

Local financing and land-real estate capital:

What options and conditions for implementation?

“Land valuation” component part of the general study, conducted by
UCLG / Committee on Local Finance for Development on the

**“Conditions for the mobilization of local resources
for a sustainable urban development”**

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LOCAL FINANCING AND LAND-REAL ESTATE CAPITAL:

What options and conditions for implementation?

Land valuation¹ plays a crucial role in the financing of urban infrastructure for a long time. Cities such as New-York, London or Paris, and more recently Chinese cities, have made it a major component of infrastructure funding. By generating immediate substantial revenue enabling to reduce dependency upon debt, land-based finance seems to be more appropriate in cities undergoing particularly rapid urban growth.

In Europe, North-America and Latin-America, close to 80% of the population currently lives in urban areas. This share only reaches 40% in Asia and Africa, but the two continents are catching up quickly, with unprecedented growth rate unseen in western countries.

The urban challenges cities from these continents are facing are gigantic: the share of the African population living in urban areas is expected to double over the next 20 years². A city like Dakar is growing with 100 000 new inhabitants every year. This very rapid urban growth implies corresponding needs in public utilities that by far exceed the capabilities of the central and local budgets of the countries concerned. The various studies that have been conducted show that on average, the amounts of investments dedicated to urban infrastructure should be doubled.

To be able to address these challenges, present and future, developing countries are strongly encouraged to consider land-based finance as a potential source of resources. This financing mechanism will not be sufficient to fill the gap between the needs and the amounts dedicated to investments; but if considered as one of the components within a wide array of other financial instruments, it can improve the city’s capacity to finance itself directly. Even though the saying “the water pays for the water” has never been verified, under certain conditions, the “city must be able to better finance the city”, building endogenous financing against land and property income, as well as the productive urban economy. The history of urban development demonstrates it.

Land value-capture by public authorities, a just and necessary principle?

If land value capture seems totally justified when generated through public investments, it also appears to be economically essential in order to finance future investments.

¹ Land valuation is the process of increasing the value of property. It can be active, from an initiative of the landowner (investment), or passive, from external transformations that benefit the landowner. The value is considered in this report as the exchange value, i.e. the price of the asset. The outcome of the valuation, meaning the difference between the initial price and the final price, is designed here as “added-value”.

² UN Habitat 2008 : In 2010, the African urban population was reckoned to be 270 million inhabitants, and it is expected to reach 754 million inhabitants by 2030.

When it is not linked to actions carried out directly by private owners, land value capture by public authorities may represent a fair and rational mechanism for the mobilization of resources for urban development:

- When land value gains are generated by **public investment** (highways, transportation, networks, equipment, etc.) that increase the value of nearby land, it seems logical that at least a portion of this gain would be used to finance investments in the area they came from;
- When land value gains come from a **change in urban regulations** (shift from rural plot to building urban land, change of uses or authorized densities, etc.), it is not only sensible that these gains fund at least the public investments necessary to accompany the realization of these normative changes, but also that all gains be captured by the public authorities, who are responsible for its creation;
- Even when land value gains come from a **positive economic development of the concerned territory**, and therefore from the collective effort of its inhabitants and local stakeholders, it is logical for the municipality to benefit from it (either through local governments directly or through other mechanisms).

Yet the lack of regulating mechanisms and public strategy frequently causes not only total capture of this gain by the private sector, but also drive for maximization of land rent by speculative behavior, which may have a negative impact on the economic and urban development of the territory, through a shortfall of available land.

I. Key issue, methodology and scope of the study

1.1. General framework of the study

This report is part of a global study conducted by the Committee on Local Finance for Development of United Cities and Local Governments on the main financing sources of local governments.

In this view, this note will highlight the types of resources based on land and real-estate available at the local level, as well as the mechanisms through which they can be mobilized, by paying particular attention to the conditions that determine and motivates this mobilization: what are the implementation processes, and conducted by whom?

How to mobilize local resources for local urban development? What are the structural triggering factors that allow for this mobilization? To what extent does the subsidiarity principle motivate this decision and, to a greater extent, do decentralization and local project ownership enhance the political leadership and capacity to mobilize local resources?

This analysis will rely first on the existing literature, consisting mainly in landmark and well-documented case studies, while researching within the implementation process some regularities or recurrences that could bring out explanatory or even divisive elements. This first step will allow us to draw a reading template built up against assumptions that will be verified and put into practice later on, in the second phase of the study (“case studies”).

This method excludes at once any statistical temptation that would claim to be representative. The study wishes to go beyond the stringent description of “success stories” or “best practices” followed by strictly technical recommendations. Instead, the analysis will focus on the economic and political **dynamic of seizing, choosing and operationalizing local financing instruments**, highlighting the importance of social acceptance. This should enable us to explain, by looking at the challenges that have been encountered and the evolutions and adaptation process that followed, the emergence, in a given context, of a specific tool instead of another.

1.2. Perimeter of the component on land and real estate added value

This study specifically looks at the terms of the capture by public authorities / local governments of part of the land rent³ and taxes that backs onto land and real estate⁴.

It explores the contrasting situations and conditions for the use of this potentially considerable resource, in the context of countries at various levels of development. The reality is very scalable, from a gradual uptake of this urban land rent in some Asian and Latin American countries to an often almost complete absence of neither national nor territorial grabbing in the least developed countries (which does not exclude, on these territories, some forms of political land regulation⁵).

The scope of the study will be limited to the financing of local facilities, thus excluding national large-scale facilities, which are more often funded by central government resources.

However, the occasional privileged link between specific financing tools with some types of expenditures is not absolute. Indeed, mobilized local resources are not always earmarked to specific investments. These may also contribute to cover maintenance, renewal, management, and sometimes operating costs of local amenities and even of local or central governments administrations.

Finally, the fact that resources are based on the territory does not imply that the contracting owner who will mobilize and/or use them is a local entity. In a number of largely-centralized countries (in law or in fact), land value capture mechanisms are used

³ Revenue from land property (built or not).

⁴ The issue of local taxation, excluding land and real estate taxation (but including intergovernmental transfers-national taxation), is examined in another complimentary study, following a similar methodology. These two components form endogenous resources as a whole.

⁵ In the broader sense, i.e. resulting from relationships between key economic and political actors belonging to the public and private spheres, at least partially driven by their own interests.

by national bodies to finance local urban investments⁶. There are various and often plural reasons to this: from the willingness to maintain national-level control over infrastructures considered to be politically, economically or socially strategic, to power games between institutions, weakness or absence of local levels, etc. Therefore, we introduce the concept of scale of action to the debate, without neglecting national-level analysis, so as not to exclude many examples from the study scope. It is therefore **where the resources originate from** (local land value capture), and not their allocation nor their mobilization by the contributing institutions, which will determine the scope of analysis.

II. Creation of urban land and property values

The analysis of land and property value capture mechanisms⁷ first requires a quick reflection on the matter of creating this value and its driving factors.

The value of urban land is the complex outcome of the combination between property rights, which are very different from one country to another, the rights attached to a particular plot, building rights and economic mechanisms. It is appropriate here to emphasize the weight of the historical and cultural tradition on property rights, particularly regarding the notion of general interest to which it refers, linked with the prerogatives of private law. Several countries in Latin America, such as Colombia or Uruguay for example, often refer to the “social function of property” to legitimize financial or fiscal measures (expropriation, taxation of the under-use of land, etc.), based on the fact that private property is not an universal or exclusive right.

A very diverse reality

The urban conurbation process has revealed that cities historically benefitted from a mechanism previously highlighted by classical economists (Ricardo): the increase in land rent (income from land ownership). The contemporary dynamic of urbanization has upgraded this capability to create wealth by rising land values in urban areas (without the concerned landowners to make any productive investments) directly at the local level. Some countries have taken hold of this virtue to complement their range of financing tools and to raise additional public funding for urbanization.

⁶ Morocco (with the public developer Al Omrane for example), Egypt (through the New Urban Communities Authority - NUCA responsible for the development of new towns around Cairo), Hong Kong (specific case of a City - State), other City-States such as Singapore.

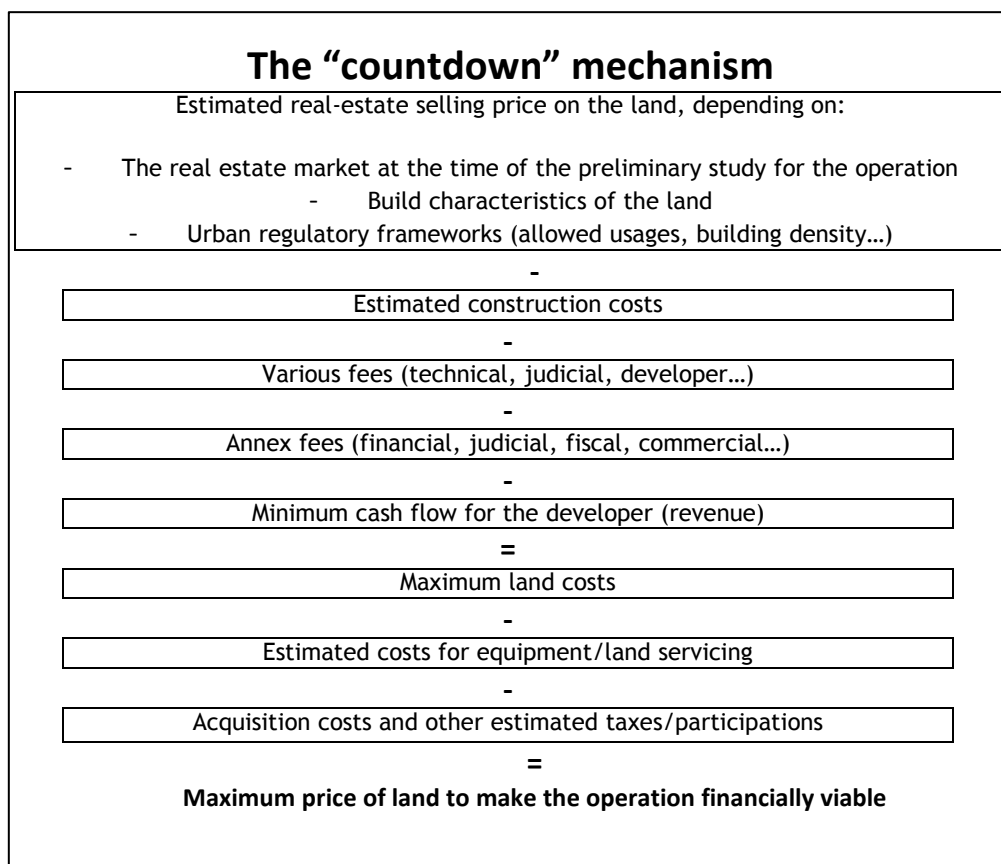
⁷ Value here refers to the exchange value of the asset, i.e. its price.

However, we must note that land and real estate markets are becoming increasingly cyclical and contrasted, and in some cases, devaluation mechanisms have been emerging (“shrinking cities”, sub-prime crisis, etc.).

Land valuation is influenced by many factors. This mechanism is closely linked to price variations on the housing markets, related themselves to changes in demand and other factors detailed *infra*. But it is also determined by public action, through public investment and planning regulations (building rights, securing of the land), as well as by economic and financial contexts.

2.1. Land value development is closely linked to real estate price evolution

For land developers, the price of the land corresponds, in practice, to the balance of a real estate transaction, once all the costs (excluding land) are deducted from the estimated selling price for the real estate at time “T”: this calculation method is called “countdown to development and real estate”⁸



⁸ In French: <http://www.cerfra.org/docs/69-1-fiche-enjeux-2-compte-a-rebours-vf-pdf.pdf>

In the medium term, shift in housing prices therefore have an impact on prices of the land with a multiplier effect related to the fact that the plot represents only a portion of the total costs of an operation:

1. Construction costs, in the short term, are influenced by fluctuations in the demand for housing which, except in monopolistic situations, causes for companies a variation of the costs of materials;
2. The financial costs⁹ (for the developer and the purchaser) are closely related to the situation of the local and global financial system. Their evolution is a cause of change in the price of the real estate more than a consequence (at purchasing power parity, the real estate will be more expensive if it can be financed better or more easily¹⁰);
3. The real estate developer margin may vary significantly in the short term, but ultimately in a competitive market, because of competition between developers, the real estate valuation is reflected in the price of the land. However, we can note that priority access to the land resource (by non-competitive or preferential links with the public or private land holders, or by the preliminary constitution of land reserves) may allow developers to incorporate all or part of the land rent and its development in their margin.

