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Planning Law Assessment Framework

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CONTENTS

PART I

PART II

PART III

PART I

THE PLANNING LAW ASSESSMENT FRAMEWORK: WHAT IT IS AND HOW TO USE IT

Planning laws establish and regulate complex systems that not only govern spatial development but also directly influence land management and finance at local and national levels. As a consequence, they have an impact on many areas of life and economic activity in a country. Ensuring that planning laws fulfill their functions as effectively as possible means that they are frequently under scrutiny as contexts and needs change. Well-managed review or reform processes typically involve a number of steps from policy validation through to post-legislative scrutiny. Having some means to benchmark the legislative quality and identify the key characteristics, or lack thereof, of existing instruments is an important step.

It is important to note that this type of assessment is principally one of reflection and not competition, so benchmarking is intended to explore whether a law has the ability to address priority issues and not to quantitatively rank it against other laws from different contexts. While most effective when used as part of a wider structured process, an assessment of an existing instrument may also be useful in and of itself, whether as a means for project delivery or as a contribution to deciding on whether to launch a reform process or not.

As a tool for legal reform, the Planning Law Assessment Framework upholds the values and objectives outlined in the New Urban Agenda and the Sustainable Development Goals (SDGs). In particular, the assessment indicates specific ways that planning law can be improved to reach:

- SDG 10: Reduce inequality within and among countries
- SDG 11: Make cities and human settlements inclusive, safe, resilient, and sustainable
- SDG 16: Promote peaceful and inclusive societies for sustainable development provide access to justice for all and build effective, accountable, and inclusive institutions at all levels.

Diagnostic tools are useful in order to identify the strengths and weaknesses of legislation in a structured, objective and systematic way. The Planning Law Assessment Framework, developed by the Urban Legislation Unit of UN-Habitat, is a quick self-assessment tool that aims to identify the strengths and weaknesses of an urban planning law. It looks at the laws, regulations and decrees that are applicable in a city, and enacted at different levels. It has been tested in Colombia (2012), Philippines (2013), Rwanda (2014), Mozambique (2014), Egypt (2015) and Saudi Arabia (2016).

The Planning Law Assessment Framework uses two sets of indicators. The first is related to the functional effectiveness of law, which includes indicators related to the consistency of the objectives of the regulation, the efficiency and transparency of its mechanisms and processes, the organization of institutional responsibilities and roles, the clarity in the standard of drafting, and capacity to implement the legislation. The second set of indicators is technical in nature; they are related to the core areas of planning, which together provide an overview of urban planning issues relevant for most countries, namely in the categories of:

1) land and urban planning;
2) public space;
3) plots and blocks;
4) development rights;
5) building codes; and
6) land-based financing.

It is important to note that the tool relies on indicators and every indicator has 5 different scenarios from the worst (0) to the best (4); it does not exhaustively explore every possible mechanism or characteristic that might be found in a planning law. Instead, the tool relies on a basic/essential list of elements that, when found and operating effectively, tend to be indicative of a good or healthy planning law that is achieving its objectives and helps deliver sustainable cities.

These best scenarios for every indicator are based on UN-Habitat values such as: the five principles of sustainable neighborhood planning (public space and streets, density, mixed land-use, social mix, and limited land-use),[1] the equitable sharing of the burdens and benefits of urbanization through land value sharing, the right to housing, and the Global Land Tool Network (GLTN)'s tenure principles. These principles and values will be explained throughout the chapters.

1 UN-Habitat (2014): A New Strategy of Sustainable Neighborhood Planning: Five Principles.

A number of recommendations and lessons have been learned from the implementation of the Assessment Framework that may have relevance for countries considering applying this tool in their jurisdictions. These include: the importance of considering the tool as a starting point, not a comprehensive framework, when aiming to understand the complexity of the legal framework; the need for engaging multiple stakeholders from different backgrounds to ensure complementary views and suggestions; and, guaranteeing the linkage of this exercise with existing reform initiatives.

Overall, this tool's implementation has proved to be effective in identifying strengths and major gaps related to the existing legal framework (and policies). It is a useful tool to guide the process to agree on actions that are needed to address the identified gaps. To successfully implement the Planning Law Assessment Framework, it is critical to have the participation of a wide range of users and other urban planning professionals.

METHODOLOGY

The Planning Law Assessment Framework tool identifies urban planning issues through a thorough and analytical process. It seeks to identify pilot programmes for implementation where needed and to propose specific reforms. For this to happen, ensuring effective participation by government and other stakeholders is vital.

There may be occasions where the tool is used by small groups for internal reflection without public scrutiny, an activity that is always needed in policy making. However, we believe that the Assessment is most effective when undertaken through an inclusive and participatory process that ensures active engagement of key stakeholders. Such groups should include the widest possible range of 'users' of planning law in a given jurisdiction, since they provide practical experience from a range of perspectives. It is recommended to have experts and specialists in planning law preparing and leading the use of the Assessment Framework but theirs should not be the dominant voices. In practice, implementing this methodology should take the form of focus groups, interviews and expert group meetings.

The Assessment Framework is primarily focused on 'black letter law', i.e. what the actual written law says, or doesn't say. However, this can also serve as a point of reference for the consideration of experience in implementation. Even though it does not focus on implementation itself, the focus group meeting will inevitably also discuss key issues in implementation. These may include shared or differing interpretations of the law or policy, issues related to capacities and resources required

for implementation. It can also help guide conversations to uncover needs, priorities and issues that were not initially foreseen.

FOCUS GROUP COMPOSITION

Focus groups should seek to bring together a mix of government officials, usually from a mix of levels of government, experts and users. Government officials work most closely with political decision makers and provide a useful understanding of potentially competing priorities, as well as of institutional cultures and processes. Experts are subject matter specialists from the public or private sector with current technical expertise, experience and knowledge in the relevant fields for the thematic areas of the focus group. These individuals may include senior technical officials, NGO representatives, civil society leaders and academics. Users vary significantly by jurisdiction and, while property developers and engineering firms are often important actors, some jurisdictions have a surprisingly high level of individual interaction with the planning system that needs to be represented. This often means that human rights, most typically the right to an adequate livelihood but also extending more widely, need to be considered. Financial institutions are also important actors, as the functioning of a planning law may have significant consequences at both macro and micro levels.

Preference should be given to those with a practical working knowledge, as opposed to higher political or policy experience, while striving for gender balance. A careful composition is required in order to arrive at a relevantly qualified and accountable group from the public and private sector (voluntary or commercial), and academia.

FOCUS GROUP MEETING

The core part of implementing the Planning Law Assessment Framework is done through a series of focus group sessions. The sessions should be divided according to the six core areas of planning, wherein each meeting addresses a different urban planning topic and could have different participants. These focus groups are intensive half to one-day work sessions with 5 to max. 10 subject matter specialists, professionals, experts, or key stakeholders with in-depth knowledge of the group's topic.

These invited professionals, experts and specialists assess together a specific set of assigned indicators and their dimensions. They will receive the matrix in advance of the meeting and are requested to provide comments and already score the dimensions before coming to the focus group meeting.

The focus group sessions should be conducted by an experienced facilitator or mediator. During the session, the experts analyze and discuss each of the dimensions in detail and subsequently will provide a consensual and motivated ranking, before moving to the next sub-indicator. Although differences of opinion and experience will occur, the moderator should assist the group to arrive at a consensus in ranking each sub-indicator from 0-4. The approach is to ask experts to motivate their ranking by providing data and other evidence.

SCORING

There are 8-10 sub-indicators for each core area of planning; five which rank the functional effectiveness of the legislation, and 3-5 which rank the quality of its technical aspects. Because the core areas of planning have varying amounts of technical aspects, weighting has been added to the scoring process. The weighting serves to equalize the technical aspects so that the score sheet for each planning area has the same total score of 40. With these total scores, various graphs and charts can be created to illustrate the findings. This is important when providing a summary at the end of the meeting, because the scores will illuminate which aspects of planning law need revision and attention. As noted earlier, the intention is not to 'score' for the purpose of ranking between instruments or countries but, rather, to provide a clear and graphic illustration of where the weaknesses in a law might be concentrated.

CONCLUSIONS

Each group should also discuss policy interventions. Following the focus group meeting, participants should write a summary as an aide memoire of the meeting outcomes, including key discussion notes and the agreed dimension scores. The aide memoire will be sent to the participants of the focus group to ensure that it is an accurate representation of the findings and so that the participants can review and agree upon the assessment.

The main findings are presented to key policy-makers in a workshop that is preferably organized immediately after the focus groups. Participants to the workshop will be policy makers at the appropriate level from relevant ministries, programs, parliamentarian groups in charge of urban planning issues, etc. A separate meeting with development partners can also be considered. Ideally these meetings result in identification of specific priorities and areas for follow up.

PART II

HOW TO ASSESS LEGISLATIVE QUALITY

The global urban population is expected to grow by 3 billion in the next 50 years.[2] Such an exponential growth must be accompanied by relevant governance, institutional, policy and legal frameworks if the benefits of urbanization are to be realized. Indeed, the New Urban Agenda recognizes the role of urban areas in achieving the Sustainable Development Goals.[3] Notably, the Agenda emphasizes the importance of urban law as a component of sustainable urban areas.[4]

Urban law, defined as the collection of laws, policies, institutions and practices that govern the management of urban areas is therefore the pillar upon which urban institutions and management authorities are grounded. However, while each country, city or municipality may have the powers to make laws, the success of such laws is not always guaranteed. Many countries enact a multitude of urban laws only to see them become ineffectual in shaping their urban environments.[5] The mere existence of legislation does not guarantee effective management of urban areas.[6]

Quality urban law provides predictability and order in urban development, from a wide range of perspectives (spatial, societal, economic and environmental) and contributes to investment, strong economic performance and wealth creation. Legislation can set effective frameworks for sustainable development, or it can exacerbate inequalities and exclusion.

For legislation to be implementable and be a useful tool in directing the management and development of urban areas, it has to be of good quality. The quality of legislation "differs depending on the functions and purposes of legislation, on the needs and the priorities in specific historical, political and social contexts, on the viewpoints of different actors and on different legal traditions, types of policy, drafting traditions and practices."[7] Accordingly, legislative quality is assessed by its

2 United Nations Department of Economic & Social Affairs (2012).
3 United Nations General Assembly (2016).
4 Ibid. p.3.
5 Glasser and Berrisford (2015).
6 Mousmouti and Crispi (2015).
7 Mousmouti (2012).

functional effectiveness — that is, the ability of a law to accomplish what it was intended to. Determining features of the quality of legislation include its purpose, its substantive content and its legislative expression. Its overarching structure and its real life accomplishments are also relevant.[8]

Legislative quality is characterized by laws that are precise in achieving their intended results, yet clear and simple to understand. Substantive quality involves the appropriateness or adequacy of the provisions in providing solutions through predictable, certain and equitable implementation.[9] In essence, this refers to the suitability of the law in directing the desired socioeconomic and other changes in the society. The quality in the form of the legislation and its intelligibility can be defined by the clarity, accuracy, unambiguity and simplicity of the law.[10] Quality in legislation is also portrayed through its logical structure in that its objectives are readily comprehensible. It must be accessible to its intended parties including the ones expected to comply with it, interpret it, administer it and ensure its enforcement.

The quality of legislation may also be assessed through its effectiveness, efficacy and efficiency. Effectiveness is the law's ability to be adhered to.[11] Efficacy on its part refers to the capacity of the legislation to achieve the objectives for which it was formulated while efficiency is its ability to do this with the least possible cost. The "universal qualitative goal for legislation is effectiveness."[12]

In light of the above, it is evident that while there is no single definition, there are several defining features of quality legislation. These include precision, simplicity, clarity, unambiguity, accessibility, certainty, coherence, efficiency, consistency, transparency, accountability, efficacy and most importantly, effectiveness. These features may be assessed in the context of five elements of functional effectiveness: the objectives of a law; its mechanisms and processes; the organization of its institutional responsibilities and roles; the standard of drafting; and its capacity for implementation.

8 Mousmouti (2014).
9 Vanterpool (2007).
10 Ibid.
11 Karpen (2012).
12 Xanthaki (2013).

A.1 CONSISTENCY OF POLICY OBJECTIVES

Sub-Indicator	0	1	2	3	4
Consistency of policy objectives	The regulatory framework in this area has no policy and no clear objectives	Inconsistent policies exist and laws have diverse policy objectives	Consistent policies exist in this area but regulations have different objectives	Regulatory measures in this area have consistent objectives	Regulatory measures in this area have consistent objectives based on clear policies

The most immediate mark of legislative quality in a law is its objectives. Legislations not only need to have clear objectives, but such objectives must be grounded on sound policies that reflect local needs and challenges. Additionally, these objectives must be expressed in a way that is easily understandable to all. Failure to have clear, policy-based objectives backed by evidence has a negative effect on the law's consistency, interpretation and application.[13]

In assessing the quality of legislation, the question that needs to be asked is whether the law sets a clear and meaningful benchmark for what it seeks to achieve.[14] Specific local realities must be recognized for the law's objectives to be framed in a manner that addresses them. Urban laws should be preceded by adequately researched policies, which include an analysis of the law's necessity and the likely effects of its implementation.[15]

Indeed, the importance of aligning the objectives of legislation to the local realities cannot be overstated. Ideas that look appealing in theory often collapse when met by reality. Unfortunately, urban planners and lawmakers, particularly in sub-Saharan Africa, continue to believe in "urban fantasies."[16] These are cities that exist in the imagination of lawmakers and planners but have very little bearing on the reality of the countries' urban dwellers. As such, they come up with legislation that is overambitious, sets unrealistic targets and is irrelevant to local needs and conditions.[17] The building codes in Mozambique present the perfect example of legislative detachment from local circumstances. The country adopted Portuguese codes that were influenced by a fatal earthquake more than two centuries ago. While Mozambique has had very few earthquakes, the codes adopted from Portugal still continue to govern the country's building and construction sector. The effect of this has been socioeconomic inequality in that only the wealthiest are able to comply with the codes.[18]

13 Mousmouti and Crispi (2015).
14 Mousmouti (2014).
15 Vanterpool (2007).
16 Watson (2014).
17 Cain (2014).
18 UN-Habitat (2016): World Cities Report.

A.2 TRANSPARENCY AND EFFICIENCY OF MECHANISMS AND PROCESSES

Sub-Indicator	0	1	2	3	4
Transparency and efficiency of mechanisms and processes	Complicated and bureaucratic process with the outcome of the decision left completely to the discretion of public officers	Complex and non-transparent process. Some rules exist to guide the outcome of the decision but they can easily be manipulated	Processes are clearly defined with a fair amount of discretion but checks and balances (ex. hierarchical approval by different institutions, public participation, consultation, court appeal, etc.) are dysfunctional	Processes are clearly defined with a fair amount of discretion There are functioning checks an balances (ex. hierarchical approval by different institutions, public participation, consultation, court appeal, etc.)	Processes are clearly defined and fully transparent such that the outcome of the decision does not involve any discretion.

Legislative quality relies heavily on the mechanisms and processes defined in the legislation. These present the link between the objectives of the law on one hand and its results on the other. Accordingly, quality legislation should have clearly defined processes. Additionally, there should be sufficient checks and balances to prevent arbitrary actions by relevant institutions.

Public participation has evolved to become one of the most fundamental principles in urban management and development, as was recognized by the New Urban Agenda. Accordingly, laws must include within them mechanisms to ensure that affected people are not only heard, but that their views are taken into consideration during decision making.[19] Involving the common citizens in the formulation of urban laws improves the quality of the legislation by incorporating multiple perspectives as well as increasing the likelihood of compliance. When people feel included, they tend to own up to the law, as it was made with their contribution. In the same line, consultations among different stakeholders are critical in improving legislative content and enhancing laws' legitimacy.[20]

Importantly, the processes involved in the legislation should not be too complex to hinder compliance. Unclear processes with overlapping or contradicting procedures often lead to higher discretion of public authorities, limited accountability and

19 Obradovic and Vizcaino (2006).
20 OECD (2001).

corruption.[21] An otherwise law-abiding citizen is discouraged from adhering to the law due to its complexity, time-consuming nature as well as the costs associated with it. Detailed, rigid and inflexible laws make compliance difficult and encourage people to go around them.[22] Consequently, this enables the sprouting of extra-legal activities that ultimately result in informal procedures and institutions.

In Kenya for instance, before the Land Registration Act was passed in 2012, there existed five separate laws dealing with the registration of land: the Indian Transfer of Property Act, the Government Lands Act, the Registration of Titles Act, the Land Titles Act, and the Registered Land Act. As each law dealt with a different land category with different registration processes, the registration of land was too burdensome and costly thereby discouraging many Kenyans from registering their land.[23]

Quality legislation is therefore one that reduces complexity through reviews, fewer procedural steps and less paperwork. The OECD proposes several means of achieving this including consolidating activities at 'one stop shops'; unified permit and license procedures; fixing time limits for decision making; use of technology; and the availability of expeditious appeal mechanisms.

A.3 ORGANIZATION OF INSTITUTIONAL RESPONSIBILITIES AND ROLES

Sub-Indicator	0	1	2	3	4
Organization of institutional responsibilities and roles	Several institutions have responsibilities in implementing the regulations and no coordination mechanism is in place.	Several institutions have responsibilities in implementing the regulations. Coordination mechanisms exist but they don't work.	Several institutions have responsibilities in implementing the regulations. Coordination mechanisms exist but they work only occasionally.	Institutional roles and responsibilities in this sector are concentrated in one institution that not always works efficiently.	Institutional roles and responsibilities in this sector are concentrated in one efficient institution or in several well-coordinated institutions.

Laws that are clearly written in addition to having specific objectives and proper processes still need institutions to enforce them. Institutional and procedural structures are central to the delivery of technical standards and are mostly determined by law. If adequately considered and tested at the design stage, the effectiveness of these structures can be significantly enhanced.[24]

21 Mousmouti and Crispi (2015).
22 Ibid.
23 Republic of Kenya (2009).
24 UN-Habitat (2016): World Cities Report.

Consequently, legislative quality is evidenced by the strength of established institutions and their ability to smoothly coordinate with one another.[25] A good law should provide for the institution responsible for its implementation as well as equip it with the necessary technical and financial enforcement mechanisms.

Some countries have complex institutional set-ups which blur the line between their different roles. This overlap in mandates can lead to institutional wars. For instance, the Constitution of Kenya together with the National Land Commission Act established the National Land Commission, which among other functions is responsible for monitoring the registration of all rights and interests in land and the development and maintenance of an effective land information management system. However, these functions were also vested in the Ministry of Lands. As a result, these two institutions clashed on several occasions with each claiming the other's interference by the other. Their dispute had to be resolved through a court case.[26] In the process, the common citizens suffered, as title deeds issued by one institution were denounced by the other.

