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The formalisation of urban land tenure in developing countries

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Abstract

This work is a background paper on urban land tenure formalisation in developing countries. After presenting a series of key definitions and concepts related to urban land tenure informality—and its possible links with tenure insecurity and poverty—we review the potential social and economic effects of land tenure formalisation. We then propose a typology of tenure formalisation programmes that sheds light on the diversity of approaches and practices. Next, we present the methodological issues raised by impact evaluations of tenure formalisation programmes and review the main results. This leads us to a critical discussion concerning tenure formalisation strategies and practices. Finally, we provide some suggestions for the implementation and evaluation of tenure formalisation policies.

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Introduction

In 2004, UN-Habitat estimated that 940 million people—over 30% of the world urban population—were living in slums. Since the population currently grows faster in slums than in urban areas, this figure could reach 1.7 billion by 2020, and 2.8 billion by 2030 (Lopez Moreno, 2003). In case studies in developing countries, usually between 20% and 90% of a city's population live in informal or illegal settlements.

Tenure informality is a key characteristic of slums. In many countries, while the private sector targets its land and housing development activities at high- and middle-income groups with regular incomes, the urban poor may have no other option than to live in an informal settlement. During the last three decades, many observers of the urban scene have stressed the crucial importance of tenure issues in the analysis of urban poverty, underlining the strong correlation between housing conditions, access to services, environmental and health problems, and tenure status. While tenure informality enables a quick access to land at a low cost for many poor households, it could have serious drawbacks by distorting land use and entrapping informal settlers in poverty. In particular, tenure insecurity—which is caused by tenure informality—is believed to play a central role, notably because it discourages investment by households and communities in informal settlements, and hinders the provision of urban services and infrastructures. Several authors point at a worsening access to shelter and security of tenure (Lopez Moreno, 2003), sometimes incriminating a context of accelerated globalisation combining deregulation measures and state disengagement from the urban and housing sector (United Nations–Habitat, 2003a, Millennium Project -Task Force 8, 2003 and 2005).

Addressing tenure informality is thus a major challenge for governments. In particular, ensuring the security of land tenure through *de facto* protection against evictions or *de jure* formalisation of land tenure can have obvious benefits in terms of enhanced investment incentives, improvements in equity, and reduction of the potential for conflicts. This is clearly present in the Habitat Agenda which states that *'access to land and security of tenure are strategic prerequisites for the provision of adequate shelter for all and the development of sustainable human settlements'* (UNCHS, 1996 and 1999). However, tenure formalisation may have a series of objectives other than that of simply providing security of tenure to households living in informal settlements.

Our paper thus discusses *de jure* tenure formalisation issues in urban areas in the context of developing countries[1] with the aim of providing insights into a series of questions. What do we know about the links between property rights, informal insecure tenure and poverty? What are the justifications and objectives for the programmes designed to formalise land tenure? Are they sufficiently well designed and effective in attaining their objectives? What other types of formalisation could be available to policy-makers?

The structure of the paper is as follows: A first section presents a series of key definitions and concepts related to urban land tenure informality—and its possible links with tenure insecurity and poverty—and reviews the potential social and economic effects of land tenure formalisation. A second section proposes a typology of tenure formalisation programmes that

[1] We do not focus on transition economies as we believe they should be analysed separately from most developing countries due to the specificity of the former 'socialist property rights structure' (Ho and Spoor, 2006).

sheds light on the diversity of approaches and practices. In a third section, we present the methodological issues raised by impact evaluations of tenure formalisation programmes and review the main results. This leads us to a fourth section that examines tenure formalisation strategies and practices. In a fifth section, we provide some suggestions for the implementation and evaluation of tenure formalisation policies. A last section briefly concludes.

1. Urban tenure formalisation in developing countries: preliminary remarks

Land tenure formalisation may have a series of economic, social and political effects. Before presenting these, it is necessary to define the main terms and concepts related to land tenure and tenure formalisation in the particular context of cities in developing countries.

1.1. Some definitions

The objective of this subsection is to clarify four key though often unclear issues: What is land tenure? What is informal land tenure? To what extent does tenure insecurity refer to informal land tenure? What are the different approaches to land tenure formalisation in developing countries? We address these questions sequentially.

1.1.1. Land tenure refers to a bundle of rights

Land tenure designates the rights individuals and communities have with regard to land, namely the right to occupy, to use, to develop, to inherit, and to transfer land. Land tenure should thus primarily be viewed as a *social relation* involving a complex set of rules that governs land use and land ownership. While some users may have access to the entire 'bundle of rights' with full use and transfer rights, other users may be limited in their use of land resources (Fisher, 1995). The exact nature and content of these rights, the extent to which people have confidence that they will be honoured, and their various degrees of recognition by public authorities and the concerned communities, have a direct impact on how land is used.

In practice, a *continuum in land tenure rights* can be observed, especially in developing countries where different sources of law and different ownership patterns may coexist (Payne, 2002). There is thus a diversity of tenure situations, ranging from the most informal types of possession and use to full ownership. In Table 1, we detail the *continuum in land tenure rights* according to type of land tenure. However, it is important to note that the level of rights can also be altered by a series of other factors. Among these are restrictions on the use of the land—since land use must conform to planning rules, development and construction norms and standards, as well as to the type of development mentioned in the contract or agreement between the owner and the user of the land. The level of rights may also depend on the period of time for which rights are agreed upon and whether they are renewable and transferable. Finally, the degree of formality in rights agreements or lease contracts can affect the level of rights as they can range from informal unwritten agreements to formal contracts between land owners and occupants (i.e. leaseholds). Observe that customary agreements may also exist, which can provide various levels of rights depending on the local legal and regulatory framework.

Table 1 – The continuum in land tenure rights

Tenure status / **Level of rights**	Squatters [a]		Occupants in unauthorized land subdivision		Holders of temporary permits to occupy	Holders of long-term or renewable permits to occupy	Leaseholders		Long-term leaseholders (registered leaseholds)	Freeholders
	not protected against forced evictions	with temporary protection against forced evictions [b]	on sites unsuitable for development	on sites eligible for upgrading			with no formal contracts	with formal contracts (short-term renewable leaseholds)		
No rights	■		■							
Rights limited to legal or administrative protection against forced evictions		■	■	■						
Access to a limited number of rights to use [c]				■	■	■	■	■		
Access to the full bundle of rights [d]									■	■

Notes:
a. These refer to pavement dwellers, squatters, and tenants in squatter settlements.
b. Squatter settlements declared as 'slums' in some Indian cities or located in Special Zones of Social Interest in Brazilian cities can benefit from some legal or administrative protection.
c. Land can be developed, inherited, sublet.
d. Land can be developed, transferred, inherited, mortgaged, etc.

1.1.2. Tenure informality: a wide range of situations

Informality designates particular types of land tenure which are frequent in the periurban areas of cities and to a lesser extent within city centres in developing countries. However, as the term 'informality' is only *defined negatively*, it raises the same definition problems for human settlements as when it is applied to economic activities. Although there is a relative consensus about the characteristics of informal human settlements, the exact definition and frontier between informal and formal settlements remains blurred: a given settlement type with particular characteristics regarding land tenure, urban planning, and housing can be considered either formal or informal depending on the local context and public authority interpretations.

Two main types of informal settlements can nevertheless be distinguished depending on the type of development: a first type of informal settlements is *unauthorized commercial land developments*—often on private land—where land is subdivided illegally, usually by informal developers, and sold out as plots. The subdivision is illegal, either because it violates zoning and planning regulations, or because the required permission for land subdivision was not obtained. The second type of informal settlement is *squatter settlements* on public or private land: the land is illegally occupied, against the will of the land owner.

Another relevant distinction among informal settlements (whether unauthorised land developments or squatter settlements) can be made according to the *primary tenure rights* on the land which is informally occupied. It is important to distinguish *public land* (whether public or private domain of the State and of local governments) from *land privately owned* by individuals and institutions, and from *communal or customary-owned land* (on which the use and allocation of land is under the control of a community).

Finally, it must be stressed that tenure informality is the end result of legal, political and economic exclusion mechanisms. The expansion of informal settlements reflects the gap between demand for land and its provision by the public sector and the private formal sector, unable or unwilling to provide housing for the poor. It can thus be viewed as a response on the part of poor households excluded from urban housing markets and who cannot afford to pay formal market rents to reside in cities. In Africa and Asia, these exclusion processes are fuelled by rural-urban migration and urban population growth. The situation is different in Latin America, especially Brazil, where the expansion of informal settlements mainly reflects urban population growth.

1.1.3. Secure tenure and tenure status

Secure tenure is the right of all individuals and groups to effective protection by the State against forced evictions, i.e. under international law[2], *'the permanent or temporary removal against their will of individuals, families and/or communities from the home and/or the land they occupy, without the provision of, and access to, appropriate forms of legal or other protection'* (COHRE, 2003)[3] In contrast, insecure tenure should thus be viewed as a *risk of forced eviction*.

[2] The leading legal interpretation of the right to be protected against forced eviction is General Comment No. 7 on the Right to Adequate Housing (E/C.12/1997/4) adopted by the United Nations Committee on Economic, Social and Cultural Rights in 1997.

[3] An equivalent definition is provided by the United Nations for whom, a person or household *'can be said to have secure tenure when they are protected from involuntary removal from their land or residence, except in*

It is important to stress that the level of tenure security depends on four interrelated factors:
Firstly, tenure security is clearly linked to *tenure status* as the continuum in land tenure rights provides different degrees of protection against evictions (see Table 1). In this respect, insecure tenure is strongly associated with informality and the degree of tenure insecurity depends on the type of informal settlement. While occupants in squatter settlements are highly exposed to forced evictions—especially when they are located on private land in prime urban areas that are subject to high market pressures for development—, owners in unauthorized land divisions may have more tenure security as they could be legally protected against evictions.[4]
Secondly, and closely related to tenure status, are the *primary tenure rights of the land* since occupancy on public, private, or customary-owned land can expose households and communities to different risks regarding land conflicts.
Thirdly, the *occupancy status of the dwelling* is also an important factor of tenure insecurity to the extent that tenants in informal settlements may have even fewer rights than 'owners', and are, consequently, more exposed to evictions in case of tenure formalisation (Gilbert 2003).
Lastly, tenure insecurity depends on the *political and legal context* as it can be affected by the legal framework (the right to housing, the existence of constitutional protections against evictions and the recognition of the 'social function of property' as for instance in Brazil), the political will and commitment of governments, the regulatory framework (including planning and construction rules, norms and standards), and the capacity of administrations to deal with the demand for secure tenure.

The above remarks stress the fact that the wide range of informal tenure situations (from total illegality to various forms of tolerated occupation, or occupation legitimised by customary practices) may provide very different degrees of tenure insecurity. It should be noted, however, that informality does not automatically translate into tenure insecurity as some forms of informal residential tenure arrangement can guarantee a reasonably good level of security, even in squatter settlements.

1.1.4. Tenure formalisation

Formalisation is a process by which informal tenure is integrated into a system recognised by public authorities. It is often presented as a means to ensure tenure security that can be achieved through two different channels, depending on whether public authorities *administratively recognise* occupation or *deliver real property rights*:

The *administrative recognition of occupancy rights*—by the State or by local authorities—results in the delivery of *personal rights* to heads of households living in informal settlements. It usually takes the form of an administrative permit to occupy (PTO) or a short-term leasehold. Although such rights can be, and usually are renewable, they are temporary (from one to several years) and conditional (the land must be used or developed according to standards set by public authorities). Some restrictions are usually imposed concerning the use

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exceptional circumstances, and then only by means of a known and agreed legal procedure, which must itself be objective, equally applicable, contestable and independent' (UN-Habitat, 2003).

[4] As a matter of fact, unauthorised land developments offer various levels of *protection against evictions*, depending on the public authorities' perception of the degree of illegality of the settlement. Even if the area is not suitable for residential development, occupants can generally produce a deed of sale or a property title for the land they occupy. In such settlements, middle and middle-to-high income groups are rather well protected against forced evictions.

of the land and its transfer (through sales or inheritance). Administrative recognition can be renewed or revoked. It can be a first step towards the delivery of real property rights.

The other type of formalisation is the *delivery of real property rights*, a process also known as 'land titling'. These rights include freeholds titles, surface rights, and registered long-term leaseholds. They can be opposed to a third party, transferred through sale and inheritance, and mortgaged. This type of formalisation, which can be sporadic or systematic, provides rights that are authenticated and guaranteed by the State.

De facto recognition vs. de jure formalisation

It is important to stress that *de jure* formalisation—through titling or administrative recognition—is not the only way public authorities can ensure tenure security. Protection against evictions can also be ensured through political commitments or administrative practices that lead to a *de facto recognition of occupancy* in informal settlements without the provision of personal or real rights.[5] One example is the political acceptance of customary tenure in sub-Saharan African cities by local or central authorities. *De facto* recognition processes will not explicitly be discussed in this paper which focuses on land tenure *formalisation.*

1.2. The potential effects of tenure formalisation

With these definitions in mind, it is now possible to review the effects of tenure formalisation according to economic theory. This is a complex issue because land tenure formalisation may have numerous effects that involve a multiplicity of mechanisms. The issue at stake is whether formalisation can be an efficient tool to reduce poverty and promote economic development and growth.