In urban areas, evolution of land prices is therefore a result of property price evolution, which itself falls under the value in use¹¹ for its users. The economic and demographic dynamic of the land is a major determinant of this use value, to the extent where urban growth results in an increase of various property needs (housing, shops, offices, industry in certain cases, etc.), therefore demand for land. In parallel, this growth usually causes an enrichment of these same users, which reinforces their creditworthiness¹².

2.2. Public action also has an impact on the use value and the price of land

Two factors more directly related to public action, public investment and town planning regulations, can help increase the use value and price of land.

⁹ Availability and terms of borrowing: interest rates, duration, borrowing/own funds ratio, guarantees requested, etc.

¹⁰ For example, if a household can put aside a certain amount of money per month for their housing (effort rate), the fact that they benefit from lower interest rates (or a longer repayment period) allows them to borrow more for the same amount of monthly repayment, therefore to pay more for the same good. This mechanism has been one of the residential property price motors in France since 2000.

¹¹ The value in use is the value attached to the use of a good, to its consumption

¹² However, we note that this factor is not an absolute prerequisite: even on a generally stagnating territory, some sub-geographic areas can be dynamic, under-used because of the limited, immediately-available land, and be the subject of a repressed real estate demand.

Related investment (often public, but also private) in infrastructure and community facilities allows the land directly or indirectly concerned to increase the use value of the real estate that it has built or that can be build. Conventionally, road accessibility, connections to water, sanitation, energy or telephony are very important, but access to public transport or public amenities (green spaces, health, education, public services, etc.) can also have a significant impact. One of the challenges for government stakeholders is to anticipate the problems of urban sprawl and the progress of urbanization, **hence the importance of urban planning as an important prerequisite of any land development operation organized by the public sphere.** In contrast, spontaneous and non-scheduled developments condemn decision makers to catch-up policies, considered to be more costly and less effective¹³, but which still constitute a generally widespread practice.

Land value is also potentially determined by the nature of the authorized constructions. Changes in urban regulations therefore have a direct influence on the price of land. The most lucrative development is converting unusable land into buildable land (due to being agricultural land, environmental preservation, etc.). Depending on the areas of application, increase of constructability, change of use (from industrial or residential to mixed for example), the flexibility of plot consolidation mechanisms and other regulatory changes, can also have an important impact on the price of land.

A few examples of land valuation

1. Martim Smolka (2013) shows the impact of public investment in Rio de Janeiro on the price of the land, in the following way:

Increase in the price of the land (USD/m²) because of access to urban infrastructure according to its location, in the Brazilian municipalities (2001)

Basic service	Distance from the Central Business District		
	5 to 10 km	10 to 20 km	25 to 30 km
Water	11.10 USD	5.10 USD	3.20 USD
Highways	9.10 USD	4.80 USD	3.40 USD
Sanitation	8.50 USD	1.80 USD	0.30 USD

Source: Smolka 2013

Land valuation therefore depends on its positioning within the local land and real estate market. Smolka also cites a 2011 study which shows that in the area west of Rio de Janeiro (Brazil), the price of land increased from 34 USD/m² to 145 USD/m² when it is serviced.

2. Regarding the impact of urban regulations, from several Latin American case studies, Smolka concludes with multiplier ratios of land price of 5 for the conversion of rural land into urban land (for example 1 m² rural worth 2 USD, and 10 USD after conversion), 1.8 for a change of constructability review (increase of COS especially) and 2 for a change of use.

¹³ However, anticipation may also lead to the waste of public funds by sterile investments (for example, new cities or industrial areas unused or permanently under used)

3. Wardrip (2011) analyzes several studies on price fluctuations of residential real estate related to the implementation of urban public rail transport in the United States, and concludes with an almost always positive variation, but in very variable proportions (from less than 5% to more than 30%). Many factors have an impact on these figures: comparison period, type of housing, socio-economic level of the population, type of collective transport facilities and configuration of the development of its implementation, associated problems, public policies on public transportation, etc. The impact of the installation of parks and green spaces is even more difficult to assess, and even if it is generally positive on the value of property in the vicinity, it depends on many factors (green space frequented or not, beneficiaries, maintenance, etc.).

We can see here that some countries, particularly in northern Europe, make some adjustments to the land taxation system, according to the legal framework for allocated building rights¹⁴, whether they are used or not. This refers to the “single tax” principle, initiated by Henry George in his book "progress and poverty" (see box in part 4).

Land tax in Denmark¹⁵

Land and real estate tax in Denmark, intended for local communities, supported since 1926 on a taxation based on the value of the property excluding construction, according to its “best economic use” from its regulatory potential (constructability review, authorized uses, etc.) and physical potential (servicing, access to urban services, etc.), regardless of its actual use.

This value (capped since 2002) is re-evaluated every two years by specific committees appointed and paid by the State, from the transactions carried out on not actually constructed land. Owners may challenge this assessment from these committees and then two successive appeal bodies. Approximately 0.03% of owners take it to the last instance (1.5% contest in first instance).

This tax, by far the most important, is supplemented by two taxes based on the build value: the service tax for administrations and businesses (intended to compensate for the costs resulting from their activities for the local community, and based on construction value excluding land), and the property value tax for owner-occupiers and secondary residences (based on an "equivalent rent" which is based on the overall value of the property (land + real estate)).

Tenure security (legal security of occupation) also constitutes another key determinant of the land value linked to public action. The securing of real estate investments carried out on land is particularly acute in developing countries. The customary regimes in Africa, but also more generally the development of informal settlements, and the freedoms sometimes taken by the authorities with urban or land regulations in the allocation of land rights, structure a range of tenure statutes specific to each country. Durand - Lasserre et. al. (2015) illustrate this range through the example of Bamako in Mali, regarded as

¹⁴ Meaning that the law allows for the building on a given land (use of developed land, number of square meters, ...). In some countries, in particular in Latin America, these rights are not necessarily attached to a specific land (disassociation between land ownership and associated rights), which enables public authorities to create additional rights to be transferred and sold. That's what is called « created land » (solo criado) in Brazil. In China or Vietnam, construction rights only can be sold, as land is strictly owned by the State.

¹⁵ Source: Muller, 2005

representative of the situations encountered in west Africa, and even in sub-Saharan Africa as a whole.

Urban land statutes in Bamako

Durand Lasserre et. al. (2015) show that on a sample of more than 1000 transactions concerning residential lots carried out between 2009 and 2012 in the “Grand Bamako”, less than 6% were on a land title, less than 16% on a precarious occupation title, and 16% had no title. The most widespread “title” (62.5%) was an administrative document of theoretically non-transferable conditional allotment (but serving as a fact of "title of ownership" in the majority of transactions).

The change from one status to another requires payment of various fees and obtaining administrative documents from the authorities. Even if it can be contested (circulation of false titles), a land title in good and due form allows the multiplication of the land value by a factor of 3 to 6, in relation to an authenticated certificate of sale of a customary plot. And this in the context of continuous land valuation: the value of land with land titles has increased on average by 20% per year between 2009 and 2012, for an annual inflation rate of 3.2% on average over the period. This added value is in fact largely received by administration agents, intermediaries and investors benefiting from political connections.

2.3. Land valuation is also influenced by the economic and financial context in which it is achieved

In addition to the factors explained above, the price of land and real estate is strongly influenced by the heritage value that it is given and by its potential evolution (performance / risk) in a more global context (investment alternatives) of the strategic behavior of actors:

1. Expectation of a continuous and unlimited increase in the real estate over time will result in a decrease of the perception of risk. Purchasers will be willing, if they can make important sacrifices elsewhere, to pay more for a property regardless of its use value and the associated revenue (rental income). This situation may lead to a price increase according to a self-fulfilling prophecy mechanism, up to a certain point (crack real estate);
2. In addition, the over-representation of real estate investment in asset portfolios may be strongly induced locally by the absence, insecurity or very low competitiveness of alternative assets. It is often the case in emerging countries, where only gold is a competitor to real estate, due to underdeveloped financial and stock markets. On the other hand, this point is strongly influenced by the often relative transparency of financial markets.

2.4. Land retention policies can have multiple motivations and a direct effect on land price variation

The available land offer can be restricted by land retention by the owners, governments (archetypal case of Hong Kong, or the sino-british joint declaration of 1984 restricting the sale of use rights of public or private land to a maximum of 50 ha/year) and/or by limitations on their use. Ultimately this shortage will only meet part of the solvent demand in real estate products, thus exerting a strong pressure on prices:

1. Land retention generally depends on price development outlooks expected by the owners (speculative retention), sometimes linked to evolution expectations of the legislation (less heavy taxation during land transactions, evolution of constructive

potential, etc.). An organized shortage which allows active influencing of prices is all the more easy to structure when there are few owners.

2. Normative restrictions on construction in general can have the same type of effect, often with other concerns (environmental or heritage preservation, etc.). However, these normative restrictions are only in countries where they are respected on the whole. In many developing countries, the majority of construction is carried out without a permit or compliance with the rules in force. Public authorities can even participate in the circumvention of these rules¹⁶.
3. It should be emphasized here that the weakness of annual land taxation often contributes to this land retention, which then represents an economically rational behavior insofar as the valuation is general in the long term, while annual taxation is low or non-existent.

In conclusion, the creation of land and real estate value¹⁷ has of course firstly benefited the owners of inherited land and significant real estate, but it also benefits homeowners as a whole that are generally ardent supporters of the most lucrative real estate market possible, especially in the case when they must pay back a loan. These small owners often represent an important part, or even the majority, of all homeowners.

From their perspective, public authorities also benefit from a dynamic and bullish housing market, either via land and real-estate value capture mechanisms, taxation of wealth or land/real estate transactions (transfer costs).

III. What tools are used to capture land value gains? Can we make a typology?

The definition of tools used to capture land value gains varies according to the authors, along with their angle of approach to the subject, and their classification into broad categories is also variable:

1. The tools can be classified between “taxes and fees” on the one hand, and “instruments based on development” (spatial planning - real estate development, including

¹⁶ Durand-Lasserve et. al. (2015) explain that in Bamako, the municipality divides State land into plots and sells them, which it has no right to do, and regularly cedes land in contradiction with the development plan or in the absence of this, even though this process is prohibited.

¹⁷ When the land is developed and built, the land added-value (related to the land, its characteristics and its geographical location) is incorporated into the real-estate value as a whole (land + built development).

redevelopment) on the other hand (Suzuki et. al., 2015). However this distinction is not totally satisfactory, some taxation tools such as the “Tax Increment Financing” (TIF)¹⁸ are aimed for redevelopment of urban areas, while “development / impact fees”(planning taxes) remain outside the category;

2. Some authors only focus on fiscal instruments and distinguish between taxes and tools with one-time income of those with recurring income (Walters, 2012; Salon and Shewmake, undated). But improvement taxes for example, which usually spread out over several years, could appear in the two categories. Other instruments (such as the exploitation of public land) can generate one-time or recurring income depending on how they are used (land sales or equity investment in the operation after development);
3. Finally, other authors propose their own classification. Peterson (2009) excludes some major tools from his perimeter, such as land tax or some methods such as the generation of recurring revenues from public land. He identifies six instruments, some of which could be considered as variants of the same instrument. It is a question of:
 - a. The strategic management of public heritage land¹⁹,
 - b. The sale of public lands in exchange for infrastructure,
 - c. The sale of public lands to fund specific projects related to these transactions,
 - d. The sale of building rights²⁰,
 - e. Development fees²¹,
 - f. Improvement taxes²².
4. Regarding Latin America, Smolka (2013), who concentrated his comments on Latin America, structures the tools into three categories: taxes and charges, development fees (exactions / development rights which he likened to the sale of building rights outside of urban operation), and the tools related to major redevelopment projects.

These few examples show the difficulty, or even impossibility, of organizing the entire toolset of capturing land value according to the clear categories which did not require exceptions or tools that can be classified into several of them. The flexibility of using the tools, which is one of their major characteristics and one of their main benefits, drastically limits the classification possibilities.

By drawing inspiration from these various classification attempts, we will try to propose the most exhaustive list of possible usable tools, describing the methods and variations in

¹⁸ Cf. tools table

¹⁹ That is not regarded by Walters as a tool for land value capture

²⁰ See definition *supra*

²¹ Or development fees, see definition *infra*

²² See definition *infra*

their implementation and their characteristics (detailed in the database accessible at www.uclg-local-finance.org or through the direct links provided in the text). In a required arbitrary way, we define the perimeter of each tool (which could often be split or grouped according to the angle of analysis), and organize them according to two broad categories: funding withdrawn from the new city production (extension or redevelopment), and funding linked to the existing city. This division is based on the object on which the withdrawal is carried out:

- In the first category is the new or future real estate and the payment is linked to the act or construction potential;
- In the second category, the payment is made on the basis of the existing real estate, already built.

