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Sharing the Wealth: Private Land Value and Public Benefit

Introduction

Sustainable development includes the public financial resources to invest in and maintain the physical infrastructure and urban services necessary to support urban living. The need for additional resources to meet the demands of urban growth is nearly ubiquitous. This need has led many thoughtful observers to advocate greater use of land as a basis for raising additional revenues. For example, the editors of *The Economist* recently argued:

*"[G]overnments should impose higher taxes on the value of land. In most rich countries, land-value taxes account for a small share of total revenues. Land taxes are efficient. They are difficult to dodge; you cannot stuff land into a bank-vault in Luxembourg. Whereas a high tax on property can discourage investment, a high tax on land creates an incentive to develop unused sites. Land-value taxes can also help cater for newcomers. New infrastructure raises the value of nearby land, automatically feeding through into revenues—which helps to pay for the improvements."*¹

The need for additional resources to fund growth-related needs is not limited to developing countries. In 2014, the National Bank of Canada published a discussion paper promoting land value capture to fund public transit for Montreal.² That report concludes in part:

“There is significant evidence to show that the improved connectivity supplied by new transit services generates increased land and development value. This is well recognized by the development industry. It therefore seems fair and equitable that a proportion of this additional wealth, generated by the new transit, should go to funding the transportation facility.”

This chapter briefly reviews the instruments commonly used to engage in land value sharing and raise revenue based on land value and land attributes. Both theory and practice support the use of land-based revenue sources. However, the challenges associated with effective implementation should not be understated.

Land value sharing: Theory

In the fields of urban public finance and international development, the concept of land value sharing (also commonly referred to as land value capture) has become a standard argument for implementing or reforming taxes based on land. Often the value of privately held land increases as a result of public investments in infrastructure, publicly approved changes in land use, or broader changes in the community, such as population growth. Proponents of land value sharing argue that governments should use taxes and fees to collect some share of this increase in value for public purposes, including funding infrastructure and service improvements. The concept of land value sharing has been in circulation at least since 1776 when Adam Smith wrote *The Wealth of Nations*. Smith considered the topic of taxes on agricultural land (which he called “the ordinary rent of land”), houses (“house-rents”), and residential land values (“ground-rents”) and concluded:

“Ground-rents, so far as they exceed the ordinary rent of land, are altogether owing to the good government of the sovereign, which, by protecting the industry either of the whole people, or of the inhabitants of some particular place, enables them to pay so much more than its real value for the ground which they build their houses upon. ... Nothing can be more reasonable than that a fund, which owes its existence to the good government of the state should be taxed peculiarly, or should contribute something more than the greater part of other funds, towards the support of that government.”³

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The need for additional resources to meet the demands of urban growth is nearly ubiquitous.

Whether or not one agrees that increased land value is due to the quality of governance, it is clear that in most instances increases in land value are not due to actions taken or investments by the land holder. This led John Stuart Mill to write in 1848:

“Suppose that there is a kind of income which constantly tends to increase, without any exertion or sacrifice on the part of the owners: ... In such a case it would be no violation of the principles on which private property is grounded, if the state should appropriate this increase of wealth, or part of it, as it arises. This would not properly be taking anything from anybody; it would merely be applying an accession of wealth, created by circumstances, to the benefit of society, instead of allowing it to become an unearned appendage to the riches of a particular class.

“Now this is actually the case with rent. The ordinary progress of a society which increases in wealth, is at all times tending to augment the incomes of landlords; to give them both a greater amount and a greater proportion of the wealth of the community, independently of any trouble or outlay incurred by themselves. They grow richer, as it were in their sleep, without working, risking, or economizing. What claim have they, on the general principle of social justice, to this accession of riches?”⁴

The strongest historical proponent of a tax on land value was 19th century political economist Henry George, who believed that society should abolish all taxes except the tax on land values. He viewed this tax as a remedy for the unequal distribution of wealth and argued that it could be used to prevent speculation and support productivity. In his immensely popular 1879 book *Progress and Poverty*, he wrote:

“The tax upon land values is, therefore, the most just and equal of all taxes. It falls only upon those who receive from society a peculiar and valuable benefit, and upon them in proportion to the benefit they receive. It is the taking by the community, for the use of the community, of that value which is the creation of the community....

“And to shift the burden of taxation from production and exchange to the value or rent of land would not merely be to give new stimulus to the production of wealth; it would be to open new opportunities. For under this system no one would care to hold land unless to use it, and land now withheld from use would everywhere be thrown open to improvement.”⁵

Contemporary economists favor land taxes for another reason: Land taxes are economically efficient. Normally taxes reduce the supply of goods



Commercial area in Honiara, Solomon Islands © UN-Habitat

produced and/or raise prices, which detracts from the welfare of producers and consumers.⁶ However, a land value tax does not reduce the supply of land, which is fixed. When supply of a good is completely inelastic, economic theory predicts that the full price of the tax will be borne by the seller—i.e., the price of land will be reduced by the amount of the tax. This is an efficient outcome since the seller did not exert any effort to create the value of the land itself. In fact, counterintuitively, a value-based tax on land can actually decrease the price of residential and non-residential units. This is because it can deter speculation and incentivize landholders to put their land into use, adding to the supply of units in the market.