In this respect, Figure 1 provides a synoptic but simplified representation of the potential effects of tenure formalisation. Since our discussion will be based on this diagram, we want to make five preliminary remarks:

First, the effects of land tenure formalisation should be distinguished from those of tenure security *per se*. While some major effects of tenure formalisation are likely to percolate through an increase in tenure security, some other effects of land tenure formalisation could involve enhanced administration or better land-market functioning—especially with the provision of real property rights—without involving an increase in the security of tenure.[6]

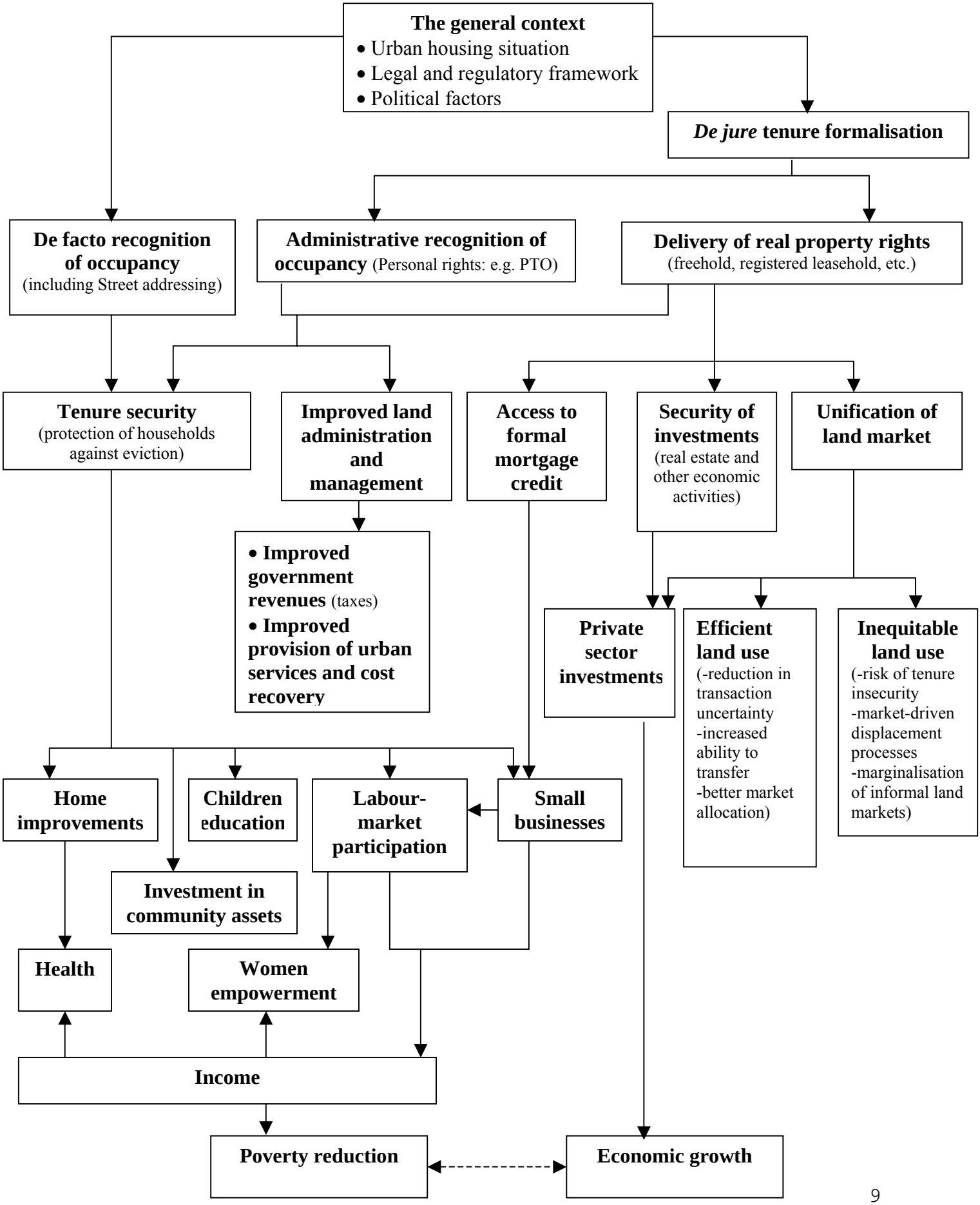
Second, although tenure security can be ensured by *de jure formalisation* (see the right-hand side of Figure 1) it can also be achieved with the *de facto recognition of occupancy* (see the left-hand side of Figure 1). Although our main focus is on the effects of *de jure formalisation* we shall discuss the other options whenever appropriate.[7]

[5] *De facto recognition* should not be confused with *administrative recognition*. Whereas the former is a set of commitments and practices, the latter is a formal process of *de jure* formalisation leading to the delivery of personal rights.

[6] The literature can sometimes be confusing on this issue given that several authors tend to equate informality and insecurity, and thus formalisation and security improvement.

[7] It appears that the practices and discourses of international finance institutions and many development and aid agencies regarding tenure formalisation tend to focus almost exclusively on the delivery of real property rights to the detriment of other options.

Figure 1 – The economic implications of de facto recognition and land tenure formalisation



Third, observations suggest that the mechanisms at play might depend on the type of rights delivered among the wide range of formalisation options and on the context in which formalisation is implemented. For instance, whereas the delivery of real property rights such as freeholds could enable local investments by the private sector, there are fewer reasons for this happening with the delivery of personal rights such as PTOs. In Figure 1, we thus distinguish the effects of *administrative recognition* from those of *real property rights delivery*.
Fourth, the intensity and the theoretical validity of several implications presented in Figure 1 can sometimes be questioned depending on the economic and institutional context. For instance, the delivery of real property rights may not increase households' access to formal mortgaged credit in the absence of financial institutions.
Fifth, it is worth mentioning that many economic intuitions concerning the effects of formalisation have already been put forward in the earlier and much more developed literature on agricultural land tenure formalisation (see Besley, 1995, Deininger, 2003). While some of these mechanisms also apply to the urban context, others are more specific to the functioning of informal settlements in cities and periurban areas, as will be clear from our discussion in the rest of the section.

We now present the potential effects of land tenure formalisation, distinguishing between the effects that operate through tenure security and those which involve an increase in formality. These effects are potentially numerous and in some cases can be ambiguous.[8]

1.2.1. The potential effects of increased tenure security

The ambiguity of tenure formalisation as a means to increase tenure security

Increasing tenure security through formalisation can be a legitimate public policy objective even in the absence of the trickle-down effects presented in Figure 1. Given the correlation between tenure insecurity and tenure informality, the causal link from tenure formalisation to tenure security improvement seems obvious: formalisation should increase tenure security, especially when the delivered property titles are recognized by courts and administrations during conflicts. However, there are several reasons according to which all types of formalisation may not necessarily always increase tenure security and may even *decrease* it:

(i) The formalisation process itself can be a source of conflicts regarding land use and may lead to the eviction of some households by other stakeholders who manage to secure property rights for themselves, to the detriment of other occupants who are in a weaker economic situation (Cross, 2002), or cannot provide all the required documents to be entitled to tenure formalisation.
(ii) The poorest households may just not be entitled or eligible for tenure formalisation (e.g. if only owners are targeted by the programme, or if the poor do not have sufficient 'proofs' of occupation). Even when they are eligible, they may not have the means to pay their share of the formalisation costs.
(iii) Tenants, usually the poorest among the urban poor, may be evicted by the rise in rents following formalisation and bid away to other informal locations. Tenants could be all the more harmed by this phenomenon that they cannot apply for compensation and are

[8] Determining whether a particular effect occurs or what the sign of a net effect may be are cases for empirical investigation. These issues are addressed in section 3.2 below.

usually not eligible for resettlement. Owners of formalised land may have renewed incentives to evict tenants in order to value their land in a more profitable way.

(iv) Newly formalized households may agree to sell their property to developers under adverse conditions and terms. Indeed, the bargaining power between regularised plot owners and developers is unbalanced. It is much easier for an investor to bargain with individuals with transferable rights rather than with communities with *de facto* tenure security.

(v) Regularised plots are sometimes sold at a very low price. This can be observed when newly formalised households cannot comply with planning and construction norms and standards and are thus exposed to expropriation (e.g. when the plot is too small according to development plans). Compensations paid to evicted households may not always reflect market prices but the lower value assessed by the administration.

(vi) Formalisation may be problematic if it is implemented regardless of existing tenure arrangements. For instance, granting freehold titles may not be suitable for customary areas since freeholds cannot easily accommodate extended family or group rights. Titling may then divide the population into two groups: households with and households without land rights. In the presence of customary rights, titling can increase insecurity *'if it becomes unclear which of systems of right will prevail'* (Lanjouw and Levy, 2002).

Although these remarks should not be downplayed, in the rest of the section, we consider the case of formalisation programmes that do increase the tenure security of targeted households.

The effects of tenure formalisation through increased tenure security

The increase in tenure security following formalisation may have an impact on socio-economic outcomes through two main channels: changes in households' behaviour concerning labour-market decisions and investments in housing quality.

Tenure security and labour-market outcomes

Households with insecure tenure may have to devote much time to looking after their homes or their neighbours' homes for fear of losing their asset during an absence. In practice, at least one person (adult or child) must permanently stay at home. This then automatically reduces the amount of time available for work. As adults have a competitive advantage in ensuring home security, insecure tenure may provide an incentive for child labour outside the home while adults remain at home to protect their asset and ownership rights. In this context, an increase in tenure security should result in an increase in labour-force participation and substitute adult to child labour. It could enable household members to shift to occupations located outside the home, all the more as outside activities are likely to be better remunerated than home activities.

Tenure security and housing investments: income, health and human capital effects

Occupants of dwellings in informal settlements have few incentives to invest in their houses because of the risk of eviction. If the probability of eviction decreases with formalisation, the return to investment in housing will increase and families will have renewed incentives to renovate or enhance their houses. This can have a catalytic effect and activate a least four poverty-reduction mechanisms:

First, increasing tenure security through formalisation addresses a market failure by providing a savings opportunity to the poor in the form of own-housing stock investment. This can be key in escaping poverty as the ability to save can play an important role. Second, improvements in the home environment can have indirect beneficial effects both on the health of household members and on the education of children who could benefit from a better learning environment. Third, owners of formalised dwellings who invest in their houses are likely to exert positive externalities on their neighbours. They are also likely to invest in community assets that will be capitalised in the value of their housing asset. Fourth, with a lower probability of eviction, the return on investment in home business activities is also increased which can encourage home employment or substitute home employment to outside activities.[9]

1.2.2. The potential effects of real property rights

Other potential effects of tenure formalisation do not occur through an improvement in the security of tenure but rather because of the *nature* of the delivered rights, and especially their transferability. We focus on the potential effects of *real* property rights on access to credit, the local provision of services and infrastructure, the functioning of land-markets, and the empowerment of vulnerable communities and individuals.

Real property rights and access to credit

An important idea concerning land tenure formalisation is that granting property titles is often presented as a means to provide credit-constrained households with better access to mortgaged credit, thus stimulating investment in business activities. This is a key idea in the literature on land tenure formalisation in rural areas (Besley, 1995) and has been systematically been put forward for urban areas as well (de Soto, 2000). The intuition is that real property rights should enable households to *use their property as collateral* in order to obtain credit—or should improve the value of their house as collateral, or should enable them to borrow under lower interest rates.

This view nevertheless rests on three implicit assumptions that need to be met simultaneously: First, the investment capacity of low-income households living in informal settlements are assumed to be hindered by credit-constraints. Second, it is assumed that these households agree to pledge their land and house as collateral in order to finance business activities. Third, it is assumed that financial institutions that agree to provide mortgage credit to households in low-income settlements exist and accept the properties as collateral.

It is thus important to discuss the validity of these assumptions. They can be problematic for a series of reasons: on the demand side, households in informal settlements might be reluctant to pledge their only asset as collateral in order to invest in somewhat risky businesses. On the supply side, lending institutions may just not operate in informal settlements or may refuse to lend to households in low-income areas. This can be justified by the low market value of mortgaged land or the deterring management costs of small credits which do not provide a sufficiently high return. Even if they did, the low-value of housing in informal settlements might seriously restrict the amount of funds that would be made available to households. Finally, residents in informal settlements might have access to other, less formal types of credit that do not require them to pledge their houses. If these objections are correct, there

[9] This effects runs contrary to the incentive to work outside the home when household members feel less constrained to remain home to monitor their plot (see the above paragraph). What the net effect can be is an empirical matter.

should be little effect if any of formalisation programmes that operate through an alleviation of credit constraints.

Real property rights and the local provision of services and infrastructure

Although informal housing markets may have obvious advantages for the urban poor—providing an easy and fast access to land with low housing expenditure—they may be costly in terms of service delivery and unattractive for private and public investments in business and infrastructure. By enabling and securing land and property transactions, making investments more secure and ensuring better cost recovery for service provision—by properly identifying the beneficiaries of urban services—formalisation can make informal settlements more attractive for investments. Formalisation may also facilitate planning and administration, ensuring better and cheaper access to basic services at a lower price and/or of a better quality than those possibly provided by the informal market. Furthermore, provision of urban services and infrastructures can be significantly improved by the taxation revenues generated by tenure formalisation.

Real property rights and land market effects

Land tenure formalisation also affects the functioning of land markets. Whereas the absence of real property rights in some parts of a city can hinder or prevent real estate transactions and distort prices for land, titling improves market efficiency by reducing transaction uncertainty, increasing the ability to transfer and enlarging trading opportunities and the possibility to exploit gains from trade. It also integrates informal settlements within a unified formal market enabling competition for land at the scale of a whole city. The competition with households residing in all parts of the city may then lead to a new spatial allocation of household types across the city. A liberalised land market can lead to a more *efficient* city structure but it can be argued that the change will not be *equitable*. Indeed, the intensified competition is likely to result in an increase in rents beyond the strict capitalisation of tenure security improvement of current occupants: while most owners of regularised plots are likely to make a capital gain, some will not be able to pay for the costs of tenure formalisation or of development imposed on regularised households. As for tenants, some may be unable to cope with the increase in rents induced by tenure formalisation and will be bid away to less desirable locations. The unification of land markets may also marginalize some other forms of informal land markets such as customary land tenure.

Real property rights and the empowerment of vulnerable individuals and communities

To conclude this section, it should be noted that granting property titles may have other effects than through investments and enhanced market functioning. It can also play a role in empowering vulnerable communities and individuals. The key idea is that formalisation can free individuals from constraining social relations. It can free households from a dependency on stakeholders that benefit from the *perpetuation of informality and insecurity (local* leaders, shack lords, or even municipal and government officials involved in the delivery of parallel informal land market parcels). When granted to women or jointly to couples, it can increase the bargaining power of women in family decisions and in turn affect women's choices concerning fertility—potentially reducing it—or their labour-force participation—potentially increasing it.

2. Urban land tenure formalisation: main situations and trends

While the previous section provided some theoretical insights into the potential effects of tenure formalisation, the present section describes tenure formalisation in practice, stressing both the diversity of objectives and, in correlation, the different types of tenure formalisation that have been implemented.

2.1. Rights approach and functional approach to tenure formalisation

A first level of opposition concerns the types of objectives that may be pursued by tenure formalisation. Should tenure formalisation aim to ensure human rights or specific socio-economic objectives?

2.1.1. The rights based approach

In the *rights based approach*, land tenure formalisation emphasizes its role to ensure the *right to secure tenure* (i.e. the idea that every citizen has the right to a secure place to live) in conformity with international treaties and covenants guaranteeing social stability and aiming to reduce poverty (Leckie, 2004).

Since tenure formalisation—and especially titling—may not necessarily result in an improvement in tenure security, some authors have been very critical of this simplified approach. The conflicting area between human rights, property rights and tenure security is underlined by Du Plessis and Leckie (2006). They argue that *'the work of the Centre of Housing Rights and Eviction (COHRE) has illustrated time and time again the danger of property rights approaches to human rights questions if these are allowed to be seen in isolation, or are allowed to dominate [the] understanding of the broad spectrum of human rights'*.

