**LAND MARKETS AND LAND DELIVERY SYSTEMS**
**IN RAPIDLY EXPANDING WEST AFRICAN CITIES. THE CASE OF BAMAKO**

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**Summary:** This paper presents a methodology for a systemic and dynamic analysis of land markets and land delivery channels, and its application to Bamako, Mali. It combines the collection of land market data (on approximately 1,700 recent transactions of land plots in Bamako and its rural hinterland) with literature reviews and interviews with key informants allowing for an in-depth analysis of the laws and regulations governing land, the governance of land institutions, and the practices regarding access to land. Our main focus is on (i) the relationship between public land allocations and land markets, (ii) interactions between formal and informal land markets, and (iii) the evolving tenure status of the land, associated land rights and land values. We also discuss the obstacles to the development of formal land markets and the options to improve access to land and facilitate incremental upgrading of tenure.

**Keywords:** Access to land, security of tenure, continuum of land rights, tenure upgrading, land administration, urban expansion, land market assessment, land governance

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1 This work was funded under the World Bank’s Knowledge for Change Program (KCP). The authors are grateful to more than a hundred key informants for their time and provision of an impressive quantity of information and opinions on land markets and land delivery systems (names are not mentioned to respect confidentiality). They would also like to thank Fily Bouare Sissoko, Amadou Cisse, Juliette Coulibaly, Zie Coulibaly, Wim Dekkers, Moussa Djire, and Christian Vang Egghof for very relevant advice or comments made on earlier versions of this paper as well as Namory Doumbia, Hawa Maiga and Moussa Sidibe for very efficient support throughout the project and during missions in and around Bamako. They are also especially grateful to Demba Karagnara, Mahamadou Lamine Camara, the members of the Association des Jeunes Géographes du Mali, and Lara Tobin for their excellent contribution to data collection and empirical analysis. They are also indebted to Maylis Durand-Lasserve for substantive contributions to this study. Views expressed in this paper are those of the authors and do not necessarily reflect those of the World Bank, its Board of Directors or the countries they represent.
LAND MARKETS AND LAND DELIVERY SYSTEMS
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I. INTRODUCTION

In many cities of the world, unclear land rights, non-market based processes of land allocation, and a dysfunctional land administration go hand in hand with unplanned and uncontrolled city expansion, resulting in land use patterns that are both very inefficient and very inequitable. From the perspective of populations, costly and unfair access to land and housing has often become a key concern. It is a source of social unrest and political instability.

The case of West African countries is particularly informative. Many countries in the region share similarities regarding the legal and institutional framework that governs land and land tenure systems³. They also face comparable challenges, especially rapid urban expansion, with the population in sub-Saharan African cities expected to increase by 220 millions between 2010 and 2025 (UN-Habitat, 2010). West African countries have also undergone major structural changes over the past three decades with economic liberalization, legal and institutional reforms, and changes in policy orientation. Of particular importance is the adoption of new land codes that included, at least in theory, the recognition of customary forms of tenure, the emergence of decentralization policies, and a drive for democratization. These structural changes along with the redefinition of the role and prerogatives of public authorities in land allocation (viewed as enablers rather than direct providers of land and housing) as well as with the depletion of public land reserves (that resulted from decades of massive land allocation by the State and by local authorities) have resulted in the decline in the provision of land for housing by public authorities.⁴ In spite of decentralization, the capacity of governments to allocate land has been undermined by weak governance, insufficient human and financial resources, and limited institutional capacities. In parallel, over the last decade, national and municipal policies supported by converging efforts by aid and development agencies and international finance institutions have accelerated the development of formal private land markets. But the development of formal land markets has also been limited by a series of factors that include a weak housing finance system, overcomplicated tenure formalization and titling procedures, widespread corruption in land administration, and weak land information systems, resulting in

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³ These similarities actually cover a broader set of countries in Africa, including West Africa (8 French-speaking countries out of 15), Central Africa (6 French-speaking countries out of 8) and 2 East-African countries (Rwanda and Burundi).

⁴ Because no country in the region maintains a complete and relevant database on the State’s public domain (area and boundaries), there is no reliable data available. However, the depletion of public land reserves is frequently mentioned by administrations.
prices unaffordable to the vast majority of urban households. As a result, the private provision of land proved unable to address the needs of low-income groups and of an increasing share of the demand from medium income groups.