Several modern noted economists have commented on the theoretical strength of land taxes. Nobel laureate William Vickery observed:

“The property tax is, economically speaking, a combination of one of the worst taxes—the part that is assessed on real estate improvement ... and one of the best taxes—the tax on land or site value.”⁷

Even conservative economist Milton Friedman grudgingly acknowledged the merits of land taxes:

“There’s a sense in which all taxes are antagonistic to free enterprise – and yet we need taxes. ... So the question is, which are the least bad taxes? In my opinion the least bad tax is the property tax on the unimproved value of land, the Henry George argument of many, many years ago.”⁸

Thus, the current view on the use of land value sharing reflects a substantial consensus that “unearned increments” in land value can and should be recaptured, at least in part, by the community. Few disagree with the Vancouver Action Plan—the founding document of UN-Habitat—which states:

“The unearned increment resulting from the rise in land values resulting from change in use of land, from public investment or decision, or due to the general growth of the community must be subject to appropriate recapture by public bodies (the community).”⁹

Most experts agree with economists H. James Brown and Martim O. Smolka, who conclude that in theory (1) publicly created value should be captured, (2) substituting land-based taxes for other taxes to pay for investments is economically efficient, (3) land-based taxes tend to lower prices and reduce speculation, and (4) land-based taxes could cover a major part of public infrastructure improvements.¹⁰

Given this consensus it is reasonable to ask why the instruments are not more widely used.



Challenges of land value sharing in practice

Land value sharing and land-based revenue systems in developing nations can be extremely useful and fundamental in building an adequate and stable revenue system, but they are not without challenges. Even with a sound legal foundation for land-based revenues (something not always present), three cross-cutting challenges are common in developing countries: administration, valuation, and taxpayer resistance.

Administration: Land-based revenue systems require strong and effective local government administration, and collaboration among multiple levels of government. Such administrative capacity is often lacking in local governments, especially in rapidly expanding small and medium-sized urban areas.

The challenge is compounded because even well-administered systems are unlikely to yield enough revenue to fully fund all operations and needs.¹¹ Many land-related revenue reforms in particular have been largely unsuccessful because the cost of making administrative improvements is higher than the potential yield at tax rates deemed politically acceptable.¹²

Valuation: A second common problem with instituting land value sharing and land-based revenue systems is the difference between market values and assessed or taxable values. In theory, many land-based revenues should be collected based on the fair market value of a property. In reality, discrepancies commonly exist both between and within classes of property since assessment is as much art as it is science, and is fraught with judgments and administrative discretion.¹³

It is common for valuations for tax purposes to fall below what a property would sell for in an open market, resulting in a loss of taxable value for the local government. In many instances, these shortfalls and the resulting revenue losses develop due to irregular and outdated valuations, and inadequate valuation processes. If taxable value fails to keep pace with actual value, the ability of land-based taxes to recoup and share the benefits of public investments is compromised.

Taxpayer resistance: A third problem with land-based revenue instruments lies in taxpayer resistance. Because they are often paid in lump sums, many of these taxes are extremely visible to taxpayers compared with other taxes levied on or through businesses.¹⁴ It can be difficult for taxpayers to compare the relative fairness of alternative taxes, especially if there is only a vague connection between taxes paid and benefits received. This often results in opposition to land-based taxes.¹⁵ Because land-based revenue instruments are often unpopular in developing nations, they are rarely a priority for elected officials.¹⁶

Political support is a key ingredient for land-based finance success.

- High-level political officials must be committed.
- Key stakeholders and the public must be informed and supportive.

Often the best way to generate public support for revenue collection is to spend the revenue on needed and visible public services.

While there are noteworthy challenges to effective use of land-based finance instruments, none is insurmountable. Land-based tools are used effectively in various countries around the world, and many developing countries are making significant progress in implementing or improving such instruments.

Defining and classifying land-based financing instruments

Land-based finance instruments are called by different names in different countries and settings. No attempt is made here to provide a comprehensive list of synonymous names or to cover local variations of the instruments. Rather, the basic features of the instruments are set forth in this section, and the reader is simply cautioned to be aware that ambiguity in names exists. Table 1 summarizes the land-based finance instruments commonly in use. For each instrument, the table provides:

- A very brief description of what the instrument is
- The “timing” of the instrument, meaning when the tax or fee is assessed and with what frequency
- The initial incidence of the tax or fee, meaning who is required to actually pay the obligation

The issue of incidence, or who pays the tax or fee, requires a bit more explanation. Public finance economists draw a distinction between statutory incidence and economic incidence.¹⁷ Statutory incidence refers to who must pay the tax or fee to the government. Economic incidence refers to who must ultimately bear the economic burden of the tax.

Since the statutory incidence does not describe who really bears the burden of the tax, from a policy perspective, the economic incidence is the more important concept. Consider the following example.