2.1.2. The functional approach

The functional approach emphasises the impact of tenure formalisation on urban planning, and on specific social and economic objectives. For instance, it can explicitly be stated that the delivery of property rights aims to unify land markets and to promote land and property markets[10] or to empower vulnerable groups through land ownership and better access to urban services (or any other potential effect presented in the previous section).

This can be illustrated by the discourses and practices of aid and development agencies and international finance institutions when defining and implementing tenure regularisation policies. There are basically two main positions that differ according to the priorities established among the recognised objectives of tenure formalisation. In general, while international finance institutions (the World Bank and regional development banks) tend to emphasize the role of tenure formalisation in the *integration of informal markets within the*

[10] Formalisation can be seen as a means to correct a market imperfection. For instance, Hoy and Jimenez (1991) stress that 'in the absence of a means of internalizing the benefits of land use to squatters, landowners may apply an eviction option more rigorously than is socially optimal'. For theoretical welfare considerations on the economics of squatting, also see Jimenez (1985), Turnbull (2004) and Anas and Arnott (2004).

sphere of the formal economy and in the *access to land ownership* (World bank, 1993 and 2001, Baharoglu, 2002, Buckley and Kalarickal, 2006) the United Nations (particularly UNDP and UN-Habitat) tend to put more emphasis on the *social and economic integration of slums and informal settlements*. The latter position usually goes along with the recognition of legal pluralism regarding tenure.

2.2. Types of tenure formalisation

In practice, tenure formalisation programmes are influenced by the general approaches and orientations to tenure formalisation as defined by governments, implementing agencies, as well as funding agencies. They also depend on a set of other legal, social and political factors that include the constitutional, legal and regulatory framework (i.e. the level and type of legal protection against evictions, the 'right to the city'), the political balance of power at central and local government levels, the state of the demand for tenure formalisation, political will and commitment, pressures from the civil society in general and from concerned communities in particular, the perception of the legitimacy of the informal settlement by governmental institutions and the city's population, and the financial and human resources available for implementing tenure formalisation at government and city levels. Practices also vary depending on whether emphasis is mainly put on security of tenure, or whether other objectives are also pursued.

Not surprisingly, the diversity of local conditions results in a diversity of tenure formalisation techniques and policies. Over the last decade, the focus has shifted from security of tenure approaches to tenure regularisation and access to land ownership. This is noticeable in the international debate on tenure options, and in the commitments made by UN member States (e.g. Habitat Agenda, 1996, Habitat II+5, 2001, World Urban Forum, 2006). Until recently, policy discourse was dominated by the assertion of the primacy of individual titles as the preferred form of tenure. Security of tenure was and still is often simplistically equated with the allocation of property titles to individuals.

Given the diversity of experiences, it is necessary to classify these programmes. Since comparative studies suggest that they can be characterised with reference to a limited number of characteristics, we propose a simple typology around five main criteria:[11]

(i) The p*rimary status of the land* illegally/informally occupied (whether public land—in the public or the private domain—, private land, or customary land)

(ii) The *type of informal settlement* (unauthorised land development/subdivision or squatter settlement)

(iii) The *type of delivered rights* (personal rights or real rights; individual or collective)

(iv) The *eligibility criteria* (occupancy status, length of occupation, conformity with planning norms)

(v) The *scale and time of implementation* (implemented at the settlement level, the city level, or nationwide; whether systematic or sporadic)

[11] A more detailed typology is presented in Appendix 1.

Table 2 - Main types of tenure formalisation: some examples

	Dakar (Senegal) PRQS	**Cotonou (Benin)** Land Readjustment of Informal Developments	**Lima (Peru)** COFOPRI
Primary tenure status of illegally occupied land Public: Public domain / Private domain; Private; Customary / communal	Private domain of the State + Private land + Customary claimed land	Mostly customary + Private land	Private land + Private domain of the State and of local authorities
Type of informal settlement Unauthorised commercial land development; Squatter settlement	Unauthorised commercial land development + Squatter settlement	Unauthorised commercial land development	Unauthorised land development + Squatter settlement
Type of rights delivered Personal rights: Individual / Collective; Real rights: Individual / Collective	Individual personal rights (PTO) + Individual real rights (Surface Rights)	Individual personal rights (that could be upgraded to real rights)	Individual real property rights
Eligibility criteria Occupancy status; Length of occupation; Conformity with planning norms	Ownership of dwelling as confirmed by local community	Ownership of plot + Conformity with planning norms	Documents proving length of occupation
Scale and time frame of implementation Nation: Systematic / Sporadic; City: Systematic / Sporadic; Settlement	City-wide but still implemented at settlement level	Settlement	Nationwide + Citywide

Table 2 (continued) - Main types of tenure formalisation: some examples

	Mexico City (Mexico) CORETT	**Recife (Brazil)** CRRU	**Bangkok (Thailand)** Baan Mankong project	**Bhopal (India)** Delivery of Patta
Primary tenure status of illegally occupied land Public: Public domain / Private domain; Private; Customary / communal	Communal (Ejidos)	Public land + Private land	Private land + Private domain of the State and land owned by administrations	Private domain of the State and of local authorities
Type of informal settlement Unauthorised commercial land development; Squatter settlement	Mostly unauthorised commercial land development + Squatter settlement	Unauthorised land development + Squatter settlement	Unauthorised commercial land development + Squatter settlement	Squatter settlement
Type of rights delivered Personal rights: Individual / Collective; Real rights: Individual / Collective	Individual real property rights	Individual and collective personal rights (50-year lease)	Collective rather than individual personal rights (long-term leasehold) and real rights	Individual personal rights (leaseholds)
Eligibility criteria Occupancy status; Length of occupation; Conformity with planning norms	Documents proving occupation and ownership (bills, deeds of sale)	Designated ZEIS + Documents proving length of occupation	Ownership of dwelling + Length of occupation	Documents proving occupation over time
Scale and time frame of implementation Nation: Systematic / Sporadic; City: Systematic / Sporadic; Settlement	Nationwide + Citywide	Citywide	Nationwide but still limited to selected settlements	Citywide implemented at settlement level

Table 2 (continued) – Acronyms of programmes and projects

COFOPRI: Comisión de Formalización de la Propriedad Informal (Commission for the Formalisation of Informal Properties)

CORETT: Comisión para la Regularización de la Tenancia de la Tierra (Commission for the Regularization of Land Tenure)

CRRU: Concessão de Direito Real de Uso (Concessions to the Real Right to Use)

Patta Act: The Madhya Pradesh Act for Landless Persons (granting of leasehold rights known as Patta Act)

PRQS: Prévention et Restructuration des Quartiers Spontanés (Prevention and Restructuring of Spontaneous Resettlements)

ZEIS: Zonas Especiais de Interesse Social (Zones of Special Interest)

2.3. Main practices regarding tenure formalisation

Table 2 presents seven examples of tenure formalisation using our five-class typology (more details on the implementation of each programme can be found in Appendix 2).

The lessons to be derived from a comparison of programmes such as those in Table 2 are as follows:
First, some governments clearly emphasise tenure formalisation in urban areas based on the systematic provision of real property rights (e.g. Peru, Mexico) while others resort to the sporadic delivery of property titles (e.g. Senegal, Thailand).
Second, tenure formalisation policies may combine the provision of real right with various forms of personal rights. While some informal settlements are protected by a moratorium against evictions, or benefit from a temporary permit to occupy[12], others will be delivered leaseholds.
Third, whereas a continuum can usually be observed both in tenure situations and in formalisation processes, clear ruptures and discontinuities are identified from a legal and procedural point of view between titling programmes and programmes delivering other types of rights on land. There are also ruptures between tenure formalisations of settlements that occupy public land and formalisations of settlements that occupy private land.
Finally, although it can be carried out within a limited period of time—in the case of a systematic sweeping titling—, tenure formalisation is often an incremental process. The delivered documents or titles can be upgraded in order to give access to a wider range of rights on land. In some cases, protection against eviction is a first step in tenure formalisation, starting with the delivery of an administrative permit to occupy that can be conditionally upgraded to a leasehold and, at a later stage, to a long-term registered freehold and possibly a freehold.

3. Assessing the effects of urban tenure formalisation projects

Tenure formalisation programmes can be assessed at different levels. A first level is to assess whether the practical objectives in terms of property rights provision are met and whether the programme's implementation is deemed cost-effective. Our focus is on a second level which aims to identify the socio-economic impact of tenure formalisation programmes on individual and community outcomes and, possibly to a larger extent, on the economy as a whole. Unfortunately, impact evaluations of tenure formalisation projects are scarce and they raise serious methodological problems that must not be downplayed. We will first present the methodological issues pertaining to the socio-economic evaluation of formalisation projects and then discuss what existing empirical studies do indeed tell us about the effects of land tenure formalisation.

[12] This is the case of the one-year "patta" that is granted in Indian slums on public land unsuitable for tenure regularisation. It is renewable until suitable relocation options are made available to the households.

3.1. Methodological issues

Preliminary remarks

Measuring the economic impact of tenure formalisation projects is a complex issue, given the variety of potential mechanisms associated with tenure formalisation and the methodological concerns raised by public policy evaluation. In this respect, two major issues should be borne in mind:
First, socio-economic evaluations may usually only be able to provide an exploration of a particular mechanism in a particular context. For instance, an evaluation that investigates the labour-market effects of tenure formalisation could remain silent on the effects of formalisation on education or health. Our knowledge of the effects of tenure formalisation can thus be only gradually built up around a series of carefully designed evaluations, each investigating a particular issue within a particular formalisation programme. Even though no general lesson can be derived, the results should help orientate and design formalisation policies.
Second, it should be recalled that every evaluation critically hinges upon a set of assumptions whose validity can at best be favourably argued but that can never be proved. The confidence we can have in each evaluation thus requires a careful inspection of these assumptions.

3.1.1. The main issue: selection bias[13]

As with any public policy assessment, the key issue is to contrast the socio-economic outcomes in the presence of a formalisation project with the *counterfactual* socio-economic outcomes that would have been observed if the project had not been implemented. For instance, one would like to observe whether a particular household who is granted a formal property title would work less in the absence of the titling programme. Of course, no dataset can provide this information since a household cannot simultaneously be a beneficiary and a non-beneficiary of a programme.

Comparing beneficiaries and non-beneficiaries

What can be done instead is to compare the average outcome in a group of beneficiaries (the *treatment grou*p) to the average outcome in a group of non-beneficiaries (the *control group*) and attribute the difference to the formalisation programme. However, this interpretation is valid *only under the following assumption*:

> **Assumption H1**
> In the absence of the programme the average outcomes between the treatment and the control group would not differ.

This means that the treatment and control groups should have comparable observed characteristics as well as *unobserved* characteristics (i.e. absent from the data) that could be correlated to the outcome of interest. If assumption (H1) is not met, it will not be possible to identify whether the difference in outcome across groups is attributable to the effects of the formalisation programme or to the pre-existing differences in unobserved characteristics. For instance, if households with the best labour-market ability—a quality which may not be

[13] For a formal presentation of the selection bias issue, see Appendix 3.

observed and which is correlated with labour-market outcomes—can manipulate the programme so as to be granted property rights at the expense of others, then there will be a *selection bias in the treatment* to the extent that able households will be over-represented in the group of households whose tenure is formalised. The finding that households that are granted property rights fare better than those who are not could reflect their labour-market ability and not the true effects of tenure formalisation (if any). Since the result will be biased upwards, it will not be possible to conclude that tenure formalisation improves labour-market outcomes.[14]

In the context of tenure formalisation projects, it is important to stress that there are several serious reasons for which selection might be a problem so that assumption (H1) may not be valid. The most important issue is that households are residentially mobile. They might anticipate the programme and selectively move into areas that are likely to be formalised. Households might also move after the program is implemented so that treatment and control groups constituted *ex-post* or data that fail to follow movers might suffer from a selection bias—especially since formalisation could have an effect on mobility. Another issue is that tenure formalisation may also affect the control group because of spatial spillovers. This could be especially problematic when comparing similar neighbourhoods as they are likely to be located in the same area. There are several methods which address this issue (see e.g. Miguel and Kremer, 2004). We will focus exclusively on the selection problem.

3.1.2. Controlling selectivity

The main issue is thus to make sure that the control group is comparable enough or to be able to satisfactorily address selection issues. Several cases may arise depending on the practical context and implementation of the formalisation programme and on the nature and quality of available data which can be either experimental or non-experimental.

Experimental approaches

Controlled experiments in which the treatment and control groups are randomly drawn provide the ideal dataset for policy evaluation since they greatly simplify the analysis by lending credibility to assumption (H1)—provided that the randomisation is correctly implemented to ensure good quality data. The impact evaluation would then require only a simple comparison between the two groups without involving a complex statistical treatment to address selection issues. To our knowledge, unfortunately, controlled experiments have not been carried out in the context of tenure formalisation.

Quasi-experimental approaches

Natural experiments

However, in the absence of controlled experiments, there can be 'natural experiments' in the allocation of property rights that more or less lend credibility to assumption (H1). With a

[14] The problem is very similar with individual data where an outcome—for instance the number of hours worked—is regressed on a set of covariates that include a treatment dummy (i.e. a variable equal to one for individuals whose tenure is formalised). If (H1) is not valid, then residuals in this regression will be correlated with the treatment dummy. Because of this endogeneity problem, the estimator of the effect of formalisation will be biased and no causality can be inferred. See Appendix 3 for more details.

natural experiment, it is possible to explain the selection between the treatment and the control group without directly affecting the outcome of interest. One example is land titling in Buenos Aires in the 1980s as studied by Galiani and Schargrodsky (2004, 2006) who focus on the effects of property rights on child health. The situation is one of squatters settling on land only to find out later that it is private property. In 1984, the provincial government expropriated these lands and transferred them to the new occupants conditionally on a monetary compensation paid by the occupants to the former owners. While some owners accepted the deal, others went to the court and lawsuits were still pending 20 years later. Galiani and Schargrodsky (2004) argue that this led to a random assignment of land titles according to (H1) since squatters could not guess *ex-ante* at the time of occupation which parcels of land would be transferred and which would be disputed by their owners. As they assume the absence of selection, the authors carry out a direct estimation of a difference in sample means as well as a regression on individual data.

However, even with a clear-cut natural experiment, the validity of assumption (H1) can often be questioned. In the Buenos Aires natural experiment, plots might have different unobserved qualities that could simultaneously have an affect on child health and deter owners from going to court. Whether one accepts the validity of (H1) is a matter of taste and the authors can only provide statistics on parcel characteristics to try and convince the reader that plots do not differ in this respect. It should also be stated that even with clean natural experiments, there might be some other selection issues. In the Buenos Aires case, one problem is that, for unobserved reasons, some households who were offered titles did not receive them. In other words, even if the exposition to titling was random, the actual treatment was not. The authors address this issue through an instrumental variable technique.[15]

In practice, natural experiments are exceptional cases. Unfortunately, the bulk of evaluations must be carried out on other types of non-experimental data, which calls for the use of more sophisticated techniques with additional identification assumptions.