In a context of limited supply on the formal land market or through public land delivery channels, land markets are still guided by dual tenure systems: land for housing is mainly provided by informal and customary land delivery channels (between 60% and 80% of the urban population live in informal settlements). Providing serviced land to respond to housing needs (which is one of the main policy challenges for West African cities) should thus require a detailed knowledge of the functioning and dynamics of land markets and land delivery systems, and their characteristics and implications regarding land tenure. Given the current scarcity of studies on the topic and the insufficient understanding of how these markets function, this will help to think ahead and formulate better policies and reform.

In Bamako, which is the focus of our study, attempts to formalize land market through, inter alia, the creation of a parastatal land development agency in 1992 has introduced formal land markets mechanisms in a land delivery system dominated by informal practices. Drastic increases in land prices and consequences on affordability have been underestimated (Farvacque et al., 2007). At government level, land management and administration undermined by corruption has resulted in increased inequalities in access to land (Farvacque et al. 2007). Land markets have been left into the hands of a limited number of stakeholders and institutions, who operate autonomously, without government guidance or strategy guidelines, and without transparent procedures. Although awareness of the political risks of mismanagement in land administration is currently rising, political patronage and the economic environment (where little opportunities for wealth creation make land a speculative investment for many) as well as social structures deeply embedded in clientele relationships do not permit the effective implementation of more transparent land delivery processes. Actually, the options that the different income and social groups have in terms of access to land, tenure and location are not only determined by affordability but also by access to information and capacity to interact with the land administration, including participation to clientele relationships (Bouju et al. 2009).

The present paper summarizes the main results from a systemic and dynamic analysis of land markets and land delivery channels that we carried out for Bamako. In section I below, we present the objective and methodology of our work. In a subsequent section, we present the factors contributing to the demand for land and housing in and around Bamako. This sets the stage for a third section which analyses land supply and the different land delivery channels at play. Section IV then discusses the limits of current policies and practices and makes suggestions for policy.

II. AIMS AND METHODOLOGY OF THE STUDY

The starting point of our work was to base a land market analysis on a systemic approach of land delivery channels and on the dynamics underpinning land tenure situations. “Land delivery”

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5 the Agence de Cession Immobilière (ACI).
6 See Durand-Lasserve and Selod (2012) for more detailed results.
refers to the way agents have access to land. Each type of land delivery – or land delivery channel – is characterized by (i) its organization and steps in the delivery process (from initial conversion of non-residential land into residential land to the occupation of the developed land by its final user), (ii) the stakeholders involved in the delivery process, and (iii) the tenure held over land, land prices (whether market or non-market based), and the provided services (whether plots have water and electricity). Land delivery channels form a system so that any change affecting one segment within one land delivery channel has impacts on other channels (Durand-Lasserve, 2004, Brueckner and Selod, 2009). This departs from previous analyses which usually focused on one particular segment of land delivery (whether public land allocation, formal land markets, or informal land markets) and overlooked the relationship between the different types of land delivery and corresponding land market segments.

Under our approach, the objective for this study is threefold: (i) describe and analyze the systemic functioning of land markets in Bamako,7 which requires identifying the stakeholders8 and the role played in each land delivery channel by land management and administration institutions; (ii) the way different social and income groups access land (including the role of social status and social networks within the land administration), and the consequences in terms of spatial patterns for land tenure and prices; and (iii) assess the main policy and governance challenges and provide some suggestions for policy options to respond to the increasing demand for land and housing in the context of rapid urbanization and spiraling increases in land prices throughout the city.

The approach is both qualitative and quantitative as we resorted to (i) an assessment of the legal and institutional framework governing land administration and management; (ii) a typology of land delivery channels based on access, land transfer processes, tenure statuses, and stakeholders involved in land markets; (iii) meetings with key stakeholders involved in land delivery and land markets; and data collection for about 1,700 geo-referenced land transactions with information on tenure status, parcel size, services, accessibility, price, and ownership.9

III. LAND MARKETS AND LAND DELIVERY SYSTEMS IN BAMAKO

1. The demand for land and housing

Bamako is facing fast population growth as the population in the district (i.e. the 6 central communes) has increased by 4.8% annually between 1998 and 2009. The annual growth rate of the population in the 8 peripheral communes has been higher: between 6.2% and 17.2%. If the population growth during the next twenty years remains in the range of 4.5%, the population of

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7 We refer to Bamako for simplicity but the study focuses on a geographic area that extends much beyond the district of Bamako and its peri-urban areas and delves into the rural hinterland to the extent that land activity shows integration and interaction into a large land market influenced by the urban expansion of Bamako.