One-time versus ongoing revenues

Some land-based finance instruments seem to have an advantage because they can fund capital projects upfront (e.g., sale of public land and sale of development rights).

However, a system that successfully collects an ongoing revenue stream from land can open the door to creditworthiness and give local governments options to finance capital projects through borrowing.

Suppose that a developer purchases additional residential development rights from a city. The statutory incidence of the cost of those rights falls on the developer. But if the developer simply increases the price charged for finished residential flats by the amount paid for the development rights, it is the final purchaser of the flat who bears the economic incidence. In terms of assessing equity and social impacts, the economic incidence is thus of greater interest than the statutory incidence.

Unfortunately, determining the economic incidence of land-based finance instruments is not always straightforward. For example, there is an unresolved debate about the economic incidence of the annual tax on land and buildings.¹⁸ The economic burden of an annual property tax may depend upon whether public services are transparently delivered in proportion to tax payments, whether there is good information available to buyers and sellers about present and future taxes, and whether real estate markets have the time and ability to respond to incentives for the expansion of the supply of built units. In any event, Table 1 reports the statutory incidence. In a subsequent section, the economic incidence and social impacts of the instruments are discussed in greater detail.

Table 1: Land-based finance instruments

Instrument	Description	
Recurring land value tax	<ul style="list-style-type: none"> Recurring tax based on an estimate of the value of land or on land attributes 	
Recurring building value tax (included for comparison)	<ul style="list-style-type: none"> Recurring tax based on the value of immovable improvements or on the attributes of the improvements 	
Betterment levies	<ul style="list-style-type: none"> Charges assessed in connection with specific infrastructure improvements Limited to recovery of actual costs incurred 	
Special assessments	<ul style="list-style-type: none"> Charges assessed in connection with specific infrastructure improvements Limited to recovery of actual costs incurred 	
Developer exactions	<ul style="list-style-type: none"> Charges assessed in connection with development approval Can be paid in cash, in land, or in kind 	
Land value increment tax	<ul style="list-style-type: none"> Tax assessed as a percentage of the increase in land value due to public actions or general market trends 	
Sale of development rights	<ul style="list-style-type: none"> Payments received in exchange for permission to develop or redevelop land at higher density or changed land use Rights can either be sold at auction or at fixed price Rights may be transferable to other locations or resold 	
Sale of public land	<ul style="list-style-type: none"> Payment received in exchange for freehold title to public land 	
Lease premiums	<ul style="list-style-type: none"> Payment received in exchange for right to occupy and benefit from public land Permitted land use is specified Terms vary from 2 to 99 years 	
Recurring lease payments	<ul style="list-style-type: none"> Payment received in exchange for right to occupy and benefit from public land Permitted land use is specified Terms vary from 2 to 99 years 	
Transfer taxes and stamp duties	<ul style="list-style-type: none"> Charge assessed for recording the transfer of a land title from one private party to another Can be either a fixed fee or a percentage of the value of the property being transferred 	

Classifying land-based finance (LBF) instruments

It is helpful to consider the relevance of each instrument for land-related policy goals. Table 2 provides one such summary. In the table five potential land-related policy goals are listed, along with the 11 instruments. Table cells in green indicate that

the instrument listed at the head of that column is potentially relevant for the goal listed on that row of the table. For example, if the goal is to recover the cost of public infrastructure investments, the appropriate land-based finance instruments to consider include:

- Recurring taxes on land value

Timing	Statutory incidence
<ul style="list-style-type: none"> Assessed annually Can be collected in installments 	Either the landowner or the occupant
<ul style="list-style-type: none"> Assessed annually Can be collected in installments 	Either the landowner or the occupant
<ul style="list-style-type: none"> Assessed and collected as a one-time charge 	Existing landholders whose land benefits from the improvements
<ul style="list-style-type: none"> Assessed once Collected over a period of time, often as a temporary addition to the recurring property tax 	Existing landholders whose land benefits from the improvements
<ul style="list-style-type: none"> Assessed once Collected as project is approved and completed 	Land developers seeking city approval
<ul style="list-style-type: none"> Can be assessed when land title transfers or when specific public actions result in increased land values Collected when land title transfers or by special billing 	<ul style="list-style-type: none"> Either the original title holder, the new title holder, or both if tied to title transfer Existing landholders if by special billing
<ul style="list-style-type: none"> Collected once 	Purchaser of the development right
<ul style="list-style-type: none"> Collected once 	Purchaser of the land
<ul style="list-style-type: none"> Assessed and collected once 	Purchaser of the leasehold
<ul style="list-style-type: none"> Recurring payments Payment amount reviewed and updated periodically 	Purchaser of the leasehold
<ul style="list-style-type: none"> Assessed and collected once 	Either the original title holder, the new title holder, or both

- Recurring taxes on building value
- Betterment levies
- Special assessments
- Sale of development rights
- Sale of public land
- Lease premiums

The other four instruments are better suited for achieving other goals. Further, the text in some of the cells indicates any special issues that should be considered in pursuing the instrument in that column with the desired goal listed in the row.