Using panel data to control for fixed heterogeneity

In the absence of a natural experiment, it is more difficult to argue that (H1) is valid. The key idea is thus to construct groups that are as comparable as possible and to apply adapted econometrics techniques to compare these groups, such as *propensity score matching* or *regression discontinuity design*.[16] A very attractive technique that is used in the impact evaluation of public policies is to resort to *difference in differences* (DID), which requires the use of panel data or of repeated cross-sections. A difference in difference approach simply consists in comparing *changes* in the outcome of interest *before* and *after* the implementation of the project between the group of households who were granted property rights and the group of households who were not. It is then possible to identify the effects of the formalisation programme if the following weaker assumption is valid:

[15] They use random exposition as an instrument for actual treatment (the so-called *Intention-To-Treat* method). In practice, they instrument titling with another dummy variable indicating that the household occupies a parcel that was offered for titling.

[16] *Propensity score matching* requires building a control group made of individuals who would have the same probability of being treated as those who were actually treated. *Regression discontinuity design* can be used if eligibility for the programme is based on a particular quantitative rule: it is then possible to compare households that are just above the eligibility threshold and those just below as one should not expect the two groups to differ widely.

Assumption H2
In the absence of the programme the two groups would have experienced the same *change* in outcomes (before and after the programme is implemented).

The identifying assumption under DID (H2) is a less stringent one than under a simple difference (H1): it allows beneficiaries and non-beneficiaries to have *different unobserved characteristics* as long as the two groups are similarly affected by a common *time trend* (if any). Field (2003, 2005, 2006) and Field and Torero (2006) resort to such techniques to study the effects of a titling programme in Peru on housing renovations, labour supply, and access to credit respectively.

But even with DID, there can still be problematic issues that invalidate the identifying assumption. The remarks we previously made concerning mobility and sample attrition remain valid. A particularly important problem can occur when beneficiaries modify their behaviour in a way that will affect the outcome of interest. For example, if households whose plot will be formalised can anticipate the policy and renovate their houses before the programme is implemented, then it is possible that no effect of formalisation is observed between the two dates.[17]

To conclude this subsection, we want to emphasize, along with Field and Kremer (2006) that non-randomised evaluations should be considered with extreme care given that they are 'less transparent and more subject to divergence of opinion than are issues with randomised evaluations'. Unfortunately, because of data constraints, the choice of the technique to be used for evaluation can be limited.

3.1.3. The measurement of tenure security

Since tenure formalisation may affect tenure security or operate through an improvement in tenure security, it must be stressed that the measurement of tenure security is problematic in empirical studies. A major issue is that a same tenure situation can imply different degrees of tenure security depending on historical and cultural factors, administrative practices, political choices, the balance of power between various stakeholders, etc. This makes the reliability and comparability of tenure security in existing data and sources problematic. In fact, there is no consensus among researcher about what would be a good indicator of tenure security and such an indicator is lacking in the Habitat Agenda, in the MDG monitoring systems, and in the set of indicators proposed by UN-Habitat to define slums. [18] In empirical studies, researchers often use proxies of tenure security such as the length of occupation of the dwelling or rely on perceptions of tenure security, asking occupants whether they think an eviction is possible (e.g. Lanjouw and Levy, 2002). Of course, these indicators can also be criticized. The length of occupation of the dwelling can reveal a higher degree of tenure security *ex-post* (as households were not evicted) but could also point at some residential inertia of households unable to move to better informal or formal locations. It also considers that newly established households have a low security of tenure irrespectively of the

[17] In theory, this problem could be circumvented if observations are made sufficiently long in advance before the programme is implemented.
[18] Several institutions (the World Bank/Doing Business Survey, MCC, IFAD, USAID / Inter American Alliance for Real Property Rights, and UN-Habitat) are currently pooling efforts to overcome these obstacles and to produce a harmonised set of land indicators in rural and urban areas including tenure of security measures (Quan 2006).

unobserved informal rights they might have. As for using perception, it carries the risk of measurement error. Empirical inference about tenure security should thus be examined with much caution.

3.2. Do we observe the expected effects?

With these methodological remarks in mind, we can now present the results of the existing econometric studies on land tenure formalisation. As these studies are scarce and focus almost exclusively on titling, we will mention a few qualitative case studies as well. It should be clear that while causality can—in best cases—be inferred from econometric studies, case studies should be considered more descriptive.

3.2.1. Effects on tenure security

Does formalisation increase tenure security? There is usually no direct test of this in the literature as information on tenure security or tenure security perception is usually not present in the data. When it is, descriptive statistics point in this direction as title-seeking households may report that their motivation is to increase their security of tenure, or because titled households tend to believe than an eviction is impossible more than untitled households (Lanjouw and Levy, 2002).

A series of empirical studies have tried to provide an indirect but quantitative measure of tenure security or tenure security perception through its capitalisation in housing prices. These studies basically try to identify a 'security premium' associated with an increase in property rights, or more roughly between informal and formal tenure—assuming that formal tenure is more secure than informal tenure. They usually raise two major problems. First, from an econometric point of view, the unobserved characteristics of occupants and dwellings as well as the endogeneity of property rights must be dealt with. Second, whether price differentials should be interpreted as tenure security premiums is debatable since other factors may account for price differences and identifying the different effects is usually not possible. Consequently, when these other factors point towards an increase in land prices, only an upper bound of the tenure security premium can be estimated. The estimation should thus only be considered indicative of the willingness and actual capacity to pay for security.
Several studies by Jimenez and other co-authors focus on the premium between formal and informal houses. These studies find positive premiums, usually higher for owners than for tenants, which probably reflects the higher costs of eviction for owners who could also lose some housing capital in addition to facing eviction costs.[19] More interestingly, these studies suggest than low-income groups have more to gain from formalisation in terms of tenure security since the premium is greater for them. The authors' interpretation is that the poor sort spatially into places where the risk of eviction is highest and thus having a formal title would be more valuable for them.[20]

[19] Investigating the case of Davao, a medium-sized city in the Philippines, Jimenez (1984) finds that the premium is 18% for tenants and 58% for owners. Studying the same issue in Manila, Friedman, Jimenez and Mayo (1988) find tenure-security premia of 15% and 25% for tenants and owners respectively.
[20] Other explanations of why the price differential is greater for low-income groups could also involve the weak bargaining power of low-income households or their low risk aversion which lead them to outbid middle-income groups for riskier housing bundles (Friedman, Jimenez and Mayo, 1988).

Interestingly, Kim (2004) goes beyond the formal/informal opposition and shows that in Vietnam, a freehold is not the most valuable form of property right since houses with a freehold and a 'legal paper' as well sell for more. This suggests that the highest degree of security is reached by a combination of rights, including real property rights. The author's interpretation is that, in Vietnam, 'possessing more documentation would assist in negotiating one's property right' when it is contested

Lanjouw and Levy (2002) also focus on the valuation of tenure security (in Guyaquil, Ecuador) but resort to a very specific estimation strategy. As their dataset asks both titled and untitled households how much they would value their property with and without a title, they are able to estimate 'within respondent' differences in expected sales price without having to instrument titling. The authors show that titling raises property values by 23.5% but argue that their measure is an upper bound to the market valuation of tenure security since differences in markets prices might also reflect a reduction in transaction uncertainty associated with titling. One drawback of their study, however, is their very small sample size (only 51 respondents). Another drawback is the possibility of a selection bias in declarations—for instance if non-titled households underestimate the counterfactual value of their property if they had a title.

3.2.2. Effects on access to credit

The evidence in the literature of the effect of urban land formalisation on credit is quite weak.[21] Investigating the nation-wide Peruvian urban titling programme, Field and Torero (2006) find that obtaining a property title has no effect on the approval rates of private banks and only a limited effect on the approval rates of public institutions[22]. The authors even suspect that titling may reduce the banks' ability to foreclose as the latter could anticipate that governments who promote titling will also protect borrowers. This would deter them from lending. Furthermore, the limited effect of approval rates among public institutions may not result from titling but could reflect a policy accompanying titling.[23] The weakness of these results is confirmed by Galiani and Schargrodsky (2006)'s finding that, in Buenos Aires, titling only has a minor effect on access to mortgaged credit

Case studies also reinforce the findings of the above-mentioned econometric studies. Varley (2002) observes that the beneficiaries of formalisation in Mexico are not interested in formal credit but prefer to incur loans from friends and relatives. They may also already resort to micro-credit based on community organisations which do not require the use of one's home as collateral. This is confirmed by Byabato (2005) who observes that residents in a planned settlement in Dar es Salam would not jeopardize their prime asset by mortgaging it.

3.2.3. Labour-market outcomes

Studies on the effects of urban land tenure formalisation on the labour market are scarce. In theory, formalisation may affect the labour market by increasing access to credit or through tenure security (see section 1.2).

[21] On the contrary, there is more evidence of land registration on access to credit in rural areas (see Feder and Nishio, 1999).

[22] This confirms a previous observation made by Calderon (2004) on the Peruvian titling programme.

[23] In the Peruvian case, loans for housing improvements are in-kind loans provided by a single public institution that faces very high default rates, in the range of 25% (Kagawa and Turkstra, 2002).

As already observed, evidence concerning the first channel seems weak in urban areas since neither Field and Torero (2006) nor Galiani and Schargordsky (2006) find strong effects of titling on access to credit.
The evidence on the role of tenure security on labour market outcomes is mixed. Field (2006) shows that titling in urban Peru has freed up hours of work previously devoted to maintaining security, as people no longer have to look after their houses to ensure informal occupancy rights. The effect is sizeable and broadly corresponds to one full-time worker per household Here again, one should be cautious with interpretations. It has been stressed that this mobility may not necessarily reflect a better availability of the labour force but could reflect the need for newly formalised households to increase their wages in order to cover the costs incurred by tenure formalisation (Mitchell, 2006).
Interestingly, and in contradiction with the intuition that formalisation increases the rate of home businesses, Field (2006) also finds that titling halves the probability of working at home by reallocating work hours from inside the home to the outside labour market. In addition, titling is found to reduce the probability of child labour by 28%. It is not clear, however, whether these results on urban Peru have a general validity. In a similar study on Quito and Guyaquil, Ecuador, Rose (2006) confirms that titling reduces child labour but, contrary to Field (2003), finds that titling has no effect on the number of hours worked and increases the probability that adults work at home. Galiani and Schargrodsky (2006) find no effects on labour income of a titling programme in Buenos Aires. Further econometric studies on this issue are thus clearly needed.
As for case studies, they also point at a positive effect of formalisation on investments in home-based activities and at a drastic increase in activities within formalised settlements (see Banerjee, 2004, on India).

3.2.4. Other effects

Local effects on the built environment, infrastructure and service provision

Both case studies and empirical works point towards a significant effect of titling on housing improvements, possibly motivated by a reduced perceived threat of eviction (Banerjee, 2004, on India, Field, 2005, on Peru, Galiani and Schargrodsky, 2006, on Argentina). In some cases, these improvements can be sizeable: Field (2005) estimates that housing renovations on Peruvian titled plots increased by two thirds of the baseline level. Interestingly, and confirming our previous remarks, in both Peru and India, improvements occurred without the use of credit. Investments may also occur at the community level, accompanying the upward filtering of the housing stock (Johnson, 1987).
However, it should be noted that housing improvements or the development of economic activities following tenure formalisation may not comply with the planning norms and standards that apply to the settlement. This could be another reason for which improvements occur without the use of credit as complying with standards for building permission can be an eligibility criterion for obtaining a loan (Banerjee, 2004, on Bhopal). Investments in services and infrastructure may also be problematic if residents find it difficult to pay for them, as in South Africa (Cousins *et al*. 2005), if the population grows beyond the capacity of the basic minimum services provided, or if population density makes it impossible to re-organise the layout (Banerjee, 2004).

Effects on health, education, and fertility

The few works that investigate these issues find significant effects. Galiani and Schargrodsky (2004) find that land titling in Buenos Aires is associated with better child anthropometric outcomes (weight-for-height scores), a result which they speculate is related to better hygiene stemming from housing improvements.

Galiani and Schargrodsky (2006) also find that titling in Buenos Aires improves child education by reducing the delay in school achievement from 1 year to .4 year—a result comparable to the effect of the Progresa programme in Mexico—and by reducing the number of days children miss school.

Field (2003) estimates that the Peruvian urban titling programme caused a 22% decrease in fertility among titled households and attributes this effect to the increased bargaining power of women in fertility decisions when granted a formal title, as well as to a decrease in the 'value' of children since they are no longer needed to secure informal ownership rights or claims to community resources, and they are needed less for their parents' old age subsistence. Similarly, Galiani and Schargrodsky (2004) find that titling in Buenos Aires lowers the teenage pregnancy rate, which they attribute to a wealth effect.

Land market effects

Several empirical studies find that formalisation has an impact on land markets through an increase in transactions and prices.

Lanjouw and Levy (2002) provide evidence that transaction uncertainty in the absence of real property titles does indeed impede market transactions. As their Ecuadorian dataset asks owners whether they are able to sell or rent their property, they show that owners with strong informal non-transferable rights would have difficulties selling their homes as potential buyers might fear they could reassert their ownership after the sale.[24] In this context, titling should increase the number of transactions. This is confirmed by Macours, de Janvry and Sadoulet (2005), who show that the insecurity of property rights in the Dominican Republic's rural areas reduces activity on the rental market, or by Deutsch (2006) who observes that titling in Phnom Penh was followed by an increase in the number of land sales.[25]

We have seen that formalisation also raises housing prices. However, this can have segregating effects due to middle-class down raiding and upward filtering (Payne, 1997, Augustinus, 2003). Market-driven displacements are likely to occur as it becomes more difficult for low-income households to obtain housing in these areas or to afford even the subsidized cost of a formalised site, especially in valuable sites in city centres (Durand-Lasserve, 2006). The land price increase may also spread to informal areas and further induce segregation. Such displacements following the formalisation of land have been observed in a variety of contexts (Payne, 1997, Gravois, 2005). The risk of market eviction is serious if the urban poor are not protected by a legal framework.

[24] Conversely, in the case of a rental, the ability to transact is increased when the landlord has strong rights—as it is easier for him to reclaim the property from a tenant.

[25] The author nevertheless believes that the gains from these transactions were asymmetric and mostly benefited speculators.