8 Stakeholders include various professions such as notaries or surveyors, or intermediaries like “coxers”. Coxers are land dealers who mostly operate on informal land markets throughout the Bamako area and to whom many buyers and sellers resort to transact land. They have informers in peri-urban villages to identify land that can be transacted and negotiate with village authorities and therefore are key players in the rural to urban conversion process.

9 The data was collected between February and June 2012 for non-built plots which were transacted within the past three years.
the city would reach 3.5 million in 2020 and about 5 million in 2030. On this basis, a drastic increase in the provision of land for housing will be needed.\(^{10}\)

Several factors explain this high demand for land. On the demographic side, there is natural growth as well as migration pressure from rural areas, which could be exacerbated in the future by population movements from households fleeing the North of the country (currently occupied by armed groups). On the economic side, one can note the emergence of urban middle classes resulting from the massive remittances from Malian expatriates.\(^{11}\) On the financial side, holders of idle funds view land as a profitable and inflation-proof investment given the scarcity of opportunities for investment and the context of weak savings institutions and limited social protection. The demand for land is also inflated by speculative strategies as many investors look for urban plots to buy, expecting a price increase with their incorporation in the urban area over the next years or decades, or following tenure improvement on the land (shifting from precarious titles to real rights). Speculative investment strategies in the rural hinterland have been observed as far as 70 to 80 km away from the city centre (Keita and Djiré, 2009). According to agents and brokers, this high demand is fuelled by investments from Bamako-based merchants, government employees and officials, and from Malian expatriated communities. It contributes to continuously increasing land prices. Although there exists no systematically collected data on the price of land to robustly estimate land price inflation in Bamako, all the stakeholders we met perceived a double-digit annual increase in land prices in the recent years, which is greater than the annual change in the Consumer Price Index (which has oscillated between 1.4 and 9.1 in the 2005/2010 period) and most likely greater than any other available investment.

2. Three main land delivery channels

2.1. Land delivery and land tenure

Land supply is organized in three channels: (i) customary and informal land delivery channels, (ii) government controlled and para-public land delivery channels, and (iii) formal private land delivery channels.

Land prices are related to physical characteristics such as plot size and location (physical accessibility and neighborhood composition) as well as to the tenure on the land and associated security and embedded rights provided by the type of tenure. Six major tenure forms can be distinguished:

(i) Customary land (which, in principle, is recognized in the law\(^{12}\) but remains informal in the sense that no document is issued unless it has been transacted and a record of customary consultation or procès verbal de palabre has been established);

(ii) Allocation letter (lettre d’attribution -- which does not provide any right per se but is a simple letter issued by the administration at the beginning of a land allocation

\(^{10}\) We estimated that an additional 5,200 ha of urban land will be required by 2020 and nearly 12,000 ha by 2030 to cope with the demand for residential land (see Durand-Lasserre and Selod, 2012).

\(^{11}\) Mali remains one of the poorest countries in the World with a GDP per capita of $691 in 2010. The annual per capita GDP growth rate is around 1.5 to 2 percent. Migrant remittance inflows have significantly increased since 2007 and account for 4.5 to 4.9% of GDP. For the role of migrant on land markets in Bamako, see Bertand (1999).

\(^{12}\) But recognition of customary tenure in the 2002 Land Code is weak given that 10 years down the road, implementation decrees have not been issued yet.
procedure; it is held by many households in Bamako as a document that provides a basic level of tenure security;

(iii) **Rural permit** (*concession rurale*);
(iv) **Rural residency permit** (*concessions rurales à usage d’habitation*);
(v) **Occupancy permit** (*permis d’occuper*) or **urban residency permit** (*concession urbaine d’habitation*); and

(vi) **Ownership title** (*titre foncier*).

(iii), (iv) and (v) are administrative permits that provide temporary use rights often designated as “temporary” or “precarious titles” (*titres provisoires* or *titres precaires*). Along with (ii), they can be considered “semi-formal” forms of tenure. (vi) provides a fully-fledged property right and is often referred to as a “definitive title” (*titre définitif*). As implied by the terminology, it is possible to shift from one type of tenure to another through legal, tolerated, or illegal procedures. As a matter of fact, there are many ambiguities in the law and its application, which results in several gray areas regarding the legality of transactions and upgrading procedures. This is represented in Table 1 below which shows the frequency of sales and allocations, even in cases that should not be authorized according to a strict application of the law.