Some of the Table 2 entries also suggest that some instruments are more appropriate than others for some settings. For example, if the goal is to collect a user charge for private use of public land (last row

in the table), it makes a difference whether the land occupancy is formal or informal. If the land use is authorized, it makes more sense to use recurring lease payments built into the agreement that grants the right to use the land. On the other hand, if it is an informal settlement on public land, a formal lease agreement is not practical. However, some cities have been successful in levying a land value tax, especially if paying the tax is linked to eventual regularization of tenure.

Table 2: Land-based finance instruments and land-related policy goals

Land-related goal	Land-based finance instrument					
	Recurring land value tax	Recurring building value tax	Betterment levies	Special assessments	Developer exactions	
Recover the cost of public infrastructure investment	May need to be paired with local borrowing			Requires landholder approval		
Claim a portion of increased private land value created by public action	If the tax rate is high enough				If law permits exactions beyond those that benefit the site	
Collect payments for public services proportional to the benefits provided to landholders						
Avoid direct expenditures for new infrastructure						
Collect a “use charge” for private use of public land	Informal settlements					

Note that sometimes the design of the land-based finance instrument can change its achievement of policy goals. For example, recurring lease payments could be used to recover the cost of public infrastructure investments if priced accordingly and used to repay loans for an investment project. The ability to adapt instrument design is important in settings where the best-suited instrument for the policy goals is unavailable, requiring adjustment of other instruments to fit the intended purpose.

	Land value increment tax	Sale of development rights	Sale of public land	Lease premiums	Recurring lease payments	Transfer taxes and stamp duties
				If priced appropriately		
	If local government administers and retains the revenue					If tax is high; see land value increment tax
					Can be combined with land use charge	If tax is modest
		If the sale takes place before new infrastructure is installed				
					Formal occupancy	

Case Study 1: Sale of development rights in Mumbai, India

In Mumbai, building density is limited by the floor space index (FSI), which is calculated based on the ratio of the allowable floor space to the plot area. For example, a plot with an allowable FSI of 1 could accommodate a building with the same amount of floor space as the total plot area. With an allowable FSI of 2, the built space could be twice the land area. Currently, in the city the allowed FSI is 1.33, and FSI can be up to 1 in Mumbai's suburbs.

Property owners can sell unused FSI from their plots to be used elsewhere. This type of system is called tradable development rights (TDRs) and is sometimes used in other cities internationally as a way to redirect development intensity without disenfranchising the owners of land that should not be further developed. In Mumbai, developers can also purchase up to 0.33 of additional FSI from the government, which provides public revenues to help maintain urban infrastructure under pressure from intensive development. This is called sale of development rights.

Mumbai's government also leverages the value of development rights to incentivize affordable housing construction. Developers who build affordable housing can sell all the development rights for their property. In this way, the private sector (i.e., the buyer of additional FSI) pays developers who build affordable housing.

Some have critiqued the restrictive levels of allowable FSI in Mumbai, saying that they are below market demand, driving development towards the periphery and causing sprawl. The government of the state of Maharashtra, which encompasses Mumbai, is considering increasing the allowable FSI to 2 in a new development plan. Such a move would intensify development in the core, causing some to worry about added congestion. Public revenues generated by the sale of additional allowable FSI should be used to mitigate negative impacts caused by additional development.



Street in Mumbai, India © **Thamara Fortes**

Sources: CNBC-TV18, "Mumbai's Base Floor Space Index Likely to Be Rationalized," 27 May 2016, available from http://www.moneycontrol.com/news/cnbc-tv18-comments/mumbais-base-floor-space-index-likely-to-be-rationalized-srscs_6763981.html; GLTN/UN-Habitat, *Leveraging Land: Land-Based Finance for Local Governments (Nairobi, United Nations Human Settlements Programme, 2016)*.

Case Study 2: Special assessments in Cuenca, Ecuador

In addition to the annual value-based property tax, the city of Cuenca, Ecuador, uses a special assessment to collect payments for infrastructure-upgrading projects requested by communities. This payment is called the *contribución especial de mejoras* (CEM), or betterment contribution. The CEM has been successful in raising significant revenues accounting for over 10 per cent of own-source revenues, slightly more than the regular property tax.

The CEM began as a neighborhood improvement program but expanded after initial successes. Use of the CEM is determined based on a competitive process where communities apply for projects, with the knowledge that they will pay the cost after project completion. Interested communities work with technical experts to develop their proposals and ensure they comply with municipal standards. Projects are prioritized for implementation on the basis of social, political, and technical criteria.

Project implementation includes community involvement. The contracting process favours the hiring of many local contractors, and sometimes benefiting households can make their contributions in-kind through labour. Additionally, the recipient community elects a supervisor to oversee the project in conjunction with the city and to serve as the community liaison.

Project costs are paid through a revolving fund that is repaid from beneficiary contributions. Project costs are divided between landowners by formula, 40 per cent based on street frontage and 60 per cent based on property valuation. Projects with citywide significance have their costs divided among all urban prop-

erties. Contributions are limited to half of the increased value to benefiting properties. The maximum repayment period is seven years, but many beneficiaries pay early to receive a discount; only 3 per cent of required contributions are late.

