

PLAF

Planning Law Assessment Framework

UN-Habitat
Urban Legislation Unit
Working Document
November, 2017

The Planning Law Assessment Framework (PLAF): Outline and TORs

1. Introduction {Anne}

PLAF is a self-assessment tool to be used during focus groups to preliminarily identify strengths and weakness of an urban planning system. The PLAF looks at all the laws, regulations, and decrees applicable in a city, enacted at different levels. It takes into account only black letter law, but will stimulate the discussion on the eventual discrepancies. PLAF is useful to change mindset, learning process, to create constituency creation, it could be the first step to pursue a reform process. PLAF is not a comprehensive assessment of urban law and not everything affecting urban planning is dealt with but only the basic elements of physical planning. The tool is not conclusive, but only an initial assessment and does not include specific indicators for the crosscutting issues: HR, youth, gender. The PLAF should be filled up by local law makers, lawyers etc. PLAF is a qualitative assessment based on UN-Habitat planning principles, New Urban Agenda, it supports the implementation/monitoring of SDG, functional effectiveness of laws, security of tenure, right to housing, it's pro poor, equitable sharing of burdens and benefits of urbanization (LVS). This section should also explain the structure of the PLAF with a functional effectiveness and a technical section and a brief description of the different thematic areas explain why they are so important. The relation with other UN-Habitat tools should also be clarified, in particular with the Urban and territorial planning guidelines and the GLTN fit for purpose land administration tool and land use planning for tenure security.

2. Legislative Quality: 5 Elements of Functional Effectiveness {Robert}

Describe what the concept is and why it is important to achieve higher implementation and enforcement success. Implications for the rule of law and democratic participation could be explained too. Describe each element of the functional effectiveness section in details: objectives of the regulations, mechanisms and processes, Institutional and organizational responsibilities and roles, ambiguity and standard of drafting, capacity to implement the legislation. Possible areas for inclusion are: (1) Duty to regulate and enforce, (2) Mechanism for change, revision and update, (3) Community duties to approve and/or control.

Useful resources: WB legal review paper, other documents by the IALS.

3. Land Management {Robert}

The chapter should describe the importance of efficient land management for urban planning. By land management we refer to a broad category of systems and mechanisms that need to be in place to support the planning exercise such as cadaster, tenure systems, urban planning tools at different scales, the possibility and ease of land use change and regulatory support to affordable housing (rent/sale) in land use planning. Areas that could be included in the PLAF are: (1) Sections on boundary and ownership dispute resolution mechanisms, (2) land valuation systems, (3) Compulsory acquisition powers, (4) Community duties in land management. The following principles are at the basis of the assessment in this section: continuum of land rights, importance of security of tenure and certainty of rights for economic investment and planning,

right to housing. The importance of functional effective legal framework will be described in the different mechanisms with examples.

Useful resources: GLTN materials in general and the land use planning tool.

4. Public Space {Gianluca}

The chapter should describe why regulations on the creation of an adequate amount of public space is an essential element of urban planning and why relying on expropriation only is not a sustainable. The following principles will be described: (1) cities need a sufficient amount of public space (streets and green areas) to function (socially and economically and environmentally), (2) public space should not be created through expropriation but should be created by land owners in the process of urbanizing the land, (3) an adequate amount of public space is not enough to ensure sustainable development, it needs to be adequately planned and designed, (4) public space needs to be publically managed or when managed privately the public interest needs to be taken into consideration.

The importance of functional effective legal framework will be described in the different mechanisms with examples.

Useful resources: public space paper, UN-Habitat planning principles, IUTPG.

5. Urban Morphology: Plots and Blocks {Gianluca}

The link between plot regulations and urban shape/morphology on one side and access to land and housing on the other will be described together with the following principles: (1) minimum size of plots should be affordable to low income urban dwellers, (2) cities need to have mechanisms to guide and facilitate plot subdivision, consolidation and readjustment, (3) excessively large plots make density difficult to achieve and decrease the city walkability, (4) excessively large blocks decrease the city walkability.

The importance of functional effective legal framework will be described in the different mechanisms with examples.

Useful resources: public space paper, PILaR sourcebook, UN-Habitat planning principles, UTPG.

6. Development Rights {Marie-Pia}

This chapter should explain what development rights are and why public authorities should own them and make landowners pay to acquire them. The assessment in this section is based on the following principles: (1) land ownership should not include the right to build on the land, (2) the right to build should be granted by public authorities, (3) public authorities should give every plot a building potential in the most transparent and less discretionary manner, (4) the adequate densities that cities need to be functional can only be achieved with high plot coverage, (5) Walkable, safe and vibrant cities need public spaces that facilitate social interaction, commercial activities. This can be achieved not only properly designing the public spaces themselves but also regulating the interaction between buildings and public space (setbacks).