### Table 1: Typology of land tenure situations, frequency and legality of transfers

<table>
<thead>
<tr>
<th>Transferred from:</th>
<th>Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Central State *</td>
</tr>
<tr>
<td>Ownerhsip title</td>
<td>1</td>
</tr>
<tr>
<td>Occupancy permit</td>
<td>3</td>
</tr>
<tr>
<td>Urban residency permit</td>
<td>3</td>
</tr>
<tr>
<td>Rural residency permit</td>
<td>3</td>
</tr>
<tr>
<td>Rural permit</td>
<td>3</td>
</tr>
<tr>
<td>Allocation letter</td>
<td>3</td>
</tr>
</tbody>
</table>

13 See Durand-Lasserve and Selod (2009) for a description and discussion of the continuum of land tenure situations and upgrading processes along this continuum.
2.2. Land delivery channels

We briefly describe the three land delivery channels below.

- **Customary land delivery channels (mainly informal)**
In practice, there are three main ways peri-urban customary land is transferred to buyers: (i) the subdivision and transfer of individual plots for residential purposes, which is not considered a legal practice; (ii) the sale of large tracts of customary land to investors, developers and speculators, which occurs in the rural hinterland up to about 50 km from the city center; and (iii) land subdivisions initiated by *Préfets* (representatives of the central State), officially to relocate displaced urban households.

- **Public and para-public land delivery channels**
Public land delivery channels cover both administrative allocation and market-based forms of land delivery. They include (i) the administrative allocation of residential plots, (ii) the auction of serviced land (by definition according to market prices, at least in principle), and (iii) the provision of “social housing” (in fact, “social housing” corresponds to programs for access to homeownership).

- **Formal private land delivery channels**
They involve either real estate developers or cooperatives. Only about 15 real estate developers are effectively operating in the Bamako urban area as, for decades, the land management and administration framework was not conducive to the development of a formal private land and housing development sector. But cooperative housing, which was originally set up by trade-unions and by professional associations has been flourishing since the early 2000s, with some private developers operating under the status of « housing cooperatives ». It is very successful amongst expatriated Malian communities.
These land delivery channels form a system given the many interactions between them. For instance, formal private land delivery channels can be seen as secondary markets deriving from both customary land delivery channels or from government allocation of land. If the land is initially customary owned, untitled land is put onto the market after tenure upgrading (and recognition of the transaction by public authorities, which may or may not be accompanied by the delivery of an administrative permit). If the origin of the land is public allocation, administrative permits to occupy are selectively allocated at an administered price to beneficiary households by central and local government institutions. The land can be put onto the formal land market at a later stage, possibly after conversion of the administrative permit into a full ownership title at a price that is much higher (up to three to five times) than that of an administrative permit. As a matter of fact, there is a very active game of land transfer and tenure upgrading occurring throughout the urban area, with significant rents derived by a variety of stakeholders and intermediaries.

3. The resulting spatial patterns of tenure

3.1. Location

We carried out a survey of land transactions between February and June 2012 on transactions having occurred up to three years before the survey date. This made it possible to identify the spatial patterns of the coexisting land tenure situations in Bamako. For this, we classify tenure into four broad categories: “ownership titles” which includes plots which have either a land title or a long-term lease; “residency permits” which includes plots with a temporary title; “allocation letters” ; and “no document / customary land” which groups the other situations.

Table 2 below shows that the more secure forms of tenure are on average closer to the city center. This is in line to what one would expect given that higher pressure on land requires more protection to secure one’s plot. It is also consistent with a spatial equilibrium where households who locate closer to the city center may have the financial means and social networks to obtain secure tenure (see Selod and Tobin 2012 for a model). Another striking observation from Table 2 is that most of the transactions that we observed are on “semi-formal” plots. The bulk of it is allocation letters not yet converted into residency permits. Confirming an hypothesis from qualitative interviews, this seems to be the most common way people access land in Bamako.

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14 For example, in the commune of Dialakorodji, the price is multiplied by three, in Kanadjiguila village, in the Mandé commune, the price is multiplied by four, in the commune of Kalabankoro, it is multiplied by five.

15 In this section, we consider only the plots in our database which are explicitly destined to a residential use (i.e. excluding agricultural land which was also surveyed), that are within 50 km of Bamako (using straight line distance). This leaves us with 1,025 observations.