[3.1. Tools that apply to the production of new or future real estate \(urban expansion or redevelopment\)](#)

3.1.1 Sale of public lands²³

Sale of land by the State is an extremely widespread practice, which can also be used by local communities if the national legislative framework allows. It allows the capture of a large part of the land value linked to urban development to finance actions of public interest (facilities, social housing, etc.), by reselling or renting a part to private actors thereafter.

It is therefore about using the heritage land and public real estate (existing or built for this purpose) as a tool to finance and implement public policies, through the sale of unused land and public buildings (which often constitute a cost for the community). Real estate rental after construction may constitute a variant for generating recurring revenue (Hong Kong, Jordan). The potential value of the sale of land may also allow for the anticipation of income, using the land as collateral for borrowing (in China, for example).

The land can be sold prior to its development, once serviced, constructed, or maintained in public heritage and leased in the form of a real estate product. The risk, cost and potential for capture of more land value increases with the degree of involvement of the community. It is therefore essential for the community to have know-how in public land management, real estate (rental) and urban planning. A good definition of the future use of the land is particularly essential to avoid costly and sterile financial holdings. A serious anticipation of the state of the market at the time of resale is also essential to contain the commercial risk. This expertise can be usefully pooled through a specialized public entity grouping other communities and/or the State, and capitalized within specific operational developer structures.

²³ Main sources: 2013 Leveraging Land to Enable Urban Transformation

Planning that gears land valuation towards the strategic territories controlled by the community, and a certain flexibility in the parameters of local development (uses, densities, etc.) allows for optimization of the land valuation. In the case of acquisition or use of public lands that already have a use, a clear and consensual owners / initial users compensation process, allows costly political and financial conflicts to be avoided. In the same way, all institutions involved in the valuation process should find their interest to avoid institutional locks.

Examples of implementation

France: New towns and Concerted Development Zones (Zone d'Aménagement Concertées, ZAC), which can be conducted by Public Development Institutions (Etablissements publics d'Aménagement, EPA, State), of Public Local Planning Companies (Sociétés Publiques Locales d'Aménagement, SPLA, from local communities), Mixed-Economy Companies (Sociétés d'Economie Mixte, SEM) or private concessionaires. Optimization and rationalization of State land taken on by France Domaine. State or Local Public Land Agencies (these have a specific taxation), AFTRP.

In **Sao Paulo (Brazil)**, the public company in charge of the subway, for a fixed duration, leases land around new stations for the construction and operation of shopping malls, private stakeholders contribute to the financing of the station financially or in the form of work.

In **Colombia**, operations carried out by the public company Metrovivienda in Bogota: controlled by Bogota Town Hall, this company buys land on the outskirts of the city to promote the private development of popular housing. It has good quantitative results and financial balance. Criticisms of Metrovivienda: the mechanism reaches the working classes but not the poorest people, the housing programs are often sold and developed before the commercial programs, where there is a deficiency of services (at least at the beginning), and there is no intervention from the city center.

See also: **United States:** Land banks, **Cairo, Egypt:** New cities, **Mumbai, India:** Banda Kurla, **Istanbul, Turkey:** sale of land in the city center, **Cape Town, South Africa:** sale of Albert and Victoria Waterfront, **Hyderabad, India:** concession of the subway, **Bangalore, India:** concession of the airport.

The sale of public land in Sub-Saharan Africa

The sale of land in the private domain of the State (or local authorities) is a frequent practice in Sub-Saharan Africa. The presumption of State owned public domains has long dominated, but the growing recognition of customary rights and the noted devolution of more and more of land jurisdiction to local authorities are two major developments of the 2000s. Both at Central State level and local communities, the lack of transparency and pork barrel appropriation seems very frequent, as made clear by Durand - Lasserre et. al. (2015) regarding Bamako. Public lands, even those theoretically allocated to the relocation of "evicted" households, are frequently assigned at preferential prices to investors with political connections, which can take liberties with the notional bonds associated with the land (urban planning standards, development obligations, non-resale, etc.). These practices, in addition to strengthening the inequalities of access to land and having an inflationary effect, does not allow authorities to maximize the revenue linked to it. Nevertheless, they represent 30% of own resources of the Bamako Municipality in 1993 (600 million FCFA of 2 billion) (Rocheude and Plançon, 2009). These revenues are not specifically allocated to urban investments, and in general the lands granted are not serviced, or are through other funding.

Ethiopia presents a particular case that is often used as an example, since the land is public and the selling of use rights is directly implemented by the Municipality benefiting from it. Use rights are granted administratively (in theory at least the land servicing costs) or through bids (at prices up to 80 times higher). In fact, 94% of land is granted at administrative prices in Addis Ababa (96-97% in secondary cities), according to a processes with little transparency. 90% of revenues are earmarked for investment. Revenues from the sale of use rights represent almost 6% of a total budget in the city of Addis Ababa of more than 900 million USD, and 9% of its investments for the 2014 fiscal year (ACC 2015).

These revenues mainly concern economically dynamic sectors and large cities. In Cape Verde for example, the sale of land represented two thirds of revenue of the Sal tourist Municipality between 2005 and 2007, half of those from São Vicente and 25% from the capital, Praia. However it is marginal or nonexistent in other municipalities (Hocquard, Herniou and Albrecht, 2009).

3.1.2. Public-private joint management of public land

The sale of public land described above can be in the form of an equity partnership with private actors for real estate and urban development. Public partners contribute land, can modify planning rules and possibly participate in the investment effort and is remunerated by a share in profits (resale or rental of property earnings) and/or retrocession of a part of the property.

Furthermore, the public partner benefits from private expertise in real estate operations (and possibly others: airport, metro, etc.). The implementation of this method involves an adapted regulatory framework that authorizes and secures this type of partnership in particular. Its major advantage is the sharing of risks and benefits between public and private. Key success factors for such projects are the convergence of interest between the various public bodies involved, existence of competent and interested private partners and access to adequate financing.

However, we must note that the private operator's profit margin will be more significant when the risk²⁴ is higher, limiting the project's self-financing capacity and increasing the public financial contribution to be made.

Examples of implementation:

Hong Kong (MTRC), Ho Chi Minh Ville (Saigon South).

3.1.3. The sale and transfer of building rights²⁵

This is mainly regarding the sale of specific use rights (use, density, etc.) more or less defined for a determined duration, generally long (50 to 99 years), on land where the property remains formally public. These use rights are generally transferable. We can

²⁴ In particular the technical risk, related to the building, and the commercial risk related to the sale or rent of real-estate.

²⁵ "Long-Term leases". Main sources: Furtado F., Acosta C. (2012)

distinguish between an older, little formalized and traditional practice in rural areas, and a modern practice, such as perpetual leases, used in several Scandinavian countries. Nowadays this tool is implemented in different contexts. For example, in Hong Kong, China, Ethiopia, and Vietnam. The distinction between land and developments is the most extreme way to capture more land value for public actors, since they have a “monopoly” of the sale of the building rights, which makes up the entire value of the land.

In relation to the sale of land, the sale of usage rights implies the contractual definition of these usage rights. Therefore their modification (greater density for example) must be written as an amendment. This allows for an easier additional payment from the beneficiary compared to a modification of the urban parameters on a private property.

It is also possible to sell or transfer the additional building rights in certain sectors when the legislation distinguishes between ownership rights from building rights. The community can then assign these building rights in exchange for compensation in kind, at a fixed price or at auction. These building rights can also be used by the community as payment of private land acquired for public operations or as compensation for private costs incurred for general interest (e.g. maintenance of a valued heritage building, maintenance of a natural space, etc.).

The main advantage of these funding methods is to assume the cost of public investment by investors and private operators, and in the case of auctions, to optimize the capture of land value. Thorough planning and sufficient land pressure to stimulate a densification adapted to the current or planned infrastructure capabilities, are key elements for implementation of this type of tool.

Examples of implementation:

France: Legal Density Ceiling. **Sao Paulo, Brazil:** Related transactions (Operações interligadas) which enable the exchange of rights to build additional against the construction of social housing (years 1980-90), “Outorga Onerosa de Direito of Construir e por Alteração of Uso”: fixed tax that the owner pays at the time of requesting a build or urbanization permit. Example of Curitiba, where incomes are paid to a specific fund dedicated to the social housing, or to the purchase of land for certain major facilities (stadiums etc.). The auction sale of Certificados de Potencial Adicional de Construção (CEPAC) in **Sao Paulo, Rio de Janeiro and Curitiba**, limited to certain sectors, income being invested in the sector according to the predefined rules. **New York City, United States:** transfer of building rights.

3.1.4. The regrouping²⁶ of mainly private lands designed for urban expansion (Land readjustment) or redevelopment (Urban redevelopment)

Land readjustment operations allow restructuring, within a given area, of the private properties, aiming to optimize the realization of infrastructure financed wholly or in part by the owners. Public authorities shall recover part of the land within this perimeter, and

²⁶ Main sources: Lozano-Gracia (2013) and Smolka (2013)

realize public infrastructures and amenities, financed by the sale of the remaining land within the area. In fine, landowners are reallocated land plots of smaller size than their initial plot but higher or at least equal value, generated by the land valuation induced by public investments. Land readjustment may take place on underdeveloped areas (urban expansion, land readjustment) or in an under-used urban sector. The land (or the built surface in the case of redevelopment) is reallocated between the owners on the basis of their value after the operation.

This tool can be implemented on the initiative of the public authorities or private partners (land owners, developers, etc.). It allows intervention in land perimeters characterized by mainly fragmented and private ownership. Politically more simple and impartial compared to expropriation, it nevertheless implies the implementation of a participatory process. First of all, this is necessary to develop a precise system and consensual assessment of the value of the land before and after the operation, the private owners predominantly bearing the investment costs. Secondly, it appears to be necessary to ensure that the local infrastructure and facilities built will actually benefit the general interest and development of the area.

This instrument is very widely used in **Germany, Japan, South Korea, Taiwan**, and through the Urban Land Association (Associations Foncières Urbaines, AFU) in France. In **Colombia**, the *planes parciales* (in Bogota, Medellin) can be the initiative of the public sector or private owners of the sector (who possess 51% of the minimum surface area).

Land readjustment in Huambo, Angola²⁷

Two pilot experiments for land readjustment were conducted on outlying neighborhoods of Huambo, a secondary city (around 600,000 inhabitants) of Angola, in the absence of any legal framework (and financial mechanisms or coercion of minority owners), with non-existent local technical skills and very low trust between owners, private actors and authorities. The two operations were carried out on agricultural plots on the edge of the urbanization. The owners receive plots ready to be developed, intended for residential purposes corresponding to 35% of the original surface, 30% of the surface area is reserved for easements and public facilities, and 35% is sold to finance the facilities.

1. District of Fatima: the process was led by the NGO Development Workshop, which is based on a management group of the provincial authorities, representatives of the people and traditional authorities. In spite of difficult negotiations (but facilitated by the risk of expropriation without compensation, common practice in Angola at this time), the whole process took just over a year (November 2007 - January 2009). The plots sold allowed collection of 80,000 USD placed on a specific account and used to build a wooden bridge, 4 wells with pump and improve the roads. All owners received a “purchase license” (licença de arrematação), a first step toward the land title.
2. District of Camussamba (2007-2008): Same structuring. 80% of the surface is occupied by the Institute of Agricultural Research. After difficult negotiations, a consensus was initially reached, but a few owners went back on their decision, limiting the project to the land of the Institute (which retrieves 40 plots redistributed to its employees). The Municipality, reference entity for land issues since the act of decentralization of 2007, requested to take charge of the land allocation process, that it distributed free, not allowing the financing of infrastructure works (apart from the improvement of roads, paid in plots).

This example demonstrates both the flexibility and fragility of the process. The key success factors have been the development management of Development Workshop, the many training sessions, raising awareness and

²⁷ Source: UN – Habitat 2013

consultation, the involvement of the management group and the inhabitants, but in the absence of a regulatory framework and competent local technicians, the process remains fragile.