Similarly, the registration of land use rights in Mozambique is characterized by a double registration process that involves two different institutions: the Deeds Registry under the Ministry of Justice and the Cadastral Services office which is under the Ministry of Agriculture and Rural Development. The effect of this cumbersome procedure is that most land transactions are undertaken informally.[27]

A.4 CLARITY IN STANDARD OF DRAFTING

Sub-Indicator	0	1	2	3	4
Clarity in standard of drafting	Extremely unclear and ambiguous language with the interpretation left completely to the discretion of public officers.	Unclear and ambiguous language with some rules or court decisions to guide the outcome of the decision but they can easily be manipulated.	Unclear and ambiguous language with some rules or court decisions that aid the interpretation.	Legislative texts are written in clear and unambiguous language, understandable by professionals only.	Legislative texts are written in clear and unambiguous language, understandable by professionals and common citizens.

Even the most well-intentioned laws have been known to fail due to ambiguity and poor drafting. The importance of clarity, unambiguity, simplicity and accuracy

25 Acemoglu and Robinson (2008).
26 Republic of Kenya (2014).
27 Van den Brink (2008).

cannot be overstated as it is through them that implementation of legislation is possible. Legal provisions need to be understood by both the common citizens and the ones expected to enforce them.[28] This is fundamental to uphold the rule of law. The effectiveness of a law depends on its ability to communicate its objectives and the means of achieving them. As such, the law must be characterized by precision and coherence. The legislative language must be plain, certain, clear, grammatically correct and gender neutral.[29]

A.5 CAPACITY FOR IMPLEMENTATION

Sub-Indicator	0	1	2	3	4
Capacity for implementation	Human and financial resources are completely inadequate to implement the legislative framework.	Human and financial resources are inadequate to implement the legislative framework but could be improved in several years (+5 years) with capacity development.	Human and financial resources are inadequate to implement the legislative framework but could be realistically improved in a few years (2-3 years) with capacity development.	Human and financial resources are barely adequate.	Human and financial resources are adequate for the successful implementation of the legislative framework in this area.

On the most fundamental level, good quality urban legislation must be implementable. Implementation entails looking at the law in a holistic manner. In addition to all the issues that have been discussed above - clear objectives, strong institutions and unambiguous provisions - legislative quality is also characterized by financial and human resource considerations. Aspects such as financial capacity, coordination mechanisms, bureaucratic functions and enforcement mechanisms must be regarded.[30]

28 Xanthaki (2011).
29 Xanthaki (2013).
30 Ayres and Braithwaite (1992).

The Development Control Department before the reform

The same department after the reform

Figure 1: Capacity Reform in the Nairobi City Council , Construction Administration Department, 2009
Source: World Bank Group (2013): "Good Practices for Construction Regulation and Enforcement Reform"

Implementation does not occur automatically; it must be considered and integrated within the planning, designing and drafting of a law from the beginning. Creating realistic enforcement strategies within the capacity of those in charge of compliance will lessen the probability of failed implementation by considering resources, synergies, and compliance channels so that the legislation delivers results.[31]

These enforcement practices and strategies must not be created in isolation and must work in tandem throughout the entire cycle of the legislation, from its design to its end goal. Each practice must be evaluated to consider how its purpose, structure, content and intended results align to create a cohesive law. This framework interlinks policy design, drafting, implementation and evaluation together as a continuum rather than separate parts. A strong overall framework with detailed implementation prevents laws from becoming a "black hole."[32] In Egypt for instance, only about 5 per cent of cities and villages have detailed plans despite this being a legal requirement.[33]

The high rate of noncompliance is attributed to the fact that the central government failed to take financial and human resource implications into account during the legislative process. The consistent non-implementation of laws jeopardizes the rule of law. In situations when capacities are scarce it would be more appropriate to focus the existing resources on what is most needed and review the legislation when capacities improve.

31 Braithwaite (2011).
32 Mousmouti and Crispi (2015).
33 Ibid.

CONCLUSION

Quality legislation requires the input of various stakeholders including urban planners, lawyers, local authorities, financial institution, political leaders and the citizens in general. Legislative quality involves more than mere legal drafting. It incorporates the whole process of conceptualizing a law up to its very implementation. There is therefore a need to foster collaborations, partnerships and consultations between all the relevant stakeholders with each contributing a part in the context of the whole legislative framework.

PART III

HOW TO ASSESS THE TECHNICAL CONTENT OF PLANNING LAWS

01 LAND AND URBAN PLANNING

Land management is the process of putting land resources into efficient use. Its benefits are widely recognized.[34] Effective land administration systems provide security of tenure, a basis for land and property valuation and taxation, improved access to credit investments, sustainable land use and minimization of land conflicts.[35]

Additionally, a proper system must be able to produce services to the general public at affordable costs, which is particularly important for pro-poor systems, if improved land administration should be able to contribute to eradication of poverty.

However, especially in developing countries, the laws and processes that support land administration systems are ineffective. Shortcomings relate to the very high institutional and financial costs of establishing and maintaining the systems. Also, in many cases, the land registers and cadastral maps are incomplete, inconsistent and out of date, thus unreliable. Processes for recording land transactions are often distributed over many organizations engendering an environment that may be susceptible to motivation fees. The existence of the "security of tenure gap" that has curbed the implementation of sustainable and affordable land administration systems is also pressing. Accordingly, this section will assess some of the technical aspects that play an integral role in the efficacy of land administration frameworks.

34 GLTN (2016): "Land Administration and Information".
35 Enemark et al. (2015).

1B.1 LEGAL LAND REGISTRY

Sub-Indicator	0	1	2	3	4
Legal land registry	No land information system is present in the city.	Information system is present in the city but has no coverage and/or it is not updated.	Information system is present in the city but covers the city only partially (less than 80 per cent) and/or it is not adequately updated.	The land information system covers more than 80 per cent of the municipality and it is adequately updated.	100 per cent of the land in the municipality is recorded in a cadaster and its information is up to date and publicly available.

The land parcel of the cadaster is the basic spatial unit used for land registration. Cadastral systems have traditionally supplied spatial information for land administration, spatial planning, billing for cost recovery from services, etc. Given that most developing countries have very little cadastral coverage, the emphasis should be on the generation of more appropriate forms of large-scale spatial information, rather than on the production of a few accurate cadastral parcels. This is especially imperative for jurisdictions where people cannot afford registered rights.

New approaches to upgrade and manage spatial information are required. While conventional cadastral systems use documentation of the surveyed land parcels as a basis for entering rights into a land registry, the Global Land Tool Network (GLTN) advocates for a flexible approach to offering a continuum of land rights for security of tenure, which is called the Fit-For-Purpose (FFP) approach to land administration.[36] FFP advocates for aerial or satellite imagery in the field to identify, delineate, and adjudicate the visible spatial unit boundaries, and the rights are determined and entered directly into a register. This is basically a participatory approach undertaken by locally trained land officers and involving all stakeholders. Similarly, while conventional cadastral systems are highly standardized, the FFP approach seeks to be flexible in terms of the variety of tenure types to be secured, which allows the land administration system to be upgraded and incrementally improved over time.

Equally important is having a process of land registration that is designed along administrative as opposed to judicial lines. The judicial process in most countries is non-inclusive, cumbersome and expensive which negatively impacts the fulfillment of land tenure. The FFP approach recommends that administrative institutions under delegated authority should conduct the activities of recording and registering

36 GLTN (2016).

Figure 1: The Fit-For-Purpose Land Administration tool: local officers measure spatial unit boundaries and register the information directly, to ensure security of tenure for all residents, including the poor. Source: GLTN (2016).

1B.2 FLEXIBLE AND SOCIALLY-RESPONSIVE TENURE SYSTEMS

Sub-Indicator	0	1	2	3	4
Flexible and socially-responsive tenure systems	Only formal statutory rights are recognized.	Legislation only recognizes formal statutory rights but mechanisms exist to recognize informal land rights (ex. adverse possession, titles of occupation, non-documentary forms of evidence, etc.)	Legislation recognizes statutory and customary rights. Mechanisms exist to recognize informal land rights (ex. adverse possession, titles of occupation, non-documentary forms of evidence, etc.). The process of registration or its fee is quite prohibitive.	Legislation is gender-responsive and recognizes statutory and customary rights. Mechanisms exist to recognize informal land rights (ex. adverse possession, titles of occupation, non-documentary forms of evidence, etc.). A simplified first-time registration process exists.	Legislation is gender-responsive and recognizes statutory, customary, and informal rights. A simplified first-time registration process exists. Mechanisms exist to recognize occupation and give non-property security of tenure.

Support should be given to measures that improve security of tenure and reduce the cost of entry to the legal land and housing markets. A significant percentage of the population cannot afford formal land tenure and is forced to choose informal land markets (informal settlements).

Thus, a flexible system for security of tenure, composed of reasonable duration of rights and effective legal protection against eviction, is a prerequisite to safety and security in cities. Without security of tenure, people fear eviction. In the presence of weak security of tenure, people are unlikely to invest in improving their homes or neighborhood with safer building materials.

For example, legislation shall provide legal provisions for the recognition of digital signatures that enable automated administrative procedures, accountability measures for public servants, insurance laws, and other legal mechanisms enabling housing finance for lower-income groups.

Conventional land administration systems in developing countries are technically unable to go to scale and the systems ignore types of social tenure common among their populations. This is because the land laws in these jurisdictions are often highly restrictive and biased towards formal land rights. Therefore, the Fit-For-Purpose approach calls for the legitimate holding of land in customary areas to be recognized in the formal legal system with the option of subsequently being recorded and eventually upgraded to a legal status. The advantages of implementing a flexible security of tenure system are vast: it helps to protect the rights of local communities while reducing investment risks as well as integrating residents of informal settlements within the formal system. A good example of such a legal framework is the 2012 Flexible Land Tenure Act of Namibia.[37]

Continuum of tenure rather than just individual ownership can act as another important tool to improve access to land tenure.[38] The continuum of land rights offers an alternative approach to the dominant focus on titling of individually held private property as the end goal of land tenure reforms.[39] In fact, each process in the continuum can be recognized and formalized and there is opportunity for movement between different tenure forms. Consequently, this enables global land and national policies to focus on recognition and protection of social, customary and more informal land tenures.

37 A 'starter title' is issued to individuals living in informal settlements with formal registration taking place in the land registry. The said title can be transferred and is devisable but cannot act as collateral.
38 UN-Habitat (2016): Framework for Evaluating Continuum of Land Rights Scenarios.
39 Ibid.

Likewise, an effective land tool needs to go beyond a technical lens and also consider social dimensions such as gender. Rights to land and security of tenure are not enjoyed equally by women and men in many parts of the world which goes against international human rights as well as impacts negatively on households and the economy. Having land tenure domain processes reflect gender equity begets a system that affords equal access to tenure for all.

1B.3 COORDINATED PLANNING HIERARCHY

Sub-Indicator	0	1	2	3	4
Coordinated planning hierarchy	No obvious mechanism exists to relate plans to one another.	Legal mechanisms exist to relate plans to one another but with high levels of discretion at all levels.	Legal mechanisms exist to relate plans to one another but do not ensure compliance with larger plans and do not guide smaller plans.	The urban planning hierarchy is clear but there are institutional and administrative overlaps.	Urban planning hierarchy is clear and legal mechanisms ensure that local level plans comply with the superior plans. Plans are adequate to local need.

The efficacy of land-use planning depends on the coordination of the planning system hierarchy in place. Planning systems do vary considerably throughout the world but regardless, an effective system should be able to implement current land-use policies through efficient means of land use control. Therefore, a coordinated planning hierarchy implies consistency of land-use planning policy objectives from the National to the local and neighborhood scale, in a system that enables more detailed plans to remain in line with the upper level plans.

The coherence of planning instruments, and the way they respond to one another will determine the effectiveness of the planning system, and the enforcement and implementation of strategies. Moreover, planning law should not require more plans and tools than can be produced with the capacity of the authority. The drafting of plans should incorporate public participation mechanisms that serve as a means to facilitate negotiations between the state and its citizens around the management of the urban and rural environment. Ultimately, this dialogue should legitimize the local political decision making.

Moreover, activities related to planning and land-use control require a spatial framework for identifying the land parcels and the physical and spatial objects on the ground. The scale of the mapping will depend on the activity of planning and control. As such, detailed spatial planning in dense urban areas will require a higher

scale of mapping than land-use planning for rural areas.

1B.4 POSSIBILITY FOR LAND-USE CHANGES

Sub-Indicator	0	1	2	3	4
Possibility for land-use changes	Urban plans either do not exist or do not allow for land-use changes.	According to urban plans, land-use change is possible but the application process takes at least 12 months.	According to urban plans, land-use change is possible but the application process takes at least 9 months.	According to urban plans, land-use change is possible, with transparency and without discretion, but the application process takes at least 6 months	Plans stipulate which land-use changes are possible with transparency and without discretion. The application process takes less than 2 months. Land-use plans allow overlays in existing single-use districts.

Land management legislation should include rights to land and property as well as the right of use. However, the right of use may be limited through various kinds of private land-use regulations such as easements, covenants etc. and hence many land-use rights are actually restrictions that control the possible future use of the land. Essentially, land-use planning and restrictions are becoming increasingly important as a means to ensure the effective provision of infrastructure and services and the pursuit of sustainable development.

Enacting legally approved urban plans, which allow for land-use changes, encourages a dynamic city that generates economic benefit. It is important that allowable land-use changes are stipulated by the urban plans so that the urban development is not left up to the discretion of relevant government authorities. Stipulating allowable or compatible land-uses in urban plans will promote urban development and create more equitable and sustainable communities.

UN-Habitat advocates for limited land use specialization through adjusting the use of functional zoning to implement mixed land-use policies.[40] The purpose of mixed land-use zoning is to limit single function blocks; they should cover less than 10 per cent of any neighbourhood. There are two ways to adjust zoning policies: combine compatible land-uses into one block and neighbourhood, and introduce mixed land-use zoning while respecting market demand and cities' urban by-laws and regulations.

40 UN-Habitat (2014): A New Strategy of Sustainable Neighborhood Planning: Five Principles.

A growing number of cities around the world (Portland, Philadelphia and Los Angeles among others) are moving away from conventional zoning codes that separate residential land-uses from institutional and commercial and other destinations, while relying on big, fast roads to connect them. A new generation of form-based codes is emerging, which allow for overlays in land-use types. These codes encourage a mix of uses and building types while emphasizing the form and function of public and private realms. They prescribe desired relationships and establish expected outcomes for building types, block and street patterns, street standards, and public spaces. Successful zoning codes are made flexible, whereby land uses can be easily changed within groups of acceptable land uses for that site.

1B.5 PLANNING AT SCALE AND AFFORDABLE HOUSING POLICIES

Sub-Indicator	0	1	2	3	4
Planning at scale and affordable housing policies	No requirement for urban plans to consider demographic and migratory projections and link them to the supply of affordable housing.	Urban plans consider demographic projections but they do not plan at scale and consider the implementation of affordable housing policies.	Urban plans consider demographic and migratory projections but they do not plan at scale and consider the implementation of affordable housing policies.	Urban plans have to consider demographic and migratory projections and link them to the supply of affordable housing in addition to serviced land, but not at an adequate scale.	Urban plans have to consider demographic and migratory projections and link them to the supply of affordable housing and serviced land at scale through a variety of instruments (public/ private supply, housing/rental subsidies etc.)

Affordability of accommodation is a key feature of a well-managed city. Urban plans play a key role in planning at scale to accommodate for future demographic and migratory projections. This requires that plans identify spaces to provide affordable housing on serviced land, so as to ensure that the future generations have adequate and livable housing standards.

UN-Habitat calls for a social mix of housing prices and tenure types in any given neighborhood, whereby "20 to 50 per cent of the residential floor area is distributed to low-cost housing, and each tenure type should be no more than 50 per cent of the total".[41] The recommendations are meant to leave room for National or regional

41 UN-Habitat (2014): A New Strategy of Sustainable Neighborhood Planning: Five Principles.

owned-to-rented ratios. The social mix can be achieved through land management legal frameworks such as inclusionary zoning, 'set aside' policies, or other ways of earmarking land for new housing, adequately proportioned to the local affordability ratios. These schemes may also provide housing plots with varying sizes and tenure types to ensure diversity of housing options. One important factor to consider in the acquisition of land for affordable housing is the connectivity and convenience of its location, so as to neither spatially or socially segregate those groups nor make the cost of transportation prohibitive.

Cities can provide for a wide range of affordable housing options is through legal instruments to regulate and support the sale and rent of social housing. Social housing is not only the provision of housing complexes built and managed by the State to be sold and rented to low-income populations; rather, social housing frameworks can also include demand and subsidy incentives for the private sector as principle actors in the provision of affordable housing. Public and private actors may work together to provide adequate levels of social housing. For example, the National housing agency in Turkey collaborates with the private sector to split the revenue of high-cost housing developments, using the funds to acquire land for social housing (which they price at about 30 per cent below the market rate).[42] Moreover, regulatory schemes for land-based taxes and development rights may play a role in generating the municipal revenue needed to supply adequate and affordable housing.

Social housing support and regulations must respond to the housing needs of the local population, as a mechanism to prevent informal and slum settlements. This can be done by managing housing rent and prices according to wages and family income levels. Although the concept of affordability is elusive, UN-Habitat measures affordability as the net monthly expenditure on housing cost at or below 30 per cent of the total monthly income of the household.[43] While home ownership has often been at the forefront of housing policy, most households can only afford the rent of social housing or informal housing markets. Accordingly, rental schemes should be prioritized.

42 UN-Habitat (2016). World Cities Report, p. 56.

43 Sustainable Development Goal 11.1: By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.

CONCLUSION

Sound land governance requires effective legal and regulatory frameworks and operational processes to implement policies consistently within a jurisdiction in comprehensive, integrated and sustainable ways. Many jurisdictions have failed to link land tenure rights with land-use opportunities which have undermined their capacity to link spatial frameworks and land-use controls with land values and the operation of the land market. Accordingly, for planning law frameworks to be robust, they need to provide and advocate for the effective interaction of the five technical aspects of land management outlined in this assessment.

02 PUBLIC SPACE

The Charter of Public Space[44] defines public space as "all places publicly owned or of public use, accessible and enjoyable by all for free and without a profit motive". Public spaces are a key element of individual and social well-being, the places of a community's collective life, expressions of the diversity of their common, natural and cultural richness and a foundation of their identity. […] The community recognizes itself in its public places and pursues the improvement of their spatial quality.[45] The core aspect of public space is that it is designed for all citizens regardless of economic and political status, origin or nationality. For this reason, public spaces have the potential to make a city more equal and inclusive.[46]

Public spaces enhance community cohesion, civic identity, and quality of life. Having access to public spaces does not only improve the quality of life: it is also a first step toward civic empowerment and greater access to institutional and political spaces. Properly designed public spaces not only contribute to improve the overall visual character of a city, but they also stimulate economic activities and enhance the productivity of the city.

Today we witness the crisis of public space as its quantity in world cities is diminishing. Streets, green areas and open spaces are often overlooked when planning cities and even when planned they are rarely implemented. The poor management of the existing public spaces leads to their abandonment and degradation and to their privatization with limited access and fruition to the public.