16 We grouped in this category allocation letters as well as payment authorization (autorisation de paiement). A payment authorization may be granted prior to an allocation letter. It provides less security than an allocation letter but the beneficiary’s name may be left blank, which facilitates the transferability of the plot without having to pay a transfer fee...

17 T-tests show that these mean distances are statistically different.
Table 2: Average distance to the city centre by type of tenure (plots for residential use)

<table>
<thead>
<tr>
<th>Tenure</th>
<th>Average distance to the CBD (km)</th>
<th>Number of observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ownership title</td>
<td>14.8</td>
<td>76</td>
</tr>
<tr>
<td>Residency permit</td>
<td>17.2</td>
<td>255</td>
</tr>
<tr>
<td>Allocation letter</td>
<td>21.3</td>
<td>626</td>
</tr>
<tr>
<td>No document / customary land</td>
<td>21.2</td>
<td>68</td>
</tr>
</tbody>
</table>

Source: Selod and Tobin (2012)

3.2. Prices

We used our data to run a hedonic price regression in order to investigate the relation between land prices, land tenure and location in Bamako (see Box 1 below).

Box 1: Land prices, land tenure and location

For each tenure status, we started by estimating the following basic price regression:

\[
\log(p_i) = \alpha \cdot x_i + \beta \cdot paved_i + \gamma \cdot S_i + \delta \cdot water_i + \zeta \cdot elec_i + \theta \cdot year_i + \kappa \cdot other_i + \varepsilon_i
\] (1)

Where \( p_i \) is the price of land plot \( i \) per square meter at the time of sale, \( x_i \) is the distance to the center of Bamako, \( paved \), is the distance to the nearest paved road, \( S_i \) is the area of the plot, \( water \) and \( elec \) are dummy variables equal to 1 if the plot have water and electricity (and 0 if not) at the time of the transaction, \( year \) indicates the year the transaction took place, and \( other \) is a vector of other variables present in the database and that could potentially affect the price (such as the profession of the seller). To run this regression we only considered observations within 40 km of Bamako and excluded land plots destined to agricultural purposes. The results from this regression (and more detailed statistical treatments of our data) are presented in Selod and Tobin (2012).

For the purpose of the present paper, we simply use the estimated coefficients from (1) to calculate an estimated logarithm of the price, which we then plot against the distance to the center of Bamako, and this for each tenure status (see Figure 1). This removes any price variability not explained by our regression and stemming from unobservables. It thus provides a “clean” and spatial representation of land markets in Bamako (see Figure 1).

Source: Selod and Tobin 2012

Figure 1 plots the estimated land prices (in logarithm) from our regression against distance to the center of Bamako. It confirms a negative land price gradient within each tenure category, with the price decreasing away from the city center in line with the standard monocentric model of

\[ Such unobservables include the bargaining power between parties and their ability to negotiate with the land administration. Variations in price (“ça dépend”) were constantly pointed to us during our structured interviews, something which was also picked up by Janice Perlman in recent work on Brazil. Price variability of this nature could be studied using household data we are planning to collect.\]
urban economic theory where land in the city center provides greater accessibility and is scarcer than in the periphery, thus commanding greater prices (see Fujita 1989).

The differences in slope across tenure forms suggest the existence of a market segment associated with each tenure category. The price curve for ownership titles is the steepest, possibly reflecting willingness to pay relatively more for a formal title in order to live closer to the center. This could reflect the fact that semi-formal forms of tenure are less effective in providing tenure security when closer to the city center (because of the pressure on land).

Price dispersion on the graphs reflects the contribution of other factors besides distance to the city center that are valued by land markets, an important contributor being distance to the nearest paved roads as it accounts for accessibility.

Figure 1 – Land price gradients by tenure type

Table 3 below shows that more than 17% of the plots in our subsample had undergone a change in tenure status between the time of the transaction (which may have taken place up to 3 years before data collection) and the date of the survey (first semester of 2012). This confirms that tenure adjustments may not only occur at the time of a transaction (e.g. with land allocation or conversion of customary land into residential use) but can also follow over time, enabling

3.3. Transitions
households to attain a higher level of tenure security or in anticipation of another transfer in the future. This is suggestive of land market and tenure adjustments that accompany urban expansion and justifies our approach to look at tenure in a systemic and a dynamic way.