3.1.5. Exactions/development fees or impact fees

These are fixed taxes requested from developers/promoters: they are intended to support private developers for all or part of the public costs incurred from their operations. Development taxes constitute a direct deduction on the land rent and their receipt is fast (linked to the building, or even to the build permit), but punctual. In the case of residential developments, their cost is generally transferred to the final purchaser (within market limits).

There is a very large diversity of methods between the various countries practicing this mechanism, but two of them can be distinguished:

- “Exaction / development fees”, are relatively easy to apply. International jurisprudence emerges progressively, particularly with the notion of “rational nexus” which emphasizes the necessary link between the operation and the facilities that it is funding. The chosen formula to determine the amount of the tax must be sufficiently precise and appropriate to the context, in order to avoid possible abuses of corruption, without being too complex and risk generating high operating costs;
- In the case of “impact fees”, the deductions may also finance the adaptation of public infrastructure outside the set perimeter, when their adaptation is made necessary by these developments. “Impact fees” remain more complex to implement than “exaction/development fees”, and are also much less used.

Examples of implementation

Exaction / development fees: **France:** Development tax (replaces the Local Facilities Tax and other assimilated taxes), involvement of builders in the Planned Development Areas. **In Latin America,** developers must often give up 15-35% of their land for the construction of infrastructure and facilities. **Guatemala:** undertaking of highway works by the promoter.

Impact fees: **Phoenix, United States. Santiago, Chile.**

3.1.6. The tax related to the change of land use (particularly from agricultural to urban)

In contrast to the development taxes described in 3.1.5., the tax related to the change of land use is based on the capture of land value gains and not on the recovery of costs related to the financing of relevant infrastructure.

It is applied when there is a regulatory change increasing the value of the land (including change of agricultural land to urban, but can also be considered for an increase of COS or a change of use). More generally, the deductions are only applied when the building permit is issued and not when changing the planning rules.

It allows for the introduction of a direct link between the regulatory changes and the land valuation, by capturing a portion of the increased value of the goods exchanged on a precise basis (purchase/sale price) which does not need a detailed database. Politically speaking, it is relatively painless and, in theory, combats land speculation.

Examples of implementation:

France: Flat Tax on vacant buildable land (Terrains nus rendus Constructibles, TFTC) to benefit the Communities and the EPCI (since 2006)

3.1.7. Negotiated taxes between public authorities and private developers: a “voluntary” variant of development taxes

These taxes, monetary or in kind, are directly negotiated between developers and public authorities on a case-by-case basis in the context of the approval of the project, in order to finance all or part of the internal infrastructure costs. These methods are being used by real estate developers in many countries, in a negotiated form that is more or less within the legal framework.

These agreements can include positive benefits for the surrounding population (social housing, facilities, services, public spaces, employment, support to associations, etc.). Therefore we are talking about a “Community Benefit Agreement”, in which representatives of the population are one of the stakeholders in the negotiation. The use of this tool requires precise assessment of costs prior to development, as well as the existence of a structured representation of residents’ interests.

It is a consensus method to finance infrastructure, minimizing oppositions and ensures that locals benefit from the project. The financing in this framework and remaining financing from the community is extremely variable, depending on the ratio of power between public and private.

Examples of implementation

France: Negotiations in the framework of Urban Partner Projects (Projets Urbains Partenariaux, PUP) or development of Basin a Flots (Bordeaux) operations. **United Kingdom:** Section 106 of Town and Country Planning Act, which is the norm for development projects. **Mexico:** In practice, responsibility assumed by developers of the construction and financing of essential infrastructure (roads, water, gas, electricity, drainage, telecommunications etc.), or even public facilities (schools, public spaces). **Brazil:** “real estate consortium” allow public developers to surrender a part of public land to a private actor in return for the development of infrastructure on the entire land, or conversely, the development of infrastructure on private land in exchange for a part of this. **Community Benefit Agreements in New York, United States, and in Hong Kong,** or certain of the most recent development projects conducted by MTRC have heavily involved the local communities.

3.2. Tools applying to the existing building

3.2.1. Improvement taxes²⁸

Improvement taxes are temporary taxes used to finance an investment in the city and are levied on land and real estate owners who benefit from it. They may be imposed due to government prerogatives (Betterment levies / special assessment) or levied on a voluntary basis (Business/ Community Improvement District).

Land owners pay a predefined amount to finance (totally or partially) the repair or construction of infrastructure and services on the concerned land. This amount may be levied at once or over several years, and in the latter case be used as collateral for a loan to finance the investment.

These tools allow the bearing of all or part of the investment costs in the existing city for all owners concerned, without waiting for the sale of goods as with taxation of capital gains. Its collection costs are minimized by the prior existence of a local taxation system (generally land tax) on which they can rely, but the distribution of costs between the taxpayers involves having a specific and consensual database. The most disadvantaged owners may be exempted under conditions of resources. However, this type of mechanism can cause territorial inequalities, the richest land can finance larger investments and can also be reluctant to participate in mechanisms for equalization on other taxes (which would then prioritize the financing of investments in least favored sectors).

These improvement taxes are considered voluntary to the extent where they are subjected to single acceptance from the population concerned (e.g. 2/3 in California for the creation of districts).

Examples of implementation:

Binding taxes: **United States:** Special assessment. Most Latin American countries have this instrument by law, but its practice is little developed outside of major cities in Colombia and Cuenca in Ecuador. **Colombia:** "Contribución por Mejoras" " Contribución por Obras Públicas", "Contribución de Valorización". **Brazil:** "Contribuição de Melhoria". **Peru:** "Contribución de Mejoras"

Voluntary taxes: **United States:** "Business Improvement Districts" and Neighbourhood Improvement Districts. **Ethiopia:** Infrastructure across Kebele (co-financed by the government).

3.2.2. Taxation of land and real estate value gains²⁹

This is about taxing the difference between the value of land and/or property before and after the development of public works, a regulatory change or the general trend of real

²⁸ Main source: Lozano – Gracia (2013), Peterson (2009)

²⁹ Main source: UN-Habitat (2009)

estate prices. The calculation can be more or less complex, depending on the circumstances.

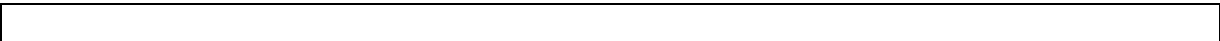
When it is levied on the sale, this tax allows capturing of a portion of the value of the whole property exchanged on a precise basis (purchase/sale price) which does not need a detailed database. Politically speaking it is relatively painless, and theoretically combats land speculation. However, in practice, it may lead to the opposite effect, in the event of land retention from owners in the expectation of favorable development of the tax environment.

<p><u>Examples of implementation:</u></p>
<p>Most European countries tax land value gains either through the use of a specific tax, or by incorporating this income in the tax base of the income tax of the beneficiary.</p>
<p>France: Tax of real estate valuation on property situated in close proximity to public transit investments, for the Organizing Transport Authority (still not used), levied during the assignment. Colombia: “Participación en Plusvalías” which requires payment of the added value generated by the incorporation of rural land in the urban area or the construction of a public work. Venezuela: “Contribución Especial por Plusvalía”. Uruguay: “Retorno de las Valorizaciones”.</p>

3.2.3. Land and real estate tax³⁰

Local tax by excellence, property and real estate tax exists in several countries. It is based on the value of land and real estate located in the territory of the communities and aims to capture the contribution of local urban services with the valuation of properties. There are multiple choices relating to its tax base. The basis can be based on the market or rental value, on the characteristics of the land or real estate (surface, use, number of windows, width of the street-facing facade, etc.). In Europe for example, it is often established on the rental value, which we simply update annually according to flat-rate coefficients. Its rate can be modulated according to usages, for example to more heavily tax the least dense urban uses (“Use - value tax assessment”), or to tax the land rent and the building in a differentiated way (split-rate tax). It can also tax the use potential (maximum building right), regardless of the area actually built, to encourage maximized use (single tax).

Its recurrence provides a stable and continuous source of income to local communities, while providing a certain form of social justice because it taxes the added value proportionally. In addition, its modulation also theoretically allows stimulation of certain uses, to combat land speculation and reduce the number of unoccupied buildings.



³⁰ Sources: UN Habitat (2009), Furtado F., Acosta C. (2012), Smolka (2013)

Examples of land and real estate tax modulation:

France: tax on vacant dwellings or recent tax for under-density (since 2010), distinction between land tax on built and non-built properties. **Brazil:** Progressive IPTU depending on the duration of “under-use” to avoid land speculation. Ceiling fixed at 15% of the “commercial” price (corresponds to the forced sale price, which may be less than 50% of the market price). Emblematic case of Porto Alegre. **Mexicali, Mexico:** land only taxation (not real estate).

Supposed to fund a portion of the general operation of the city, land tax may also constitute an excellent valuation recovery device insofar as the land price evaluation mechanism is effective. This is a central point in the application of this device, which virtually all countries have, but often proves ineffective and complex to manage. As a consequence, it does not really constitute a significant public policy tool³¹.

Land tax in Sub-Saharan Africa

Land tax is present in many countries of Sub-Saharan Africa (with the exception, among others, of Mali and Mozambique), but often remains symbolic of the fact of a conjunction of factors: large informality of the land, inadequacy of census tools (land registry, urban land registers, etc.), collection by unmotivated central services of a tax often intended for local communities, tax unpopularity (RocheGude and Plançon, 2009), or even direct interest of elected officials and senior officials who are also landowners (ACC 2015 in the case of Kenya). However, we can note a few exceptions, such as the Urban Land Register (RFU) in Benin, the establishment of a computerized system in N'Djamena - Chad has led to a significant increase in income, or even the case of Cape Verde. In Cape Verde, despite a strong potential for improvement of the census and collection, in 2007, the “Single Heritage Tax” - IUP represents a significant share of 30% of a municipal total budget which accounts for 17% of all public finances. (Hocquard, Herniou and Albrecht, 2009).

The weak land taxation system often goes hand-in-hand with the multiplication of rights and profitable acts in the process of acquiring, securing and construction of land. Comme Durand – Lasserre et. al. (2015) analyzing the case of Bamako, these taxes are liquidated by administrative staff who take personal income from them. Their high cost (still trumped by corruption), while representing revenue for local communities, constitutes an important obstacle to the formalization of the land and real estate market. However, payment of duties related to regularization is potentially relevant tool to capture more land value (created by the regularization act), especially for countries with a high degree of land informality (UN Habitat 2013), subject to its impact for the most disadvantaged.

³¹ We can point out the significant exception of the United States, where Property Tax represents 70% of municipal revenue, despite strong movements of popular resistance.

One of the major difficulties of land and real estate taxation falls within the difficult conciliation between the pursued objectives, in particular between the performance, equity and incentive objectives.

Henry George and the Single Tax

An appropriate solution to reconcile efficiency and incentive objectives is to base the tax on the potential value of the land in light of the planning regulations. We know that land value largely depends on the rules of law that apply to a plot of land. Therefore, the “land value tax”, based on the potential land value, is both a high yield tax and an incentive to use the legal potential of the land.

The "father" of this concept is to a great extent the American social philosopher Henry George. In 1879 he published a book entitled “Progress and Poverty” in which he developed his central intuition: the enrichment of corporations is crystallized in the valuation of space, “land rent”, which owes nothing to the owner, and which must also legitimately return to the community. He emphasized that such a tax will be both productive, to measure the increase of land values, and fair to the extent that it is the community which has allowed this valuation, and without this being received by the owner. His interest in this method was so strong that he believed that such a tax would be sufficient to finance all public expenditure: thus, the “single tax” was born.

The great interest of this form of taxation, which had already been identified by Adam Smith and is taken up again today by Joseph Stiglitz, has aroused periodical enthusiasm, but the difficulties of its application and the conditions required were relegated to a marginal role. Such a taxation on potential land value can only apply to a system with stable, well-known and accepted zoning rules. This explains why we only really find this applied in a small number of countries, which correctly fulfill these conditions. This is particularly the case in Denmark, Hong Kong, Singapore, and in some states in the United States.

Management of land tax is also complex: it requires precise identification of the nature of the assets and their owner (physical aspect: existence of a form of land registry), and an updated estimate of the land value (economic aspect), which raises the question of the assessment. In addition, its strong visibility may make it politically unpopular. All the more so, as it affects all owners and its outcome is not affected.