National and local governments have always regulated public spaces through the application of laws and local regulations. This chapter examines the main tools in cities' regulatory frameworks for the sustainable creation, management and design of public spaces, identifying mechanisms that successful cities have put in place.

44 The Charter of Public Space is the outcome of an open, collaborative and participatory process announced at the 2012 World Global Forum and carried out in collaboration with UN-Habitat, INU and other partners with the purpose of laying out a set of clear principles to define public space and suggest appropriate actions for the creation, maintenance and enjoyment of good urban public spaces. See Biennale for Public Space (2013).

45 UN-Habitat (2013): State of the World's Cities: Prosperity of Cities.

46 Garau (2014).

2B.1-2B.2 ALLOCATION OF LAND TO STREETS AND NON-STREET PUBLIC SPACE

Sub-Indicator	0	1	2	3	4
2b.1 Mechanisms to allocate adequate space to streets (per cent of land, number of intersections, width and length, street density, existence of street plans, etc.)	No mechanisms exist.	Mechanisms exist but they do not ensure an adequate supply of public space.	Mechanisms exist but they ensure an adequate supply of public space only in some part of cities.	Mechanisms exist to ensure an adequate supply of public space to all part of cities.	Mechanisms exist to ensure an adequate supply of public space to all parts of cities, considering local needs and the impact of this requirement on affordable housing.

Sub-Indicator	0	1	2	3	4
2b.2 Mechanisms to allocate adequate space to non-street public space (green areas, playgrounds, sport facilities, public facilities, etc.)	No mechanisms exist.	Mechanisms exist to allocate adequate space to non-street public space but they are not sensitive to outcome.	Mechanisms exist and function to allocate adequate quantity of space to non-street public space.	Mechanisms exist and function to allocate adequate quantity and distribution of space to non-street public space.	Mechanisms exist and function to allocate adequate quantity and distribution of space to non-street public space at all scales (from city master plan to more detailed plans).

Currently most cities do not provide for an adequate amount of public space, including streets.[47] A recent study conducted by UN-Habitat[48] on the land that cities dedicate to streets found that a large majority of African cities allocate a very small percentage of land to streets: out of 18 African cities in the study, 13 allocated less than 15 per cent, with the lowest level (6 per cent) observed in Bangui in the Central African Republic. The same study found that even in North American or European cities the proportion of land allocated to streets is much lower in suburban areas than in the city centers. While the cores of most cities have more than 25 per cent of land allocated to streets, in suburban areas it is less than 15 per cent. Among the reasons for the inadequate provision of streets and public spaces are: (1) a lack of adequate planning for urban expansion; (2) inadequate provision in planning legislation and urban plans of standards for public space; (3) over reliance of cities on expropriation to acquire land for public space; (4) the absence in the planning

47 UN-Habitat recommends that at least 30 per cent of land is allocated for streets, and at least 15-20 per cent is allocated for open public space. See UN-Habitat (2014).

48 UN-Habitat (2013): Streets as Public Spaces and Drivers of Urban Prosperity.

frameworks of regulatory tools that allow cities to dedicate private land to public use in the process of urbanizing without paying any monetary compensation.

In several countries of the global south, subdivision regulations and minimum standards do not take into consideration public space requirements. In several African countries no minimum requirement is in place and the creation of streets, sidewalks, open and green areas is left to the discretion of the urban planners and private developers. Some countries have only suggested guidelines with no legally binding effects.

In other countries legal requirements exist but are extremely low and not adequate. In Egypt, for example, every land subdivision that requires the creation of new access roads should dedicate at least 33 per cent of the land for both streets and open spaces.[49] However, the exact amount to be provided in each case is highly contested and not consistently provided due to ambiguities in the law.

A study conducted by UN-Habitat reveals that the density of intersections, resulting from short block lengths, is a good indicator to identify cities that are walkable and with a good street life. According to the Global Sample of Cities, the range of intersections is from 382.1 (Hong Kong) to 40.9 (Bangui) crossings per km^2. In general, streets with 100 crossings per km^2, on average, allow for walking distance between crossing 100 meters apart. Cities that have longer blocks and that have less than 100 crossings per km^2 have long distances between streets, which reduce street life, urban intensity and mobility, and facilitate congestion.[50]

49 Executive regulations to Law 199/2008.

50 UN-Habitat (April 2013): The Relevance of Street Patterns and Public Space in Urban Areas, Working Paper.

2B.3 ACQUISITION OF LAND FOR PUBLIC SPACE

Sub-Indicator	0	1	2	3	4
Acquisition of land for public space	The only tool available to create public space is expropriation.	Land is contributed by land owners in the process of urbanizing/ subdividing the land. The requirements are too vague and leave room to discretion in the approval.	Land is contributed by land owners in the process of urbanizing/ subdividing the land. The requirements are either inadequate or not followed.	Land is contributed by property owners in the process of urbanizing the land. Subdivision or building rights are conditioned to the land contribution.	Land is contributed by property owners in the process of urbanizing the land. Subdivision or building rights are conditioned to the land contribution. Once the street plan is approved, no buildings can be erected or compensated. Temporary public uses of idle space are allowed.

Cities that have a large amount of public space have legal frameworks that allow them to obtain land from private landowners in the process of converting the land from rural to urban use, when sub-dividing or developing it. The legal justification for such land contributions are: the public function of private property, the fairness to share the increase in land values (LVS), and the fair distribution of costs and benefits of urbanization. These obligations are often outlined in the land division and urban development rules which describe a way to capture a portion of the land value increase derived from public actions (see sub-indicators 6b.2-6b.3 in Land-Based Finance). However, other mechanisms exist to acquire land for public space.

Expropriation (Eminent Domain): This is the most common way cities acquire land for streets, public spaces and infrastructure. This approach relies on the exercise of the eminent domain or compulsory purchase power of the government to acquire land from private owners for a purpose deemed to be in the public interest subject to a fair compensation. The power to expropriate land exists in most nations of the world but it is not the most effective way to deliver public space for several reasons: expropriation is economically costly since cities do not have the financial resources to compensate land owners with the market value of the land needed to have an adequate supply of public space, it is politically costly and never a popular measure with voters. Expropriations are usually easily challenged and they are subject to long and expensive proceedings in the courts during which the level of compensation is usually determined through lengthy negotiations with the landowners.[51] Lastly, it

51 Alterman (2007).

might be problematic when building major infrastructure to assemble multiple plots belonging to different owners and each of these can turn into a separate process. For all these reasons cities are not able to provide an adequate amount of public space by expropriating all the needed land.

Subdivision Exactions: Urban regulations in some countries can require sub-dividers to dedicate land, or to pay fees in lieu thereof, for streets, parks, schools and recreational purposes as a condition to the approval of a final subdivision map. Fees-in-lieu are usually equal to the cost of land that the developer would otherwise have to dedicate. Mandatory land dedication is generally upheld as a justifiable use of the general authority that is granted to local governments to protect public health, safety and welfare. There are several approaches to the problem of deciding how much land in an individual subdivision should be contributed to public open space. Some cities have a flat or fixed percentage of land dedication while many municipalities instead use a population or density-based formula. In the Philippines, a developer requesting a land subdivision shall provide adequate roads, alleys and sidewalks. In addition, for subdivision projects of one hectare or more, the developer shall reserve 30 per cent of the gross area for open space. Such open space shall consist of a minimum percentage of parks and playground proportioned to the density.[52]

ECONOMIC HOUSING		SOCIALIZED HOUSING	
Density (No. of lots/DU* per hectare)	Allocation (% of gross area for PP**)	Density (No. of lots/DU* per hectare)	Allocation (% of gross area for PP**)
150 and below	3.5 %	150 and below	3.5 %
151 – 160	4 %	151 – 160	4 %
161 – 175	5 %	161 – 175	5 %
176 – 200	6 %	176 – 200	6 %
201 - 225	7 %	201 – 225	7 %
Above 225	9 %	Above 225	9 %

* Dwelling units
** Parks and Playgrounds

Table 2: Parks and Playgrounds Allocation in the Philippines
Source: Phillippines Housing and Land Use Regulatory Board (2008).

Land Readjustment: This land assembly tool allows changing the existing physical layout of plots, streets and public space when it appears to be no longer adequate. It is detailed in the following chapter as a way to change the urban morphology; land readjustment consolidates all plots in a given area to allow for re-planning

52 Philippines Housing and Land Use Regulatory Board (2008).

to create a sufficient street network and adequate public spaces. In Colombia for example almost 50 per cent of the total re-planned area must be destined for meeting mandatory public space requirements for local vehicular and pedestrian streets, parks and green areas and secondary public services networks (water, sewage, electricity, telephone).[53]

Compulsory Dedication of Part of the Land: In some countries, the regulatory framework allows cities to require private land owners that intend to develop their plots to transfer part of their land for public purposes without paying any compensation. The significance of this instrument is that it can be applied to a development that is not otherwise subject to the subdivision regulations. In Israel, compulsory dedication, called "partial expropriation without compensation", is the most widely used method for obtaining land for public services. The Planning and Building Law[54] allows local authorities to take up to 40 per cent of a plot without paying compensation if the land is taken for one of the following purposes: constructing or widening of roads, playgrounds, recreation areas, or construction of buildings for educational, cultural, religious or health services.

Compulsory Dedications are commonly used throughout Latin America. In Colombia, for example, such exactions or transfers are charges land developers must pay either in land or money as part of the approval process for a specific development. They may consist of either land transfers for common areas, the development and equipping of such common areas (parks and green zones), or urban infrastructure (such as road infrastructure and public utilities); or they may utilize compensatory cash payments in lieu of any of these obligations. Developers are willing to pay such exactions because the anticipated value of the proposed new development is much higher than the cost of the exaction.An alternative approach is to allow the city to negotiate the exact amount of the exaction on a case-by-case basis.

53 IGAC (2003).
54 Israeli Planning and Building Law, 5725—1965

City Sector	Approved Land Uses			Transfer Obligations		
	Density [Inhabitants per building]	Construction Index [Buildable land area as a proportion of total plot size]	Maximum number of floors	Square meters per Inhabitant	Square meters per 100 sq. meters of other uses	% Minimum Net Area
ZN1_CN1_2	230		4	3.0	7	18
Z1_CN2_7	270	3.00		3.0	7	18
Z2_RED_31	350	3.40		4.0	10	18
Z2_RED_26	300		4	2.0	5	0
Z4_CN1_12	350	3.40		5.6	20	18
Z6_D_5	170	1.40		5.6	20	18

Table 3: Table format from Medellin POT Article 252 outlining approved uses and transfer obligations in different zones.

Source: Juan Felipe Pinilla - Compiled from the POT of Medellín

Negotiated Exactions: These can take the form of in-kind contributions to local roads, parks, or other public goods as a condition of development approval or can be requested in the form of in-lieu fees. The advantage of the case-by-case approach is that it is more sensitive to the unique features of each development. The disadvantage is that it depends on the integrity, analytical capacity, and negotiating skills of municipal officials to arrive at a fair result.

Planning Incentives: Such incentives provide a bonus, usually in the form of additional floor area (FAR); they could also be reduced parking requirements or other permitting and financial bonuses, in exchange for the provision of a public amenity. One of the first applications of planning incentives was in New York City,[55] where increased floor area was provided to office building developers in exchange for the provision of public plaza space accessible to the public at the base of the building.

55 The City of New York (1961).

2B.4 PLANNING STANDARDS FOR PUBLIC SPACE

Sub-Indicator	0	1	2	3	4
Planning Standards for Public Space	No planning standards for public space exist	Planning standards for public space exist but they do not ensure vibrant, safe and accessible public spaces.	Regulations consider climate and safety but they do not ensure vibrant public spaces, safe and accessible.	Regulations consider climate, safety, ensure vibrant public spaces, safe and accessible for informal vendors.	Regulations consider climate, safety, ensure vibrant public spaces, safe and accessible for women, children, people with disabilities and informal vendors.

An adequate amount of public space is indispensable to have productive, vibrant and socially inclusive cities – but quantity alone is not enough. Public spaces need to be designed to create places where people enjoy walking and spending time and that encourage social interaction. Properly designed public places can unlock opportunities, build vibrant communities and contribute to a flourishing economy. The spatial structure of a city is very complex and is the physical outcome of the interactions over centuries between land markets, topography, infrastructure, regulations and taxation.[56]

Planning authorities can use building codes for public facilities to influence sidewalk widths, setbacks, and building heights to manipulate the safety of streets and sidewalks. Streets with small setbacks or no setbacks, for example, tend to feature plants, signs, street furniture, cafes, and active building facades, which make the sidewalk a lively and safe place to be, while streets with large setbacks usually leave room for parked cars and encourage automobile transit, rather than active modes of transport. Moreover, building codes may require private owners to make the sidewalk in front of their building safe and clear for public rights of way, whether for pedestrians or emergency service vehicles. There are interesting examples of innovative regulations which aim at creating friendlier public spaces and environments for pedestrians. Some cities like Melbourne,[57] Rotterdam,[58] and São Paulo[59] have introduced legislation with incentives to promote active building facades to make walking an enjoyable experience. São Paulo for example provides urban development incentives for buildings with retail services and facilities on the ground floor and with open access to the public and incentives to promote a mixture of land uses.

56 Bertaud and Malpezzi (2003).
57 City of Melbourne (2016).
58 Rotterdam Municipality (2008)
59 Municipality of São Paulo (2014).

PUBLIC SPACE STRATEGY: ROTTERDAM

The Rotterdam Spatial Development Strategy 2030 has as slogan "Rotterdam, an effervescent Port City". To achieve that aspiration, one of the strategies is to use public spaces as an accelerator of spatial development through improving quality of public spaces at iconic locations, improving linkages and the overall quality of public space as well as deploying the water management issue to create the desired residential environments. Regulations were introduced to have uniform street profiles, materials and furniture. Rotterdam's plinth strategy based their proposal on an international comparison. Their main conclusions were: public functions create "Great Streets": shops, cafés, restaurants and education. "Great Streets" have a new public function every 15 meters (6-8 public functions every 100 meters). Finally, offices are not important for "Great Streets".

Encouragement of temporary public-space uses of idle land: The city of Monterrey in Mexico has introduced a creative way to obtain and use private vacant and unused plots as public spaces. The owner of such plots can temporarily give his/her unused land to be used as green area, garden or square in exchange for an exemption from the payment of property tax for the duration of the agreement. At the end of the agreement, it may be renewed, or if finalized returning the property to private use, with the improvements that may have been done.[60] Charging for the temporary occupation of public space is also a useful approach to generating revenue that cities can use for the maintenance of public space. Monterrey in Mexico also allows owners of buildings or plots located in the city center to obtain the use of the public space in front of their property for recreational purposes in exchange for their maintenance and a fee.[61]

60 Municipality of Monterrey (2014).
61 Ibid.

PUBLIC SPACE STRATEGY: MELBOURNE

In 1994 Melbourne introduced the "active edges" regulations to control the design of new buildings to ensure a lively street and urban environment with a mix of functions and activities. According to "active edges" regulations "buildings with ground -level street frontages in the Retail Core must provide at least 5 metres or 80 per cent of the street frontage (whichever is the greater) as an entry or display window to a shop and/or a food and drink premises". The most important objective of introducing active edges along the city streets is to ensure that ground-floor facades appeal to pedestrians and contribute good lighting and levels of interest and activity. Melbourne, from 1995 to 2005, experienced a 40 per cent increase in pedestrian traffic. The economic vitality of the city has improved proportionally—as evidenced by the increase in jobs, tax revenues, and property values.

2B.5 THE MANAGEMENT OF STREETS AND PUBLIC SPACE

Sub-Indicator	0	1	2	3	4
Management of streets and public space	Responsibility for the management of public space are very unclear and/ or fragmented among various institutions.	Clear roles and responsibilities but poor maintenance due to lack of adequate funding and personnel.	Good coordination and adequate funding and personnel. Public space properly maintained but its access is restricted to citizens or subject to a fee.	Clear roles and responsibilities, good coordination and adequate funding and personnel. Public space properly maintained and open to citizens.	Clear roles and responsibilities, good coordination, adequate funding and personnel. Public space is properly maintained, vibrant, safe, accessible, and open to citizens. Citizens participate in its management and use.

The Charter of Public Space recognizes that the management and maintenance of public space is a prevalent responsibility of local authorities. In order to be discharged successfully, this role requires the active collaboration of citizens, civil society and the private sector.[62] In several countries the public management appears to be ineffective among other reasons for the unclear or fragmented mandate among different authorities (environment, public works, planning, etc.) and for the lack of

62 Biennial of Public Space (2013).

adequate resources to properly maintain the public spaces.

In many cities, there is neither clear understanding of the role of different departments nor coordination between them. For instance, sidewalks are the responsibility of the Road Department, trees of the Environment Department, cleaning and safety of the Health Department, licensing of the Local Business Department, and so on. In such cases, clear coordination mechanisms need to be developed to improve communication between the different departments.[63] Some local governments have created unified public space agencies to improve the institutional coordination in the management of public spaces. For example, the City of Johannesburg mandated Johannesburg City Parks and Zoo (JCPZ) to manage the city's cemeteries, parks and designated public open spaces as well as to carry out its environmental conservation function. JCPZ resulted from the merger of several entities after an institutional review process conducted by the City. The organization has more than 20,000 ha of green open spaces and 3.2 million trees.[64]

PUBLIC SPACE STRATEGY: BOGOTA

In Colombia, Bogota's Defense of Public Space (Defensoria del Espacio Publico) has the mandate to protect, inspect, patrol, oversight, regulate and control the public space in the district capital, including the inventory and the administration of city real estate assets. The Defense of Public Space succeeds in financing large part of its activities through the management and profitable use of its assets. Bogota also issues community leases in exchange for maintenance and guardianship. The Defense can create administration, maintenance and economic improvement of public space contract. These are voluntary agreements by which the city can grant community organizations the use of public spaces, while in return, they commit to maintaining and managing the space with the revenues generated from their productive use.

In recent years new forms of joint or private management are emerging. There is great potential for involving businesses of a different nature in non-profit public space development and management, but it is important for the public sector counterpart to be fully equipped to establish, and manage, these partnerships in such a way that they become an asset in the public interest. In Kenya, since 2002, "Adopt a Light" partnered with the City Council of Nairobi to sell advertising space on streetlamps on public roads. Companies can "adopt" highway, street and slum

63 UN-Habitat (2015): Global Public Space Tool Kit.
64 Joburg City Parks (2017).

lights and in return for advertising, firms must maintain the costs associated with lighting the lamps. There are several examples of private companies, for example, becoming patrons of a playground, a park or a street. Several cities have in place incentives to stimulate the involvement of the private-sector in the development and management of public spaces.