Interestingly, most transitions occur at the bottom and middle of the continuum (transitions from customary land to allocation letter, and from allocation letter to residency permit. There is, however, less evidence of recently transacted land converted from residency permit to title as would be expected with households settling down and improving their income over time. This may be due to the time needed for full upgrading (which is likely to take more than three years) but also to the many barriers that remain to securing a permanent property title, including excessive time and monetary costs.

Table 3: Tenure transitions in Bamako and its rural hinterland

<table>
<thead>
<tr>
<th>Tenure at the time of the transaction</th>
<th>Tenure at the time of the survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ownership title</td>
<td>Ownership title 63 - - -</td>
</tr>
<tr>
<td>Residency permit</td>
<td>Residency permit 5 159 - -</td>
</tr>
<tr>
<td>Allocation letters</td>
<td>Allocation letters 7 86 561 -</td>
</tr>
<tr>
<td>No document / customary land</td>
<td>No document / customary land 1 10 65 68</td>
</tr>
</tbody>
</table>

Source: Selod and Tobin (2012)

4. Accessing land is difficult and expensive

4.1. Complex and costly procedures

The administrative allocation of public land at administrative prices (that serves only a fraction of the demand for land) feeds an informal secondary market that trades those publicly allocated plots. The coexistence of administrative allocation and this secondary market promotes rent capture at each step of the procedure by agents of the administration and the well-connected beneficiaries of initial allocations.

The centralization and complexity of administrative procedures for land allocation, the uncertainty of dealings with the administration, delays in obtaining permits, patronage, and the central role of intermediaries contribute to very high transaction costs for households trying to access land (Bouju 2009). Low-income households in particular cannot afford the many costs associated with tenure upgrading. Many steps are necessary and require formal and informal payments. For the sale of a rural plot, sold by hectare on the informal market in the peri-urban area of Bamako, the coxer (intermediary) may request 10% of the transacted price. The surveyor will charge between FCFA 40,000 to 50,000 per ha (between $75 and $115). The allocation of a

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19 Costs can also be inflated by regulations. An example is the development requirement (obligation de mise en valeur) whereby permits may be withdrawn in case the plot is not built after a certain period of time. This is justified by law makers with the objective to fight speculation and promote efficient land use but has turned in practice into yet another costly step for regularization as households have to obtain and pay for a certificate of development from the administration.
provisional title on this land (titre provisoire de concession rurale) is the first step towards tenure formalization. Its cost should normally be 60,000 FCFA ($95). However, the applicant is usually asked to pay between 300,000 and 400,000 FCFA ($570 to $760). Similarly, the official fee to obtain the conversion of a provisional title into an ownership title is FCFA 360,000 ($690) per ha, but the true cost is much higher if one wants to obtain the document in a reasonable amount of time. To obtain a title for a periurban plot of 1ha that can then be sold between FCFA 3 million and FCFA 4 million (between $5,700 and $7,600), official and illicit payments are in the range of FCFA 1 million to FCFA 1.5 million (between $1,900 and $2,800), which amounts to between 25% and 50% of the transacted price.\textsuperscript{20}

4.2. The limits of decentralization

The central administration tries to prevent the transfer of land competencies to communes so as to keep the (lucrative) initiative of land subdivision schemes (lotissements)\textsuperscript{21}. This can be circumvented by communes through restructuration/regularization projects which can be implemented outside land use plans. In practice, these projects create problems as they tend to be considered as a funding source for local governments rather than as a policy instrument to address informality (Bertrand, 2006). They may also benefit other households than the initially targeted group. In some cases, they are accompanied by the relocation of some of the targeted households in peri-urban public land subdivision schemes, without those public land subdivisions being embedded in an urban development strategy. Absurd situations (which nevertheless generate resources for those who initiate these projects) can be encountered, including “chain resettlements”.

IV. NEGATIVE IMPACTS

The deficient land delivery processes in Bamako have costly social, economic and environmental implications over the long-term.

The most visible impact is that they encourage land development in a way that seldom takes place within a planned spatial development framework and contributes to the development of informal settlements which are lacking basic services (water and electricity). Because of the high costs to access land, households may have to reduce their consumption of non-land and housing goods or may locate in places that are disconnected from jobs. This can contribute to urban sprawl, generate negative environmental impacts from long commutes, and have a detrimental impact on their labor-market outcomes (spatial mismatch).