The importance of functional effective legal framework will be described in the different mechanisms with examples.

Useful resources: public space paper, UN-Habitat planning principles, UTPG.

7. Building Codes {Marie-Pia}

This chapter should describe the importance of building regulations to improve safety and security in cities and the importance to strike a balance between best technical options and what the majority of urban dwellers can afford. This section should describe the following principles: (1) building codes should be periodically reviewed in light of their effectiveness in delivering safe and resilient housing, (2) building codes and regulations should be locally relevant and should be adaptable especially in countries with different climates, rainfalls and temperatures, (3) Use of locally available materials and construction techniques should be allowed and encouraged, (4) Use of resources efficient measures should mandatory and encouraged, (5) Special consideration should be given to low cost housing by having differentiated standards by small, low rise, low cost affordable housing.

The importance of functional effective legal framework will be described in the different mechanisms with examples.

Useful resources: we should see that the housing and the energy units have done on this.

8. Land Based Financing {Anne}

This chapter should explain how urbanization creates economic value for private landowner and why it is fair that this value is equitably shared with public authorities. The principles that qualify the PLAF in this sections are: (1) An up to date fiscal cadaster is indispensable for an efficient land based financing system, (2) increases in land value due to planning decision (urban to rural, building potential, valuable land use) and public investments (streets, public space, green areas, public transport infrastructure, basic infrastructure) should be shared between the land owner and the public authority. (3) the principle of equitable and fair balancing or burdens and benefits of urban development requires that the developer that benefits from urban infrastructure needs to cover the costs associated to his/her development, (4) the property tax is an indispensable source of revenue that the local governments need to provide basic infrastructure and services. Possible areas for inclusions are: (1) Compulsory acquisition powers and compensation code, (2) Capacity to control and secure infrastructure funding, (3) Fines and penalties, (4) Community duties and financial burden.

The importance of functional effective legal framework will be described in the different mechanisms with examples.

Useful resources: GLTN Land based financing training

9. **Annex:** The annex will contain a few examples where PLAF has been used (Rwanda, Mozambique, Egypt, Philippines, Colombia) with results and analysis.

Table of Contents

The Planning Law Assessment Framework (PLAF): Outline and TORs	2
Table of Contents	5
Introduction: How to Use the PLAF	8
Methodology.....	9
Focus Group Composition.....	10
Focus Group Meeting.....	10
Scoring.....	11
Policy Recommendations.....	Error! Bookmark not defined.
Legislative Quality: 5 Elements of Functional Effectiveness	12
Introduction	12
Consistency of Policy Objectives.....	14
Transparency and Efficiency of Mechanisms and Processes	14
Organization of Institutional Responsibilities and Roles	15
Clarity in Standard of Drafting	16
Capacity for Implementation	17
Conclusion.....	17
Planning Principle 1: Land Management	18
Introduction	18
Technical Aspects.....	18
Cadastral Systems	18
Flexible and Socially-Responsive Tenure Systems	19
Coordinated Planning Hierarchy	20
Possibility for Land-Use Changes and Overlays	21
Regulatory Support for Sale/Rent of Social Housing	21
Conclusion.....	22
Land Management Assessment Framework.....	24
Planning Principle 2: Public Space	25
Introduction	25
Technical Aspects.....	25
Allocation of Land to Streets and Non-Street Public Space.....	25
Acquisition of Land for Public Space	27
Planning Standards for Public Space.....	31

The Management of Streets and Public Space	32
Conclusion.....	34
Public Space Assessment Framework	35
Planning Principle 3: The Urban Morphology: Plots and Blocks.....	36
Introduction	36
Technical Aspects.....	37
Minimum Plot Sizes.....	37
Maximum Block Sizes.....	39
Plot Subdivision.....	39
Plot Consolidation	40
Plot Readjustment	40
Conclusion.....	41
Plots and Blocks Assessment Framework	42
Planning Principle 4: Development Rights.....	43
Introduction	43
Technical Aspects.....	46
Allocation of Floor-Area-Ratio (FAR) or Equivalent Attribution of Building Potential.....	46
Vertical Development Rights	46
Plot Coverage Requirements	47
Setbacks	47
Conclusion.....	48
Development Rights Assessment Framework	49
Planning Principle 5: Building Codes.....	50
Introduction	50
Technical Aspects.....	52
Age of the Building Code.....	52
Uniformity of Differentiation of Application.....	52
Scope for Local Materials.....	53
Resource-Efficient Measures	53
Consideration of Low-Cost Options for Small/Low-Cost Housing	55
Conclusion.....	55
Building Codes Assessment Framework	57
Planning Principle 6: Land Based Finance.....	58
Introduction	58
Technical Aspects.....	60