Research has shown that investment of resources in the development and maintenance of public space is likely to have a multiplier effect and generate more resources both for private owners and for the municipality. For example, investments in street design and green spaces produce higher real estate values, which determine in turn higher tax revenue. A recent report from the Commission for Architecture and the Built Environment found that in London even modest improvements to street design could result in a 5 per cent increase in the level of rents for shops and a 5 per cent increase in the price of residential properties on the high streets.[65]

CONCLUSION

Cities need urban planning frameworks with clear requirements for the adequate provision of sufficiently connected and well-designed public space. Public space should be created from private owners in the process of urbanization when agricultural land is subdivided or when constructing new developments. Obtaining public space from private owners is a key step in building viable public spaces. Countries that rely solely on expropriation will never be able to provide sufficient and interconnected public space. Countries that leave the responsibility of creating streets and public space to private developers will never get an interconnected and efficient street and public space network. The analysis conducted by UN-Habitat on urban planning legislation in several countries reveals that most do not have clear requirements to guide planners and developers to produce sufficient public space.

Cities often do not have the financial resources to properly manage public spaces. Therefore, the public space planning principle is highly connected to the land based finance section, for example, in adopting legal instruments to share the increase in values of private properties due to planning decisions or public investments. This is not only a sustainable way to gather resources but most importantly it is a fair way to distribute equitably costs and benefits of urbanization. Value sharing and the profitable management of public assets have the potential to provide the resources needed to manage and improve public spaces. Although privatization may reflect a city government's inability to create and maintain public space or its willingness to cede social control to businesses, the private management of public spaces does

65 Commission for Architecture and the Built Environment (2007).

not guarantee the freedom of access and enjoyment that should characterize public spaces and restricts the ability of cities to enhance community cohesion, civic identity, and quality of life.

03 PLOTS AND BLOCKS

The plot is the basic unit of urban development. Simply defined, plots are measured and recorded pieces of land that are entirely accessible from the public space and that are meant for the construction of buildings. Plot and property do often coincide, but what defines a plot is its accessibility not the construction on the land.[66] Functionally, a plot influences the size, function of buildings and their inhabitants as well as dictating who can build there and the resources needed to develop it.

Blocks, on the other hand, are clusters of plots separated from each other by streets. Blocks can vary considerably in shape and size according to the configuration of streets, preferred orientation and topography, as well as the nature of plot subdivisions and building types that are to be accommodated.

It is well documented that a wide variety of macro-processes (i.e. industrialization) have driven changes in urban morphology; the relationship between plots and blocks has led to consequences for the traditional urban form.[67] This has led to the creation of blocks that have lost front definition, expanded in size, decreased in functional complexity and are fairly homogeneous in structure. This chapter will strive to establish the link between plot regulations and urban shape/morphology on one side and access to land and housing on the other based on the following technical principles: minimum sizes of plots for poor urban dwellers, city mechanisms for plot subdivision, consolidation and readjustment, and the impact of plot sizes on density and city walkability.

At present, there seems to be a market preference to supply larger single use development and mass production of the house stock, which has dire effects on the loss of street life, poor quality and homogeneity of suburban areas. UN-Habitat's approach is to plan city extensions (PCE) to increase the supply of small serviced plots affordable for the largest segment of the urban population (urban poor).[68] This approach has radical implications for urban form and access to land and housing as it opens up the possibility of single plots being sold to, designed and developed by individuals. Furthermore, PCEs are powerful levers of change that can help public

66 Porta and Romice (2010).
67 UN-Habitat (2015): Planned City Extensions: Analysis of Historical Examples.
68 Ibid.

authorities to respond to projected urban growth in an orderly manner. More importantly, PCEs can prevent the leap-frogging over vast areas within the city, which will result in prohibitive costs for urban services and infrastructure provision in distant places.

3B.1 FLEXIBILITY IN PLOT SIZES

Sub-Indicator	0	1	2	3	4
Flexibility in plot size that allows for diversification for different land uses and affordability	The minimum plot size is 801 sqm-or more. Plots of smaller size cannot be created legally.	The minimum plot size is between 501-800 sqm. Plots of smaller size cannot be created legally.	The minimum plot size is between 301-500 sqm. Plots of smaller size cannot be created legally.	The minimum plot size is between 101-300 sqm. Plots of smaller size cannot be created legally.	The minimum plot size is 20-100 sqm or there is no minimum size. Plot of any bigger size can be created if needed.

Historically, plot sizes have been determined by the development market. In several countries, there are no standards for plot size but there are a plethora of standards affecting dwelling size, private and public open space, minimum distances between opposing windows, and room sizes that indirectly affect plot size. A good example can be deduced from the 1969 Building Code of Kenya that stipulates, as part of achieving the minimum housing requirements, that a housing structure should have at least two bedrooms each measuring a minimum of 7m², with a separate kitchen and conduit ventilation. This provision could be construed to mean that a minimum plot size for a residential house in Kenya is approximately 450m² which is obviously unaffordable to the urban poor and lower middle-income families that form the majority of the population. These unreasonable regulations could lead to the illegality of informal settlements. Therefore, it would be reasonable especially for affordability and access purposes to land and housing for the poor, if minimum plot sizes for residential uses ranked between 20-100m². In several African countries the minimum plot size remains too large and in discordance with the needs of dense and walkable urban centres but also of smaller cities and urban areas. For example, in the Nigerian State of Kogi sizes of plots range between 900 and 1350m², in Rwanda the standard plot is 600m².[69]

The creation of small serviced plots (20-100 m²) generates compact building forms as opposed to excessively large plots (850 m²) that make density difficult to achieve. Density, at the urban level, refers to the number of people in a given area which

69 UN-Habitat (2014): Urban Legal Assessment.

is often expressed as residential dwelling units per hectare (dph). Pursuant to UN-Habitat's Principle 2 on urban planning, higher densities (at least 15,000 people per km², that is, 150 people per ha or 61 people per acre) are generally considered to be more sustainable than lower densities, because of the following economic, social and environmental benefits:

- efficient land-use slows down urban sprawl because high density neighbourhoods can accommodate more people per area;
- reduced public service costs. High density neighbourhoods tend to decrease the costs of public services such as police and emergency res ponse, school transport, roads, water and sewage, etc.;
- support for better community service;
- reduced car dependency and parking demand, and increased support for public transport;
- provision of social equity;
- support for better public open space, and;
- increased energy efficiency and decreased pollution.

3B.2 MAXIMUM BLOCK LENGTHS IN ANY DIRECTION

Sub-Indicator	0	1	2	3	4
Maximum block length in any direction (for predominantly residential/mix land use, excluding industrial and other uses that require larger blocks)	No criteria is present.	More than 400m.	300-200m.	200-130m.	Less than 130m.

In relation to blocks, smaller blocks are preferable as they not only generate a more flexible grid but also permit more frequent linkages, visual and pedestrian connectivity, and a greater degree of activity on the street. Often regulations do not contain the maximum block length and when they do, it is excessive like 500 meters in Chinese cities. In the Philippines the maximum length of a block is 400 meters. However, blocks exceeding 250 meters have to be provided with a two meter alley approximately at mid-length.[70]

Short blocks promote walkability while excessively large blocks (400 meters) discount walkability and reduce the possibility for densification. A walkable city is a key measure to bring people into the public space, reduce congestion and boost

70 Philippines, Housing and Land Use Regulatory Board (2008).

local economy and interactions. A vibrant street life encourages people to walk or cycle around, while a rational street network enables necessary city administrative services to be offered within walking or cycling distance and ensures security. Ultimately, high density and a social mix make proximity to work, home and services possible. Walkability helps to reduce automobile reliance and thus alleviate relevant congestion, air pollution and resource depletion issues. Undoubtedly, pedestrians add an incredible amount of vibrancy to city life. However, it should be cautioned that small blocks could lead to undesirable results such as:

- lower potential for mixed uses;
- lower overall densities;
- reduced potential for biodiversity;
- reduced area for potential development, and;
- entail higher costs of infrastructural provision

Therefore, general rule for best practice, block lengths should range from 50 meters to 100 meters, with sizes between 60 and 80 meters striking a good balance between these competing demands.

3B.3 LAND SUBDIVISION INTO URBAN PLOTS

Sub-Indicator	0	1	2	3	4
Land subdivision into urban plots (agricultural land subdivision)	No mechanism exists or if it exists, no rules are set to guide the subdivision.	Lengthy and costly process. Very vague rules to be followed. Subdivision done by private owner with public approval (highly discretional).	Lengthy and costly process. Rules to be followed are clear but subdivision standards are not adequate. Subdivision done by private owner with public approval.	Subdivision can be proposed by the public authorities in consultation with the owners. There is a clear indication of plot shapes with required urban standards for public space, streets and other facilities.	Easy and straightforward with clear indication of plot shapes and required urban standards for public space, streets and other facilities. Development of the required standards and infrastructure are borne by the owner.

Dividing land into two or more plots is referred to as plot sub-division. In some common law jurisdictions,[71] the process of plot subdivision is a legal one, carried out through conveyance, where the resulting plot is described and recorded in a land

71 For example, U.K, Kenya and India

registry, but not in any coordinated fashion in relation to those around it. In these countries, it appears that the process of land subdivision is effectively a product of the diverse and often competing interests of private individuals, developers and their agents that is shaped and reshaped in an ad hoc manner over time. Contrast this with other jurisdictions,[72] where the regulation of sub-division provides the planning authority with a powerful additional means of controlling urban form. Ultimately, this facilitates the compilation of an urban cadastral map as well as allows the implications of subdivision on built form and on the overall pattern of subdivision to be considered.

In any case, for these tools above to be major levers of land use management and planning at the national and more importantly, city level, clear implementable regulatory frameworks have to be enacted. The above seems to be a reasonable proposition that will complement good planning and design decisions but, however, it is conceded that realistically, appropriate infrastructure, technology, capacity, and a detailed analysis of the local society and economy need to be undertaken to achieve the aforementioned result.

3B.4 PLOT CONSOLIDATION

Sub-Indicator	0	1	2	3	4
Plot consolidation (adjacent lots of the same or different owners)	No mechanism exists or if it exists, no rules are set to guide the consolidation.	A mechanism for consolidation is present but requires a complex and expensive process. Vague rules to be followed. Its approval is highly discretional.	Lengthy and costly process. Standards are not adequate. No consideration is given to the adequacy of the existing infrastructure.	Easy and straightforward process. Consolidation is used to increase densities in urban areas already serviced (infill) and it is part of urban policy and programs.	Easy and straightforward. Consolidation is used to increase densities in urban areas already serviced (infill) and it is part of urban policy and programs. Existence of incentives (ex. right of first refusal for neighbors, higher densities allowed, etc.)

Plot consolidation or amalgamation refers to the joining together of two or more contiguous plots to register the land under a single title. The process of plot consolidation involves negotiations and voluntary agreements, conducted openly and democratically. Plot consolidation may be used as a tool for the redevelopment

72 U.S.A and Australia

of an area, or to manifest density in an urban area through infill development. This process often involves an application by which the applicant will draft a plan for the consolidation and explain why the amalgamation should occur and how it is in line with planning policy. Therefore, it is important that the policy objectives in reference to this process are clearly and transparently communicated by the planning authority. Moreover, when in line with planning objectives, plot consolidation should be incentivized through mechanisms like right of first refusal for neighbours, or higher allowable densities.

3B.5 PLOT READJUSTMENT

Sub-Indicator	0	1	2	3	4
Plot readjustment	No mechanism exists.	A mechanism for plot readjustment is present but the rules and process to be followed are vague. Its approval is highly discretional.	Rules and requirements are complicated and difficult to use. Municipal institutions involved are not coordinated. Owners' participation is inadequate (more than 70 per cent or less than 60 per cent consent) and not meaningful.	Rules and requirements are straightforward. Owners' consent and participation is adequate (between 60 and 70 per cent) and institutional coordination sufficient.	Effective mechanism exists to readjust plots with adequate participation. Projects take into account city-wide objectives and try to avoid gentrification. It also takes into consideration tenants and non-property rights.

Plot readjustment is technically a land consolidation method, whereby a group of adjacent land parcels in an urban-fringe or in an inner city neighbourhood are voluntarily brought together or shared for unified planning and servicing. The land is 'reallocated' with project costs and benefits equitably shared between and among landowners.

The basic concept of land readjustment is that all landowners in a given area pool their land resources and the area is then re-surveyed to include appropriate public infrastructure. The remaining land is then re-surveyed and returned to the original owners. The reconfigured plots of land are then available for either individual or collective development with the result that after the project land values have increased because of improved access and enhanced city services. Each owner's plot may have a somewhat different shape and be in a slightly different location, but the end goal is that all

landowners are better off as a result of the land readjustment process.

The UN-Habitat Methodology for Participatory Inclusive Land Readjustment (PILaR) strives to achieve a more inclusive and participatory engagement process which is pro-poor and gender responsive. The approach emphasizes early and consistent, but realistic, stakeholder participation to encourage community ownership of urban redevelopment.

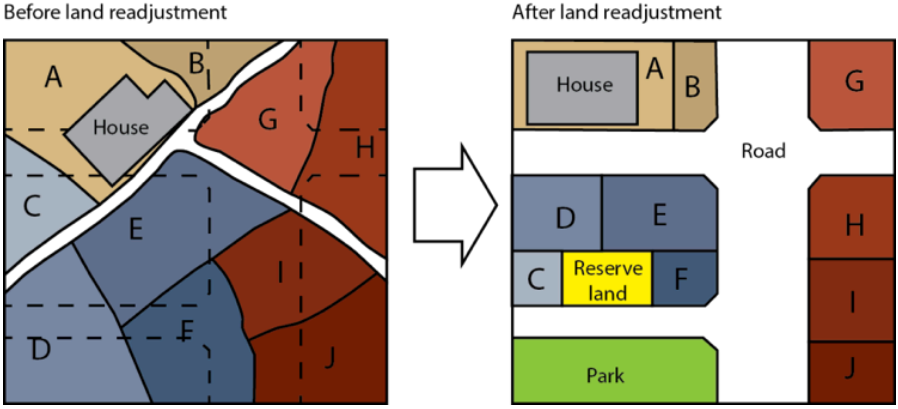

Figure 6: Possibilities for Changes in Urban Morphology with Land Readjustment
Source: UN-Habitat (2015): PILaR handbook.

CONCLUSION

It is imperative that plot regulations be functionally effective because they are the key to not only sustainable neighbourhoods but they also define land and housing rights for the urban poor. The analysis carried out has shown that density and walkability are influenced by plot and block sizes. On the one hand, smaller plots are desirable to plan city extensions, engender access and affordability to land and housing facilities to the poor and generate compact building forms which enhance higher densities. On the other hand, smaller blocks promote walkability which in turn creates a vibrant city. These standards are reflected under UN-Habitats' Principles of sustainable neighbourhood planning. Essentially, what is needed are clear and effective policies in the built environment to support the creation of sustainable communities that are safe, inclusive, well planned and offer equality of opportunity and good services for all.

04 DEVELOPMENT RIGHTS

Development rights broadly refer to the 'rights to undertake development on land.' The vesting of development rights in public authorities assists them in attaining social well-being through the provision of adequate and affordable housing, in accordance with the New Urban Agenda (2016). This may be achieved through the sale of development rights with an incentive to developers who prioritize affordable housing. For example, the city may issue additional development rights as a "density bonus" to developers who include affordable housing in their projects. In cases where the developers are not themselves interested in providing affordable housing, the public authority may use the revenue generated from the sale of development rights to construct affordable units in other areas of the city. For instance, between 1987 and 1998, the city of Sao Paulo approved 857,424 m^2 of building area, raising US $122.5 million that was in turn used to fund the construction of 13,000 social housing units.[73]

The allocation of development rights should be linked to the city's densification and livability objectives. UN-Habitat statistics, drawn from a global sample,[74] show that while development rights are widely regulated, they are often poorly linked to cities' policy objectives. Despite widespread policies of densification and urban compactness, regulations that limit the potential for desirable densification are in effect in the majority of cities. An overwhelming 85 per cent of cities report one or more regulations that limit building size in their expansion areas (see figure 7). Of the 85 per cent that report such regulations, 68 per cent had Maximum Floor-Area-Ratio regulations, 59 per cent had Maximum Building Height regulations and 57 per cent had Maximum Plot Coverage regulations. For example, cities often conservatively regulate Floor to Area Ratios (FAR). The average Floor Area Ratio (FAR) allowed on the periphery of cities in the global sample was 2.2, while the average maximum building height allowed was 33 meters, or approximately 10 floors (see figure 8)

73 Sandroni (2011): Urban value capture in São Paulo using a two-part approach: Created land and sale of building rights.

74 UN-Habitat (2016): The Fundamentals of Urbanization: Evidence base for Policy Making, p. 18.

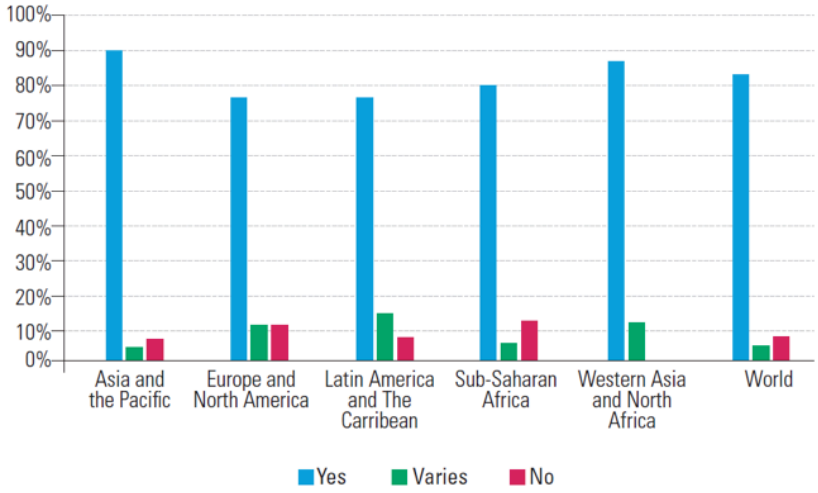

Figure 7: Presence of Building Size Regulations across UN Regions
Source: UN-Habitat (2016): The Fundamentals of Urbanization: Evidence base for Policy Making, p. 18.

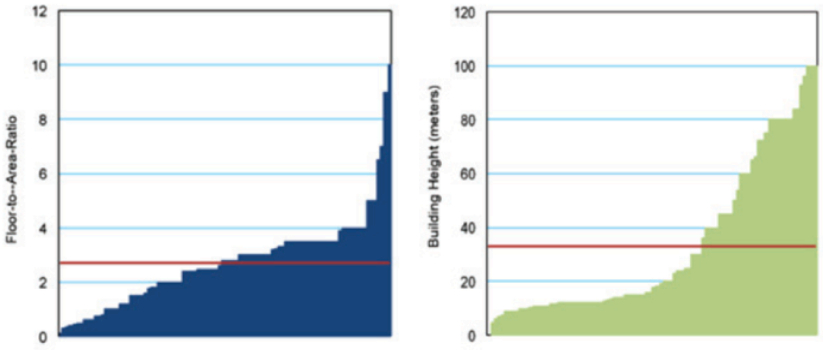

Figure 8: Maximum Allowable FAR (Left) and Building Heights (Right) from a Global Sample of Cities (in increasing order from left to right). The red line indicates the average.
Source: UN-Habitat (2016): The Fundamentals of Urbanization: Evidence base for Policy Making, p. 19

A further clear example of overly restrictive development controls is that 62 per cent of all cities, and 72 per cent of cities in less developed regions, reported that multi-family buildings were either not allowed, or allowed only in a small share of the area, clearly limiting opportunities for densification. Additionally, the internal

subdivision of units, addition of new units, and the addition of floors were not allowed in the majority of cities. Units could not be subdivided in 53 per cent of cities; additional dwellings could not be added in single-family plots in 60 per cent of cities; and additional floors could not be added in 65 per cent of cities.[75]

From this data one can recognize the overly restrictive nature of development rights in many cases. Therefore, development rights symbolize an area for potential improvements in planning law frameworks. The assessment has identified three key technical aspects that can be adjusted to improve the urban form, urge densification, and finance urban projects.