4. Redefining tenure formalisation strategies and practices

4.1. Is land titling the most appropriate option for formalising land tenure?

4.1.1. Tenure security in formalisation programmes

The debate on land tenure formalisation is frequently fogged by confusions made between security of tenure, tenure formalisation and access to individual land ownership, and by the sometimes contradictory objectives of tenure formalisation programmes (e.g. aiming to ensure the security of tenure in informal settlements, including those in prime urban areas, and in the meantime, making land available for real estate development).
The current debate on tenure formalisation reflects that on economic development strategies: tenure regularisation is considered as a precondition for private investments, and private investment as a condition for economic development. This approach which is promoted by several institutions, programmes and initiatives (the World Bank-DBS, the Millennium Challenge Corporation, the High Level Commission for the Legal Empowerment of the Poor, USAID[26], the Inter-American Alliance for Real Property Rights) is now being questioned (World Bank, 2006) and new models of establishing tenure security are called for.
Titling programmes have so far focused on improving the efficiency of the land market, while the poor also need protection against market forces through appropriate public regulation (Haldrup, 2003). More attention is increasingly paid to the social impact of tenure regularisation (Cities Alliance, Global Campaign for Secure Tenure 2000, UN-Habitat and UNDP). These issues are discussed in detail in another paper presented at the 2007 World Bank Urban Symposium (Payne *et al.*, 2007)

4.1.2. What is really at stake in land titling?

The various objectives of land titling might conflict. Does it aim primarily at securing tenure? Empowering the poor? Promoting and securing investment? Which priorities should be established?

Land titling programmes have two main justifications:
Firstly, they are probably the most direct way to achieve the following efficiency objectives:
(i) Formalising and unifying land markets and promoting property markets, thus making informally-occupied urban land available for private investments.
(ii) Promoting and securing private investment (i.e. real estate, commercial and industrial investments): titles can be used as collateral for obtaining credit and provide legal protection for investments on titled properties;
Secondly, titling may also pursue, at least in theory, other objectives such as improving security of tenure, and empowering the poor.
The justification for titling, combining such objectives, was summarised in 1993 by Angel and Mayo for whom *'Systems of private, tradable, and enforceable property rights should be developed' (p. 20)… 'The registration of property rights in squatter settlements is one form of the overall process of registering property rights. This process is important in making land*

[26] See Land tenure Center (2002).

and house transactions possible and giving occupants legal protection. It encourages the buying and selling of housing and makes it possible for households to move to a dwelling that suits their needs and their budgets' (ibid, p. 73).

If, as assumed by Buckley and Kalarickal (2006), *'in many cases, formal titles are a necessary condition to developing a fully functional housing market, particularly a housing finance system'* then a relevant question is: can such housing markets respond to the housing needs of the low-income groups? Can we consider land titling as the key component of a pro-poor development policy? If the objective is to accelerate the pace of integration of all sectors of activities within the sphere of the market economy, then formalisation of land tenure may be justified, but there is no reason that it should be the most efficient way of integrating the poor. As Brown *et al*. (2006) observe, *'the extent to which individual freehold titles, rather than other instruments, should be provided in tenure granting programs, the mix of other infrastructure and services that must be included in such programs, and the ability of the poor to interact with the formal real-estate market to their own benefit once they obtain ownership documents are fundamental questions that are yet to be resolved'*.

The social impact of formalisation policies should thus be carefully evaluated and monitored in order to provides answers to these fundamental interrogations.

4.1.3. Critique of the titling approach to the formalisation of land tenure

Donors' approach to formalisation of land tenure

The influence of the property rights approach on donors' thinking on land policy and administration appears to have become hegemonic (Daley and Hobley, 2005). Over the last decade, leading international finance institutions and several bilateral co-operation agencies have promoted and supported titling programmes in rural and urban areas. Some authors have criticized such approaches, arguing that they could be inefficient and even deteriorate access to land and housing for the poorest (Mitchell, 2006, Bromley, 2005, Payne, 2004, Durand-Lasserve *et al*. 2002, von Benda-Beckmann, 2003).

Resorting only to land titling excludes other options within the range of possible tenure categories. This ignores the preferences of households, who may value some tenure category above freehold tenure (Payne, 2002). Nevertheless, access to property rights remains one of the key objectives of the High Level Commission for the Legal Empowerment of the Poor, launched in September 2005 by a group of developing and industrialised countries.
Although donors involved in land titling programmes have regularly carried out project evaluations, as we have seen, very few assessments of the actual social and economic impact of such programmes, based on an adequate and agreed methodology have so far been completed (see section 3.2).

Land titling in development strategies

Tenure formalisation policies and the associated debate are influenced by de Soto's intuition which assumes that the provision of individual property rights can bring about a triple transformation where property can be transformed into collateral, collateral into credit and credit into income (Woodruff, 2001). This approach to land tenure formalisation has drawn criticism from several other reviewers, who suggest that titling has not achieved these

objectives and is of doubtful benefit to the poor. As noted by Gilbert (2004), it *'will persuade policy-makers that all they have to do is offer title deeds, and that they can then leave the market to do everything else – providing services and infrastructure, offering formal credit and administering the booming property market'*.

As noted by Daley and Hobley (2005), *'the link between individual ownership and tenure security in the property rights approach has also been shown to be theoretically flawed, for example, group ownership can generate tenure security too, depending on the make-up and management rules of the group (…) In addition, where there are multiple rights to a piece of land, the tenure security conferred on one person by formal individual ownership creates corresponding insecurity and loss of rights for others'*.
'Meanwhile, individual land ownership can generate uncertainty if a 'secure' title deed is neither enforceable nor recognised locally as being socially legitimate (…)' (ibid).

As Bromley (2005) notes, titles could weaken rather than strengthen security. The weakness of community organisation, the absence of a relocation policy, and the lack of saving and credit schemes for the low incomes aggravate their situation.

Ownership pattern and land affordability

Title registration should not be seen as the panacea for defective land administration in developing countries (Zevenbergen, 1998). The main critiques of titling approaches to tenure formalisation derive from the observation concerning the failure of titling programmes to improve access to credit. Two other important critiques are as follows:

(i) The titling approach to tenure formalisation tends to consider that all urban actors have compatible interests and treats them as an undifferentiated group of urban 'stakeholders'.
(ii) Titling policies may create a pattern of land ownership that is more rigid, and less affordable than before. Formalisation of the land market in suburban areas may thus severely compromise access to land for the urban poor. As Bromley (2005) notes, titles could weaken rather than strengthen security. The weakness of community organisation, the absence of a relocation policy, and the lack of saving and credit schemes for the low incomes aggravate their situation.

Tenure formalisation in the context of dual legalism: dealing with customary tenure

Customary land ownership refers to the communal possession of rights to use and the allocation of land by a group sharing the same cultural identity. Customary laws usually coexist with the 'modern' law of the State. This legal dualism regarding land can also be found in urban areas in South and South East Asia, in North Africa and the Middle East, and to a lesser extent in some Latin American countries.[27]
In urban areas, however, customary land delivery no longer operates according to this model: land can be allocated to outsiders through informal processes that combine customary practices with other formal and informal practices. Individuals usually sell, as market commodities, more rights that they have initially received. These new practices can be labelled neo-customary (Durand-Lasserve, 2005).

[27] Figures about the magnitude of customary practices in particular within informal land markets are seldom available, as official data identify customary land markets as simply 'informal'. An evaluation in nine African cities in 2002-2004 (PRUD) suggests that neo-customary land markets can provide as much as 90% of the land for housing.

In sub-Saharan Africa, land for housing the vast majority of the population in urban and periurban areas is predominantly provided through customary and neo-customary land delivery channels. Although they are usually tolerated or recognised de facto by governments, customary practices are rarely legalised (Rakodi and Leduka, 2004). This results in land policies which can reduce the access of poor households to shelter, for instance when the registration of transactions under neo-customary practices is denied.

The long-term viability of neo-customary land delivery systems can be questioned at various levels: (i) they tend to accelerate the spatial expansion of urban areas, (ii) they do not comply with planning norms ands standards and may compromise planning implementation, (iii) they impact negatively on the cost of infrastructures and services provision (iv) they usually generate series of land related conflicts (lack of land records and registration systems).

Formalising neo-customary tenure lies at the limits of policy actions. If governments do not recognise neo-customary tenure, public authorities cannot influence neo-customary practices and dynamics, or correct their major shortcomings. However, the formalisation of neo-customary tenure may cause increases in land prices and prevent low-income households from accessing land.

The integration of neo-customary markets within formal land markets *'can disadvantage poor people who lose the security provided by customary tenure whilst being unable to complete the bureaucratic process of registration. In the worst cases this has created opportunities for the powerful to override customary or informal rights'* (DFID 2002). This is clearly summarised by Royston (2006) in a discussion of the Legal Entity Assessment Project (LEAP), about a tenure formalisation experience in Ekuthuleni (South Africa): *'there is no stepping stones for the poor to enter the world of the formal economy, bureaucratic planning and service delivery, without also entering a property system that does not work for them. For access to the formal economy and to services, the poor (…) must give up a functional tenure security that works for most of them, in exchange for a formal property system that does not because they are unlikely to maintain it (…) People are not asking for the replacement of their informal property system by the formal one, but to incorporate into official systems in a way that works for them.'* (pp 172)

4.2. Practical problems of property rights delivery

Capacity of administrations to cope with the demand

The gains expected from land titling can be reduced by a range of practical implementation problems: inappropriate legal and regulatory framework; insufficient capacity of land administrations to respond to the land title registration at the scale required[28]; judiciary system not adapted to land-related conflict resolution; duration and cost of land titling (adjudication and administrative costs, direct and incurred costs for beneficiaries, costs related to resolution of land-related disputes generated by the announcement of tenure regularisation) (Woodruff, 2001, Payne *et al*., 2007). As noted by Augustinus (2003a), a large-scale and sweeping tenure reform can lead to a loss of security of tenure if it underestimates the record-keeping requirements and puts pressure on already weak administrations to carry out tasks (land survey, adjudication, title/deed registration) for which they do not have sufficient human or financial resources.

[28] Registration of land titles can be considered as a prerequisite for the formalisation of land tenure (FIG, 2005 and 2006). See also Augustinus (2003a and 2003b). Yet only a small percentage of the land in developing countries is titled. In many sub-Saharan African countries, the percentage can drop to one percent.

Norms and standards

The delivery of real property rights encompasses a much wider range of objectives. However, the difficulty of finding legal forms of regularization that are compatible with constitutional rules and the legal framework, acceptable to the actors concerned, and in compliance with existing standards and procedures, constitutes a major obstacle.

Administrative practices and procedures, planning as well as construction norms and standards can also be major obstacles to tenure formalisation

Government administration practices can frequently be seen as the main obstacle to tenure formalisation. Non-compliance of informal settlements to planning, zoning and construction norms and standards all hinder the tenure regularisation of existing informal settlements on public or private land.[29].

In situ tenure formalisation may be problematic

For development agencies and international finance institutions, *in situ* tenure formalisation is clearly preferred to most other options, especially displacements and relocation[30]. However, it may also be problematic on several grounds, including its feasibility, its potential contradiction with urban planning and development objectives, and its impact on land markets. In some cases, *in situ* tenure formalisation is not possible because the land is not suitable for residential housing, or because it would generate negative externalities on the environment.

From a planning and social perspective, one can wonder whether in *situ* tenure formalisation through the provision of individual freehold titles can ensure the integration of formalised settlements within the city fabric, as it may increase market pressure[31], accelerate gentrification and induce massive market-driven displacements, especially in informal settlements located in prime urban areas[32]. In many cases, *in situ* tenure formalisation runs contrary to market forces (see 1.2.2).

Some case studies show that it can result in overcrowding, under-provision of basic services, and inappropriate land use, resulting in the long-term deterioration of housing conditions and the urban environment (Banerjee, 2002)[33].

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[29] This is illustrated by the current implementation in Rwanda of the new Land law, adopted in 2005, which introduced the principle of private property of land. Nearly 80 % of the population of the capital city, Kigali, are living in informal settlements on subdivided customary land, or on squatted government and municipal land. Under the new Land law—which does not recognise customary ownership—house owners in informal settlements can apply for a land title, and become full owner of the plot of land they occupy. However, access to land ownership is permitted only if the plot is more than 300 square meters. This excludes nearly 50 % of the population of Kigali from the benefit of tenure formalisation.

[30] As noted by Banerjee (2004) on the basis of case studies in Indian cities, *'The need to incorporate international thinking and satisfy the growing domestic and international rights based lobby is clearly visible in policy rhetoric. Ultimately, however, it is the low cost and trouble free implementation of slum improvement as compared with relocation or public housing that has led to its popularity with the government'*

[31] In its Operational Policy statement (O.P. 4.12, April 2004) the World Bank also requires States to address this issue and avoid or minimize involuntary resettlements, or provide viable alternatives.

[32] Surprisingly, very little attention has been devoted to this issue although the number of displaced households in *in situ* formalisation projects could be large. In Phnom Penh, for example, despite the Government's commitment in 2002 to upgrade and regularise all informal settlements within 5 years, most of them have been exposed to increased market pressures, and their population is being expropriated or simply evicted (Durand-Lasserve, 2006). Similar observations have been made in Kigali, Rwanda.

[33] In a study of slum upgrading in three Indian cities—New Delhi, Bhopal and Visakhapatnam—Banerjee (2002) shows that improved tenure security stimulated considerable private investments in shelter consolidation, and that service improvements resulted in visible and immediate change for the better.

In situ tenure formalisation can also be in contradiction with urban development objectives. As observed by Buckley and Kalarickal (2006), how can tenure security in settlements in prime areas be safeguarded without losing the public sector's ability to provide high value infrastructure services and redevelopment options in these locations?

4.3. Practical responses

Government responses to tenure informality vary according to local contexts, to the types and diversity of irregular settlements, to governments' policy orientations, political will and commitment, to available human and financial resources, to pressures from the civil society in general and from concerned communities in particular. Responses also vary depending on whether emphasis is put mainly on security of tenure, or also pursues other objectives.
The delivery of real property rights is not considered as the only or the best response to tenure informality (Durand-Lasserve and Royston, 2002, Huchzermeyer, 2006). As Brown *et al*. (2006) put it: *'The gains to incremental housing investment, labour mobility and employment, and the fundamental humanitarian interest in providing a measure of stability for the urban poor can all be accomplished through legal instruments other than freehold titles'*.

Incremental tenure formalisation processes.