Physical characterization is essentially a matter of the land registry which delimits and maps the land property. Its processing and regular updating are always a complicated matter politically, economically and socially, with the level of delimitation of property rights. The land registry may have a tax, land, and/or urban target³², which complicates and slows its development and implementation. The land registry we are talking about here has a tax objective; its basic goal is to allow identification of land and properties to be taxed. The

³² The three main possible functions of a land registry are related to taxation, land and urban development. The tax land registry is used to identify and qualify the taxpayer and the tax base. The land registry is used to record (and therefore secure) the land and real estate property and their developments (transactions, building development). The urban land registry aims to provide information to developers on the characteristics and uses of the land in order to support the definition of urban policies.

limits often lie in the fact that the organization in charge of the land registry is not interested in greater transparency, such as Greece in the early 2000's for example, when preparation of its land registry was interrupted because of corruption.

Urban Land Registers in Benin³³

The implementation of Urban Land Registers (RFU) in Benin was first introduced in Cotonou, its largest city. It was then progressively implemented across 22 municipalities. The three objectives of the RFU was the improvement of land tax revenues, clarification of properties and the support of urban politics. Its implementation was strongly supported for more than two decades by several financial backers and produced differing results.

In Cotonou, implementation of the RFU allowed a very clear increase in tax revenues at the start of the 90's, but this immediately declined at the end of the decade (Bell, 2008).

Relationships of municipalities and plan managers with the tax department responsible for collecting taxes, are unequal in the different cities. For State services, local tax collection is not a priority, and the central administration is often reluctant to provide intervention in the Municipalities.

Even within cities, the RFU is not always appropriated by the land management departments, who are not necessary interested in greater property transparency and transactions implied by the RFU. No urban use of the land registry has been shown, and politicians do not always support this plan which is potentially very profitable for their community. Trying not to displease voters by increasing the pressure of an unpopular tax, they prefer to find more meaningful finance methods (government transfers, backers).

Finally, the cost of this plan and especially updating it, raises the question of its sustainability after the withdrawal of backers, along with its adaptation to smaller communities with lower tax improvement prospects.

Once properties have been physically characterized and their owner identified, assessment of the property value is an essential step for the implementation of this type of taxation. It often creates difficult problems when the recording of transactions lacks transparency, which is often the case. Under-declaration, sometimes substantial, allows for a significant reduction in taxes on the transaction (stamp duty, transfer costs, land transfer tax, etc.) and other administrative taxes. This point reposes the question of transparency on land markets, which is far from being the general norm.

Taxation of transactions is much more frequent than recurring annual taxation, for simplicity reasons. However, this type of tax mechanically generates two negative effects: either the market is tense and tax is then passed on by the seller to the buyer, or the market is relaxed and such a measure contributes to the retention of the property by the owner. In developing countries, this increases the informality of the property market.

The first reaction is to withhold the market value, market price and the "true" property price as a tax base. This is coherent choice in terms of rationality and equity in particular. However this principle produces an important difficulty: land price is a relative notion. It depends on a range of legal, economic and political factors. Choice of the tax base is therefore a subjective choice for the appraiser. Arguably, the "real" price of land is only

³³ Source: Simonneau, 2013, unless stated otherwise.

known when signing the deed at the notary, but under-reporting, particularly for tax reasons, strongly counteracts this choice for countries where it has become common practice.

General tax base reassessments, especially when too spread out over time, are frequently a major political debate challenge³⁴. The fear of these movements³⁵ leads many countries to opt for simple administrative revaluations, but they generally lead to a gradual shift from real market developments. For example, this is the case in France where the bases of local taxation have not be revalued to their market value since 1971. Regular updates can also lead to a significant reduction of local tax resources when faced with market downturn, as was the case in the United States with the subprime crisis.

The case of property tax in the United States

Property Tax in the United States is a long-standing tax with a large weight behind it (it represents around 70% of tax revenues for local governments) and beyond its performance target, it is largely used to pursue incentive goals. For example, in the protection of agricultural land in peri-urban areas through tax abatements (contractual taxation). It is also politically sensitive, particularly during revaluations.

The evaluation method raises an important point. The basic principle is taxation of the market value, but the evaluation proposed by the government is likely to be contested by the taxpayer, who can then contact his own appraiser and possibly initiate a negotiation with the tax administration. We must empathize here that this approach involves the owner's responsibility: if they sell their land at a significantly higher price than the tax evaluation it obtained, they must then pay a penalty for under-statement, in addition to the tax adjustment.

Taking into account the importance of property tax for local finances and balancing local budgets, we understand that management of this tax raises an important dispute. Transparency of the evaluation process allows for good social acceptance.

3.2.4. Tax Increment Financing³⁶ (TIF)

The TIF mechanism is almost exclusively used in the United States. It consists of the anticipation of increases in land tax revenues linked to the arrival of new activities and new housing on degraded land, due to a reclassification of the land by government

³⁴ We can recall the end of the 60's when Ronald Reagan, then California Governor, strengthened his political career with "Proposition 13" which aimed to cap the market value at 1% for the amount of property tax, which was successfully passed through referendum. The long-standing nature of assessments has caused major political upheavals in California, as well as significant changes in local finances in the State, with the decrease of certain public services, starting with fire fighting services. In the same way, we were able to observe a strong political movement in Spain during the general revaluation in the late 1980s.

³⁵ Politically, this tax is costly because it is very visible (compared to consumption taxes for example) and affects a significant part of the population...and voters.

³⁶ Source: UN Habitat (2009)

investment. Installed facilities are therefore financed by loans or bonds pledged on these future revenues³⁷.

This tool is in a redevelopment perspective of the land it is applied to. It requires reasonable and indicated forecasts on the revitalization potential, in order to create confidence of investor and financial markets. It is particularly useful to finance urban renovation operations, including disadvantaged urban centers.

Examples of implementation³⁸:

In the United States in 2009, all States except Arizona had legislation authorizing TIF. For example, Chicago administered 130 TIF that represented more than one hundred million dollars in revenue, or almost a third of the city's total land tax. The TIF mechanism is used in the development of commercial, economic, residential or mixed-use projects, rehabilitation of brownfields, development of public spaces and facilities or development of public transport, with widely-variable scales and with other sources of funding. The highly degraded district of St George Place in Houston, Texas, for example, consists of 556 plots on 47.3ha close to an important commercial center. To finance its revitalization, in 1990 the municipality created a Tax Increment Redevelopment Zone (TIRZ) on its eastern side, extended in 1992 to the entire area. The funds were for the rehabilitation and maintenance of site infrastructure (roads and sidewalks, water and sanitation, public lighting, public spaces, etc.). The first bond issue (3 million dollars) pledged on these future revenues took place in 1992. Between 1990 and 2000, the mechanism generated 40 million dollars in revenues, reinvested into the site. All planned infrastructure was completed in 2006. Between 1992 and 2005, the total value of the real estate on the site went from 13 million to 164 million dollars, and building plots quintupled in value.

³⁷ The tax base of the land is frozen upon introduction of the TIF and any additional property tax revenue is reversed for investments in the land and / or repayment of the loan taken out to do so.

³⁸ Source: CDFA and International Council of Shopping centers (2007)

IV. What major characteristics of land valuation instruments are identified in literature?

Intellectual development on this subject is mainly done by bilateral and multilateral backers (World Bank, AFD, etc.) and the academic community. With a special mention of the Lincoln Institute of Land Policy³⁹, a foundation specialized in the study of land valuation mechanisms and its use in the line of work of Henry George.

In certain regions, particularly Latin America, information comes from local researchers, while in other regions (Africa and Asia to some extent), researchers from the Western countries are predominant. Review of the literature revealed several interesting points regarding the use of these tools.

4.1. Creation of land value gain, even before its capture by the authorities, refers to contextual factors:

1. The creation of value is stronger in cities that are attractive on economic and demographic plans (Suzuki et. al., 2015; ACC, 2015), whose dynamism generates pressure on land and a demand;
2. The manner in which property is defined locally and in which this right is recognized and defended⁴⁰, as well as the maturity of the local land and real estate market⁴¹, but also the financial system (ACC, 2015, Walters 2011), influences the ways in which wealth is created and distributed.

4.2. Uptake by local authorities is facilitated by a number of institutional and technical characteristics:

³⁹ American private foundation funded by the industrialist and investor John C. Lincoln in 1964 in Phoenix, Arizona, to promote knowledge on land use, valuation, regulation and taxation, through trainings, research and publications dedicated to further the public debate. The Lincoln Institute of Land Policy in itself is an entity created in 1974, main beneficiary of the funds of the foundation, with which it merged in 2006.

⁴⁰ The more property is guaranteed in the long term, the more the rights concerning its use are significant, and the more the property will have value, all things being equal.

⁴¹ Market maturity particularly refers to their formalization and transparency, access to information, stability of the legal environment and the existence of competition between non-structured monopolistic actors.

1. Urban planning accompanied by a coherent (and respected) investment plan, used to territorially guide and optimize this creation of value, and to facilitate its uptake. Ideally, this is based on a long term vision; it allows actors to project into the future to develop and implement their projects; it comes with a flexible definition of the urban regulations that allow for an adaptation of market conditions at the time of carrying out development projects (Suzuki et. al., 2015). If planning is coherent and efficient, it allows an optimization of the urban development, particularly in terms of density and usage. Inversely, deficient planning can cause several negative effects. We can cite urban sprawl⁴², windfall effects⁴³, or inconsistency between the planning objectives and investment priorities⁴⁴. Remember also that a very large part of new urban development occurs informally, outside any framework established for financing the facilities, resulting at best in remedial policies that are expensive and often ineffective;
2. Institutional coherence of the urban area affected by land valuation optimizes its capture by local authorities, in the sense that it minimizes any differences of interest between neighboring towns, who benefit from urban sprawl and municipalities-centers, which support investments;
3. The use of land value capture tools requires local government expertise in the land and real estate market and operational planning (Suzuki et. al., 2015, Walters 2011). The required know-how varies depending on the tools, and grows with the entrepreneurial involvement of communities (direct participation, alone or in partnership with private entities, etc.). Generally, local government powers to optimize the capture of land value gain would depend heavily on their ability to measure the benefits, costs and risks associated with operations. This capacity refers to the sale of land as much as managing a property tax based on the valuation of properties, public-private joint development or administration of a commercial rental park, for example⁴⁵ (). The various jurisdictions mobilized in this context could constitute a privileged field of action if multiple institutional capacity building programs, especially when they support projects to capture more land and property value.

42 Allows the bypassing of urban or financial constraints in certain administrative territories of the urban area through investments in other territories nearby, often in periphery, where regulation is more permissive (leapfrogging)

43 Developments on land benefiting from investment because of their nearby location, but not subject to associated constraints (in particular financial constraints: development fees or equivalent)

44 For example, failed densification around public transport nodes due to massive investments made in favor of road infrastructure. "Transit Oriented Development" is planning structured around public transport nodes, where the surrounding areas benefit from the most significant construction densities. These nodes are considered attractive factors, allowing for greater densification, which in itself strengthens the use of public transport, according to a virtuous circle. It allows for the creation of a strong additional value around public transport interchanges, limiting urban sprawl and car use. This type of approach requires an effective public transport system, but also a policy that discourages (or at least does not encourage) the use of the cars.

45 A priori, allowing maximization of revenue, but at the risk of more significant risk for public authorities.

4.3. The delicate question of the equitable allocation of local resources generated by the capture of land value gains

The land valuation logic can quickly lead to a focus on investment on the sector to be developed / rehabilitated, to maximize recovery and lead to a socially exclusionary gentrification on these sectors (ACC, 2015). The priority or exclusive destination of revenues generated by public capture of land value gain to the land to be valued, reassures potential investors about the means implemented to ensure that this valuation takes place. However, there is a concern that, in certain places, despite a possible reallocation of the investment budget to the rest of the land, it leads to over-investment in public infrastructure with questionable equity effectiveness. In general, preliminary allocation of revenues is ambiguous. If on the one hand, it can reassure investors and citizens as a whole on the allocation of funds and can establish a guarantee of transparency, it can on the other hand, result in a sub-optimal allocation of resources, from an economic or social viewpoint. Since 1982, the mandatory allocation of funds generated from the sale of land usage rights in a capital works reserve fund in Hong Kong, is criticized because it would result in over-investment in physical infrastructure, to the detriment of other important sectors from a social and economic viewpoint, such as health or education (Poon, 2011). Further restrictive, the allocation of revenue from the sale of building rights (CEPAC) of urban operations in Sao Paulo results lead to the detention of hundreds of millions of dollars to finance urban land operations, while the rest of the city was sorely lacking in infrastructure. Regarding gentrification, inclusionary zoning mechanisms⁴⁶ can help mitigate this, but they can also limit the land valuation of the entire sector, as well as the revenue to be invested in infrastructure. (Suzuki et. al., 2015)

We can also note that, firstly, these revenues are closely linked to the development of an often very volatile land and real estate market (price and volume), with the associated risk of their resources suddenly drying up (Suzuki et. al., 2015, Peterson, 2009). For example, the urban operation called “Agua Espraiada” in Sao Paulo, is emblematic of using CEPAC (building rights sold at auction), where the purchase price ranged from 300 R\$ to 1282 R\$ between 2004 and 2012, with highly variable volumes depending on the year, and no more auctions since June 2012 (corresponding to the end of the frenzied rise in property prices characterized in Brazil since the mid 2000’s)⁴⁷. On the other hand, **some resources are limited, cheap public land in particular**. This can currently be seen in China, where the relative shortage phenomenon is amplified by the national policy to preserve suburban farmland, conducted in recent years. This policy was established in response to particular

⁴⁶ Requirement to produce, in part, affordable or social housing or incentives through additional building rights. This type of mechanism is widely used throughout the United States. In France, the requirement at the municipal scale is to produce 20% of social housing, as established by the Urban Solidarity and Renewal Act of 2000. It was translated locally by the rules of a minimum share of social housing in management operations or real estate development, which are similar to Inclusionary Zoning.