4B.1 ALLOCATION OF FLOOR-AREA-RATIO (FAR) OR EQUIVALENT (COMBINATION OF HORIZONTAL AND VERTICAL BUILDING POTENTIAL)

Sub-Indicator	0	1	2	3	4
Allocation of Floor-Area-Ratio (FAR) or equivalent (combination of horizontal and vertical building potential)	No regulation exists on the allocation of FAR to plots.	Regulations on the allocation of FAR exist but they leave great discretion.	Regulations on FAR exist and they allocate different building potentials with some criteria to limit discretion.	Regulations on FAR exist and they allocate different building potentials with specific criteria that limit discretion.	Regulations on the attribution of FAR exist and are based on objective criteria such as existing/planned infrastructure, health and safety, climate, environment, historic sites, etc., with limited discretion.

'Building potential' in this case refers to the ability to develop a plot, including the extent to which it can be built upon and the range of land uses that it can accommodate. The building potential is a proportionate combination between plot coverage on the ground floor, and the vertical development (building height). It is often calculated as a 'Floor-Area-Ratio' (FAR), also known as the floor space index.

Public authorities should give every plot a building potential in the most transparent and least discretional manner. When making decisions that concern setting of the FAR, plot coverage, height limits and other restrictions, the public authority needs to conduct itself with utmost transparency. The allocation of FARs across urban neighborhoods needs to be backed by clear objectives, supported by genuine needs and, in the absence of valid reasons, should not be overly restrictive. These reasons could include the preservation of farmland, protection of historically significant areas, and the prevention of disasters. For example, while the promotion of density

75 UN-Habitat (2016): The Fundamentals of Urbanization: Evidence base for Policy Making, p. 19.

may call for the allocation of high building potential in one area, the need to protect ecologically sensitive areas may call for less building potential in another area.

Development rights such as the Floor-Area-Ratio can be used by public authorities to generate revenue. Legal instruments often restrict a landowner's property right to a basic FAR coefficient that may or may not be different from the maximum that the area can support. This means that where a landowner wishes to undertake further development on their land, they have to pay for the right to do so. An example where the FAR is increased from 1.0 to 1.2 would allow landowners to increase the floor space of their buildings by 20 per cent. The local authority could then charge the landowner for the increase in floor space. For instance, Mumbai received additional revenues by raising the FAR from 1.0 to 1.3 with the requirement that builders purchase the extra 0.3 from the government.[76] Similarly, the city of Sao Paulo has raised substantial revenues through the sale of Certificates of Additional Construction Potential Bonds (CEPACs), which give the bearer additional building rights such as higher FARs and the ability to change uses of the plot.[77]

Nonetheless, there should not be a discrepancy in the allocation of vertical development rights for plots falling in the same locale and exhibiting similar topography. For instance, two plots in a zone that has been delineated for commercial activities should get the same building potential to avoid discrimination of landowners. Where there are reasons to allocate different building potential to such plots, the public authority needs to openly validate its decision. Indeed, in cases where plots cannot be given equal building potential, the disadvantaged landowners need to be compensated. Compensation may take the form of transferable development rights where the builder, after being restricted to build in one area, is allowed to build in another area. Failure to address disparities in building potential often leads to discord among landowners who feel unfairly targeted. In Rio de Janeiro, for example, the designation of areas as zones of cultural/historical/environmental protection ("APAC protection") while not devaluing the land per se, affected the potential value of such plots if they were to be converted to a more intensive use. Such moves, while clearly well-intentioned, have led to protests by landowners.[78]

76 Walters (2016).
77 Sandroni, Paolo (2011): "Recent experience with land value capture in São Paulo, Brazil." Land Lines 23 (3):14-19.
78 Smolka (2013).

4B.2 USE OF FLOOR-AREA-RATIO (FAR) OR EQUIVALENT

Sub-Indicator	0	1	2	3	4
Use of Floor-Area-Ratio (FAR) or equivalent (combination of horizontal and vertical building potential)	Property right gives the right to build upon it (no license required).	Use of vertical development rights is conditioned to a building license and administrative fee.	Use of vertical development rights (FAR) is conditioned to a building license and the fee is proportioned to the volumes built.	Vertical development rights for volumes need to be acquired and paid for before building license is administered.	Vertical development rights need to be acquired and paid for before building license is administered. Volumes can be bought and/or received from the municipality as a compensation for other land transactions. Unused rights can be sold/ used elsewhere in the city.

For development rights to exist there must be some form of regulatory framework which links them with planning rules. For instance, there must be zoning rules that restrict the changes in land use so that if a landowner intends to change their current use of land, they must acquire the right to do so. Similarly, zoning rules and height restrictions have the ability to regulate the density of an area and as such, any extra density must be acquired. In order for the use of FAR to work, the right to ownership must be separated from the right to build, and development rights must be vested in public authorities.

Separation of Ownership from the Right to Build: Private ownership of land often comes with a bundle of rights. These rights are thought to include the right to build, subdivide, or undertake other forms of development on the land. However, laws in most countries place restrictions on the range of activities that can be done on land even when such land is privately owned. These restrictions are in the form of development control which is the public regulation of building and construction through some form of consent or permit process. In this sense, while landowners reserve the right of ownership (or possession) they do not have the right to develop (development rights). As such, there is a separation between the right to own land and the right to develop it. This separation is important as it is one of the ways in which public authorities regulate the location, type and intensity of development under their jurisdictions.

Vesting of Development Rights in Public Authorities: The legal framework governing development rights should vest them in public authorities. Land use changes and

increases in density need to be approved by public authorities. For instance, the right to increase the allowable ratio of constructed floor space for a given zone (often called the Floor-Area-Ratio or FAR), say from 1.0 to 1.2, needs to be acquired from the local authority. Accordingly, the local authority will have the power to either approve or reject such an application.

The vesting of development rights by public authorities is an invaluable planning tool. By regulating land use and density in specific zones, the local authority can plan the area under its jurisdiction. The local authority may regulate the right to develop land on ecologically sensitive areas by placing the floor to area ratio at a bare minimum. Similarly, the authority may promote the densification of an area by removing height restrictions or increasing the total number of allowable buildable floors in that area. For instance, in the city of Curitiba, Brazil, higher FARs have been granted in some segments of the city as a way of promoting transit-oriented development in corridors where bus rapid transport systems were installed.[79]

Vertical development rights entail the permission to add floor space rights for taller buildings, which can help to achieve density in city centers. The city can sell additional floor space rights to build at greater densities, especially at designated growth spots in the city. Increasing the building height increases the built density on a plot, and in turn, increases the value of land, whereby land-based financing and land value sharing come into play (see Land-Based Financing 6b.2).

4B.3 URBAN FORM REQUIREMENTS (PLOT COVERAGE AND SETBACKS)

Sub-Indicator	0	1	2	3	4
Urban form (lot coverage and setbacks)	No regulations exist.	Regulations on lot coverage and setbacks exist but they do not ensure an adequately safe urban form with appropriate densities, and continuous and active building facades for a compact, vibrant, and walkable city.	Regulations on lot coverage and setbacks exist and ensure safety but not appropriate densities and continuous and active building facades for a compact, vibrant, and walkable city.	Regulations on lot coverage and setbacks exist and ensure safety, health, and appropriate densities, but do not make for continuous and active building facades for a compact, vibrant, and walkable city.	Regulations on lot coverage and setbacks exist and they ensure a safe, healthy, and dense urban form with continuous and active building facades for a compact, vibrant, and walkable city.

'Footprint' or 'plot coverage' rules, dictate what proportion and area of a given

79 Smolka (2013).

plot may be built on. Plot coverage requirements are other forms of development controls that give rise to 'development rights' when they are acquired. Density can be planned and managed through a system of regulations for high plot coverage, vertical building rights, and zoning for mixed-use neighborhoods. These policy objectives are achievable with a strong system for the administration of development rights. Our assessment advocates for high plot coverage requirements in urban areas to promote density, while maintaining space for streets and other public spaces. This relates to the provision of public service infrastructure like public transportation networks, which is more manageable in dense urban settlements.

Development rights regulation can have a significant impact on street dynamics and walkability, by managing the distance between buildings and streets (often called setbacks), which affects plot coverage and built density. As such, regulation should be developed clearly to support policy objectives in these areas. Setbacks or "build-to-lines" are a design control that require buildings to be set back from the edge of the plot, whether on the front, back, or sides. Setback requirements and distances between buildings are a hindrance to continuous street facades, which promote a compact, walkable city. Setbacks are a characteristic of an automobile dependent city, illustrating the regulation between street and building to leave places for cars. Setbacks prevent sustainable planning frameworks and the compact city agenda.

CONCLUSION

Development rights are an important tool for developing a sustainable and affordable city, especially when urban planning objectives like livability and walkability are considered and prioritized. They can help to prevent urban sprawl, segregation, and automobile dependence. Because these development controls incur increases in costs to the public in the form of infrastructure and service needs, the granting of development rights often comes with a charge or fee. These one off charges may simply be variable fees according to the rights allocated in a particular plot. They may also be more complex, involving tradable rights among plots, or even among areas of a city. As another option, development rights may be granted in return for the provision of services or infrastructure.[80] Financing the administration of development rights and/or the organization and management of a program for the sale of transferable development rights requires a strong capacity and transparency of the mechanisms and processes for them to be successful. Moreover, development rights must be administered equitably to give opportunity for development across neighborhoods and income groups.

80 UN-Habitat (2016): The Fundamentals of Urbanization: Evidence base for Policy Making, p. 20.

05 BUILDING CODES

Adequate planning rules and building regulations are a prerequisite to the supply, design, production and management of affordable, safe, resilient and energy-efficient housing. Building and land use regulations can reduce risks in cities including the risk of (i) large, rapid-onset events and the risk of (ii) more contained but still deadly events such as fire or building collapse.[81]

The Sendai Framework for Disaster Risk Reduction was adopted at the Third UN World Conference in 2015, the first major agreement for the post-2015 development agenda. This framework set out priorities for action, among them "Priority 2: Strengthening disaster risk governance to manage disaster risk". This involves an assessment of the capacity to manage disaster risk and incentives to comply with safety-enhancing laws and regulations, including land use, urban planning, building codes, environment and resource management, and health and safety standards. The Framework also identified "Priority 3: Investing in disaster risk reduction for resilience," which encourages the revision of existing or the development of new building codes and standards and rehabilitation and reconstruction practices at the national or local levels.[82]

Building codes and regulations should be locally relevant and should be adaptable especially in countries with different climates, rainfalls and temperatures. Adequate building safety regulations shall be tailored to local needs, adapting to a risk profile, building culture, availability of materials, equipment and income levels.[83]

Where regulations are unknown, unenforceable, or excessive, most people tend to disregard them, especially the poor. Consequently, an open participatory process with representation from all relevant stakeholder groups is necessary to generate a consensus on the risks and costs acceptable for building performance. All stakeholders must accept specific implementation and enforcement mechanisms as legitimate and fair. Meeting these requirements implies effective stakeholder consultation and participation (public review

81 World Bank Group (2015): Building Regulation for Resilience: Managing Risk for Safer Cities.
82 UNISDR (2015).
83 UN-Habitat (2014): Sustainable Building Design for Tropical Climates: Principles and Applications for East Africa.

process, focus group discussions).

Provision of safe land is also an important step toward controlling disaster and chronic risk in urbanizing areas. In the absence of effective systems, cities in low-income countries have rapidly expanded into hazardous territory without clear title or critically needed infrastructure.[84] Therefore, the planning law framework requires regulatory mechanisms enabling the urban poor to access to safe land and tenure security (both for business and housing), in an affordable manner.

For example, authorities can reference hazard maps in the building code; hazard maps differentiate building requirements in proportion to expected hazard loads. The legal framework can thus institute alternative uses to occupy hazard zones (for instance urban agriculture park or recreation areas), in order to minimize new exposure risks and informal settlements.

Building codes shall also recognize building practices such as incremental construction – the gradual, step by step process through which owners-builders append or improve building components as funding, time, or materials become available. Incremental construction is a widespread informal practice rarely recognized bybut formal building codes, which widens the gap between the formal and informal building sectors.

It is also of high importance to ease the burden of building permitting procedures on local governments and reduce arbitrary discretion in planning and building permit approvals. This could include improved information and communication systems for risk management, building practitioners' certification, private third-party accreditation to provide review and inspection, and the use of insurance mechanisms to augment building control.

The following technical aspects of building codes are assessed: age of the building code, the uniformity or differentiation of application, the scope for local materials, resource-efficient measures, and the consideration of low-cost options.

84 World Bank Group (2013): Good Practices for Construction Regulation Enforcement Reform.

5B.1 AGE OF THE BUILDING CODE

Sub-Indicator	0	1	2	3	4
Age of building code	No building code.	30-50 years.	20-30 years.	10-20 years.	0-10 years.

Building codes should be periodically reviewed in light of their effectiveness in delivering safe and resilient housing. Building code documents should be subject to review and updating on a regular basis (3 to 5 year cycle), for incorporating new knowledge related to experience of building performance in construction materials and practice. For example, New York City has responded to disasters in the city with improvements to its building code.

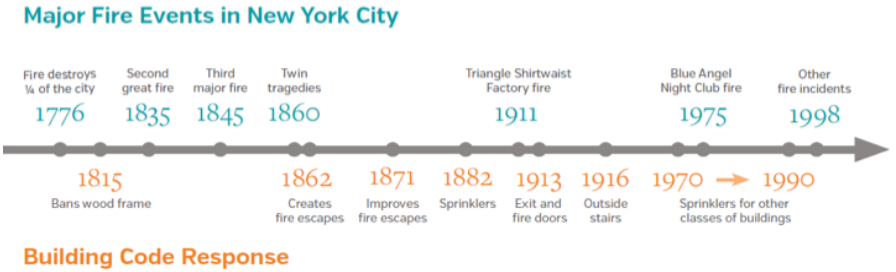

Figure 9: Fire Events and their Regulatory Response in New York City [1776-2000].
Source: World Bank Group (2015).

The building code should also consider new emerging risks and evolving income levels. It is also necessary, in order to strengthen implementation of building code, to establish plan review mechanisms, site inspection, and permitting at the local level.

5B.2 UNIFORMITY OR OF DIFFERENTIATION OF APPLICATION

Sub-Indicator	0	1	2	3	4
Uniformity or differentiation of application	No building regulations are present at national or local level.	National building code establishes rules for the whole country. No local adaptation is possible.	No national building code or guiding legislation exist. Municipalities adopt their own building regulations.	National legislation gives broad principles and local building codes are adopted.	Local jurisdictions adopt a building code based on a national model.

As the local level is key for implementing and enforcing building regulation, this local authority must be solidly based on national legislation that defines the public role in protecting public health, safety, and welfare in the built environment. National legislation should outline roles and responsibilities of subordinates' agencies of government and devolve regulatory authority to appropriate levels of governments. Consistent and complementary national legislation is necessary to establish the legal framework in which building regulations can be implemented.

There is a need to support the introduction of locally implementable building codes, including the adaptation of national model codes. This will establish a national capacity to develop, adapt, and update appropriate standards of construction through participative and transparent processes at national level.

At the stage of the building code development process, open participation from a full range of interested stakeholders (building professionals, developers, representatives of finance and social service sector) should be provided for so that the building code considers and includes all building practice.

5B.3 SCOPE FOR LOCAL MATERIALS

Sub-Indicator	0	1	2	3	4
Scope for local materials	No building regulations are present at national or local level.	Local/ traditional building materials and constructions are explicitly forbidden in the building code.	Constructions require building materials which are not available locally, difficult to find, expensive, etc., even for small/low cost housing.	Broad range of acceptable construction materials. Use of locally available materials and construction is allowed. A special set of rules exists for low cost houses (less than 20 sq meters and no more than 2 floors) with minimum/basic standards.	Use of locally available materials and traditional construction techniques is allowed and encouraged through incentives (subsidized materials, fast track approval, a housing typology, etc.)

The building code should allow and encourage the use of locally available materials and construction techniques. Inappropriate transfer of codes from high-income countries often increases the dependency of developing countries on imported industrialized building materials and design practices. These codes create high costs of compliance with a result of driving construction to the informal sector. Rigorous and unattainable standards of construction have been a major obstacle for the expansion of regulatory compliance. Building codes have to reflect the social reality and material possibilities of the society in which they are to be implemented.

Indeed, building codes transposed from higher-income countries frequently reference technical standards for a limited range of construction materials and methods. A failure to consider improvement of health and safety measures for this type of construction relegates them to the vulnerabilities of informal sector. It is fundamental to develop a building code suitable to local, social and economic conditions that facilitates safe use of local building materials and practices.

The importance of requirements for professional qualification and licenses must also be underlined. They are based on professional practice in the developed world and do not entail knowledge of relevant local construction. There is a need of guidance for improved resilience of traditional forms of construction.

5B.4 RESOURCE-EFFICIENT MEASURES

Sub-Indicator	0	1	2	3	4
Resource-efficient measures (water, land, energy, material and waste)	No building regulations are present at national or local level.	Building regulations have no consideration for resource-efficient measures.	Constructions require resource-efficient measures that are not available locally, difficult to find, expensive, etc.	Use of resource-efficient measures is mandatory.	Use of resource-efficient measures is mandatory and encouraged through incentives (subsidized materials, fast track approval, housing typology provided, etc.)

The use of resource-efficient construction should be mandatory and encouraged. It is relevant to note the impact building codes have on greenhouse gas emissions caused by construction and building maintenance. About 40 per cent of the raw materials and energy produced worldwide are used in the building sector and the cement industry alone is responsible for 25 per cent of the annual worldwide CO2 emissions from fossil fuels.[85] The adoption of an energy efficient building code will not only reduce the energy demand for buildings, and reduce the city's carbon footprint, but it will also incur significant economic savings in terms of fuel import and utilities spending for the residents.The use of resource-efficient measures in building construction is often called "green building practice" as the goal is to reduce greenhouse gas emissions through the use of sustainable building materials and design.

