gain access to vacant areas of the green belt designated for their use. A certain percentage of the farmers should be women and migrants. Access procedures should be clear, written and posted on the area to be used by foreigners.

Finally, **temporary uses of peri-urban customary lands** should be related to **formalizing informal renting agreements**. In doing so, municipalities can create a liaison officer in order to collect tenure information, mediate land disputes, enforce land-use by-laws, protect marginal groups land rights and advocate for customary claims in municipal offices. The above-mentioned options are not possible under negative policy environments since UA is discouraged and not regulated, even though it may be informally practiced.

Table 7: Proposed Solutions to Improve Access to Land for UA.

Location per tenure regime	Factors to consider	Proposed solutions per regime
Statutory and hybrid suburban and intra-urban.	<ul style="list-style-type: none"> ▪ Enhanced support for farmer groups and associations. ▪ Participatory planning processes as part of City Consultations, Facilitating Frameworks and Action Plans. ▪ Inclusion of UA on Municipal Plans. ▪ Taxation incentives to regulate the land market and promote UA on vacant land ▪ Development of legislation addressing access to land and tenure for UA. 	<p>Temporary use of private and public vacant lands</p> <p>Permanent public spaces for UA</p>
Customary Suburban	<ul style="list-style-type: none"> ▪ Land banks to allow farmers to locate available farmland. ▪ Typologies of cultivable (vacant land suitability and accessibility) and cultivated urban land. ▪ Land-use law (zoning) that recognize and promote mix land-uses. ▪ Recognition of informal land allocation processes for UA. ▪ Granting equal access to land rights for women ▪ Design of appropriate leases for UA. ▪ A neutral body to mediate land disputes regarding land boundaries, tenure and use. ▪ Banning forced evictions and preventing slash crops. ▪ Inclusion of woman on planning boards. ▪ Expedite and simple formal process to access land. ▪ Access procedures that consider women and migrants. ▪ Urban agriculture by-laws restricting produce intensity per location in order to protect residents' health and the environment. ▪ Enforcements of Environmental Protection Acts and Urban Agriculture by-laws. ▪ Changes in cultural perceptions of UA in the general public and civil servants ▪ Inclusion of space for UA in new housing projects ▪ Municipal parkland or neighbourhood lands for UA 	<p>Temporary use of vacant customary lands by foreigners for UA</p> <p>Permanent UA on customary lands by the community</p>

6. Conclusion

The advancement of free-market economies in developing cities has induced changes in land tenure patterns: from communal land holdings to individual landownership. As a result, the customary land regime has either been replaced by statutory regimes or it has evolved to adapt to the idea of land rights as market commodities. This expansion of statutory regimes, while advantageous for real estate development, threatens the poor's traditional means to access farmland. As a response, a number of informal arrangements exist that replicate customary land allocation in urban and peri-urban areas (neo-customary land allocation).

As urbanization proceeds and land prices soar, the actors struggling to gain access to land grow in numbers and their strategies to access land intensify (prevalence of neo-customary land allocation and statutory regimes). Moreover, as densification increases in intra-urban areas and land prices rise, the more land intensive forms of urban agriculture are displaced to areas where land-uses are less intensive (suburban and peri-urban areas).

This research illustrates that land allocation under statutory regimes lacks the flexibility of customary land delivery systems in terms of providing communities with a grassroots body for land management. In the Latin American and African contexts, the urban poor's formal access to urban and peri-urban statutory land is mainly provided by governmental programmes leasing or subleasing public, private or institutional land, at low cost or free of charge, under certain conditions. Where these governmental programmes do not exist, land is accessed through informal neo-customary land delivery systems. Neo-customary processes of informal land allocation combine customary practices with other informal and formal practices and are based on trust, which assures the land user that others will support his/her land claims.

Empirical research in Bamako, Mali suggests that the means for accessing land among farmers' groups depends on the type of land tenure regime in place and the level of urbanization. Access to private land under statutory regimes is mainly through informal renting agreements. Public statutory land (i.e. banks of the river and railway lands) remains customary in people's minds and is accessed using neo-customary allocation procedures. Here, the government turns a blind eye until these lands are needed for housing or building infrastructure. Access to customary land is mediated by membership in the group and women are excluded from landownership. It has been observed that in all regimes

migrants and women are particularly discriminated against, however customary law is more explicit in denying right to these groups.

Unauthorized occupation of public intra-urban land is the most prominent means of land access for UA by the poor. Furthermore, informally borrowing intra-urban farmland for UA from private or institutional landowners is a widespread practice. Informally renting land for UA is a less common practice than borrowing and unauthorized occupation, yet it is important, particularly among organized groups of farmers that have the economic means to pay rents.

This research suggests the following spatial distribution of the means of access to land in developing cities. Suburban areas receive a constant influx of migrants who join UA through social relations. Farmers buy land from customary landowners for UA and with land price increases and housing demand, agricultural land is transformed into neighbourhoods. In general, the means to access land for UA in suburban areas are diverse and range from spontaneous occupation to owning land. The principal mean to access peri-urban land is based on ownership, whether customary or statutory.

Customary lands on suburban and peri-urban areas are where most of UA is practiced in Africa. Rapid urban expansion affects traditional livelihoods, as it influences peri-urban land-uses, traditional social organization and economic activities. As a result, farmers in peri-urban areas are losing agricultural land to urban uses and economic activities are being increasingly diversified, particularly among youth.

The differences between farmers' tenure arrangements and their related degree of organization suggest that insecure land tenure induces farmers' organization and political involvement. Moreover, the poor, organized into associations or cooperatives, are effective in obtaining formal and informal access to land for UA (both under customary and statutory regimes). Upon consultation, organized groups of farmers in Bamako suggested that municipalities should create legal instruments (i.e. title of exploitation) and planning programmes that allow them to have secure tenure over determined periods of time.

This paper concludes by proposing several options to increase the urban poor's access to land for urban agriculture. These suggestions and other solutions to improve access to land should be based on the development of a facilitating framework to integrate UA in municipal planning. Such a framework should use participatory city consultation processes and allow municipal staff to characterize and map different vacant lands in the municipality. It should identify norms, regulations and main bottlenecks for the inclusion of UA into municipal planning policies and practices.

The first proposed solution calls for temporary leases to be issued to organised producers, which would enable farmers to use vacant statutory public land located within the city. The management of these areas would be delegated to farmers' organisations. A second option targets privately owned urban land falling under a hybrid or a statutory regime. In this case, fiscal incentives could be used to encourage owners to temporarily put vacant spaces into urban agricultural use. A third option proposes to permanently assign certain urban areas, under statutory regimes, to urban agricultural uses. Such areas can be integrated to shantytown upgrading programmes and new low-income housing developments. Finally, another option is directed towards creating permanent urban agricultural uses on peri-urban land under customary regime. This can be implemented through greenbelts. Here, customary lands can be re-zoned into low-density agricultural uses, with the assurance that they will not be expropriated and converted into freeholds.

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