⁴⁷ Source : City of Sao Paulo (website)

indiscriminate sale of long-term usage rights (50 years) on public land to be urbanized by the Provinces. These sales have enabled to finance a large part of urban infrastructures in Chinese cities, but have also led to urban sprawl⁴⁸. Land resources cannot be the basis for sustainable funding because it is limited in quantity, which argues for a reasoned, diversified and balanced financial management.

4.4. The central role of collaborative synergies between involved actors

The more that tools used are based on building a broad consensus⁴⁹, the longer the process will be, but they will potentially provide more equitable (among owners, users, investors and public authorities) and sustainable results. Revenues obtained for public investments can be partially limited (especially when there are several actors involved). Conversely, excessive use of corrective means (such as expropriation) often causes costly legal disputes⁵⁰. The issue of compensation (to owners, users, etc.) is also at the center of many controversies surrounding some tools. This is a particularly delicate balance in the case of consolidation (Hong and Needham, 2007) concerning the implementation (enforcement), efficiency and equity of the mechanism in the long term. But even this known mechanism, requiring sophisticated technique and trust among actors, can be adapted to the land where these conditions are not met (Angola, for example).

All mechanisms to capture land value gains are clever mixtures of consensus and discretionary action, negotiation between the various authorities involved, owners, users, developers and planners, etc., hence the need for consensus on the land price⁵¹ and the distribution of profits (Suzuki et. Al., 2015). In this context, many authors (Smolka 2013, Peterson, 2009 and 2013) emphasize the importance of implementation of tools according to transparent and stable rules, in order to build trust among stakeholders and reduce suspicion of corruption that may surround public action in developing countries, along with issues related to public land in particular.

48 Lorrain (2011), Paulais (2006)

49 With specific main actors depending on contexts, along with other actors who are excluded more or less radically (in this case we cannot talk about consensus anymore)

50 Especially when the expropriated land is intended for resale with added value, raising the question of the limits of the concept of public interest, and equity with owners of nearby land that is not expropriated (who will directly benefit from the gain in value).

51 The question of value assessment (who makes the price estimations (present and future)? Using what means and methods?) is a recurring difficulty for the implementation of many tools to capture land value gains.

V. What motivates the use of these tools? Proposal of a dynamic approach of some documented cases

As for all financing instruments, the driving factors for the use of tools to capture land value gains lie invariably on the political and economic decision-makers. A dynamic approach to the progressive use of these tools shows that the choice to use such or such tool may raise apprehension by decision makers of the magnitude of investment needs, development of the political-financial financial, clear and legitimate allocation of powers between the various actors involved, the adaptation process and development of tools, or even the delivery policy of the project.

5.1. Balance between the investment needs to be achieved and the means available to finance them

The perception of needs by decision makers is linked to real needs (demand in infrastructure or urban basic services, adjustment, population and economic growth), but also to the perceived impact⁵² generated by a response to these needs, as for example the politico-social stability linked to access to the service, the level of employment in the territory, or the satisfaction of influential economic groups (promoters, landowners, contractors, etc.). Their development and prioritization are the result of a gradual process of confrontations and negotiations between stakeholders, arbitrations and conflicts, which involves political, institutional, economic, social and cultural dimensions.

The absence or reduction of more traditional funding⁵³ and the difficulties related to their uptake, as well as the relative cost (financial, economic, political, social) of the various alternative options (among which are non-funding and non-action), constitute the other part of the driving force. This may also be subject to a process of progressive and iterative arbitrations, negotiations, resistors and conflicts. In order to mobilize land value capture mechanisms at the territorial scale, it is crucial that its potential gain⁵⁴ exceeds its financial and political costs. It must allow sufficient mobilization of additional resources,

⁵² Certain needs can be more or less understood by local decision makers as serving their interests (which may of course match the general interest they perceive, but are far from identifying with it completely), with a direct impact on their prioritization. For example, roads and water supply to the existing city are highly visible actions to the population. The supply and valuation of new land is a fundamental need of the real estate sector. Accessibility and transport are often major issues for economic sectors. Costly and little visible sanitation has long been the poor cousin of urban investment structuring.

⁵³ Upturn in the price of annuities related to raw materials, absence possible additional international or national or excessive level of national or local debt, inadequate allocation, negative tax yield, inaccessible subsidies, etc.

⁵⁴ (which is directly linked to the legal and technological implementation capabilities)

to ensure that the impact of its use appear justified⁵⁵ for those who control the use, as well for all those who have the power to block it.

The “understood needs” / available funding duo: some examples

Since 1843 in Hong Kong, the sale of land usage rights to buyers to develop infrastructure resulting from England’s desire to maintain local taxes at a low level to foster trade, without financing the infrastructure of the territory by subsidies from the colonizer.

This same mechanism is virtually the only resource for Chinese and Vietnamese Provinces - Municipalities to cope with the growing powers devolved upon them and the associated financing needs, a sine qua non condition of organized growth contributing to social peace, the main requirement of central power.

In Sao Paulo, it is the debt overhang in the municipality (linked to short-term management after the return to democracy in 1980), associated with the need for investment visible to the population and demands of the developers for the opening of new real estate fronts, which led to the experimentation and then the generalization of the sale of building rights.

In Chile, it is also the absence of an alternative (and involvement of the central government) that lead two municipalities of the metropolitan region of Santiago to launch an “impact fee⁵⁶” to finance a road connecting several new large-scale real estate programs. The gradual increase in the size of the project will lead to involvement from the national government, and the lack replication of the tool due to other, less costly financing means provided by the State, such as borrowing or tolls (“costly” is understood here as causing opposition of the real estate development sector, very politically influential). (Peterson 2009)

The case of financing of development operations studied by ACC (2015) in 16 countries of Sub-Saharan Africa are also illustrative of this pairing. In 18 operations in 10 countries⁵⁷, private developers have contributed to the financing of social infrastructure and/or outside the site but putting it at a disadvantage. The operations are usually projects located on the outskirts of the city, in need of infrastructure for additional coverage. This funding has been made “in kind”, in the form of realization of work⁵⁸. For developers it was the best way to enhance and solidify their operation (residential, commercial or mixed, intended in all cases for the middle or upper classes), while allowing to attract complementary public funding (or access to subsidized land (17 cases out of 28)). In some cases (Democratic Republic of Congo and Angola), due to deficiencies of government powers in the provision of infrastructure, it was the only way to guarantee this servicing.

The differences in scale between the perimeters of capture and intervention: The tools to capture non-recurring land value gains are generally used to at least partially finance the investment which is at least partly located on the territory on which the resources are

⁵⁵ Local taxation in Jordan was, until very recently, an example against the archetype: State allocation to the municipalities was distributed in such a way to compensate for the shortfall linked to the low rate of recovery of the property tax. Moreover, the lower the efficiency of the property tax recovery (always politically very unpopular), the more the Municipality received grants from the State!

⁵⁶ Tax on development / construction operations used to finance investments outside the site(s) but rendered necessary by these operations.

⁵⁷ Angola, DRC, Ghana, Nigeria, Rwanda, Senegal, Ethiopia, Kenya, South Africa, Zambia. In the other 10 cases studied (located in Mozambique, Zimbabwe, Ivory Coast, Uganda, Benin and Cameroon, and two operations in Rwanda and Angola), the net result was neutral or negative (internal financing of the operation by public authorities).

⁵⁸ The realization of specific infrastructure, not thought of as integrated into city networks (sometimes non-existent) eventually poses the question of the diseconomies generated by this fragmentation, but also the social equity (only the wealthy neighborhoods are equipped).

collected. This specific case reinforces the legitimacy and political acceptance of these tools by the main protagonists, but does not go without questioning in terms of the optimal allocation of resources (see above on CEPACS in Sao Paulo, and the example of Hong Kong).

Yet, this is not an absolute rule, and location can be a sufficient valuation factor. In Sao Paulo (Brazil), the sale of building rights apart from urban operations (the rest of the city) supplies urban development funds intended for under-funded neighborhood infrastructures (which are usually not those on which building rights are levied). In Istanbul (Turkey), the Metropolitan Municipality's sale of real estate assets located in the city center (a former bus station and administrative buildings) has enabled them to fund investments across the city.

These tools are particularly suited to the financing of servicing (networks, public facilities or at least land easement) or the improvement of limited territories, but can also finance city structuring facilities (subway networks), all the more so if they are not, or not fully, allocated (the product of the sale of land usage rights in Vietnam or China for example, which fall within the general budget of the Provinces). As stated in chapter 3 (supra), some tools are more suited to the financing of intramural urban infrastructure, others to the peri-urban expansion of urban areas.

Land tax is specific, in that it allows for funding of all types of expenditure, functioning as investment, for the entire city. In general, this land tax is assigned to the entire local expenditure, following the universality principle of the budget, whether applying to built or non-built land. At the same time, space valuation naturally contributes to the increase of the product of this tax (the mechanism that Tax Increment Financing is based on). Its distribution method is therefore an essential key to evaluate its redistributive effect.

[5.2. Evolution on a territory of the balance between political and financial interests of the various stakeholders involved](#)

The apprehension of needs from decision makers is eminently context-sensitive and its development can lead to a questioning of the political-financial balances between those involved, resulting in instability. This is the search for a new balance which, after resistance and adjustments, can produce innovation and new collaborative synergies, allowing greater capture of land rent for the benefit of government actions or investment. In Morocco there is the example of the attacks on May 16, 2003, by Islamists, who lead the authorities to implement the "City without slums"⁵⁹ policy, which mobilized large amounts

⁵⁹ See Toutain et Rachmuhl (2013)

of public land to produce social housing, organizing a redistribution of gained value produced on these lands in favor of the beneficiaries, mainly the slums' inhabitants⁶⁰.

These developments are put in place by economic policy makers, according to their interest, which may or may not serve the population's interest, depending on their capacity to become really involved in the process, in order to be structured (representations, lobbying, associations) or not (social movements and political risks). In many examples, we see developments taking into account the more progressive interests of initially marginalized stakeholders (particularly inhabitants and users, initial land owners in some cases). This new political balance can also significantly weaken the tool's ability to finance public action in general, because a larger part of the resources it provides is distributed to these main involved parties.

Compensation of users / original owners and its development: some examples

In China or Vietnam, compensation of users of mobilized (and sold!) land (including agricultural) for urban development has long been far less than the price it would have obtained at public auction, due to the administrative scale valuation being totally disconnected from economic realities. This significant discrepancy has enabled the government to recover a large part of the land value to invest in infrastructure (but also for the personal enrichment of the political leaders and developers involved). In the wake of repeated scandals of user acts of resistance, the mobilization of public opinion gradually allows an improvement in compensation conditions (still very imperfectly, in the case of Vietnam for example, despite a specific law on the subject in 2014). At the same time, these compromises limit the value gained by public authorities, and above all, sometimes significantly increase transaction costs and can lead to authorities abandoning the operation. (Peterson 2009, Nguyen Leroy 2014)

In Bangalore (India), airport construction has been funded by the granting of expropriated land to be valued in the framework of a global concession. Road access from the city should also be funded by the expropriations followed by resale of the adjacent land after valuation. However, legal actions of former owners who are calling for a higher level of compensation than what they received⁶¹, endanger the financial balance of the operation. As a consequence, this froze the acquisitions related to the future highway to connect the city to the airport, severely straining in functioning (the airport was opened in 2008). (Suzuki et. al. 2015)

Prior definition of the allocation of resources is part of this balance between involved parties, and often helps strengthen its acceptability among some of them, but can also lead to some negative effects. In effect, reduced uncertainty on the individual earnings of the project facilitated the support of concerned parties (if they feel the earnings to be sufficient) and therefore implementation of the project. However this can also lead to "buying" the support of certain stakeholders, to the detriment of general interest.