UN-Habitat recommends the following procedures for incorporating energy and resource efficiency into building codes:[86]

- environmentally friendly design incorporating green building concepts and regulations (passive building design as per climatic zone);
- use of climate adapted and sustainable building materials;
- use of energy efficient appliances such as mandatory use of Solar Hot Water (SWH), lighting, air conditioning and ventilation, and HVAC;
- water efficiency: rainwater harvesting, water reuse and recycling
- renewable energies (i.e. solar, wind, geothermal, waste-to-energy)
- site planning: sewage separation and treatment; waste management; land/vegetation and landscaping; drainage, urban layout and street orientation; erosion prevention, etc.
- Energy Certification of Buildings
- procedures for building inspection and penalties for noncompliance

85 UN-Habitat (2015). "Sustainable Building Design for Tropical Climates".
86 UN-Habitat (2016). "Mainstreaming Energy and Resource Efficiency into the Built Environment".

In order for the implementation of resource-efficient measures into the building code to be successful, building permits should require environmental measures and the use of sustainable and local construction materials, alongside a multi-faceted approach to train architects, engineers and other building practitioners in sustainable building design. This can be done by integrating passive building design into universities curriculum, allocating regulatory resources to maximize risk reduction, and incentivizing the private sector to expand their technical resources for building code implementation, both in construction materials, as well as in technical manpower available for review and inspection functions.

Moreover, it is necessary to review country specific (which is climate specific) housing policy to include energy efficient measures. Architects, planners, and building code legislators in low-income countries must abandon the approach of imitating the architecture of high-income countries. When building codes are made locally specific, compliance with green building codes is affordable for all, and thus adequately incentivized.

5B.5 CONSIDERATION OF LOW-COST OPTIONS FOR SMALL/LOW-COST HOUSING

Sub-Indicator	0	1	2	3	4
Consideration of low-cost options for small/low-cost housing	No building regulations are present at national or local level.	No consideration in the building regulations for low-cost options.	Constructions with certain building materials are explicitly forbidden (wood, mud, soil, corrugated iron, etc.) even for small/low-cost housing	Low-cost options are accounted for: a special set of rules exist for low-cost houses (less than 20 sq meters and no more than 2 floors) with minimum/basic standards.	Low-cost options are allowed and encouraged (subsidized materials, fast track approval, housing typology provided, etc.)

Special consideration should be given to low cost housing by having differentiated standards by small, low rise, low cost affordable housing. Compliance with unaffordable building standards is especially costly for the poor. The process of designing and adopting appropriate building standards has frequently been a top-down directive that does not sufficiently consult with stakeholders, including both private building professionals and local communities.

As a consequence, this has led many countries to borrow unaffordable standards

from abroad, usually from high-income countries in the Global North. Thus, building codes in low income countries have often set the bar too high, creating dependency on imported building materials while stifling local innovation. To a certain extent, compliance with codes can increase building costs. Simple transfer of documents from mature regulatory systems without specific adaptation to local cultural economic factors affecting compliance has led to a critical implementation gap.

CONCLUSION

Introducing building code regulations is necessary, however it is equally important to establish other regulatory mechanisms and institutions that are essential to achieve compliant and safe constructions. Such institutions can transfer responsibilities and roles , for example training for the building professions, certification processes for contractors and developers, property insurance and professional liability insurance for building professionals. An effective legal framework can build institutional capacity to address everyday hazards such as fire, building collapse, epidemic, and unhealthy living conditions. The legal framework can also outline the delivery of educational and training programs, which will be based on code-compliance practices for all elements of the building sectors.

Building code provisions should strike a balance between the cost of construction (when following the regulations) and considering what people can afford on the one side and safety and security on the other. Moreover, this includes the consideration for local, resource-efficient, and low-cost building materials for small and low-cost housing options.

06 LAND-BASED FINANCE

Over the years, increasing attention has been given to the role of finances in urban planning and urban development. In particular, land has emerged as one of the principal methods of generating financial resources, leading to the concept of 'land-based finance' (LBF).[87] By definition, land-based finance refers to the various ways in which land and property development are used to raise revenue for local authorities or other public entities. It is based on tapping the value of land (and other installations on land) in a way that ensures the fair and equitable sharing of increases in land value between landowners and the public.[88] When effectively applied, land-based financing has the potential to generate enough revenues to support and sustain urban development as well as contribute to positive socioeconomic changes in the society.[89]

Land-based finance is a flexible set of instruments that can be adapted to a variety of institutional and cultural contexts. It aims to enhance the availability of resources for local development. Improved local finances and the ability to improve local infrastructure and service provision can have far-reaching social and economic benefits. Additionally, LBF tends to have fewer negative impacts on private investment than other types of revenue tools. LBF has several advantages compared to other financial sources. Firstly, land is immovable. While this appears to be an obvious point, it has profound effects on the implementation of land-based finance. Other forms of taxes including income and retail tax may influence personal decisions on where an individual works lives or shops. However, a tax based on land will have no effect on the location of that land. It may influence who owns the land or the way it is used, but it will not change the land's location.

Secondly, land is visible. This means that the owner of the land is known or can be identified.[90] As the tax base is visible, evasion is relatively difficult. Thirdly, the use of LBF by local authorities reduces their overreliance on intergovernmental transfers. The effect of this may be greater autonomy of local governments and the adaptation of development plans to suit local circumstances.[91]

87 Walters (2016).
88 Tong (2015).
89 UK Aid (2015).
90 This means there should be an effective fiscal cadaster in place to ensure that owners of land are readily identified as well as the value of land being ascertainable.
91 Ruiz and Vallejo (2010).

Importantly, efficient LBF contributes to effective urban planning and development by promoting densification and reducing land speculation and urban sprawl. It does this by introducing taxes on land meaning that landowners must develop their land to be able to afford the tax. The effect of this measure is the promotion of 'highest and best use' of land. Lastly, LBF tends to promote transparency and accountability in local authorities.

For the different forms of land-based financing techniques to be effective, several preconditions must be present, which will encompass the following assessment of technical aspects. Firstly, there must be a proper fiscal cadaster. Secondly, the LBF techniques must be used in a way that benefits not only the land owners but also the public, and thus is a form of land value sharing. Thirdly, developers must be required to contribute to municipal finance through exactions, fees or contributions. Finally property tax, being the main form of LBF, must be fully laid out for the benefits of land-based finance to be captured.

6B.1 FISCAL CADASTER

Sub-Indicator	0	1	2	3	4
Fiscal cadaster	No fiscal cadaster exists.	Fiscal cadaster is not up to date (over 20 years old), and it does not cover informal areas.	Fiscal cadaster is not up to date (over 10 years old) and it does not cover informal areas.	Fiscal cadaster relatively up to date (less than 10 years old) but does not cover informal areas and is not well-coordinated with land-based taxes.	Fiscal cadaster is up to date (less than 5 years old), covers informal areas, and is publicly available and well-coordinated with land-based taxes.

Land value is about the processes for valuation and taxation of land and properties. The systems for valuation and taxation vary throughout the world. In developed countries, the value normally refers to the price most likely to be concluded by well-informed buyers and sellers of a property when it is available for purchase.[92] This means that value is not a fact, but an estimate of the likely price to be paid for land and property at a given time, and it depends on the type of market transaction and the motives and interests of the parties involved.[93] The estimated values can then be used for taxation as a basis for financing of public services.[94]

An effective land valuation and taxation system requires a reliable cadastral system.

92 Ibid.
93 Ibid.
94 Ibid.

For instance, according to the FFP approach (see Land and Urban Planning sub-indicator 1b.1), the function of valuation and taxation needs a map with cadastral numbers of the individual parcels and properties.[95] However, valuation does not need any measurements, nor exact identification of the boundaries, but the scale of the mapping needs to be sufficient for identifying the objects in the field and for calculation of the area of the object.[96] Likewise, the use of aerial/satellite imagery for the purpose of valuation is beneficial since it combines the legal objects i.e. the spatial units with the physical objects such as topography, buildings and land-use arrangements.[97]

The success of LBF relies heavily on a properly conducted and maintained fiscal cadaster. A fiscal cadaster is an inventory of all land and includes all the information that may be needed to determine property value for taxation purposes. As such, a fiscal cadaster must, first and foremost, capture all land parcels, including informal areas. While it has been argued that including informal areas in the tax system may be a costly and fruitless endeavor, some have asserted that if informal settlements are included in the property tax system, many of the residents will pay the tax voluntarily.[98] This will be the case especially if the government establishes a formal process of granting some type of legal status to those who have paid the tax.

The fiscal cadaster, in addition to capturing all land parcels in the relevant area, needs to specify what is taxable. Is it the land? Is it the value of developments made on the land, or is it both? Thereafter, there must be an examination of taxable value. The taxable value refers to the property value to be taxed. That is, how will this value be determined? Is it the annual rental value, the capital market value, or the size of the land? A fiscal cadaster must therefore determine the method of valuating property. This is important because the value of the property has a direct effect on the amount of taxes to be levied.

95 Ibid.
96 Ibid.
97 Ibid.
98 Smolka and De Cesare (2013).

6B.2 LAND VALUE SHARING TRIGGERED BY PLANNING DECISIONS

Sub-Indicator	0	1	2	3	4
Land value sharing mechanisms triggered by planning decisions (ex. urban to rural land conversion, administration of building development rights or change of land use) or public investments (ex. streets, public space, green areas, public transport infrastructure, basic infrastructure)	No mechanisms exist to share the increase in land value.	Simple mechanisms exist such as land value contribution or fees in case of land subdivisions or building license application. These are not commonly used and enforced.	Simple mechanisms exist such as land value contribution in case of land subdivisions or building license application. These are commonly used and enforced. The revenue collected increases the service delivery capacity of the local authority.	Several, more complex mechanisms to share the increase in land value are present for planning decisions and public investments. The revenue collected increases the capacity of the local urban planning authority.	Several mechanisms to share the increase in land value are present for planning decisions and public investments. The revenue collected (or part of it) is allocated to be spent across the city to increase the supply of public goods and increase equitable urban development.

Land value sharing, a type of land-based finance, is based on equitable sharing of benefits and burdens of urban development, meaning that landowners and developers should share the value of their land with the public when the increases in values are the consequence of a planning decision or public investment in infrastructure.[99]

Land value sharing, when triggered by planning decisions, may take the form of a land value contribution or fees in case of land subdivisions or a building license application. Importantly, the revenue generated from land value sharing should be allocated to increasing the capacity of the local urban planning authority through increased supply of public goods and more equitable urban development.

There are various land value sharing options.[100] These include but are not limited to:

Recurring taxes on land and buildings: Usually comes in various forms: tax on land only; a tax on buildings and other improvements that are on land; or a tax on both the land and the immovable structures on it. These taxes often supply a steady flow of revenue for local authorities needed to fund local services and investments in infrastructure.

99 Booth (2012).
100 Walters (2016).

Betterment charges and special assessments: These are normally intended to promote communal sharing of increased land value arising from infrastructure developments. For example, the construction of a superhighway would increase the value of land and buildings around it. As such, these increased values should be shared by the public, which is done through betterment charges.[101] A special assessment is a slight variation of a betterment charge in that while the latter is a one-time charge, the former is paid over a number of years.

Land value increment taxes: These are taxes on increases in the value of land. They are based on the idea that land values are not increased by the actions of landowners but by social processes. These include public infrastructure, market trends and locational features. Accordingly, as the land owners are assisted by social processes to increase the value of their land, they should not enjoy the benefits alone. Land value increment taxes are therefore one way in which the land value is shared between the owner and the community.

Land leases and sale of public lands: The government or local authority may sell or lease public land. This is normally done where there is an available piece of public land and the government needs to generate enough revenue for a high priority, long-term project.

Transfer taxes and stamp duties: These are assessed when land ownership is being transferred from one party to the other. In most instances, the amount is a percentage of the total value of the property being transferred. The revenue generated should be used to maintain land registration systems.

6B.3 DEVELOPER'S FEES/CONTRIBUTIONS

Sub-Indicator	0	1	2	3	4
Developers' fees/ contributions	No mechanism exists.	Developers pay some administrative fees not proportioned to the scale and need of the development.	Developers contribute (in-kind or in cash) to some infrastructure costs but they do not cover all the infrastructure costs required by their development.	Developers contribute (in-kind or in cash) to all the infrastructure costs required by their development.	Developers contribute (in-kind or in cash) to all the infrastructure costs required by their development. The building license is granted only after the contribution is paid or checked.

101 Peterson and Thawakar (2013).

Developer exactions, also known as fees or contributions, are based on the idea that new developments will lead to a heavier burden on urban authorities with regards to infrastructure and service provision. As such, the developer must compensate the urban authority for the extra costs occasioned by the new development. The compensation comes in the form of exactions, which may include required on site improvements such as road pavements and wastewater collection lines which are constructed by the developer and then transferred to the local authority. The local authority may also require the developer to make payments towards an offsite project or other social improvements.

Developers' fees can be tied to the sale of development rights, whereby urban authorities separate land ownership from the right to further develop it and reserve the right to authorize any further development. The sale of such rights may generate revenue for public infrastructural investments. More importantly, it can be used to stimulate the provision of affordable housing by explicitly including terms to that effect in contracts of sale of development rights. These examples show how various forms of land-based financing may be used to benefit not just landowners and developers but also the public by availing funds for public investments.

6B.4 PROPERTY TAX

Sub-Indicator	0	1	2	3	4
Property tax	No property tax exists.	A property tax exists but it has less than 20 per cent collection rate. It is based on the value of undeveloped land.	A property tax exists but it has less than 50 per cent collection rate. It is based on the value of undeveloped land.	A property tax exists and it has more than 80 per cent collection rate. It is based on the value of land and development.	Property tax exists with a large collection rate (more than 90 per cent). It is based on the value of land and development. Progressive increase for undeveloped, vacant land or empty houses.

For the purposes of these guidelines, "property tax" refers to tax levied on both land and the buildings on it. Taxes on buildings only may fail to capture increased land values, for example, caused by infrastructural developments in the area. On the other hand, taxes on land only will exclude the value of structures built on land therefore depriving the local authority of extra revenue. As such, a good property tax system should include taxes based on both the value of the land and any development made on it. This way, the local authority will be able to capture the full value of the property.[102] This value should be established by a comprehensive and up-to-date

102 Bird (2004).

fiscal cadaster, also known as a valuation roll (see indicator 6b.1).

Property tax is critical in land-based finance and land value sharing for several fundamental reasons. Firstly, recurring taxes on land provide landowners with an incentive to develop their land to afford the tax leading to increased development of vacant sites. Secondly, property tax reduces land speculation as property taxes will still be due regardless of whether there are structures on it or not. In fact, a good property tax system should provide for progressive tax increases in cases of unused or under-developed land. It would thus become unattractive to buy land unless there is an intention to use it. This can in turn reduce the demand of land, which can stabilize prices and lead to more affordable housing.[103] Indeed, property tax can have long-term effects in reducing sprawl followed by less intrusion of agricultural land. Compact development will reduce the cost of infrastructure and service provision. Commuting would be reduced as more local jobs become created and services become less spread out.[104]

Furthermore, as property taxes are recurring, they provide a stable source of revenue for local governments. They can therefore be used to undertake other forms of public works such as schools, hospitals and parks.

CONCLUSION

Land has the potential to provide a tremendous improvement in the revenues available to local authorities. In addition to being a visible and fixed component, which reduces evasion, it also has the added advantage of being able to institute positive social and economic wellbeing of the community. However, it must be noted that the success of land based finance as an effective finance mechanism depends on strong and effective local government administration as well as collaboration between various levels of government. It also relies on political goodwill and social acceptance bearing in mind that taxes are generally unpopular with the vast majority of people, and as such, may be resisted. Governments and local authorities therefore need to ensure that the affected people understand the relevance of such taxes in addition to ensuring that local communities enjoy the social and economic benefits of land-based financing.

103 McGill (2011).
104 Ibid.

ANNEX: PLANNING LAW ASSESSMENT FRAMEWORK

1: Land and U

Indicator	Sub-indicator		0	1	2
Legislative Functional Effectiveness	1a.1	Consistency of policy objectives	The regulatory framework in this area has no policy and no clear objectives.	Inconsistent policies exist and laws have diverse policy objectives.	Consistent policies exist in regulations have differen
	1a.2	Transparency and efficiency of mechanisms and processes	Complicated and bureaucratic process with the outcome of the decision left completely to the discretion of public officers.	Complex and non-transparent process. Some rules exist to guide the outcome of the decision but they can easily be manipulated.	Processes are clearly defi of discretion but checks a hierarchical approval by c public participation, cons etc.) are dysfunctional.
	1a.3	Organization of institutional responsibilities and roles	Several institutions have responsibilities in implementing the regulations and no coordination mechanism is in place.	Several institutions have responsibilities in implementing the regulations. Coordination mechanisms exist but they don't work.	Several institutions have implementing the regulat mechanisms exist but the occasionally.
	1a.4	Clarity in standard of drafting	Extremely unclear and ambiguous language with the interpretation left completely to the discretion of public officers.	Unclear and ambiguous language with some rules or court decisions to guide the outcome of the decision but they can easily be manipulated.	Unclear and ambiguous la or court decisions that aid
	1a.5	Capacity for implementation	Human and financial resources are completely inadequate to implement the legislative framework.	Human and financial resources are inadequate to implement the legislative framework but could be improved in several years (+5 years) with capacity development.	Human and financial reso implement the legislative realistically improved in a with capacity developme
Land Management: Technical Aspects	1b.1	Legal land registry	No land information system is present in the city.	Information system is present in the city but has no coverage and/or it is not updated.	Information system is pre covers the city only partia and/or it is not adequatel
	1b.2	Flexible and socially-responsive tenure systems	Only formal statutory rights are recognized.	Legislation only recognizes formal statutory rights but mechanisms exist to recognize informal land rights (ex. adverse possession, titles of occupation, non-documentary forms of evidence, etc.)	Legislation recognizes sta rights. Mechanisms exist land rights (ex. adverse p occupation, non-docume etc.). The process of regis prohibitive.
	1b.3	Coordinated planning hierarchy	No obvious mechanism exists to relate plans to one another.	Legal mechanisms exist to relate plans to one another but with high levels of discretion at all levels.	Legal mechanisms exist to another but do not ensur plans and do not guide sn
	1b.4	Possibility for land-use changes	Urban plans either do not exist or do not allow for land-use changes.	According to urban plans, land-use change is possible but the application process takes at least 12 months.	According to urban plans possible but the applicati 9 months.
	1b.5	Planning at scale and affordable housing policies	No requirement for urban plans to consider demographic and migratory projections and link them to the supply of affordable housing.	Urban plans consider demographic projections but they do not plan at scale and consider the implementation of affordable housing policies.	Urban plans consider dem projections but they do n consider the implementat housing policies.