In periurban areas and the rural hinterland, the sale of agricultural land for cheap to developers or investors (given information and bargaining power asymmetries) may result in a loss of income-generating activities, fuel the ranks of informal workers in search of a job in the city center, and contribute to the destruction of village social and economic structures. Agricultural land has also

\textsuperscript{20} Source: Key informant interviewed in June 2011. Our figures are in line with other figures in the literature. Djiré (2006) for instance mentions total payments of FCFA 960,000 in 2004-2005 to obtain an ownership title for a 1 ha plot in the town of Sanankoroba (which is located about 35 km south to Bamako).

\textsuperscript{21} This is done by refusing to validate land use plans.
become unaffordable to an increasing number of farmers, possibly increasing the gap between the elite (which has connections within the land administration and can access land below market prices) and the rest of the population, especially renters and first-time property buyers who must face the bulk of land price increases. Because secure tenure is unaffordable to many, there is a very high level of land conflicts in a context where decisions from tribunals are uncertain. While the upper-middle class had the means to transform their temporary rights into permanent rights, the rest of the population are left with unsecure rights in a context of frequent conflicts over land (inheritance and multiple sales) and threats of takings by the central state and local authorities. This includes several situations in which land holders can lose their plots without compensation: The holder of a temporary permit will not be compensated if he has not complied with the development requirement (obligation de mise en valeur). In fact, the compensation for the withdrawal of a permit is not even automatic. In case of an expropriation (for public interest purposes), there will be no compensation if the plot had been illegally bought. Owners of plots who only possess a sales receipt (attestation de vente) as opposed to a permit, are not eligible for resettlement. Even those who hold ownership rights can have their rights challenged by powerful agents or face a risk of expropriation in the “public interest”.

V. THE LIMITS OF CURRENT POLICIES AND PRACTICES AND THE WAY FORWARD

1. Current policies and practices

Attempts to develop a formal land market have failed to produce anything beyond a tiny market segment serving only the very rich and may have resulted in increased difficulties for low income households to access land for housing. The World Bank withdrew its support to the Agence de Cession Immobilière in 2005 (due to financial irregularities, expropriation without fair compensation, and appropriation of plots by the elite) and has not yet resumed its involvement in the land sector. “Housing cooperatives” and the “social housing program” seem to have been more successful in reaching the middle class but only focus on access to property ownership. In addition, access to land through formal processes and registration of property titles are a time-consuming, over-complicated and costly process. As a result, while 54 percent of urban households owned land in 2005, only 7 percent had an ownership title (Farvacque et al. 2007) Housing finance is insufficiently developed, and the activity of existing institutions is limited to a small segment of the market and does not provide the institutional background required for the development of large private land and housing markets. This is due to a small supply limited by the banking system, a small demand limited by low incomes and the predominant involvement of the population in the residential informal sector, as well as to a weak public administration capacity (poor vital records system, especially issues of faulty identity and birth certificates). Furthermore, collateralized lending is limited by several risk factors: unreliable evaluation of land assets, conflicts related to title-registration, and uncertainty regarding security of tenure if

22 According to Djiré (2006) 90% of ownership titles in 2 communes of the Kati district are allocated to households that belong to the elite.
23 Increasing land prices also makes informal settlement dwellers and customary owners of agricultural land in particular more vulnerable to eviction (Bouju, 2009; Djiré, 2006).
the development requirements attached to the public allocation of land for housing are not met (so that lending cannot be fully secured).

There is no policy in Bamako to ensure affordable housing for the poor. Options such as “land readjustments” combined with cross subsidies may not work as they require an efficient administration system and good governance. One appealing option would thus be the promotion of low-cost rental housing but there is no policy or strategy for the development (and regulation) of a low-income rental market.

Since 2003, a project of “street addressing” (alternative to formal tenure regularization) is being implemented in 5 peri-urban communes of Bamako (with funding from GIZ), with some success. But can it be considered a sustainable option to ensure security of tenure as municipal institutions will probably not be able to maintain and update the information collected over the long term?

2. Improving institutions and approaches

Vested interests of key stakeholders make it difficult to implement changes in the land sector. Improving the effectiveness of land administration and management institutions should be a prerequisite to improve the delivery at scale of land for housing.\(^\text{25}\) Particular attention should be given to the following approaches:

**Administrative reform** is necessary to be able to design integrated policies at the scale of the metropolitan area rather than at separate district and peri-urban commune levels. This allows for an anticipation of urban growth and the use of appropriate planning tools. Major primary infrastructure projects, and especially transport, shall open up large tracts of land to urbanization in peri-urban areas.\(^\text{26}\) The District of Bamako is aware of these needs and is currently preparing a reform to redefine administrative boundaries within the capital region and implement new strategic planning tools (Touré and Coulibaly 2009).