The program has been successful in building government trust, raising infrastructure funds, increasing property values, and responding to the needs of communities.



Housing in Cuenca, Ecuador © Flickr/Laura Evans

Source: GLTN/UN-Habitat, *Leveraging Land: Land-Based Finance for Local Governments* (Nairobi, United Nations Human Settlements Programme, 2016).

Many of the entries in Table 2 make assumptions about the level of the tax rate, the administrative capacity of the agencies involved, etc. Table 3 provides a more detailed statement of the minimum requirements for each instrument.

Two requirements are common to all land-based finance instruments. First, there must be strong political support from senior political leaders. Second, there

must be a solid enabling legal framework. Beyond that, the requirements for each vary somewhat. All require strong administration, but the administrative tasks vary depending on the instrument. In *Leveraging Land: Land-Based Finance for Local Governments*,¹⁹ the features of each instrument are spelled out more completely, along with the requirements for their use and the likely impacts on the community.

Table 3: Minimum requirements for each instrument

Instrument	Minimum requirements for implementation
Recurring land value tax and recurring building value tax	<ul style="list-style-type: none"> • Appropriate enabling legal framework • Fiscal cadaster (land registry) that includes all taxable land plots • Appropriate estimate of taxable value • Administrative ability to calculate tax due, deliver bills, and collect tax
Betterment levies	<ul style="list-style-type: none"> • Appropriate enabling legal framework • Identification of all land plots whose value is affected by the improvements • Estimated impact of the improvements on the land value of each affected plot • Accurate estimate of the cost of the improvements • Method for allocating the improvement costs to individual plots based on the share of benefit received • Adequate one-time billing and collection system
Special assessments	<ul style="list-style-type: none"> • All points included for betterment levies • Agreement of a majority of land owners • Adequate installment billing and collection system
Developer exactions	<ul style="list-style-type: none"> • Appropriate enabling legal framework • Estimate of the impact of the proposed development on existing infrastructure • Administrative coordination with city planning functions • Method for calculating the amount of exaction due • Adequate billing, collection, and project monitoring system
Land value increment tax	<ul style="list-style-type: none"> • Appropriate enabling legal framework • Estimate of the “before” and “after” land values • Administrative capacity to identify when the tax is due • Adequate billing and collection system

Instrument	Minimum requirements for implementation
Sale of development rights	<ul style="list-style-type: none"> • Appropriate enabling legal framework • Effective control of existing development rights • Demand for additional development rights • Administrative and planning capacity to determine acceptable amount of additional development • Capacity to manage the process of selling additional development rights • Capacity to monitor use and any resale of rights sold
Sale of public land	<ul style="list-style-type: none"> • Appropriate enabling legal framework • Administrative and planning capacity to determine which lands should be privately developed • Capacity to manage a transparent and fair sales process • Capacity to allocate and manage sales proceeds
Lease premiums and recurring lease payments	<ul style="list-style-type: none"> • Appropriate enabling legal framework • Administrative and planning capacity to determine which lands are available for lease • Appropriate estimate of market value of land to be leased • Administrative ability to solicit and negotiate leases • Administrative ability to monitor leases for the duration of the lease • Administrative capacity to allocate and manage lease proceeds
Transfer taxes and stamp duties	<ul style="list-style-type: none"> • Appropriate enabling legal framework • Effective land registration system • Administrative capacity to identify when the tax is due • Capacity to estimate taxable value • Adequate billing and collection system

Actions for implementation or improvement of land value sharing

In the past several years, the Global Land Tool Network (GLTN) and UN-Habitat have partnered in the production of three notable works with recommendations and guidance for implementing land value sharing and, more broadly, on land-based finance. The first was a land value sharing scoping study,²⁰ which concludes in part that:

- Effective land value sharing and land-based finance systems require a political champion, good property tax law, and decentralized authority to implement the system.
- The effectiveness of the land value sharing and land-based finance system is greatly improved if it is embedded in an effective land use management system.
- Land value sharing and land-based finance systems require adequate training for at least three separate groups (policymakers, administrators, and land developers).
- Efficient, accurate, and timely land valuation is essential.
- Countries should consider and evaluate all the available tools for land value sharing.

The second work is *Land and Property Tax: A Policy Guide*.²¹ This guide notes that in designing the land value sharing and land-based finance system, decision-makers should carefully consider four aspects of the local environment:

- How land and property rights are defined in the community
- How such rights are publicly recorded, or at least recognized, and defended
- The maturity of local land and property markets

- The administrative capacity of those public agencies charged with implementing the land value sharing and land-based finance system.

Most recently, GLTN and UN-Habitat have produced extensive training materials for local and national leaders on land value sharing and land-based finance, including a reader, case studies, and a trainer's guide.²² Much of the material presented in this chapter is derived from this publication.