rban Planning

Ranking			Score	Weight	Weighted Score
2	3	4			
n this area but t objectives.	Regulatory measures in this area have consistent objectives.	Regulatory measures in this area have consistent objectives based on clear policies.		1	
ned with a fair amount nd balances (ex. different institutions, ultation, court appeal,	Processes are clearly defined with a fair amount of discretion. There are functioning checks and balances (ex. hierarchical approval by different institutions, public participation, consultation, court appeal, etc.)	Processes are clearly defined and fully transparent such that the outcome of the decision does not involve any discretion.		1	
responsibilities in ions. Coordination y work only	Institutional roles and responsibilities in this sector are concentrated in one institution that not always works efficiently.	Institutional roles and responsibilities in this sector are concentrated in one efficient institution or in several well-coordinated institutions.		1	
anguage with some rules d the interpretation.	Legislative texts are written in clear and unambiguous language understandable by professionals only.	Legislative texts are written in clear and unambiguous language understandable by professionals and common citizens.		1	
urces are inadequate to framework but could be few years (2-3 years) nt.	Human and financial resources are barely adequate.	Human and financial resources are adequate for the successful implementation of the legislative framework in this area.		1	
esent in the city but lly (less than 80%) y updated.	The land information system covers more than 80% of the municipality and it is adequately updated.	100% of the land in the municipality is recorded in a cadaster and its information is up to date and publicly available.		1	
tutory and customary to recognize informal ossession, titles of ntary forms of evidence, tration or its fee is quite	Legislation is gender-responsive and recognizes statutory and customary rights. Mechanisms exist to recognize informal land rights (ex. adverse possession, titles of occupation, non-documentary forms of evidence, etc.). A simplified first-time registration process exists.	Legislation is gender-responsive and recognizes statutory, customary, and informal rights. A simplified first-time registration process exists. Mechanisms exist to recognize occupation and give non-property security of tenure.		1	
o relate plans to one e compliance with larger naller plans.	The urban planning hierarchy is clear but there are institutional and administrative overlaps.	Urban planning hierarchy is clear and legal mechanisms ensure that local level plans comply with the superior plans. Plans are adequate to local need.		1	
, land-use change is on process takes at least	According to urban plans, land-use change is possible, with transparency and without discretion, but the application process takes at least 6 months.	Plans stipulate which land-use changes are possible with transparency and without discretion. The application process takes less than 2 months. Land-use plans allow overlays in existing single-use districts.		1	
nographic and migratory ot plan at scale and tion of affordable	Urban plans have to consider demographic and migratory projections and link them to the supply of affordable housing in addition to serviced land, but not at an adequate scale.	Urban plans have to consider demographic and migratory projections and link them to the supply of affordable housing and serviced land at scale through a variety of instruments (public/private supply, housing/rental subsidies etc.)		1	
			Legislative Functional Effectiveness:		
			Technical Aspects:		
			Total Score:		

2: Publi					
Indicator	**Sub-indicators**		**0**	**1**	
Legislative Functional Effectiveness	2a.1	Consistency of policy objectives	The regulatory framework in this area has no policy and no clear objectives.	Inconsistent policies exist and laws have diverse policy objectives.	Consistent policies exist regulations have differe
	2a.2	Transparency and efficiency of mechanisms and processes	Complicated and bureaucratic process with the outcome of the decision left completely to the discretion of public officers.	Complex and non-transparent process. Some rules exist to guide the outcome of the decision but they can easily be manipulated.	Processes are clearly de of discretion but checks hierarchical approval by public participation, cor etc.) are dysfunctional.
	2a.3	Organization of institutional responsibilities and roles	Several institutions have responsibilities in implementing the regulations and no coordination mechanism is in place.	Several institutions have responsibilities in implementing the regulations. Coordination mechanisms exist but they don't work.	Several institutions hav implementing the regul mechanisms exist but th occasionally.
	2a.4	Clarity in standard of drafting	Extremely unclear and ambiguous language with the interpretation left completely to the discretion of public officers.	Unclear and ambiguous language with some rules or court decisions to guide the outcome of the decision but they can easily be manipulated.	Unclear and ambiguous or court decisions that
	2a.5	Capacity for implementation	Human and financial resources are completely inadequate to implement the legislative framework.	Human and financial resources are inadequate to implement the legislative framework but could be improved in several years (+5 years) with capacity development.	Human and financial re implement the legislativ realistically improved in with capacity developm
Public Space: Technical Aspects	2b.1	Mechanisms to allocate adequate space to streets (% of land, number of intersections, width and length, street density, existence of street plans, etc.)	No mechanisms exist.	Mechanisms exist but they do not ensure an adequate supply of public space.	Mechanisms exist but th supply of public space c
	2b.2	Mechanisms to allocate adequate space to non-street public space (green areas, playgrounds, sport facilities, public facilities, etc.)	No mechanisms exist.	Mechanisms exist to allocate adequate space to non-street public space but they are not sensitive to outcome.	Mechanisms exist and f adequate quantity of sp space.
	2b.3	Acquisition of land for public space	The only tool available to create public space is expropriation.	Land is contributed by land owners in the process of urbanizing/subdividing the land. The requirements are too vague and leave room to discretion in the approval.	Land is contributed by l of urbanizing/subdividi requirements are either followed.
	2b.4	Planning standards for public space	No planning standards for public space exist	Planning standards for public space exist but they do not ensure vibrant, safe and accessible public spaces.	Regulations consider cli do not ensure vibrant p accessible.
	2b.5	Management of streets and public space	Responsibility for the management of public space are very unclear and/or fragmented among various institutions.	Clear roles and responsibilities but poor maintenance due to lack of adequate funding and personnel.	Good coordination and personnel. Public space its access is restricted t fee.

c Space

Ranking			Score	Weight	Weighted Score
2	3	4			
t in this area but ent objectives.	Regulatory measures in this area have consistent objectives.	Regulatory measures in this area have consistent objectives based on clear policies.		1	
efined with a fair amount s and balances (ex. y different institutions, nsultation, court appeal,	Processes are clearly defined with a fair amount of discretion. There are functioning checks and balances (ex. hierarchical approval by different institutions, public participation, consultation, court appeal, etc.)	Processes are clearly defined and fully transparent such that the outcome of the decision does not involve any discretion.		1	
e responsibilities in ations. Coordination ney work only	Institutional roles and responsibilities in this sector are concentrated in one institution that not always works efficiently.	Institutional roles and responsibilities in this sector are concentrated in one efficient institution or in several well-coordinated institutions.		1	
s language with some rules aid the interpretation.	Legislative texts are written in clear and unambiguous language understandable by professionals only.	Legislative texts are written in clear and unambiguous language understandable by professionals and common citizens.		1	
sources are inadequate to ve framework but could be a few years (2-3 years) nent.	Human and financial resources are barely adequate.	Human and financial resources are adequate for the successful implementation of the legislative framework in this area.		1	
hey ensure an adequate only in some part of cities.	Mechanisms exist to ensure an adequate supply of public space to all part of cities.	Mechanisms exist to ensure an adequate supply of public space to all parts of cities, considering local needs and the impact of this requirement on affordable housing.		1	
function to allocate pace to non-street public	Mechanisms exist and function to allocate adequate quantity and distribution of space to non-street public space.	Mechanisms exist and function to allocate adequate quantity and distribution of space to non-street public space at all scales (from city master plan to more detailed plans).		1	
and owners in the process ng the land. The inadequate or not	Land is contributed by property owners in the process of urbanizing the land. Subdivision or building rights are conditioned to the land contribution.	Land is contributed by property owners in the process of urbanizing the land. Subdivision or building rights are conditioned to the land contribution. Once the street plan is approved, no buildings can be erected or compensated. Temporary public uses of idle space are allowed.		1	
mate and safety but they ublic spaces, safe and	Regulations consider climate, safety, ensure vibrant public spaces, safe and accessible for informal vendors.	Regulations consider climate, safety, ensure vibrant public spaces, safe and accessible for women, children, people with disabilities and informal vendors.		1	
adequate funding and e properly maintained but o citizens or subject to a	Clear roles and responsibilities, good coordination and adequate funding and personnel. Public space properly maintained and open to citizens.	Clear roles and responsibilities, good coordination, adequate funding and personnel. Public space is properly maintained, vibrant, safe, accessible, and open to citizens. Citizens participate in its management and use.		1	
			Legislative Functional Effectiveness:		
			Technical Aspects:		
			Total Score:		

3: Plots a					
Indicator	**Sub-indicator**		**0**	**1**	
Legislative Functional Effectiveness	3a.1	Consistency of policy objectives	The regulatory framework in this area has no policy and no clear objectives.	Inconsistent policies exist and laws have diverse policy objectives.	Consistent policies regulations have dif
	3a.2	Transparency and efficiency of mechanisms and processes	Complicated and bureaucratic process with the outcome of the decision left completely to the discretion of public officers.	Complex and non-transparent process. Some rules exist to guide the outcome of the decision but they can easily be manipulated.	Processes are clear of discretion but ch hierarchical approv public participation etc.) are dysfunctio
	3a.3	Organization of institutional responsibilities and roles	Several institutions have responsibilities in implementing the regulations and no coordination mechanism is in place.	Several institutions have responsibilities in implementing the regulations. Coordination mechanisms exist but they don't work.	Several institutions implementing the re mechanisms exist b occasionally.
	3a.4	Clarity in standard of drafting	Extremely unclear and ambiguous language with the interpretation left completely to the discretion of public officers.	Unclear and ambiguous language with some rules or court decisions to guide the outcome of the decision but they can easily be manipulated.	Unclear and ambigu or court decisions t
	3a.5	Capacity for implementation	Human and financial resources are completely inadequate to implement the legislative framework.	Human and financial resources are inadequate to implement the legislative framework but could be improved in several years (+5 years) with capacity development.	Human and financia implement the legis realistically improve with capacity develo
Plots and Blocks: Technical Aspects	3b.1	Flexibility in plot size that allows for diversification for different land uses and affordability	The minimum plot size is 801 sqm-or more. Plots of smaller size cannot be created legally.	The minimum plot size is between 501-800 sqm. Plots of smaller size cannot be created legally.	The minimum plot s Plots of smaller size
	3b.2	Maximum block length in any direction (for predominantly residential/mix land use, excluding industrial and other uses that require larger blocks)	No criteria is present.	More than 400m.	300-200m.
	3b.3	Land subdivision into urban plots (agricultural land subdivision)	No mechanism exists or if it exists, no rules are set to guide the subdivision.	Lengthy and costly process. Very vague rules to be followed. Subdivision done by private owner with public approval (highly discretional).	Lengthy and costly are clear but subdiv adequate. Subdivisi with public approva
	3b.4	Plot consolidation (adjacent lots of the same or different owners)	No mechanism exists or if it exists, no rules are set to guide the consolidation.	A mechanism for consolidation is present but requires a complex and expensive process. Vague rules to be followed. Its approval is highly discretional.	Lengthy and costly adequate. No consi adequacy of the exi
	3b.5	Plot readjustment	No mechanism exists.	A mechanism for plot readjustment is present but the rules and process to be followed are vague. Its approval is highly discretional.	Rules and requirem difficult to use. Mu are not coordinated inadequate (more t consent) and not m

nd Blocks

Ranking			Score	Weight	Weighted Score
2	3	4			
exist in this area but fferent objectives.	Regulatory measures in this area have consistent objectives.	Regulatory measures in this area have consistent objectives based on clear policies.		1	
ly defined with a fair amount ecks and balances (ex. al by different institutions, consultation, court appeal, nal.	Processes are clearly defined with a fair amount of discretion. There are functioning checks and balances (ex. hierarchical approval by different institutions, public participation, consultation, court appeal, etc.)	Processes are clearly defined and fully transparent such that the outcome of the decision does not involve any discretion.		1	
have responsibilities in egulations. Coordination ut they work only	Institutional roles and responsibilities in this sector are concentrated in one institution that not always works efficiently.	Institutional roles and responsibilities in this sector are concentrated in one efficient institution or in several well-coordinated institutions.		1	
uous language with some rules hat aid the interpretation.	Legislative texts are written in clear and unambiguous language, understandable by professionals only.	Legislative texts are written in clear and unambiguous language, understandable by professionals and common citizens.		1	
al resources are inadequate to lative framework but could be ed in a few years (2-3 years) opment.	Human and financial resources are barely adequate.	Human and financial resources are adequate for the successful implementation of the legislative framework in this area.		1	
ize is between 301-500 sqm. cannot be created legally.	The minimum plot size is between 101-300 sqm. Plots of smaller size cannot be created legally.	The minimum plot size is 20-100 sqm or there is no minimum size. Plot of any bigger size can be created if needed.		1	
	200-130m.	Less than 130m.		1	
process. Rules to be followed ision standards are not on done by private owner al.	Subdivision can be proposed by the public authorities in consultation with the owners. There is a clear indication of plot shapes with required urban standards for public space, streets and other facilities.	Easy and straightforward with clear indication of plot shapes and required urban standards for public space, streets and other facilities. Development of the required standards and infrastructure are borne by the owner.		1	
process. Standards are not deration is given to the sting infrastructure.	Easy and straightforward process. Consolidation is used to increase densities in urban areas already serviced (infill) and it is part of urban policy and programs.	Easy and straightforward. Consolidation is used to increase densities in urban areas already serviced (infill) and it is part of urban policy and programs. Existence of incentives (ex. right of first refusal for neighbors, higher densities allowed, etc.)		1	
ents are complicated and nicipal institutions involved l. Owners' participation is han 70% or less than 60% eaningful.	Rules and requirements are straightforward. Owners' consent and participation is adequate (between 60 and 70%) and institutional coordination sufficient.	Effective mechanism exists to readjust plots with adequate participation. Projects take into account city-wide objectives and try to avoid gentrification. It also takes into consideration tenants and non-property rights.		1	
			Legislative Functional Effectiveness:		
			Technical Aspects:		
			Total Score:		

4: Developn					
Indicator	**Sub-indicator**				
			0	**1**	
Legislative Functional Effectiveness	4a.1	Consistency of policy objectives	The regulatory framework in this area has no policy and no clear objectives.	Inconsistent policies exist and laws have diverse policy objectives.	Consistent pc regulations h
	4a.2	Transparency and efficiency of mechanisms and processes	Complicated and bureaucratic process with the outcome of the decision left completely to the discretion of public officers.	Complex and non-transparent process. Some rules exist to guide the outcome of the decision but they can easily be manipulated.	Processes are amount of dis balances (ex. different insti consultation, dysfunctiona
	4a.3	Organization of institutional responsibilities and roles	Several institutions have responsibilities in implementing the regulations and no coordination mechanism is in place.	Several institutions have responsibilities in implementing the regulations. Coordination mechanisms exist but they don't work.	Several institu implementing Coordination work only oc
	4a.4	Clarity in standard of drafting	Extremely unclear and ambiguous language with the interpretation left completely to the discretion of public officers.	Unclear and ambiguous language with some rules or court decisions to guide the outcome of the decision but they can easily be manipulated.	Unclear and a some rules or interpretatior
	4a.5	Capacity for implementation	Human and financial resources are completely inadequate to implement the legislative framework.	Human and financial resources are inadequate to implement the legislative framework but could be improved in several years (+5 years) with capacity development.	Human and fi inadequate to framework b improved in a capacity deve
Development Rights: Technical Aspects	4b.1	Allocation of Floor-Area-Ratio (FAR) or equivalent (combination of horizontal and vertical building potential)	No regulation exists on the allocation of FAR to plots.	Regulations on the allocation of FAR exist but they leave great discretion.	Regulations o different buil criteria to lim
	4b.2	Use of Floor-Area-Ratio (FAR) or equivalent (combination of horizontal and vertical building potential)	Property right gives the right to build upon it (no license required).	Use of vertical development rights is conditioned to a building license and administrative fee.	Use of vertica conditioned t fee is proport
	4b.3	Urban form (lot coverage and setbacks)	No regulations exist.	Regulations on lot coverage and setbacks exist but they do not ensure an adequately safe urban form with appropriate densities, and continuous and active building facades for a compact, vibrant, walkable city.	Regulations o exist and ensu appropriate c active buildin vibrant, and v

ment Rights

Ranking			Score	Weight	Weighted Score
2	3	4			
olicies exist in this area but ave different objectives.	Regulatory measures in this area have consistent objectives.	Regulatory measures in this area have consistent objectives based on clear policies.		1	
e clearly defined with a fair scretion but checks and hierarchical approval by itutions, public participation, court appeal, etc.) are .	Processes are clearly defined with a fair amount of discretion. There are functioning checks and balances (ex. hierarchical approval by different institutions, public participation, consultation, court appeal, etc.)	Processes are clearly defined and fully transparent such that the outcome of the decision does not involve any discretion.		1	
utions have responsibilities in g the regulations. mechanisms exist but they casionally.	Institutional roles and responsibilities in this sector are concentrated in one institution that not always works efficiently.	Institutional roles and responsibilities in this sector are concentrated in one efficient institution or in several well-coordinated institutions.		1	
ambiguous language with r court decisions that aid the n.	Legislative texts are written in clear and unambiguous language understandable by professionals only.	Legislative texts are written in clear and unambiguous language understandable by professionals and common citizens.		1	
inancial resources are o implement the legislative ut could be realistically a few years (2-3 years) with elopment.	Human and financial resources are barely adequate.	Human and financial resources are adequate for the successful implementation of the legislative framework in this area.		1	
n FAR exist and they allocate ding potentials with some it discretion.	Regulations on FAR exist and they allocate different building potentials with specific criteria that limit discretion.	Regulations on the attribution of FAR exist and are based on objective criteria such as existing/planned infrastructure, health and safety, climate, environment, historic sites, etc., with limited discretion.		1.6667	
l development rights (FAR) is o a building license and the tioned to the volumes built.	Vertical development rights for volumes need to be acquired and paid for before building license is administered.	Vertical development rights need to be acquired and paid for before building license is administered. Volumes can be bought and/or received from the municipality as a compensation for other land transactions. Unused rights can be sold/used elsewhere in the city.		1.6667	
n lot coverage and setbacks ure safety but not densities and continuous and g facades for a compact, walkable city.	Regulations on lot coverage and setbacks exist and ensure safety, health, and appropriate densities, but do not make for continuous and active building facades for a compact, vibrant, and walkable city.	Regulations on lot coverage and setbacks exist and they ensure a safe, healthy, and dense urban form with continuous and active building facades for a compact, vibrant, and walkable city.		1.6667	
			Legislative Functional Effectiveness:		
			Technical Aspects:		
			Total Score:		