**Land registration and information systems** need to be set so as to move towards registration of land rights in a transparent, accessible and sustainable way. This could be based on the experience acquired and lessons learned from the attempt to pilot decentralized Land Information Systems in medium-sized cities in Mali, as a first step towards a national cadastre.\(^\text{27}\)

**Taxation of land** would be required to support the development of land delivery for low and medium-incomes. In theory, value capture through taxation would improve fiscal capacity while a tax on idle land would encourage the productive use of land and limit speculation. This may however be challenging to implement transparently.

\(^{25}\) Some solutions may not be totally applicable in cities with weak administrative capacity.

\(^{26}\) Alternatives to standard planning approaches can take the form of guided land development (see Lipmand and Rajack, 2011).

\(^{27}\) The PAFOC program (Projet Gestion du Partimoine Foncier Communal) initiated in 2004 was funded by GTZ and covered Ségou, Kati, Koulikoro and the rural communes of Macina, Barouélé and Markala.
Cross-subsidization in regularization projects could be reinforced. Redevelopment schemes on underutilized prime land in the city center could then generate considerable resources that could be reallocated to regularization and resettlement projects.

Rental housing could be developed to serve the low to medium-income groups as responding to housing needs cannot be based on policies that solely promote land and housing ownership. This would require providing incentives to stakeholders for rental housing actors and revisiting current planning and development norms.

Tenure upgrading and regularization of informal settlements should be coordinated by an institution (to be set up) at the scale of the capital region. This could contribute to improve the existing procedures, reduce conflicts at the different levels of government, and embed regularization in relevant sustainable planning objectives.

Existing tenure situations and dynamics should be taken into account. Public land allocation could be extended beyond the sole focus on medium and high income groups. Policies should not aim to eradicate the existing plurality in tenure (tenure informality and customary practices) or unify land markets at forced pace.

Free or affordable legal counsel could be provided to vulnerable groups to inform them of their rights regarding transfer of and access to land.

VI. CONCLUSION

Our work expands the knowledge of land market dynamics in urban and peri-urban areas by identifying the dynamics and interactions of the different formal and informal market segments as well as the obstacles to the development of formal land markets in these areas. Such knowledge is required to design the incremental policies needed for the regularization of land rights, the financing of housing, and the provision of infrastructure. In West and Central Africa, such an analysis has not been undertaken before. For the first time in Western and Central African cities, our work provides reliable information and data required for an analysis of land markets, and especially of the relationship between land delivery, tenure status, land values and spatial expansion of cities. The detailed analysis of the land delivery system in one properly selected city helped set up a methodology for understanding current dynamics and trends in urban land markets in other cities of the sub-region. Replicating the study should allow for international comparisons at the sub-regional level and will provide a sound basis for improving urban land markets in terms of transparency, efficiency and equity.

The present study set the stage for refined quantitative work on land markets that would be relevant for policy makers. We are envisioning to map land market activity (by land market segment) and tenure types throughout the city using satellite imagery techniques to link up with physical observation of settlements that were made during our land transaction survey. Such a

28 We have established a typology of physical characteristics (on visible plot characteristics and shapes as well as neighborhood density and morphology) that are associated with the different tenure situations identified in this study. We want to test
map could support planning urban development and addressing demand for tenure security on the different areas of the city. Based on the lessons learned from our systemic analysis of the land delivery system and land markets, we are planning a household survey tailored to evaluate land affordability by income group and assess hindrances in their participation to the different segments of the land market. The generated data would be particularly useful to explore options that may have different cost implications for household and would help address one of the key issues that explained the failure of past policies: poor targeting and lack of affordability for most households.

Findings from studies such as this one can support advice to governments on how to better manage the process of urban expansion, dealing with pressure on land and peri-urban land conversion. This is a key issue in the periphery and rural hinterland of Bamako, which raised major interest amongst mayors in the Bamako region. By documenting and highlighting the risks associated with growing urban divide in access to land (between those who have access to political power and land administration and the others), this type of work also makes the case for a true effort in addressing the many problems of the land sector rather than non-intervention.

VII. BIBLIOGRAPHY


whether combing these observations with satellite imagery can help policy makers come up with a map of tenure and tenure transitions.