Lessons from experience suggest that socially inclusive tenure formalisation must be seen as an incremental process, starting with protection against forced evictions and de facto recognition of informal settlements. This can be achieved through legal and administrative measures, possibly combined with the provision of basic services. For example, where cadastral information covers only a small percentage of the urban population, and where bodies in charge of land management and administration cannot cope with the demand for land registration, street addressing[34] can be considered as a first step towards the recognition of informal settlements, and a precondition for infrastructure provision and service delivery.
Provision of infrastructure and services may provide informal settlements with *de facto security* of tenure. It creates a sufficient perception of security of tenure to permit residents to invest and acquire other services. Tenure regularisation should not necessarily be considered as a prior condition for providing services.
Incremental tenure formalisation allows governments to build technical and administrative procedures over time and within their own resource capacity, thus ensuring the institutionalisation of the new approaches. Measures must aim primarily to guarantee security of tenure so as to give communities time to consolidate their settlements, with a view to further improving their tenure status. At a later stage, personal rights can be incrementally upgraded to real rights, such as freehold or long-term leases, if so desired (Christiensen and Hoejaard, 1995). This gives public authorities and communities some time to find, if required, an alternative sustainable option to *in situ* tenure formalisation, and limits its negative impact when it is in contradiction with urban planning prescriptions and enforcement. Payne (1997) notes that a useful strategy for policy makers might well be to see *'...every step along the continuum from complete illegality to formal tenure and property rights as a move in the right direction, to be made on an incremental basis.'*

[34] Street addressing *'makes it possible to identify the location of a plot or dwelling on the ground, that is, to 'assign an address' using a system of maps and signs that give the numbers or names of streets and buildings. This concept may be extended to urban networks and services…'* (Farvacque-Vitkovic et al., 2005).

Rehabilitation of adverse possession procedures.

Adverse possession is a useful tool to formalise the tenure of the urban poor living in informal settlements. It refers to the allocation of property rights following the continuous and peaceful occupation of land over a certain period of time prescribed by law, without any opposition. Most countries have such legislation, which is however, usually not fully enforced. Since the late 1990s, many Brazilian municipalities have relied on adverse possession procedures (*usucupiao*) (Fernandes, 2002 and 2006). This underlines the importance given to new forms of real property rights, which include the concession of the real right to use, the special concession of use for housing purposes, and surface rights.

Alternative tenure options to individual property titles

Such alternatives can take the form of group land rights such as the Community Land Trust as implemented in Voi, Kenya (Yahya, 2002), the allocation of collective tenure rights in Bogota, Columbia (Aristival & Ortiz, 2004), or the collective land tenure promoted in the Ban Mankong Secure Housing Programme in Thailand (Boonyabancha 2006).
Promoting community ownership and group titling is considered an important option, at least temporarily, as it can protect communities against market-driven displacements.[35] However, the long-term sustainability of group-tenure arrangements can be questioned.

Community participation in tenure formalisation

Gaining the support of the population and involving residents in participatory processes are essential at various stages of tenure formalisation processes (from identification of needs to cost recovery). This is confirmed by observations made in Latin America (Imparato and Ruster, 2003, Magigi and Magiani 2006) or Asia (Boonyabancha 2006). In particular, assessing needs through 'enumerations' provides not only the means by which the data is gathered to allow for local planning, but also the process by which consensus is built and the inclusion of all residents negotiated.[36] It is also a prerequisite (i) to evaluating various levels of insecurity and corresponding risks of eviction; (ii) to providing the normative foundation for promoting secure tenure, and guidelines for statutory recognition of secure tenure, and (iii) to identifying and developing global norms for secure tenure.
However, it should be acknowledged that some successful tenure formalisation programmes have been implemented from the top, with limited involvement of community organisations (Tunisia, Morocco).

Decentralising land administration and management responsibilities

Decentralising land management responsibilities and enabling municipalities to promote tenure upgrading and regularisation can be desirable because setting up land records procedures at the local level can be an essential tool for ensuring security of tenure, reducing land-related conflicts, and promoting tenure formalisation policies (provided local records are compatible with—and can at a later stage be integrated into—the formal land registration system). Brazil provides an example of this with the 2001 enactment of a federal law which provides consistent legal support to municipalities committed to confronting the urban, social and environmental problems that directly affect the living conditions of the urban population.

[35] Group tenure arrangements may also have several other advantages: they can help maintain social cohesion, which frequently breaks down when deeds or titles are individualised.
[36] UN-Habitat. Synthesis of Internet discussion, April –May 2006.

5. Lessons learnt and implications for tenure formalisation strategies

5.1. Conditions for a successful implementation of tenure formalisation

The success of tenure formalisation hinges upon the following requirements:

(i) **There must be a political will, commitment and continuity** at the highest level (as in Tunisia, Peru, Brazil). This is a key condition for tenure formalisation, whatever the contextual framework (nationwide or citywide tenure programmes).

(ii) **A proper articulation between national tenure formalisation strategies and local/municipal policies is needed** as in India, with the adoption of the Draft National Slum Policy of 1999 (see Banerjee, 2002), or Brazil, where land regularisation can be considered as one of the central axes in formulating municipal master plans, as required by the 1988 Federal Constitution and the 2001 City Statute (see Fernandes, 2006). This can require strategy guidelines and a legal framework at the national level (South Africa, Brazil, India, etc.) combined with effective decentralisation and local governance.

(iii) **Tenure formalisation should not be reduced solely to its legal dimension**. It is a broad process that combines with the urban and environmental regularisation of the settlements, as well as with employment and income-generation programmes and other governmental programmes aiming to achieve the full integration of informal settlement residents into the city's economy and society (e.g. the National Policy to Support Sustainable Urban Land Regularisation proposed by the Ministry of Cities in Brazil in 2003 along these principles).

(iv) **Land administration**, defined as the process of determining, recording and disseminating information about tenure, value and use of land, **must be adapted to the requirements of tenure formalisation programmes and projects** (Galal and Razzaz, 2001). The local management of tenure formalisation must be compatible with the land registration system operating at the national level. The failure of some nationwide titling programmes (e.g. in Egypt) can be attributed to the deficiency of land administration. From a technical point of view, it takes 15-20 years to change a country's land administration system (Augustinus and Lemmen, 2006). Given the particular constraints faced by many cities in developing countries and in countries in transition (i.e. a lack of human and financial resources, a limited maintenance capacity, a lack of political continuity, corruption), it might take even longer.

(v) **Land allocation policies** that meet the needs and resources of low-income urban households **must accompany tenure formalisation and regularisation**. They should combine **preventive policies** (provide alternatives to avoid formation of new informal settlements), and **relocation options** for households that are not eligible for tenure formalisation.

(vi) It should be ensured that **the existing financial system—**including the availability of micro-credit—**should be adapted to the needs of low-income households**, especially when tenure formalisation is combined with slum upgrading.

(vii) The **judiciary system** should be responsive and independent and there should be conflict-resolution mechanisms and bodies at the local level.

5.2. The diversity of tenure situations in informal settlements may involve a diversity of responses

The diversity of land rights situations requires a diversity of formalisation procedures. Land rights are not restricted solely to registered rights, and especially not to individual property rights. They should be seen as a continuum. This has two implications:

(i) In a given country or city, various land rights systems may coexist, and legal pluralism does not necessarily jeopardise urban land management, although it may complicate land administration (land registration and records) and distort land markets, especially when a land rights system is not formally recognised by a government.

(ii) Land tenure involves a complex set of formal and informal rights, ranging from various rights of use to conditional or full rights to dispose of the land. The type of formalisation chosen should not hinder access to land for middle and low-income groups. It might be necessary to adapt planning norms and standards so as not to exclude the poor from the benefits of tenure formalisation.

5.3. Narrowing the gap between formal and informal tenure rather than implementing rigid tenure regularisation programmes

In the context of sub-Saharan African cities, neo-customary land delivery may be seen as an alternative for providing land for housing low-income households if certain conditions are met. In fact, land policies that attempt to destroy neo-customary informal systems may end up reducing the ability of the poor to access land. It may thus be easier and more effective to serve the land needs of poor people by strengthening neo-customary systems than by attempting to improve formal land delivery systems.

Observations suggest that the viability and sustainability of neo-customary systems depend on the capacities of public authorities to encourage neo-customary practices to be compatible with formal procedures, while making formal procedures more accommodating to neo-customary practices (Durand-Lasserve, 2005). Two converging dynamics that narrow the gap between formal and neo-customary practices can be observed. (i) On the one hand, government institutions are adopting more flexible attitudes regarding the integration of informal settlements in general and those created by neo-customary systems in particular. This includes the recognition of customary rights by national constitutions in some countries, (e.g. Ghana and South Africa) and, in other countries, the introduction of new governmental land management procedures that allow claims originating from customary practices to become formally recognised (e.g. in Uganda and Namibia). (ii) On the other hand, neo-customary actors are increasingly operating according to minimum rules and procedures regarding registration of land rights (for example, transactions are witnessed, sometimes by officials, and records of transactions are being kept). They are also incorporating elements of planning, including the delivery of some basic services.

5.4. The limits of the transferability of tenure formalisation policies

As tenure is a social relation (see 1.1.1), transferring tenure formalisation experiences regardless of the local context may prove inappropriate and may harm the existing informal land delivery systems, reduce land supply for the urban poor and increase tenure insecurity.

It is thus necessary to define targeted policy objectives and priorities, taking into account: (i) the human and financial resources available, (ii) the national and local economic development policies, (iii) the existing tenure system (dualism, customary, …) both at national and city levels, (iv) the existing continuum in land rights, (v) the state of the housing market at local/city level (supply, demand, housing needs), and (vi) articulations between formal and informal land and housing markets.[37]

6. Conclusion

This draft paper is a critical survey of urban and periurban land tenure formalisation experiences in developing countries. It analyses the various contexts, objectives and effects of urban land tenure formalisation and the related debates. The main objective of the paper was to identify the research needs that could influence policies and practices. Our main findings and analyses are as follows:

First, our knowledge of the effects of tenure formalisation programmes is far from complete. Although there are many case studies, quantified evaluations are very scarce and subject to a set of methodological assumptions. The currently limited state of knowledge, however, does provide evidence that formalisation programmes improve land-market efficiency and can have beneficial socio-economic effects. Indeed, some existing studies find improvements in labour-market participation, housing conditions, health, education, fertility, but fail to find an impact on access to credit. Nevertheless, it must be stressed that these evaluations are very few in number and focus exclusively on titling. Impact evaluations should thus be generalised to evaluate whether these findings apply to the variety of contexts and the variety of approaches to formalisation. Above all, assessments should also cover some key issues that have been overlooked so far. In particular, the extent to which attrition may bias these evaluations should be carefully investigated. Indeed, households who move out following tenure formalisation are not usually followed. If there are losers from formalisation programmes and if these losers are mobile (either because they are bid-away away, evicted or relocated to less desirable places), then impact evaluations should also *follow up the socio-economic outcomes of displaced households* before arguing that a programme has a 'positive' impact. The impact on all relevant stakeholder groups must be accurately assessed. Another important issue is that assessments should not be exclusively concerned with effects on individuals and households from the settlement but also with *general equilibrium effects*. An important issue is how formalisation programmes may affect land use and spatial sorting in the presence of residential mobility.

Second, formalisation processes may have a variety of effects depending on the context. Conversely, the context often determines the type of formalisation that is or can be implemented. Systematic comparative research should thus be undertaken in order to evaluate the respective advantages and drawbacks of tenure formalisation options and practices, taking into account the social and political contexts within which they are implemented. The goal is to *identify the key factors of success* of tenure formalisation projects and programmes, and the limits of the different practices. Do land titling programmes—i.e. the delivery of real property

[37] As observed by Wallace (2005), the tools used to deliver security of tenure are more than the total technical services of land administration. This explains why so many technically competent land projects fail, and why it is so hard to build successful and sustainable projects.

rights heavily promoted by many international donors and national governments—reach their objectives? To what extent would alternatives to individual freeholds or registered leaseholds be able to reach the same objectives? Further research on these alternatives is thus needed. This should include the costs, feasibility and sustainability of alternative options, including group titles, various types of occupancy or use permits, short-term leases, etc. In particular, more attention should be given to the effects of incremental tenure formalisation processes, as opposed to systematic top-down titling processes.

Finally, there are several lessons to be learnt from an operational point of view:
Because tenure security is a key component in the design and implementation of tenure formalisation programmes and projects, appropriate assessment and evaluation tools must be developed in order to define an operationally relevant and comparable measure of tenure security, combining qualitative and quantitative information collected at national, urban and settlement levels. A security of tenure indicator should enable the identification of trends and dynamics at city or settlement level over time and establish international comparisons.
It should also be borne in mind that lessons learnt from pilot projects are not always replicable. Particular attention must be paid to scaling up issues, and to the prerequisites for shifting from projects to citywide or nationwide programmes.

References

Anas A. and R. Arnott (2004) Moving Cost, Security of Tenure and Eviction, *mimeo*.

Aristizabal N. and A. Ortiz Gomez (2004) Improving Security without Titles in Bogota, *Habitat International*, 28, 2, 245-58.

Augustinus C. (2003a) Surveying and Land Information for Secure Land Tenure, paper presented at the USK/CASLE/UN-Habitat Regional seminar on Security of Land Tenure, Nairobi, Kenya, June 12.

Augustinus C. (2003b) Comparative Analysis of Land Administration systems: African Review, with Special Reference to Mozambique, Uganda, Namibia, Ghana, South Africa.

Augustinus C., Lemmen C. and P. Van Oosterom (2006) Social Tenure Domain Model Requirements from the Perspective of Pro-Poor Land Management. A paper presented at the 5th FIG Regional Conference on Promoting Land Administration and Good Governance, Accra, Ghana, March 8-11.

Baharoglu D. (2002) World Bank Experience in Land Management and The Debate on Tenure Security, *World Bank Background Series – Housing and Land*.

Banerjee B. (2004) Maximising the Impact of Tenure and Infrastructure Programmes on Housing Conditions: the Case of Slums in Indian Cities, paper presented at the International Conference on Adequate and Affordable Housing for All. Research, Policy, Practice, June 24-27, 2004, Toronto, Canada.

Banerjee B. (2002) Security of Tenure in Indian Cities, *in* Durand-Lasserve A and L. Royston (Eds) Holding their Ground: Secure Land Tenure for the Urban in Developing Countries, Earthscan Publications, London, pp 37-58

von Benda-Beckmann F. (2003) Mysteries of Capital or Mystification of Legal Property?, *European Journal of Anthropology*, 41, 187-191.

Besley T. (1995) Property Rights and Investment Incentives: Theory and Evidence from Ghana, *Journal of Political Economy*, 103, 5, 903-37.

Boonyabancha S. (2006) Scaling up Slums and Squatter Settlements Upgrading in Thailand Leading to Community-Driven Integrated Social Development at Citywide Level, *mimeo*

Bromley D. (2005) The Empty Promises of Formal Titling: Creating Potempkin Villages in the Tropics, University of Wisconsin-Madison, *mimeo*.