⁶⁰ Another national on-site maintenance and access to basic services strategy will be implemented for neighborhoods with unregulated housing.

⁶¹ Payments were defined at the market price when the project was announced, but land acquisitions required several years and so these prices have increased sharply since then.

Prior assignment of resources: some examples

In Bogota, the improvement taxes have been explicitly linked to a well-defined work program (and very extensive, meaning it affects most inhabitants); in addition, a very transparent communication and accountability policy on the advancement of these work has been put in place. This has strongly legitimized this tax (in addition to the principal means available for investment in transport infrastructure in the Municipality) in the eyes of its contributors, especially since the exemption of more modest ones has allowed for a scope of social equity. Its rate of recovery is much higher than land tax for example. (Acosta Restrepo, 2009).

In Sao Paulo, the CEPAC mechanism ensures that the collected funds will be invested entirely on the perimeter of the urban operation, thus participating in its valuation, which has allowed the accession of the real estate sector, with the limits of economic efficiency and social equity mentioned above. Here lies the essential reservation of this mechanism: full repayment to inside the perimeter of the operation, in contradiction with the very principle of fiscal equalization.

In Hong Kong, the Capital Works Reserve Fund ensures a use of funds collected by the sale of land usage rights for public infrastructure, enhancing the concerned heritage and real estate land, mainly that of five powerful developers who form a rather uncompetitive oligopoly, and are strong supporters of this policy which participates to the explosion of real estate prices in the territory. (Poon, 2010).

5.3. Clear distribution of responsibilities between the different stakeholders involved in a project, managed by a “legitimate” institution

In general, large land easements belonging to public enterprises or national institutions (State, Railways, Port authorities, Army, etc.) are difficult to mobilize by local authorities, at least to associate the national owners to the benefits of the operation. Why dispose of a valuable asset for investments that do not directly serve their interests?

This is the question asked here: this should receive sufficient legitimacy in the area concerned to conduct the process in an integrated manner. It may be a local government, but also from the national sphere in the case where interests of national stakeholders are related to local issues (this may especially be the case in capitals and major cities, national-scale economic drivers, or in weakly-decentralized countries).

The legal and, above all, real distribution of skills between levels of government is crucial to accurately identify the stakeholders in charge of the funding implementation mechanisms (and the financing of associated actions). In many cases, theoretically local skills are in fact carried out at national level. For example, we can cite the Moroccan public developer Al Omrane, the theoretical manager of development operations with municipal jurisdiction; or even large national agencies in Tunisia, which also deal in all the countries with areas of municipal jurisdiction but are deemed strategic at national level, such as the rehabilitation / urbanization of popular neighborhoods (Urban Rehabilitation and Renovation Agency - ARRU “Agence de Réhabilitation et de Rénovation Urbaine”). This is a frequent situation, where financing tool for local facilities is in fact implemented by an agency from the dominant central administration.

Consequences of the lack of unity: two examples in India⁶²

In Bangalore (India), for the airport construction project, the lands purchased or expropriated by the State of Karnataka were originally all intended for resale to finance the airport itself on the one hand (resale by the winning private consortium from the call to tender, to which the corresponding land had been transferred), and on the other hand, the road which was to link it to the city of Bangalore (sale and management directly by the State). But despite this arrangement organized by the State Department of Finance, the Karnataka Industrial Areas Development Board (KIADB), which ensured the effective control of the land intended to finance the road, preferred to rent it to keep control of the generated income, jeopardizing the economy of the airport project.

The Delhi subway (first subway project in India), was to be significantly funded by the sale of building rights, but the involvement of several State agencies with conflicted interests has led to inferior results than what were planned (less than 5% of the project funded by the sale of land). The Delhi Metro Rail Corporation Limited (DMRC) is in charge of the development of the subway and benefited from tax exemptions (including land). The Delhi Development Authority (DDA) is responsible for urban regulations, and defines the buildable densities and usages. At the beginning of the project, in 1999, the master plan in 2001, aimed around car traffic, did not provide for higher density around transit stations (the maximum COS⁶³ allowed for DMRC properties was 1). The DDA itself having commercial areas around stations, and fearing the unfair competition of those located on DMRC properties (the latter often acquired below market price with government agencies and institutions, and exempt from property taxes), it has systematically blocked requests to increase density, changes of use or flexibilization of urban regulations requested by the DMRC. Even after the revision of its master plan which created high density spaces around the stations (TOD), DDA has continued to restrict land constructability, property of DMRC, due to the disagreement over the sharing of generated value gains.

5.4. Implementation of financing instruments and their evolution is governed by a process of progressive upgrading and adaptation

1. The legal and regulatory environment can evolve through the creation and consolidation of a framework and jurisprudence from experiments. In Brazil for example, the experimentation of “created land” (solo criado), meaning the disconnection of ownership rights (private) and building rights (public and that can be sold) from the late 1980s allowed to gradually develop jurisprudence and premises implementation mechanisms, up to its national legal structuring through the Cities’ Status Act in 2001, which widely thrived on local experiences (some of which had even been found unconstitutional⁶⁴!).

⁶² Source: Suzuki et. al., 2015

⁶³ Land Occupation Coefficient, ratio relating to the total constructability of the land surface.

⁶⁴ This is the case for “related transactions” (Operações interligadas): over-the-counter exchange between the municipality and a private developer of building rights on a site against the carrying out of social housing (on or off-site). This mechanism has been found unconstitutional because it constituted a derogation from the master plan that was not sanctioned by a municipal act.

2. Incremental developments of institutional and technical capacities can also occur (institutional structure, qualification of stakeholders). In Ho Chi Minh City in Vietnam, the municipality progressively established and professionalized specialized structures, such as the HFIC (Ho Chi Minh City Investment and Finance Company), investment fund for urban development, created in 1996, or the Land Development Center, created in 2003 to manage the sale of building rights in the city⁶⁵. In Hong Kong, the public subway company Mass Transit Railway Corporation - MTRC has begun by developing and building on the land directly linked to its stations, then gradual professionalization on the ever-growing perimeters for increasingly-complex, functionally and socially mixed operations, always taking into account the addition to the existing materials.
3. The capture of resources can become more efficient (taken into account the growing market, auction, etc.). For example, in China the sales of usage rights by the Province to developers were first done over-the-counter, but the updated progressive limits of this assignment method (corruption, under-assessed pricing) has led to the progressive near-generalization of public auctions. In Egypt, buildable land on the outskirts of Cairo were initially sold at a loss after servicing/urbanization (and adaptation of the urban regulations) to private developers, often without prior assessment of the potential market. In addition to the suspicion of corruption weighing on these operations, they generated considerable costs. As of 2004, lands are sold at auction in exchange for investments in infrastructures from private developers, boosting revenues from these sales.
4. There is also an improvement in transparency and accountability, progressively accompanied by dialog and consultation mechanisms between protagonists. In Sao Paulo, following the first experiences of selling building rights, especially the first urban operation with the sale of CEPAC (the Urban Operation in Consortium - OUC⁶⁶ Faria Lima), and the resulting criticism (mechanism with little transparency and exclusively geared toward the interests of real estate capital), mechanisms for public consultation in the preparation of urban operations and regular collective monitoring by a committee made up of, among others, representatives of housing rights associations, architects etc. have been put in place, and their role has gradually strengthened.
5. Ultimately, a more equitable distribution of the value between the various involved parties.

⁶⁵ The role of the Land Development Center, an agency attached to the Natural resources Department of the Municipality, is to gather and add value to available land for the Municipality. In the light of this, it is in charge of expropriations / compensations, and land redistribution to developers, through auction sales, exchanges against infrastructures buildings or provision for public projects.

⁶⁶ The OUC, legally initiated by the Law on the status of cities in 2001, is the judicial brazilian entity that allows to structure development projects over a given territory.

These characteristics are not necessarily pre-requisite, even if they can greatly facilitate implementation of the tools. For example, certain tools can sometimes be used outside of the legal scope at first, and on the contrary, legal possibility does not necessarily produce real use. For example, we have seen that corresponding operations in Sao Paulo were declared unconstitutional after being implemented, and certain tools provided for in the Law on Cities' Status of 2001 (such as progressive land taxes and the possibility to expropriate under-used urban land) have still never been used, almost fifteen years after the law was passed⁶⁷. There are several possible, even legally binding mechanisms that have not been put into practice. For example, we can cite the 0.05% tax on project costs theoretically requested by Kenyan committees for all new operations, which does not appear whatsoever in the Nairobi accounts. We can also mention the endowment fee of up to 20% (usually 10%) of the price of the required property in Zimbabwe for any subdivision, theoretically intended for investment in infrastructure but serves in practice to adjust current spending (ACC 2015).

5.5. The use of financing tools and their implementation modalities depend upon the political leadership behind the project

The relative stability over time of the delivery policy is essential because it allows the tool to be perfected, but conversely, it also limits the abandonment strategies of a tool to substitute it for another (retention land mechanism, etc.).

For example, in 1950 the UK Labour government decided to heavily tax land value gains, in order to curb speculative behavior. Owners adopted the exact opposite behavior than what was expected, maintaining their land in the expectation of a policy change that would bring more favorable sale conditions, which increased the shortage of land and its price. This ultimately resulted in this method being abandoned.

In addition, the capture potential is closely linked to the local context, whether it be local cultural factors⁶⁸, which makes it more or less difficult to accept certain tools, or local opportunities (land conditions, tools already used by others at national level, legal possibilities and institutional configuration, etc.).

When well-used, the participatory mechanisms (involving the population in general, beneficiaries, certain selected stakeholders, etc.) may contribute significantly in reducing political risk. Land tax, for example, requires the establishment and update of comprehensive land registries, and is unpopular because it is very identifiable and attached to any public action in particular. Also, other instruments such as the TIF or the improvement taxes are typically connected to this tax.

⁶⁷ These mechanisms were integrated for the first time in the Strategic Development Plan of Sao Paulo during its revision in 2014, but it has still never been actually applied.

⁶⁸ Particularly the property relationship: in countries where this right is regarded as absolute, even sacred, the imposition of restrictions is more difficult than in others, where its social function is recognized (northern Europe or Germany for example).

The construction of internal implementation capacities also constitutes an essential prerequisite for the mobilization of land value gains.

VI. Can we identify regularities, based on local specificities, in the use of instruments?

Few authors have attempted to report the types of cities with the types of local financing tools. Salon and Shewmake suggest that cities with the legal possibility to lift property taxes prefer this option, even if it is politically delicate. They also propose that cities which can acquire the good market land taxes use the tools related to the sale or long term lease of land, and that towns with “entrepreneurial” ability to launch prioritized joint public- private operations.

Hong and Cheng (2014) attempt to promote the systematization of the use of tools to capture land value gains according to a progressive city development process in four phases⁶⁹:

1. New towns: acquisition of land, allocation of usage rights and good governance intended to enable an efficient allocation
2. Specialization in export⁷⁰: land and real estate tax and betterment taxes
3. Complexification of export economy: sale of building rights, exactions and inclusionary zoning (inclusive planning⁷¹)
4. Economic maturity: Business/Neighborhood Improvement Districts (sectors and Community Benefit Agreements)

However, authors themselves explain that it is only a conceptual model, based on theoretical and certainly not unique developments. On the other hand, it is not the recovery of land values that has been the driving force.

Our findings, based on the analysis of a few well-documented “success stories”, highlights basic mechanisms and a great adaptability to local contexts, which ultimately makes any typology difficult. By way of illustration:

1. Land management in Vietnam, China, Hong Kong or Ethiopia might resemble a typological group, but Brazil shows that without land management, it is possible to sell usage rights (construction, as it happens) on a mass scale to finance investments.

⁶⁹ For the definition of instruments, please refer infra or the database online

⁷⁰ This scheme refers to the principle according to which when cities reach a given level of development, their become exporting cities.

⁷¹ That forces planners and developers to take into account in their projects, elements considered as for the general interest (such as social housing for the most vulnerable population).