Steps towards initial implementation

For city leaders interested in implementing land value sharing for the first time or in a new form, there are some generalized steps that can be followed towards initial implementation, including goal identification, assessment, instrument design, action planning, implementation, and monitoring. These basic activities can be tailored to fit the city's specific situation. These are each discussed in turn:

- (1) **Goal identification:** Carefully selected goals can guide the choice of the appropriate instrument. Potential goals may include improving ongoing revenues, raising revenue for a capital improvement project, or incentivizing more productive and sustainable land use. City leaders may also identify intended impacts (social, economic, and environmental) to guide both the assessment of potential instruments and the design of selected instruments.
- (2) **Legal assessment:** City leaders should check to see which land value sharing instruments are available according to the legal code, likely with the assistance of legal counsel.

They should also take note of the regulations governing the available instruments. Of particular note are regulations specifying what is taxable and exempt, how value is determined, statutory incidence, the specified rate or rate-setting process, agencies responsible for administrative functions, and the allocation of revenues received. City leaders should also note which land value sharing instruments (if any) are specifically prohibited and which instruments are not explicitly mentioned in existing laws.

- (3) **Administrative assessment:** Evaluating current administrative capacities will inform city leaders of potential implementation issues related to various land value sharing instruments and will identify areas that must be improved before implementation. Table 3 lists specific areas of administrative capacity required for each instrument.
- (4) **Assessment of political will:** Successful implementation of land value sharing will rely on high-level political commitment as well as the political acceptability to those subject to the tax or fee. Some immediate gauge of both types of political will should be done early on, with further engagement about the potential benefits of land value sharing and opportunities for success as specific ideas are developed.
- (5) **Instrument selection and design:** Stakeholders such as municipal agencies, national ministries, and the private sector should provide input into this process. Selection of the right instrument is important, but just as

important are decisions about who will be required to pay the tax or fee, how contributions will be calculated, and which agencies will be involved in assessment and collection. These details can determine whether the instrument is fair, socially equitable, revenue-generating, and administratively feasible.²³

- (6) **Action planning for implementation:** An action plan should specify the critical steps to be taken for implementation, the responsible parties, and the timeline. Potential actions may include the drafting of a local ordinance. Revision of a national law may also be desired; however, this will likely require more lead time and commitment from a broader group of national stakeholders. One option for instruments requiring national policy revision is to obtain legal permission for a pilot case at the local level. The action plan should also assign responsibility for monitoring and evaluation. A single agency or working group may oversee execution of the action plan in order to keep responsible parties on track.
- (7) **Instrument implementation:** Implementation may be phased or begin in a pilot area. It will require training for administrators and an information campaign targeting those responsible for tax or fee payments.
- (8) **Monitoring, evaluation, and adjustment:** It is critical that local leaders track the functionality and impacts of administration (including unintended impacts) to ensure that the instrument is achieving its goals.

Case Study 3: Establishment of the recurring property tax in Makeni, Sierra Leone

In Sierra Leone, the Local Government Act of 2004 set the stage for decentralization of a highly centralized financial system. Under this law, property taxes are permitted, but at the time of passing, most cities' cadasters (land registries) were incomplete, outdated, or nonexistent.

The city of Makeni began the process of improving the recurring property tax in late 2006, with initial work by an international surveyor hired through the local UNDP office. Some early success led to a more structured program with five elements:

- (1) **Discovery:** Properties were put into the cadastral registry by a group of local surveyors with hand-held GPS units who recorded each property's location and owner.
- (2) **Assessment:** Property valuation was done using a formula based on the property's visible characteristics in order to provide transparency about the valuation process. These characteristics included land use (residential, commercial, etc.), structure dimensions and facilities, construction type, location, and accessibility of public services. Valuation officers visually assessed each property.
- (3) **Billing:** Notices were delivered to each household specifying the tax due as well as the formula used to calculate it.
- (4) **Sensitization:** The local government used media including radio, TV, and call-in shows featuring public leaders such as chiefs and



Market in Freetown, Sierra Leone © Flickr/jbdodane

religious leaders who volunteered to talk about the tax. The information shared included:

- The calculation of tax liabilities
 - The ultimate purpose of the taxes collected
 - Procedures and timelines for tax payment
 - Available options for appealing tax assessments
- (5) **Collection:** Revenues increased by 600–700 per cent in one year and continued increasing over the next few years. The municipal finance department asked those involved with Makeni's tax system to spread knowledge to other cities in Sierra Leone.

Source: Samuel S. Jibao and Wilson Prichard, "The Political Economy of Property Tax in Africa: Explaining Reform Outcomes in Sierra Leone," *African Affairs*, vol. 114, no. 456 (2015), pp. 404–431.

Improving administration of existing land value sharing instruments

Many cities already have land value sharing instruments in place, but they are not achieving their full potential. This is particularly common with the recurring property tax since it is frequently assigned to local governments, but those governments may not have adequate capacity or incentives for successful administration. See the box titled “The revenue relationship” for an overview of the elements behind collection efficiency of the recurring property tax.