Brown E., Dimitrova D., Ehrenberg D., Heyes J., Kusek P., Marchesi G., Orozco V., Smith L. and E. Vilchis (2006) Regularization of Informal Urban Settlements in Peru, Mexico and Brazil, document prepared for the IDB under the supervision of S. Angel.

Buckley R. and J. Kalarickal (2006) *Thirty Years of World Bank Shelter Lending. What Have we Learned?*, Directions in Development – Infrastructure, World Bank, 117 p.

Buckley R. and J. Kalarickal (2005) Housing Policy in Developing Countries: Conjectures and Refutation, *World Bank Research Observer*, 20, 2, 233-57.
Buckley R. and J. Kalarickal (2003) World Bank Lending for Low-Income Housing: A Strategy Update (Draft). The World Bank.
Byabato K. (2005) *Legal Title to Land and Access to Formal Finance by the Low-Income Households: the Case of Sinza C and Miburani neighbourhoods in Dar es Salaam*, PhD dissertation, University of Dar es Salaam.
Calderon J. (2004) The Formalisation of Property in Peru 2001–2002: the Case of Lima, *Habitat International*, 28, 2, 289-300.
Christiensen S., Hoejgaard P. and W. Werner (1999) Innovative Land Surveying and Land Registration in Namibia, DPU-UCL Working paper No.93, 73 p.
COHRE - Centre of Housing Rights and Eviction (2003), Annual Report 2002, Appendix 2, Constitutional Sources of Housing Rights.
Cross C. (2002) Why the Urban Poor Cannot Secure Tenure: South African Tenure Policy under Pressure, *in* Durand-Lasserve, A. and L. Royston L. (eds) *Holding their Ground: Secure Land Tenure for the Urban in Developing Countries*, Earthscan Publications, London, pp. 195-208.
Daley E. and M. Hobley (2005) Land: Changing Contexts, Changing Relationships, Changing Rights, paper commissioned by DFID.
Deininger K. (2003) Land Policies for Growth and Poverty Reduction, *A World Bank Policy Research Report*.
Deutsch R. (2006) Beneficiary Assessment of Land Title Recipients under the Land Management and Administration Project (LMAP) in Cambodia, prepared for the Ministry of Land Management Urban Planning and Construction.
Department for International Development – DFID (2002) Better livelihoods for poor people: the role of land policy.
Di Tella R., Galiani S. and E. Schargrodsky (2005) Property Rights and Beliefs: Evidence from the Allocation of Land Titles to Squatters, *mimeo*.
Du Plessis J., Leckie S. (2006) Property rights and the need for more inclusive concepts, laws, policies, and practices, *in* De Soto H. and F. Cheneval, *Realizing property rights*, pp. 194-303.
Durand-Lasserve A. (2006) Market-driven evictions and displacements: Implications for the perpetuation of informal settlements in developing cities, *in* Huchzermeyer M. and A. Karam (eds) *Informal settlements. A perpetual challenge?*, University of Cape Town Press.
Durand-Lasserve A. and L. Royston L. (eds) (2002) *Holding their Ground: Secure Land Tenure for the Urban in Developing Countries*, Earthscan Publications, London, March.
Durand-Lasserve A (2005) Land for housing the poor in African cities. Are neo-customary processes and effective alternative to formal systems?, *in* N. Hamdi (ed.) *Urban Futures: Economic Development and Poverty Reduction*, ITDG Publishing.
Durand-Lasserve A., Fernandes E., Payne G. and M. Smolka (2002) Secure Tenure for the Urban Poor, CIVIS. Learning from Cities, Cities Alliance, Cities without Slums, Issue 3, September, 8 p.
Farvacque-Viktovic C., Godin L., Leroux H., Verdet F. an R. Chavez (2005). Street Addressing and the Management of Cities, The World Bank, Directions in Development.
Feder G. and A. Nishio (1998) The Benefits of Land Registration and Titling: Economic and Social Perspectives, *Land Use Policy*, 15, 1, 25-43.
Fernandes E. (2002) Providing Security of Land Tenure for the Urban Poor. The Experience of Brazil, *in* Durand-Lasserve, A. and L. Royston (eds) *Holding their Ground: Secure Land Tenure for the Urban in Developing Countries*, Earthscan Publications, London, pp. 101-126.
Fernandes E. (2006) Principles, Bases and Challenges of the National Programme to Support Sustainable Urban Land Regularization in Brazil, *in* Huchzermeyer M. and A. Karam (eds) *Informal settlements. A perpetual challenge?*, University of Cape Town Press, pp. 62-83
Field E. (2005) Property rights and investment in urban slums, *Journal of the European Economic Association*, *Papers and Proceedings*, April-May, 3, 2-3, p. 279-90.
Field E. (2003) Fertility Responses to Land Titling: The Roles of Ownership Security and the Distribution of Household Assets, *mimeo*.
Field E. (2006) Entitled to Work: Urban Property Rights and Labor Supply in Peru, *mimeo*.
Field E. and M. Kremer (2006) Impact Evaluation for Slum Upgrading Interventions, *Doing Impact Evaluation Series No.3*, World Bank Thematic Group on Poverty Analysis, Monitoring and Impact Evaluation.
Field E. and M. Torero (2006) Do Property Titles Increase Credit Access Among the Urban Poor? Evidence from a Nationwide Titling Program, *mimeo*.
FIG – International Federation of Surveyors (2004) Commission 7, Proceedings of an Expert Group Meeting on 'Secure land Tenure: New Legal Frameworks and Tools', Nairobi, November 11-12.
Fischer J. (1995) Local Land Tenure and Natural Resources Management Systems in Guinea. Research Findings and Policy Options. USAID-Guinea, Land Tenure Center, University of Wisconsin, Madison.

Friedman J., Jimenez E. and S. Mayo (1988) The Demand for Tenure Security in Developing Countries, *Journal of Development Economics*, 29, 2, 185-198.
Galal A. and O. Razzaz (2001) Reforming Land Market, *Policy Research Working Paper 2616*, the World Bank.
Galiani S. and E. Schargrodsky (2004) Effects of Land Titling on Child Health, *Economics and Human Biology*, 2, 353-72.
Galiani S. and E. Schargrodsky (2006) Property Rights for the Poor: Effects of Land Titling, *mimeo*.
Gilbert A. (2002) On the Mystery of Capital and the Myths of Hernando de Soto, *International Development Planning Review*, 24, 1, 1-19.
Gilbert A (2003) *Rental Housing An Essential Option for the Urban Poor in Developing Countries*, UN-Habitat, 273 p.
Gravois, J. (2005) The De Soto Delusion, *Slate*, January 9.
Haldrup K. (2003) From Elitist Standards to Basic Needs – Diversified Strategies to Land Registration Serving Poverty Alleviation Objectives, presented at the 2nd FIG Regional Conference, Marrakech, Morocco, December 2-5.
Ho M. and M. Spoor (2006) Whose Land? The Political Economy of Land Titling in Transitional Economies, *Land Use Policy*, 23, 4, 361-48.
Hoy M. and E. Jimenez (1991) Squatters' Rights and Urban Development: an Economic Perspective, *Economica*, 58, 229, 79-92.
Huchzermeyer, M. and A. Karam (Editors) *Informal settlements. A perpetual challenge?*, University of Cape Town Press.
Imparato I. and J. Ruster (2003) Participatory Urban Upgrading: a Road Map for Going to Scale. Lessons from Latin America, World Bank Private sector Development.
Jimenez E. (1984) Tenure Security and Urban Squatting, *Review of Economics and Statistics,* 66, 4, 556-67.
Jimenez E. (1985) Urban Squatting and Community Organization in Developing countries, *Journal of Public Economics*, 27, 69-92.
Jimenez E. (1982) The Value of Squatter Dwellings in Developing Countries, *Economic Development and Cultural Change*, 30, 4, 739-752.
Johnson T. (1987) Upward Filtering of Housing Stock. A study of Upward Filtering of Housing Stock as a Consequence of Informal Settlement Upgrading in Developing Countries, *Habitat International*, 11, 1, 173-190.
Quan (2006) Towards a Harmonised Set of Land Indicators: Preliminary Action Plan, paper commissioned by the World Bank in Consultation with the Millenium Challenge Corporation.
Kagawa A. and J. Turkstra (2002) The Process of Land Tenure Formalisation in Peru, *in* Payne G. (ed.) *Land Rights and Innovation: Improving tenure security for the urban poor*, ITDG Publications, London.
Kim A. (2004) A Market without the 'Right' Property Rights, *Economics of Transition*, 12, 2, 275-305.
Land Tenure Center (2002) Assessment of USAID investments in land markets and property rights: Synthesis based on USAID documentation, Land Tenure Center, University of Wisconsin, September
Lanjouw J. and P. Levy (2002) Untitled: A Study of Formal and Informal Property Rights in Urban Ecuador, *Economic Journal*, 112, 986-1019.
Leckie (2004) Framing the Discussion about Housing Rights, COHRE, Geneva, *mimeo*.
Lopez Moreno E. (2003) Slums in the World: the Face of Urban Poverty in the New Millennium, Monitoring the Millennium Development Goals, Target 11-World-wide Slum Dwellers Estimations, UN-Habitat, The Global Urban Observatory, 47 p.
Macours K., de Janvry A. and E. Sadoulet (2005), Insecurity of Property Rights and Matching in the Tenancy Market, *mimeo*.
Malpezzi S. and S. Mayo (1987) User Cost and Housing Tenure in Developing Countries, *Journal of Development Economics*, 197-220.
Magigi W. and B. Majani (2006) Community Involvement in Land Regularization for Informal Settlements in Tanzania: A Strategy for Enhancing Security of Tenure in Residential Neighborhoods, *Habitat International*, 30, 4, 1066-81.
Miguel E. and M. Kremer (2004) Worms: Indentifying Impacts on Education and Health in the Presence of Treatment Externalities, *Econometrica*, 72, 159-217.
Millennium Project, Task Force (2005) *Improving the Lives of Slum Dwellers. A home in the city. Achieving the Millennium Development Goals*, Earthscan: London.
Millennium Project, Task Force 8 (2003) *Securing Land Tenure and Land Issues. Interim Report*, chapter 3.
Mitchell T. (2006:98) The Properties of Markets: Informal Housing and Capitalism's Mystery, Working Paper No.2, Cultural, Political Economy Working Paper Series, Institute for Advanced Studies in Social and Management Sciences, Lancaster University, Lancaster. To be published as 'The Properties of Markets' *in* MacKenzie D., Muniesa F. and L. Siu (eds) *Do Economists Make Markets?*, Princeton University Press.

Panaritis E (2001) Do property rights matter? An urban case study from Peru, Global Outlook International Urban Research Monitor, Woodrow Wilson International Center for Scholars, April 2001.
Payne G. (ed.) (2002) *Land, Rights and Innovation. Improving Security of tenure for the Urban Poor*, ITDG Publishing.
Payne G., Durand-Lasserve A. and C. Rakodi (2007) Social and Economic Impacts of Land Titling Programmes in Urban and Peri-urban Areas: A Review of the Literature, paper presented at the World Bank Urban Research Symposium, Washington DC, May 14-16.
Payne G. (2002) RICS Paper on Land and Property Reform – the Debate, *mimeo*.
Payne G. (1997) *Urban land tenure and property rights in developing countries*, Intermediate Technology Publications / Overseas Development Administration (ODA) : London.
Rakodi C. and C. Leduka (2004) Informal Land Delivery Processes and Access to Land for the Poor: A Comparative Study of Six African Cities, Informal Land Delivery Processes in African Cities, *Policy Brief 6*, International Development Department, University of Birmingham,
Rakodi C. (ed.) (2006) State-Society Relations in Land Delivery Processes in African cities: an Editorial Introduction, *International Development Planning Review*, 28, 2.
Royston L. (2006) Barking Dogs and Building Bridges: A Contribution to Making Sense of Hernando de Soto's Ideas in the South African context, *in* Huchzermeyer M. and A. Karam (Eds) *Informal settlements. A perpetual challenge?,* University of Cape Town Press, pp. 165-179.
de Soto H (2000) *The Mystery of Capital. Why Capitalism Triumphs in the West and Fails Everywhere Else*, London: Black Swan Books.
Turnbull G. (2004) Squatting, Eviction and Development, Working paper No.04-07, Georgia State University, School of Policy Studies.
Turner J. (1967) Barriers and channels for housing development in modernising countries. *Journal of the American Institute of Planners*, vol. 33 (3), 1967.
United Nations - Habitat (2003) Handbook on Best Practices. Security of tenure and Access to Land. Implementation of the Habitat Agenda.
United Nations – Habitat (2003a). The Challenge of Slums/ Glogal Report on Human Settlements 2003. UN-Habitat, Earthscan, London.
United Nations- Habitat (2003b) . Expert Group Meeting on Urban Indicators. Secure Tenure, Slums and Global Sample of Cities, October 28-30, 2002, Revised Draft Report, 33 p.
United Nations- Habitat (1999) Implementing the Habitat Agenda: Adequate shelter for All. Global Campaign for Secure Tenure, UNCHS: Nairobi.
United Nations- Habitat (1999) The Habitat Agenda and Istanbul Declaration. Second United Nations Conference on Human Settlements, 191 p.
Varley A. (2002) Private or Public: Debating the Meaning of Tenure Legalization, *International Journal of Urban and Regional Research*, 26, 3, 449-61.
Wallace J. (2005) Using Remedies to Secure Access to Land – Regularising Occupation, paper presented at the Expert Group Meeting on Secure Land Tenure: 'New Legal Frameworks and Tools', UNESCAP, Bangkok, Thailand, December 8-9.
Wallace J. and I. Williamson (2006) Building Land Markets, *Land Use Policies*, 23, 123-35.
World Bank (2001) Land, Security, Property Rights and the Urban Poor: Twenty Five Years of World Bank Experience, World Bank Briefing Note 8.
World Bank (1993) Housing: Enabling Markets to Work, *World Bank Policy Paper*. Principal authors: Angel S. and S. Mayo.
Woodruff C. (2001) Review of de Soto's *The Mystery of Capital*, *Journal of Economic Literature*, 39, 1215-23.
Yahya S. (2002Community land trusts and other tenure innovations in Kenya, *in* Payne G. (ed.) *Land, Rights and Innovation. Improving Security of tenure for the Urban Poor*, ITDG Publishing, pp. 233-263.
Zevenbergen J. (1998) Is Title Registration Really the Panacea for Defective Land Administration in Developing Countries?, paper presented at the Cape Town Conference on Land Tenure Issues, University of Cape Town, January 27-29.