2. Experiences are much more prevalent in intermediate income countries, but there are several counter examples (Vietnam in the 2000's or Ethiopia for example, which were classified as the least developed countries (LDCS), or even Angola).
3. If the majority of examples is the fact of local governments, the example of Cairo (and the Paris region for new towns) shows that these mechanisms can be also used by national structures, in this case for urban extension for new cities.
4. If the direct involvement of local authorities in real estate operations requires know-how considered to be more specific for large agglomerations (Hong Kong and its subway company MTRC being the prime example), some modest-sized municipalities, with few autonomous powers, may also engage in land valuation operations of the same nature, albeit of a completely different scale. As well in Jordan, where municipalities enjoy a very restricted degree of autonomy, powers and limited resources, many of these have developed a public park with shops and offices, precisely to overcome this lack of resources, which can represent almost 10% of the budget, and more than half of the budget of municipal investment (in Zarqa for example, a city with approximately 500,000 inhabitants near Amman)⁷².
5. At the geographical level, territories next to each other can cover the decentralization realities or use highly diversified tools. For example, Latin America, with Brazil and Colombia on the one hand, very innovative and decentralized, and Peru on the other hand, highly centralized. However, certain areas (notably sub-Saharan Africa, and to a lesser extent the Maghreb and Middle East) seem less advanced in terms of decentralization and the use of tools to capture land value gains.
6. Even if the size of the city, its economic power and its urban politico-administrative structure seem to be proactive factors, many world capitals do not use land value gain capture mechanisms. It can even be noted that the main experiments were carried out in relatively important cities (often several million inhabitants in developing countries), that are economically and demographically dynamic. As we have seen, the creation of more land value and the possibility for local governments to capture a portion of this, depends on a demand for land and real estate, as well as the solvency of this request, two factors which themselves depend on the creation of wealth in the territory. However it also depends on the manner in which this wealth is incorporated or not in the land. This can, in many cases, also constitute a financial investment (particularly because of the weakness of alternatives) without direct link with its use value. This phenomenon is observed in many countries where financial markets are under-developed (China, Vietnam, Sub-Saharan Africa, etc.). And while not a guarantee of competence, city size could be at least partially correlated with the local capacity for implementation.

⁷² Source : Assessment reports from the Regional and Local Development Program in Jordan, funded by the French Development Agency and the World Bank, and fieldwork by David Albrechth in the framework of the Urban Project Finance Initiative - UPFI, funded by the French Development Agency and European Investment Bank.

The extreme variety and operational flexibility of the tools to capture land value gains makes it very difficult to develop a typology to base “methodological guide” publications for local communities. Therefore, systemic global analysis⁷³ should be conducted for each interested city, in order to identify the tools and modalities best suited to the local context, as well as the main obstacles and key factors for success for each of them.

This state of the art analysis therefore has its limits. It has allowed us to identify the general characters of the different tools, describe and identify trends, characterize the overall contexts and institutional systems conducive to the operationalization of such or such device to capture even more value. But these elements do not suffice to explain the tax decision. **Local contingencies, their diversity and interactions make it impossible to update simple, mechanical and universal correlations** between the territorial and societal context and the valuation devices. We must ask ourselves, on the other hand, if the diversity of local determinants does not inevitably lead to the design of specific tools made through creativity and inventiveness that are nothing other than the development of a more balanced and systemic solution at a given moment for a coalition of decision makers.

To go beyond descriptive and general observation of correlations, **we must proceed to an inductive approach, conducted on the ground, which will allow a precise rebuilding of the financial, institutional, political, societal, economic and structural context** that has presided over the mobilization of such a device. It will allow us to understand the construction of compromise, sequencing of decisions, multidimensional trajectory (political, financial, and institutional) of the decision to capture a part of land value gains. Conversely, it may also update the blocker factors that prevent the implementation of other tools, and thus assess the potential for development as a function of the consistency of these factors blockers and contextual developments.

This analysis must be carried out head on for all mobilized resources, both endogenous (taxes, charges, transfers) and exogenous (borrowings, Public-private partnership schemes), because the rarity or depletion of the financial resource can be a major factor leading to innovation in a manner shaped by the local context, and often mixed. Thus, the mechanisms to capture land value gains, in addition to structurally relying on partnerships with the private sector, can take the form of PPP with specific (land concessions) or institutional purposes (joint public-private development), and serve as a loan guarantee. In the case of Tax Increment Financing, recourse to borrowing (guaranteed by future revenue land) is even the main part of the mechanism. Also, the presence, or lack thereof, of alternative endogenous financing is a major driving force of their creation.

⁷³ The norms and habits that governs the relationship between the various actors.

VII. What working assumptions can we draw from this analysis?

Starting with mechanisms which seem to influence implementation (or not) of tools to capture land value gains and their operational modalities, several theories are likely to guide the analysis that will be performed in the cities participating in phase II of the study.

- First theory: **The mobilization of local finance** (including land) is not a weightless process but **is recessed at the time in the territorial social contract and the public action conditions**. Its development therefore depends on development of the social contract, the perception of needs by decision makers, and the offer of available financing. Innovation and the search for new financing tools would intervene only after the exhaustion of the resources already available, because development of the social contract results in a modification of balances, and therefore the possible resistors from certain stakeholders.
- Second theory: this evolution requires a **consistency of stakeholders between the identified needs and the financing capacity**. In the absence of this proactive combination, if the interests of stakeholders on the financing tools are not the same as those who feel the needs, these tools are not used to support them.
- Third theory: **The choice of tools and the modalities of their implementation does not induce rigid typology** (such tool for such context). Some tools are more suitable than others depending on the type of needs (sector, investment/operation, etc.). Similarly, some tools seem more relevant than others depending on the local context and its specific characteristics (cultural factors, land control, level of decentralization and institutional structuring, implementation capacity, power relationships between involved parties, etc.)⁷⁴.
- Fourth theory: **The use of the tools themselves will gradually allow (or not) to construct an environment which will stabilize it**. If it is perennial, such use may result in an adaptation of institutions, structures and development of the legal and regulatory framework, improvement in its performance, and optimization of the costs/benefits for each of the involved parties. Clearer rules, a more transparent governance and better financial accountability, can be products of this evolution. It will have to check to what extent these characteristics are decisive for the choice of tools, and if they are necessary or incidental.
- Fifth theory, closely related to the previous two: is that **development management of the use of tools is structured locally**, depending on available technical capacities, and power relationships between government stakeholders, reflecting real powers, not legal ones.

⁷⁴ We can attempt to assess throughout the case studies if decentralization appears as a variable for acceleration or strengthening of the capacity to mobilize land tax. More generally, it will be necessary to try to prioritize the explanatory variables of land valuation which have been identified, or to specify those that are important and those which seem to play a more secondary role.

These theories, if verified, have major implications on the initial problem, namely how to mobilize local resources in the service of territorial development. The problem will not be a question of transfer of skills and means, but would implement various financial, governance and operational arrangements, combining an infinite variety of configurations, public, private, local and national stakeholders. It is the **optimization of this arrangement** that would result in more promising progress margins. Since they constitute developments that necessarily result from resistors, it is a question of limiting these and maximizing the positive impact of developments for the majority of involved parties.

In this regard, the case studies that will be performed during the second phase of the project should therefore focus on the situations that support, as far as possible, **rupture, imbalance or rapid development situations, which open up more space to challenge the pre-existing balances**, or even make this remittance a top priority.

The sample selected should also focus, in an experimental logic, on more economically-dynamic territories, to then extend the application of the tools to other cities and territories, where there are less implementation capacities.

Continuing on from this idea, the sample should include cities which are already implementing, even partially, the dialog mechanisms between stakeholders, or consultation of the population. This is in order to integrate a reflection on the interests (cost/benefit ratio) of the main stakeholders in the implementation of financing tools.

Involvement of the various parties involved allows for greater legitimacy, stability and sustainability, even efficiency, of the actions, and in all cases to construct the communication spaces which will facilitate the development of balances and new consensus. From this point of view, four levels of communication can be distinguished, and the whole process results in an identified and legitimate trial pilot.

1. Knowledge of needs, which overlaps the analysis of interests and requests of the various involved parties. This level is the indispensable basis for the construction of collaborative synergies.
2. The information of stakeholders and inhabitants may allow for explanation and justification of the policies and broaden their support base, as well as decrease the resistors.
3. Consultation/dialog/co-construction, which is more closely associated to certain stakeholders in the elaboration of policies.
4. Contractualization/monitoring, which provides information over time on the results, and allows strengthening of the sustainability of policies and their stability by providing them with wide support within the economic sectors and civil society.

To summarize, this study argues for the implementation of a pragmatic approach in the second phase of the study, which will take into account local realities and the various interests at stake, based on the opportunities to build gradually and in a timely manner⁷⁵ of financing tools and relevant and imperfect action programs, that are scalable and consolidated during the course of time.

⁷⁵ Political course of action in which the tactic is determined according to the circumstances, by compromising, if necessary, with principles.

VIII. At this stage of the study, what are the possible recommendations for local authorities?

At this stage, several recommendations can be drawn from this literature review, as regards land and real estate value capture for the purposes of local development:

1. The tools to capture land and real estate value gains vary in number and flexibility; their joint use with other funding mechanisms of urban local development can be considered in most contexts. From a certain size, it is rare for urban territories to be unable to certain tools into practice in one way or another, and in varying proportions.
2. The pre-requisite to the use of any tool, either the coherence, or the minimum convergence of interest, between the government stakeholders directly involved in the collection of funds and their use. We are talking here of public stakeholders that will directly implement the tool in its different stages: control of support and the creation of value (land, urban regulations, various public investments, etc.), of the realization of the value (sale of land, rights, etc.) and the use of its product. More broadly, all government stakeholders involved must find their interest, and it is important to carry out a prior cost/benefit analysis for each of them, and not only for the public sector as a whole.
3. Some instruments are simple to use, while others require specific local conditions, and can be reserved for relatively sophisticated institutional environments. For example, some tools require a land registry, others a relatively precise and updated measure of the development of real estate values, and others the existence of a suitably mature real estate market.
4. The implementation and further development of tools to capture land and real estate value gains is an incremental process. Even if some starting situations are more conducive than others, it is from their use and evaluation of their results that the tools will be gradually optimized.
5. In all cases, adequate qualification of staff and suitable structuring of the institution which implements the tool are major strengths to quickly optimize its use.
6. Transparency of the operation methods allows both optimization of the allocation of the resource and better acceptance from citizens. This transparency refers to both the acquisition of the resource (contributors, distribution methods, competition, etc.) and its use (compensations, visibility of financed actions).

Annex 1: Case studies from the literature review

With contribution by Charlotte LAFITTE, project officer at UCLG / Committee on Local Finance for Development.

1. **São Paulo, Brazil :**
 1. Urban development in consortium and CEPAC
 2. Master Plan and sale of building rights (OODC)
2. **Bogota, Colombia :**
 1. Contribucion de Valorizacion
 2. Land purchase at the price previously set at the project's disclosure - Nuevo Usme
 3. Participacion de Plus Valia (counterexample)
3. **Medellin, Colombia :** Planes Parciales (land readjustment)
4. **Santiago, Chile :** Impact fee to fund an access road
5. **Hong Kong, China:**
 1. Sale of land use rights
 2. Use of land use rights to finance nearby mass public transportation system (subway)
6. **Shanghai, China :** Sale of land use rights
7. **Ho Chi Minh City, Viet Nam :**
 1. Sale of land use rights
 2. Public-private partnership = exchange of building lands against the construction of infrastructures
8. **Tokyo, Japan :**
 1. Financing of a subway based on nearby lands
 2. Land readjustment
9. **Mumbai, India :** Development schemes in Banda Kurla
10. **Bangalore, India :** Financing of an airport by land resale
11. **Hyderabad, India :** Concession for the production/management of a subway line together with real-estate development
12. **New Delhi, India :** Financing of a subway through land-valuation (counterexamples)
13. **Istanbul, Turkey :** Sale of public land
14. **Cairo, Egypt :**
 1. Land sale to finance infrastructures for a new town
 2. Exchange of public land against private production of infrastructures
15. **Cape Town, South Africa :** Sale of public lands
16. **Angola :** Huambo land readjustment (doc UN Habitat 2013)
17. **Addis Ababa :** Sale of construction rights (ACC 2015)
18. **Benin :** Land Urban Registers (Simonneau 2013)
19. **Paris, France :** ZAC Paris Left Bank
20. **Londres, United Kingdom :** TOD financing though land valuation
21. **Germany:** Land readjustment
22. **California, US :** Special Assessment

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