The revenue relationship

The actual revenue collected through the annual tax on land and/or improvements is a function of two policy variables:

- The value of the property tax base as legally defined (base)
- The property tax rate as set by law and policy (rate)

And three administrative factors:

- The proportion of all land that should legally appear on the tax rolls that actually is included in the fiscal cadaster (coverage)
- The proportion of taxable value identified by the valuation process (valuation)
- The proportion of the tax levied that is actually collected (collection)

The total revenue collected will be the product of all these factors. This mathematical identity defines the revenue relationship:

$$\text{Revenue} = \text{Base} * \text{Rate} * \text{Coverage} * \text{Valuation} * \text{Collection}$$

For example, suppose that the base is defined as market value and the legal tax rate is 1 per cent. But:

- Only 70 per cent of the property that should be on the tax rolls has actually been registered (70 per cent coverage rate)
- The valuations are out-of-date and reflect only 80 per cent of actual market value (80 per cent valuation rate)
- Only 80 per cent of the tax billed is actually collected (80 per cent collection rate)

Under these conditions, the revenue actually collected will be less than 45 per cent of what should be collected ($0.7 \times 0.8 \times 0.8 = 0.448$).

The three administrative factors listed in the box—land registry coverage, valuation, and collection—pose common difficulties for cities in implementing land value sharing instruments. Attention to improvements in these three areas can have substantial dividends for the local government, particularly when addressed together, even if there is no change in the legally defined base or an increase in the tax rate.

Coverage of the fiscal cadaster

A fiscal cadaster is a land registry that links each property to the person liable for paying land-based taxes and/or fees. The level of detail of fiscal cadasters vary. The most detailed type of land records include precise geolocated boundaries, a record of the property's features, the history of ownership and sales prices, information about zoning and administrative districts, etc. The simplest fiscal cadaster simply records occupant names, tax payment information, plot size, and an address or XY coordinate.

Simplification of the fiscal cadaster can improve the prospects of updating it regularly. The goal of a fiscal cadaster differs from a cadaster to be used for land management. Consequently, the information included in the registry may be less detailed and can sometimes avoid the lengthy and costly legal process of title verification. This is particularly the case if taxes and fees are charged to the occupant instead of the owner. The necessary features of a fiscal cadaster depend upon the design of the land-based tax or fee system, including the system for valuation.

GLTN and its partners have developed a tool called CoFLAS: Costing and Financing of Land Administration Services.²⁴ The goal of the tool is to examine the range of land administration system charac-

teristics and help governments estimate the costs and financing options of a fit-for-purpose land management system. An additional tool developed by GLTN is the Social Tenure Domain Model (STDM), which is a simple system for recording the geographic points of plots and the relationships of people to those plots, including informal and customary relationships. It is an excellent option for quickly and affordably creating a simple system of registration in areas where land tenure is informal or complicated.²⁵

Valuation

Some land-based financing instruments rely upon observable land values. For example, the sale of public land, if done by open public auction, can provide a fair assessment of value. Similarly, land value increment taxes are based on actual sales values. However, recurring taxes on land value require an official estimate of the value of the land apart from an observable sale. Valuation systems should be designed to match the administrative capabilities of



Street in Bogotá, Colombia © Flickr/CucombreLibre

the valuation agency and the level of sophistication of the property market. In active markets where property is bought and sold in open arms-length (i.e., between strangers) transactions, market-based approaches to valuation may be appropriate. Otherwise, non-market approaches can be used. Table 4 summarizes some common approaches to valuation.²⁶

Table 4: Approaches to valuation

Market-based approaches	
Comparable sales approach	Comparison of property to recent sales of similar properties to estimate value
Cost approach	Cost of buying land and constructing the building
Income approach	Capitalized annual income that could be generated by the property
Annual rental value approach	Annual rent that could be collected for leasing the property
Non-market approaches	
Area-based approach	A constant value per square meter (of land and/or floor area), dependent on zone is applied to the property
Cadastral value approach	Average market value per square meter within the zone and land use class is applied to the property
Formula-based approach	Area and other plot and/or building characteristics (e.g., street frontage, proximity to specific amenities) used to calculate value based on a standardized formula
Value banding approach	Same tax for each property within a range of values

Some valuation approaches rely more heavily on experienced and highly trained valuers (e.g., comparable sales approach), while others are more GIS-technology intensive (e.g., cadastral value approach). All approaches require technical capacity and training, which is sometimes easier to develop at a higher level of government (i.e., state, provincial, or district) with more staff than the municipality.

In order to ensure the accuracy of valuation, it is important to update valuations regularly. Ideally the frequency of valuation updates will be legally pre-established, rather than relying on the initiative of local governments that do not want to appear

to be raising taxes, a politically unpopular decision. However, the most important aspect of the valuation system is not its accuracy but its fairness. If all properties are systematically undervalued to the same degree, the impact is the same as if the tax rate were lower (and can be compensated for with a higher tax rate). However, if only some properties are undervalued, the system is unfair. If more valuable land or wealthier neighborhoods are generally undervalued to a greater degree than less valuable land or poorer neighborhoods, then the system is both unfair and inequitable. At the level of individual properties, fairness can be supported by providing a clear valuation appeals process to resolve claims of unfair valuation quickly and fairly.