Appendix 1
An operational typology of tenure formalisation

We propose a simple seven-point typology to describe urban tenure formalisation projects and programmes.[38]

(i) Type of settlement / land development

- Informal / unauthorised commercial land subdivisions, including developments on non-recognised customary or communal land
- Squatter settlements (on public or private land)

(ii) Tenure and occupancy status of the areas or settlements concerned by tenure formalisation

- Primary tenure rights
- Land tenure
- Occupancy status of the dwelling unit

(iii) Contextual framework of tenure formalisation

- Political context
- Land law reform (implementation of new land code, land law, etc.)
- Land administration reform (property registration, setting up of a cadastre)
- Enforcement capacity (government, institutions, courts)
- Land titling project or programme
- Slum upgrading project
- Urban development project
- Urban renewal and real estate project

(iv) Eligibility criteria for tenure formalisation

- All occupants in a given city or settlement are eligible for tenure formalisation
- Eligibility for tenure formalisation depends on criteria such as the occupancy status of the dwelling unit (tenants may or may not be eligible), the length of residence, the household's needs as defined by the concerned community, or assessed by public authorities or other criteria (revenues, no other property, etc.)

(*v) Type of tenure formalisation*

- *De facto* tenure formalisation (i.e. households are protected against eviction, but are not delivered land rights).
- *De jure* formalisation: Real or personal land rights are delivered at the end of the tenure formalisation process.
  * Real rights
  * Personal rights various types of permit to occupy are usually conditional and revocable.

[38] Land and tenure issues in rural and urban areas may differ. Most titling programmes concern rural areas. Tenure formalisation in urban areas is frequently inspired by previous experiences of land titling in rural areas, or is seen as an extension of nationwide land titling programmes (LMAP). Tenure formalisation in urban areas is not simply an adaptation of tenure formalisation in rural areas. The function of land in urban areas has specific economic and social features: land as an asset, role of land in development strategies of the private sector, land as an inflation-proof area of investment for savings, land as a catchment area for idle funds, etc.

(vi) Registration of rights and titles

- Titles can be registered in the existing formal registration system (land book, land registry), or in an ad hoc registration system set up for the purpose of tenure formalisation, which can be compatible or not compatible.
- In some cases of tenure formalisation, rights are simply recorded but not registered
- Registration can be carried out at central or at local levels.

(vii) Practical implementation

- Scale of implementation: formalisation of land titles can be carried out in a single settlement (tenure upgrading and regularisation being a component of slum improvement projects), or it can be done in all informal settlements identified in a given city, or in urban areas, or at the national level.
- Length/duration of implementation: tenure formalisation can be implemented over a limited period of time with a wide range of sweeping formalisation (from amnesty-type tenure formalisation to systematic compulsory land registration and titling) or it can be implemented sporadically on a voluntary basis.
- Population consultation and participation may take place at various stages and levels of the tenure formalisation process.
- Sources of funding for tenure formalisation (international, national, local; private/public; subsidies / no subsidies, contribution from beneficiaries) and associated conditionality and constraints do impact on the implementation process.

Appendix 2
The diversity of tenure formalisation programmes and projects: some examples

1) **Dakar, Senegal**: **a city-wide slum-upgrading project promoting "incremental" *de jure* tenure formalisation** was launched in a pilot project (Dalifort area) in the late 1980s, and extended to the largest informal settlements of Pikine, in the north of Dakar, in the mid 1990s, under the "Programme de Restructuration de l'Habitat Spontané" (Spontaneous Settlements Upgrading Programme). Informal settlements designated for tenure formalisation were informal land development on customary land, and squatter settlements on public and private land. The concerned population were organised in "Groupements d'Intérêt Economique" (Interest Economic Groups), which worked in close cooperation with government institutions. Informal occupants are delivered "superficies rights", a kind of registered leasehold, at a price that is much below the market price of the land. However, complicated land registration procedures and resistance of administrative bodies involved in land management and administration severely hinder the tenure formalisation process: only 10% of the plots identified for tenure formalisation in 2000 had been regularised by 2006.

2) **Cotonou, Benin: a local land development and "incremental" formalisation project**. Most land development in urban and peri-urban areas in Benin is initiated by neo-customary owners (see section 4.1.3). Once customary land has been subdivided into individual plots and sold out. The sale is recorded and authenticated by local authorities. However, before the plot are developed, built and occupied, planning authorities carry out a land readjustment scheme based on a new layout plan, which conforms to planning and

development norms. Individual land owners are then re-allocated a plot smaller than those which originally purchased (and not necessarily located in the same part of the scheme). Although plot owners are only delivered a personal right (a permit to occupy) – not a real property right – they do enjoy a sound level of security (Precht 2003). Conversion of the permit to occupy into a real right is possible in principle, but it is still rare in practice, due to series of legal and administrative obstacles.

3) **Peru: a land titling programme in urban and peri-urban areas promoting *de jure* formalisation of squatter settlements within a short period of time**. Between 1996 and 2000, the Peruvian Government developed an important tenure regularisation programme. It aimed to regularise tenure in informal settlements on the outskirts of Lima and other Peruvian cities. From 1996 onwards, the Commission for the Formalisation of Informal Properties (Comisión de Formalización de la Propiedad Informal - COFOPRI) granted freehold titles to almost 1.5 million households (Brown *et al*., 2006, Calderón Cockburn, 2004). Squatter settlements on public land suitable for urbanisation were immediately eligible for titling. On private lands, COFOPRI attempted to mediate an agreement between the landowner and the squatters. Those squatters who had occupied the private property for more than ten years with no interference were granted ownership of the land by adverse possession[39].

4) **Mexico: a city-wide titling project and land administration reform promoting *de jure* formalisation within a short period of time**. The Commission for the Regularization of Land Tenure (Comisión para la Regularización de la Tenencia de la Tierra - CORETT), a large-scale, nationwide programme providing titles to irregular settlements in Mexico, was created in 1974. In the 30 years that CORETT has operated, it gave out 2.5 million titles nationwide. After 1989, tenure regularisation of irregular land development on communal lands (*ejidos*) accelerated in Mexico Federal district. *Ejido* land was expropriated by the government with compensation to the *ejido* owners who developed it informally, and sold it back to the occupants. Although they were not required to regularize their plots, CORETT actively markets titles to residents in expropriated *ejidos*, and most settlers eventually obtain titles.

5) **Brazil: beyond the legal approach of tenure regularisation**

In Brazil, it is estimated that more than 50% of the people living in urban areas accessed to land and housing through informal processes. Since the 1980s, a few municipalities have confronted the problem of informal and tenure insecurity in informal settlements, mainly squatter settlements (*favelas*) and irregular land subdivisions (*loteamentos*).–Until 2002, there were some federal programmes directly or indirectly addressing informal settlements. The new approach to tenure formalisation coordinated by the Ministry of Cities put emphasis on the sustainability of urban land regularisation, considered as a broad process, which cannot or should not be reduced solely to its legal dimension. At the national level, the tenure regularisation policy is mainly based on: (i) the recognition of the social right to housing and security of tenure as fundamental human rights, in accordance with the 1988 Federal Constitution and the terms of the UN-Habitat Global Campaign for Secure Tenure; (ii) access to urban land as realisation of the constitutional principle of the socio-environmental function of property (whether private or public) and of the city; the supremacy of Public Law over Private Law in the regulation of the urban order and in the

[39] Adverse possession refers to the acquisition of property rights through occupation of the land without any opposition, for a period prescribed by law. Adverse possession applies to both private and public properties.

interpretation and application of the 2001 City Statute; (iv) the need to reconcile urban and environmental regularisation with legal regularisation (Fernandes, 2006).
Land regularisation programmes combine upgrading and legalisation with inclusive urban planning policies and democratic urban management strategies. Fernandes summarises the present Brazilian government tenure formalisation policy in the following terms: (i) instead of dealing merely with technical/technocratic notions of discretionary action, it deals with the notion of rights people~~,~~ have, even against the will of the public authorities; (ii) instead of dealing only with freehold, it deals with a range of legal possibilities; (iii) instead of dealing only with individual rights, it also deals with collective rights; (iv) instead of dealing only with land titling, it deals with a broader, more sustainable approach to regularisation.

6) **Thailand**. Until 2003, government responses to the housing problems faced by lower-income groups had not been on a sufficient scale. There were some 5,500 low-income urban communities, with 8.25 million inhabitants living in poor quality and often insecure housing. 30 % of the people were squatters and 70 % rented the land on which they lived but had no secure long-term contracts. The Baan Mankong project is a **nation-wide slum-upgrading of squatter settlements promoting *de jure* collective titles**. In 2003-2004, tenure regularisation benefited about 17,000 households in nearly 200 urban communities. In the next five years at least half the urban poor communities in Thailand are expected to benefit from the programme (300,000 households in 200 urban areas). It is subsidised by the Thai Government and coordinated by the Community Organizations Development Institute (CODI). Secure tenure is negotiated locally, through a variety of means such as cooperative land purchase, long-term lease contracts, user rights, land sharing, etc. In all cases, the emphasis is on communal / collective (rather than individual) tenure.

7) **Bhopal, Madhya Pradesh**: **incremental tenure upgrading of squatter settlements on public land**. Slums on public land are considered for grant of non-transferable leasehold rights under the Madhya Pradesh Act for Landless Persons (Granting of Leasehold Rights) in Urban Areas, 1984, popularly known as the "Patta Act". According to the Act any "landless" person occupying up to 50 sq. m. of land for residential use on a specified cut-off date is eligible for a leasehold. The Act supersedes all other acts and regulations, including the city's Development Plan. The ***de facto* or *de jure* formalisation** depends on the development suitability of the land. Squatters can be allocated a 30-year lease. However, those settlements which are located in areas unsuitable for urbanisation are granted annual leases, renewable till resettlement. Squatter settlements on private land cannot benefit from tenure regularisation under the Patta Act.

Appendix 3
Addressing selection bias in impact evaluations of land tenure formalisation

A simple analytical framework

Consider a given population under a tenure formalisation programme and denote *F* a dummy variable equal to *1* if the household is granted a property right and *0* otherwise. In other terms, all households for whom *F=1* are granted a property right under the programme while all

households for whom $F=0$ are not. If Y is the outcome of interest, it is convenient to denote Y_1 the outcome when households are granted a property right and Y_0 when they are not. For instance, Y_1 and Y_0 can be the respective number of hours worked in the week previous to the survey date for households that are granted a property right and for those who are not. X is a set of household characteristics. With these notations, the average number of hours worked in the group of beneficiary households is given by the expectation of Y_1 conditionally on being formalised ($F=1$) and on having the same characteristics ($X=x$). It writes:

$$E(Y_1|F=1,X=x)$$

The *counterfactual*, i.e. the average number of hours worked for the *same* group in the hypothetical situation in which they would not be granted a property title, would write:

$$E(Y_0|F=1,X=x)$$

By definition, the average effect of the formalisation programme is the difference in expectations for the *same* households ($F=1$) when they are granted a property right (in this case their outcome is measured by Y_1) and when they are not (in this case their outcome is measured by Y_0):

$$E(Y_1|F=1,X=x) - E(Y_0|F=1,X=x) \quad (1)$$

(1) is the impact of the "treatment on the treated" that we would like to measure. However, the only observable measure is the comparison *across* groups, i.e. between beneficiaries and non-beneficiaries with similar observed characteristics ($X=x$). It writes:

$$E(Y_1|F=1,X=x) - E(Y_0|F=0,X=x) \quad (2)$$

By equating (1) and (2), it is easy to see that comparing beneficiaries and non-beneficiaries in a formalisation program (i.e. computing (2)) would yield a correct estimate of the true programme's impact (1) only under the assumption that *in the absence of the programme (i.e when the outcome is measured by Y_0), the average outcome in the two groups would not differ:*

$$E(Y_0|F=1,X=x) = E(Y_0|F=0,X=x) \quad (H1)$$

Assuming (H1) is equivalent to assuming that beneficiaries and non-beneficiaries are *comparable* to the extent that they do not differ in their *unobserved* characteristics.

A parametric way of estimating the effect of treatment on the treated is to assume that the conditional expectation of Y is linear in X, thus writing

$$Y_i = \alpha_0 + \alpha_1 X_i + \beta F_i + \varepsilon_i \quad (3)$$
$$\text{with } E(\varepsilon_i \mid X_i,F_i) = 0 \quad (3')$$

where i is an index for individual or household observations (Y_i is then simply Y_{1i} if $F_i=1$ and Y_{0i} if $F_i=0$) and ε_i is the residual. (3') states that there is no selection into the treatment as in the case under (H1).

The selection bias

If assumption (H1) is not satisfied then the impact evaluation will suffer from a selection bias. In this context, computing differences in average outcomes between beneficiaries and non-beneficiaries as in (2) will provide a biased estimation of the true programme effect (1). As already mentioned, if the households who are more likely to have a successful economic outcome (for unobservable reasons) are also more likely to belong to the group of beneficiaries, then comparing beneficiaries and non-beneficiaries will overestimate the impact of the programme. Of course, this selection problem remains when working on individual data. This can be seen by inspection of (3) where F_i and ε_i will be correlated. Because of this endogeneity problem, β will not measure the causal impact of F_i on Y_i. To sum up, either computing a difference in average outcomes across beneficiaries and non-beneficiaries or estimating a regression on individual data, one might wrongly conclude that formalisation has an impact whereas the result could be driven by a selection bias.

Differences in differences

A difference in difference approach simply consists in comparing changes in the outcome of interest *after* and *before* the implementation of the project between the group of households who were granted property rights and the group of households who were not. Formally, the DID estimator writes:

$$[E(Y_1|F=1,X=x,t=1) - E(Y_0|F=1,X=x,t=0)] - [E(Y_0|F=0,X=x,t=1) - E(Y_0|F=0,X=x,t=0)] \quad (4)$$

where t is time and there are two periods ($t=0$ is before the formalisation, and $t=1$ is after the formalisation).

It is easy to see that the identifying assumption needed to avoid the selection bias under DID now writes:[40]

$$[E(Y_0|F=1,X=x,t=1) - E(Y_0|F=1,X=x,t=0)] = [E(Y_0|F=0,X=x,t=1) - E(Y_0|F=0,X=x,t=0)] \quad \text{(H2)}$$

(H2) only assumes that the two groups would have experienced the same change in outcomes in the absence of the programme. This allows for beneficiaries and non-beneficiaries to have *different unobserved characteristics* as long as these are *similarly affected by time trends*.

[40] (H2) is obtained by equating (4) and true programme effect $[E(Y_1|F=1,X=x,t=1) - E(Y_0|F=1,X=x,t=0)] - [E(Y_0|F=1,X=x,t=1) - E(Y_0|F=1,X=x,t=0)]$.

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