5: Buildir					
Indicator	**Sub-indicators**		**0**	**1**	
Legislative Functional Effectiveness	5a.1	Consistency of policy objectives	The regulatory framework in this area has no policy and no clear objectives.	Inconsistent policies exist and laws have diverse policy objectives.	Consistent policies e regulations have dif
	5a.2	Transparency and efficiency of mechanisms and processes	Complicated and bureaucratic process with the outcome of the decision left completely to the discretion of public officers.	Complex and non-transparent process. Some rules exist to guide the outcome of the decision but they can easily be manipulated.	Processes are clearl amount of discretio balances (ex. hierar different institution consultation, court dysfunctional.
	5a.3	Organization of institutional responsibilities and roles	Several institutions have responsibilities in implementing the regulations and no coordination mechanism is in place.	Several institutions have responsibilities in implementing the regulations. Coordination mechanisms exist but they don't work.	Several institutions implementing the re mechanisms exist bu occasionally.
	5a.4	Clarity in standard of drafting	Extremely unclear and ambiguous language with the interpretation left completely to the discretion of public officers.	Unclear and ambiguous language with some rules or court decisions to guide the outcome of the decision but they can easily be manipulated.	Unclear and ambigu rules or court decisi interpretation.
	5a.4	Capacity for implementation	Human and financial resources are completely inadequate to implement the legislative framework.	Human and financial resources are inadequate to implement the legislative framework but could be improved in several years (+5 years) with capacity development.	Human and financia inadequate to imple framework but coul improved in a few y capacity developme
Building Codes: Technical Aspects	5b.1	Age of building code	No building code.	30-50 years.	20-30 years.
	5b.2	Uniformity or differentiation of application	No building regulations are present at national or local level.	National building code establishes rules for the whole country. No local adaptation is possible.	No national building legislation exist. Mu own building regula
	5b.3	Scope for local materials	No building regulations are present at national or local level.	Local/traditional building materials and constructions are explicitly forbidden in the building code.	Constructions requi which are not availa find, expensive, etc. cost housing.
	5b.4	Resource-efficient measures (water, land, energy, material and waste)	No building regulations are present at national or local level.	Building regulations have no consideration for resource-efficient measures.	Constructions requi measures that are n difficult to find, expe
	5b.5	Consideration of low-cost options for small/low-cost housing	No building regulations are present at national or local level.	No consideration in the building regulations for low-cost options.	Constructions with materials are explici mud, soil, corrugate small/low-cost hous

ng Codes

Ranking			Score	Weight	Weighted Score
2	3	4			
exist in this area but fferent objectives.	Regulatory measures in this area have consistent objectives.	Regulatory measures in this area have consistent objectives based on clear policies.		1	
y defined with a fair n but checks and chical approval by s, public participation, appeal, etc.) are	Processes are clearly defined with a fair amount of discretion. There are functioning checks and balances (ex. hierarchical approval by different institutions, public participation, consultation, court appeal, etc.)	Processes are clearly defined and fully transparent such that the outcome of the decision does not involve any discretion.		1	
have responsibilities in gulations. Coordination ut they work only	Institutional roles and responsibilities in this sector are concentrated in one institution that not always works efficiently.	Institutional roles and responsibilities in this sector are concentrated in one efficient institution or in several well-coordinated institutions.		1	
ous language with some ons that aid the	Legislative texts are written in clear and unambiguous language understandable by professionals only.	Legislative texts are written in clear and unambiguous language understandable by professionals and common citizens.		1	
l resources are ment the legislative d be realistically ears (2-3 years) with nt.	Human and financial resources are barely adequate.	Human and financial resources are adequate for the successful implementation of the legislative framework in this area.		1	
	10-20 years.	0-10 years.		1	
code or guiding nicipalities adopt their tions.	National legislation gives broad principles and local building codes are adopted.	Local jurisdictions adopt a building code based on a national model.		1	
re building materials ble locally, difficult to , even for small/low	Broad range of acceptable construction materials. Use of locally available materials and construction is allowed. A special set of rules exists for low cost houses (less than 20 sq meters and no more than 2 floors) with minimum/basic standards.	Use of locally available materials and traditional construction techniques is allowed and encouraged through incentives (subsidized materials, fast track approval, a housing typology, etc.)		1	
re resource-efficient ot available locally, ensive, etc.	Use of resource-efficient measures is mandatory.	Use of resource-efficient measures is mandatory and encouraged through incentives (subsidized materials, fast track approval, housing typology provided, etc.)		1	
certain building tly forbidden (wood, d iron, etc.) even for sing	Low-cost options are accounted for: a special set of rules exist for low-cost houses (less than 20 sq meters and no more than 2 floors) with minimum/basic standards.	Low-cost options are allowed and encouraged (subsidized materials, fast track approval, housing typology provided, etc.)		1	
			Legislative Functional Effectiveness:		
			Technical Aspects:		
			Total Score:		

6: Land-Bas					
Indicator	**Sub-indicator**		**0**	**1**	
Legislative Functional Effectiveness	6a.1	Consistency of policy objectives	The regulatory framework in this area has no policy and no clear objectives.	Inconsistent policies exist and laws have diverse policy objectives.	Consistent regulation
	6a.2	Transparency and efficiency of mechanisms and processes	Complicated and bureaucratic process with the outcome of the decision left completely to the discretion of public officers.	Complex and non-transparent process. Some rules exist to guide the outcome of the decision but they can easily be manipulated.	Processes amount of balances (different i consultati dysfunctio
	6a.3	Organization of institutional responsibilities and roles	Several institutions have responsibilities in implementing the regulations and no coordination mechanism is in place.	Several institutions have responsibilities in implementing the regulations. Coordination mechanisms exist but they don't work.	Several ins implement Coordinati work only
	6a.4	Clarity in standard of drafting	Extremely unclear and ambiguous language with the interpretation left completely to the discretion of public officers.	Unclear and ambiguous language with some rules or court decisions to guide the outcome of the decision but they can easily be manipulated.	Unclear ar some rule interpreta
	6a.5	Capacity for implementation	Human and financial resources are completely inadequate to implement the legislative framework.	Human and financial resources are inadequate to implement the legislative framework but could be improved in several years (+5 years) with capacity development.	Human an inadequat framewor improved capacity d
Land-Based Finance: Technical Aspects	6b.1	Fiscal cadaster	No fiscal cadaster exists.	Fiscal cadaster is not up to date (over 20 years old) and it does not cover informal areas.	Fiscal cada years old) areas.
	6b.2	Land value sharing mechanisms triggered by planning decisions (ex. urban to rural land conversion, administration of building development rights or change of land use) or public investments (ex. streets, public space, green areas, public transport infrastructure, basic infrastructure)	No mechanisms exist to share the increase in land value.	Simple mechanisms exist such as land value contribution or fees in case of land subdivisions or building license application. These are not commonly used and enforced.	Simple me value cont subdivisio These are The reven delivery ca
	6b.3	Developers' fees/contributions	No mechanism exists.	Developers pay some administrative fees not proportioned to the scale and need of the development.	Developer to some in not cover required b
	6b.4	Property tax	No property tax exists.	A property tax exists but it has less than 20% collection rate. It is based on the value of undeveloped land.	A property 50% collec value of u

ed Finance

Ranking			Score	Weight	Weighted Score
2	3	4			
c policies exist in this area but s have different objectives.	Regulatory measures in this area have consistent objectives.	Regulatory measures in this area have consistent objectives based on clear policies.		1	
are clearly defined with a fair f discretion but checks and ex. hierarchical approval by nstitutions, public participation, on, court appeal, etc.) are onal.	Processes are clearly defined with a fair amount of discretion. There are functioning checks and balances (ex. hierarchical approval by different institutions, public participation, consultation, court appeal, etc.)	Processes are clearly defined and fully transparent such that the outcome of the decision does not involve any discretion.		1	
stitutions have responsibilities in ting the regulations. ion mechanisms exist but they occasionally.	Institutional roles and responsibilities in this sector are concentrated in one institution that not always works efficiently.	Institutional roles and responsibilities in this sector are concentrated in one efficient institution or in several well-coordinated institutions.		1	
nd ambiguous language with s or court decisions that aid the tion.	Legislative texts are written in clear and unambiguous language understandable by professionals only.	Legislative texts are written in clear and unambiguous language understandable by professionals and common citizens.		1	
d financial resources are e to implement the legislative k but could be realistically in a few years (2-3 years) with evelopment.	Human and financial resources are barely adequate.	Human and financial resources are adequate for the successful implementation of the legislative framework in this area.		1	
aster is not up to date (over 10 and it does not cover informal	Fiscal cadaster relatively up to date (less than 10 years old) but does not cover informal areas and is not well-coordinated with land-based taxes.	Fiscal cadaster is up to date (less than 5 years old), covers informal areas, and is publicly available and well-coordinated with land-based taxes.		1.25	
chanisms exist such as land tribution in case of land ns or building license application. commonly used and enforced. ue collected increases the service apacity of the local authority.	Several, more complex mechanisms to share the increase in land value are present for planning decisions and public investments. The revenue collected increases the capacity of the local urban planning authority.	Several mechanisms to share the increase in land value are present for planning decisions and public investments. The revenue collected (or part of it) is allocated to be spent across the city to increase the supply of public goods and increase equitable urban development.		1.25	
s contribute (in-kind or in cash) nfrastructure costs but they do all the infrastructure costs y their development.	Developers contribute (in-kind or in cash) to all the infrastructure costs required by their development.	Developers contribute (in-kind or in cash) to all the infrastructure costs required by their development. The building license is granted only after the contribution is paid or checked.		1.25	
y tax exists but it has less than ction rate. It is based on the ndeveloped land.	A property tax exists and it has more than 80% collection rate. It is based on the value of land and development.	Property tax exists with a large collection rate (more than 90%). It is based on the value of land and development. Progressive increase for undeveloped, vacant land or empty houses.		1.25	
			Legislative Functional Effectiveness:		
			Technical Aspects:		
			Total Score:		

REFERENCES

Acemoglu, Daren and Robinson, James (2008): The Role of Institutions in Growth and Development, Working Paper No. 10. World Bank.

Alterman, Rachelle (2007): Much More than Land Assembly Land Readjustment for the Supply of Urban Public Services.

Ayres, Ian and Braithwaite, John (1992): Responsive Regulation: Transcending the Deregulation Debate, (Oxford University Press).

Bauman, Gus, and Ethier, William (1987): Development exactions and impact fees: A survey of American practices. Land Use Law & Zoning Digest.

Bertaud, Alain and Malpezzi, Stephen (2003): The Spatial Distribution of Population in 48 World Cities: implications for Economies in Transition.

Biennial of Public Space (2013): Charter of Public Space.

Bird, Richard M (2004): "Property taxes in Mexico" in International Handbook of Land and Property Taxation, edited by Richard M. Bird and Enid Slack.

Booth, Phillip A (2012): "The unearned increment: Property and the capture of betterment value in Britain and France." In Value Capture and Land Policies, edited by Gregory K Ingram and Yu-Hung Hong, (Lincoln Institute of Land Policy).

Braithwaite, John (2011): The Essence of Responsive Regulation, 44 U. British Columbia L. Rev. 475.

Cain, Allan (2014): African Urban Fantasies: Past Lessons and Emerging Realities, 26(2) Env. & Urbanization 1–7.

City of Melbourne in collaboration with Gehl Architects (2004): Places For People.

City of São Paulo (2014): Master Plan and Law 16.050/2014.

Commission for Architecture and the Built Environment (2007): Paved with Gold, the Real Value of Good Street Design.

Enemark, Stig, McLaren, Robin and Lemmen, Christiaan (2015): Fit-For-Purpose Land Administration: Guiding Principles, p. 61.

Garau, P (2014): Public Space: a Strategy for Achieving the Equitable City.

Glasser, Matthew and Berrisford, Stephen (2015): Urban Law: A Key to Accountable Urban Government and Effective Urban Service Delivery, The World Bank Legal Review: Improving Delivery in Development - The Role of Voice, Social Contract and Accountability, Vol 6, Washington D.C., (World Bank Group).

GLTN (2016): "Fit-for-Purpose Land Administration".

GLTN (2016): "Land Administration and Information".

IGAC (2003): Gestión del Suelo Urbano en el Marco del Ordenamiento Territorial.

J van den Brink, Rogier (2008): Land Reform in Mozambique, (Agric. & Rural Dev. Notes No. 43, World Bank.

Karpen, Ulrich (2012): Comparative law: Perspectives of Legislation, 6(2) Legisprudence 149.

McGill, Greg (2011): Taxation and Sustainable Development in the UK. UN-Habitat.

Melbourne Planning Scheme (2016): Urban Design within the Capital City Zone, Melbourne, Ordinance 22.01 23/11/2016.

Mousmouti, Maria and Crispi, Gianluca (2015): Good Legislation as a Means of Ensuring Voice, Accountability, and the Delivery of Results in Urban Development, The World Bank Legal Review: Improving Delivery in Development - The Role of Voice, Social Contract and Accountability, Vol 6, Washington D.C., (World Bank Group).

Mousmouti, Maria (2014): Effectiveness Test as a Tool for Law Reform, 2(1) IALS Law Review.

Mousmouti, Maria (2012): Operationalising Quality of Legislation through the Effectiveness Test, 6(2) Legisprudence 191 (2012).

Municipality of Monterrey (2014): Reglamento de Zonificación y Uso de Suelo del Municipio de Monterrey, Nuevo León.

Obradovic, Daniela and Vizcaino, Jose Alonso (2006): Good Governance Requirements Concerning the Participation of Interest Groups in EU Consultations, 43 Common Market L. Rev. 1050.

OECD (2001): Citizens as Partner: Information, Consultation, and Public Participation in Policy-Making 22.

Peterson, George E, and Thawakar, Vasudha (2013): Capturing the value of public land for urban infrastructure: centrally controlled landholdings.

Philippines Housing and Land Use Regulatory Board (2008): Revised Implementing Rules and Regulations for BP 220.

Porta, Sergio and Romice, Ombretta (2010): Plot-Based Urbanism: Towards Time-Consciousness in Place-Making. Urban Design Studies Unit.

Regimen Legal de Bogota D.C. (1999): ACUERDO 18 DE 1999 por el cual se crea la Defensoría del Espacio Público.

Regimen Legal de Bogota D.C. (2003): Decreto 463 del 22 de diciembre de 2003 "Por el cual se reglamentan la administración, el mantenimiento y el aprovechamiento económico del espacio público construido y sus usos temporales en Bogotá, Distrito Capital.

Republic of Kenya Ministry of Lands (2009): Sessional Paper No 3 on National Land Policy.

Republic of Kenya (2014): The National Land Commission v The Attorney General & 5 others, (Advisory Opinion Reference 2 of 2014).

Rotterdam Municipality (2008): Rotterdam Urban Vision: Spatial Development Strategy 2030.

Ruiz, Francisco, and Vallejo, Gabriel (2010): Using land registration as a tool to generate municipal revenue: Lessons from Bogota, Washington, DC (The World Bank).

Sandroni, Paolo (2011): "Recent experience with land value capture in São Paulo, Brazil." Land Lines 23 (3):14-19.

Sandroni, Paolo (2011): "Urban value capture in São Paulo using a two-part approach: Created land and sale of building rights". An analysis of the impact of the basic coefficient of land use as a tool of the 2002 Master Plan. Working Paper. Cambridge, MA: Lincoln Institute of Land Policy.

SF Environment (2017). "San Francisco Green Building Code".

Smolka, Martim (2013): Implementing Value Capture in Latin America Policy Focus Report. Cambridge, MA: Lincoln Institute of Land Policy.

Smolka, Martim, and De Cesare, Claudia M (2013): "Property Tax and Informal Property: The Challenge of Third World Cities." In A Primer on Property Tax: Administration and Policy, edited by William J. McCluskey, Gary C. Cornia and Lawrence C. Walters. Chichester, UK: Wiley-Blackwell.

The City at Eye Level (2012): Lessons for Street Plinth.

The City of New York (1961): NYC Zoning Law.

Tong, Joanna (2015): Land Value Sharing Tools in the legal and regulatory framework.

UK Aid (2015): Urban infrastructure in Sub-Saharan Africa – harnessing land values, housing and transport: Literature review on land-based finance for urban infrastructure.

UN-Habitat (2013): State of the World's Cities: Prosperity of Cities.

UN-Habitat (2013): Streets as Public Spaces and Drivers of Urban Prosperity.

UN-Habitat (April 2013): The Relevance of Street Patterns and Public Space in Urban Areas, Working Paper.

UN-Habitat (2014): Urban Legal Assessment.

UN-Habitat (2014): A New Strategy of Sustainable Neighborhood Planning: Five Principles.

UN-Habitat (2014): Sustainable Building Design for Tropical Climates: Principles and Applications for East Africa.

UN-Habitat (2015): Global Public Space Tool Kit: From Global Principles to Local Policies and Practice.

UN-Habitat (2015): PILaR handbook.

UN-Habitat (2015): Planned City Extensions: Analysis of Historical Examples.

UN-Habitat (2015): "Sustainable Building Design for Tropical Climates".

UN-Habitat (2016): Framework for Evaluating Continuum of Land Rights Scenarios. GLTN Report 4.

UN-Habitat (2016). "Mainstreaming Energy and Resource Efficiency into the Built Environment".

UN-Habitat (2016): The Fundamentals of Urbanization: Evidence base for Policy Making.

UN-Habitat (2016): World Cities Report 2016- "Urbanization and Development- Emerging Futures".

United Nations Department of Economic & Social Affairs (2012): World Urbanization Prospects: 2011 Revision.

United Nations General Assembly (2015): The Sendai Framework for Disaster Risk Reduction 2015-2030. United Nations Office for Disaster Risk Reduction.

United Nations General Assembly (2016): Draft outcome document of the UN Conference on Housing and Sustainable Development (Habitat III); The New Urban Agenda.

Vanterpool, Vareen (2007): A Critical Look at Achieving Quality in Legislation, 9 Eur. J.L. Reform 167.

Walters, Lawrence (2016): Leveraging Land: Land Based Finance for Local Governments.

Watson, Vanessa (2014): African Urban Fantasies: Dreams or Nightmares? 26(1) Env. & Urbanization.

World Bank Group (2013). "Good Practices for Construction Regulation and Enforcement Reform: Guidelines for Reformers". Investment Climate. Jan 2013.

World Bank Group (2015): Building Regulation for Resilience: Managing Risk for Safer Cities.

Xanthaki, Helen (2011): "Quality of Legislation: An Achievable Universal Concept or An Utopia Pursuit?" Quality of Legislation: Principles and Instruments 75–85 (Luzius Mader & Mart Tavres de Almeida eds., Nomos 2011).

Xanthaki, Helen (2013): Legislative drafting: a new sub-discipline of law is born, 1(1) IALS Law Review.

Xanthaki, Helen (2013): Standards for legislation in Civil and Common Law Countries: features, practices, common ground. Legislative Quality Workshop, Cape Town South Africa, 9 April 2013.

URBAN LEGISLATION UNIT

Ensuring that planning laws fulfill their functions as effectively as possible means that they are frequently under scrutiny as contexts and needs change. The Planning Law Assessment Framework, developed by the Urban Legislation Unit of UN-Habitat, is a quick self-assessment tool that aims to identify the strengths and weaknesses of an urban planning legal system. It looks at the laws, regulations and decrees that are applicable in a city, and enacted at different levels.

The Planning Law Assessment Framework uses two sets of indicators to assess urban planning laws. Firstly, the Planning Law Assessment Framework uses indicators of a law's functional effectiveness. The second set of indicators is technical in nature, related to the core areas of planning, which together provide an overview of urban planning issues relevant for most countries, namely in the categories of: land and urban planning, public space, plots and blocks, development rights, building codes; and land-based financing.

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