Case Study 4: Updating property valuations in Bogotá, Colombia

Bogotá has a well-functioning value-based property tax that generates 40 per cent of local revenues. However, in 2008, property taxes only accounted for 20 per cent of revenues, and valuations had fallen behind markets, with listed values only representing about 68 per cent of market values.

Mayor Antanas Mockus needed to improve the performance of the local property tax in order to finance a new subway transit system for the city. He decided to pursue a valuation update, despite its political unpopularity.

A complex method for valuation, established by a previous law, added time and cost to the process and decreased the transparency of valuations, leading to complaints and valuation appeals. The

valuation standard specified independent assessments for buildings and land, with building value based on a mathematic model using physical characteristics of the structure, and land value requiring assignment to zones based on location and accessibility factors.

The city hired approximately 830 additional staff to assist with the valuation. The total project cost was US\$7.8 million, with 47 per cent of costs associated with fieldwork. However, the effort paid off, raising an additional US\$171 million in tax revenues over two years.

Since the 2009 valuation update, the city has worked to streamline the valuation process so that it can be done without excessive costs on an annual basis.

Source: GLTN/UN-Habitat, Leveraging Land: Land-Based Finance for Local Governments (Nairobi, United Nations Human Settlements Programme, 2016).

Collection and taxpayer compliance

Poor taxpayer compliance can be related to a number of issues. Sometimes there are barriers connected to billing and the ease of payments. Taxpayers should be provided good information about their tax bill, including amount, due date, how to make payments, and penalties for late payment. The process to make payments should be as easy as possible, ideally with an online or mobile money option. Requiring tax payments be made in person at central government offices puts an undue burden on taxpayers if lines are long, offices have inconvenient hours or location, or the payment process is unclear. Additionally, such difficulties may create openings for corruption as middlemen become involved.

Compliance will also be more likely where there are operational and fair enforcement mechanisms, including a credible penalty for nonpayment. Property confiscation should be a real threat, although it should be put into practice infrequently. In order to achieve this balance, there should be a set of clearly communicated steps before confiscation takes place, and opportunities for delinquent taxpayers to settle their outstanding bill in a way they can reasonably afford (such as negotiating a payment plan). In cases where the property owner or resident objectively cannot afford to pay the tax, exemptions should be possible; however, this should be established in advance of delinquent payment.

In cultures that consider access to land as fundamental to the achievement of human rights, confiscation of land for nonpayment of taxes may not be feasible. In such cases, a national taxpayer identification system that links all banking, motor vehicle, and other asset accounts to the landholder can be an effective alternative. After exhausting other remedies, the tax authority may be able to seize bank accounts, motor vehicles, or other assets in lieu of seizing property.

It should be stressed that seizing land or other assets is a last resort and should only be pursued in cases where taxpayers are seriously delinquent over an extended period of time. Other options can and should be employed early in the collection process.

At a more fundamental level, taxpayers are generally more willing to pay taxes when they can see the benefits of publicly funded services to their community. In places where the social contract between the local government and citizens is broken, there is likely to be resistance to attempts to improve tax collection. To improve trust in government, provision of services should be visible and address the felt needs of communities. An information campaign may help to highlight the link between taxes and local services. Another method for building community trust is participatory budgeting, where local communities vote to determine how a portion of tax revenue is spent.

Conclusion

Many thoughtful observers are calling for increased use of financing instruments that allow public entities to share in the private wealth created by public actions. Economists have advocated the use of land taxes for over 200 years. Of course, there are both political and practical reasons why such instruments have not been more widely used in the past. But the challenges associated with effective use of land value sharing are not insurmountable.

How the instruments can work is well understood and demonstrated. How to adapt and apply them in a given context requires political champions, an understanding of the relevant context, and often a bit of outside coaching from experienced practitioners. Well-designed and effectively administered land value sharing instruments are efficient and fair mechanisms for raising revenues needed to meet the demands faced by urban governments. In addition to the revenue generated, the use of land value sharing improves land use and enhances access to land for vulnerable populations. Every urban government should carefully consider whether land value sharing can be implemented or improved in their community.



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Resources for more information

A 2011 UN-Habitat policy guide on land value sharing, Land and Property Tax, can be found at <http://unhabitat.org/books/land-and-property-tax/>.

Bahl, Martinez-Vazquez, and Youngman's 2013 book, *Making the Property Tax Work: Experiences in Developing and Transitional Countries*, provides further information on administration of property taxes and can be found at http://www.lincoln-inst.edu/pubs/1374_Making-the-Property-Tax-Work.

For information on tools related to land management and cadastral updates, see www.gltm.net.

Endnotes

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- 23 Note that UN-Habitat and GLTN have designed a training workshop to teach national and local stakeholders about land value sharing instruments and to assist them in instrument selection, design, and action planning for implementation. See GLTN/UN-Habitat, *Leveraging Land: Land-Based Finance for Local Governments* (Nairobi, United Nations Human Settlements Programme, 2016).
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