Fiscal Cadaster	60
Land Value Sharing.....	61
Property Tax.....	61
Conclusion.....	62
Land Based Finance Assessment Framework	63
Annex 1: Scoring Framework and Example Graphs	64
Reference List.....	65

Introduction: How to Use the PLAF

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.

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 (PLAF), 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 planning principles**, which together provide an overview of urban planning issues relevant for most countries, namely in the categories of:

- 1) land management,
- 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; it does not explore exhaustively every possible mechanism or characteristic that might be found in a planning law. Instead, the tool

relies on a shorter 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.

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 PLAF 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 planning principles, 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 eight to ten sub-indicators for each planning principle category, five which rank the functional effectiveness of the legislation, and three to five which rank the quality of its technical aspects. Because the core planning principles have varying amounts of technical aspects, weighting has been added to the scoring process. The weighting serves to equalize the technical aspects so that each of the six core planning principle score sheets has the same total score of 40. With these total scores, various graphs and charts can be created to illustrate the findings (see Appendix 1 for examples). This is important when providing a summary at the end of the meeting, because the score will illuminate which aspects of planning legal framework 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.

Legislative Quality: 5 Elements of Functional Effectiveness

Introduction

The global urban population is expected to grow by 3 billion in the next 50 years.¹ 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.² Notably, the Agenda emphasizes the importance of urban law as a component of sustainable urban areas.³

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 ratify a multitude of urban laws only to see them become ineffectual in shaping their urban environments.⁴ The mere existence of legislation does not guarantee effective management of urban areas.⁵

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 make a difference 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 polity, drafting traditions and practices.”⁶ Accordingly, legislative quality is assessed by its 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.⁷

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

¹ United Nations Department of Economic & Social Affairs (2012).

² United Nations General Assembly (2016).

³ Ibid. p.3.

⁴ Glasser M & Berrisford, S (2015).

⁵ Mousmouti and Crispi (2015).

⁶ Mousmouti, M (2012).

⁷ Mousmouti, M (2014).

adequacy of the provisions in providing solutions through predictable, certain and equitable implementation.⁸ In essence, this refers to the suitability of the law in directing the desired socio-economic 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 law⁹ 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.¹⁰ 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."¹¹

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.

Table 1: 5 Elements of Functional Legal Effectiveness

Sub-Indicator	Ideal Standard
Consistency of policy objectives	Regulatory measures in this area have consistent objectives based on clear policies.
Transparency and efficiency of mechanisms and processes	Processes are clearly defined and the outcome of the decision does not involve any discretion.
Organization of institutional responsibilities and roles	Institutional roles and responsibilities in this sector are concentrated in one efficient institution or in several well-coordinated institutions.
Clarity in standard of drafting	Legislative texts are written in clear and unambiguous language understandable by professionals and common citizens.
Capacity for implementation	Human and financial resources are adequate for the successful implementation of the legislative framework in this area

⁸Vanterpool, V (2007).

⁹ Ibid.

¹⁰Karpen, U (2012).

¹¹Xanthaki, H (2013).

Consistency of Policy Objectives

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.¹²

In assessing the quality of legislation under this head, the question that needs to be asked is whether the law sets a clear and meaningful benchmark for what it seeks to achieve.¹³ 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.¹⁴

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."¹⁵ 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.¹⁶ 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 socio-economic inequality in that only the wealthiest are able to comply with the codes.¹⁷

Transparency and Efficiency of Mechanisms and Processes

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.¹⁸ Involving the

¹²Mousmouti and Crispi (2015).

¹³Mousmouti, M (2014).

¹⁴Vanterpool, V (2007).

¹⁵Watson, V (2014).

¹⁶Cain, A. (2014).

¹⁷ UN-Habitat (2014): *Legal Assessment Framework*.

¹⁸Obradovic, D. & Vizcaino, J.A. (2006).

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.¹⁹

Importantly, the processes involved in the legislation should not be too complex so as to hinder compliance. Unclear processes with overlapping or contradicting procedures often lead to higher discretion of public authorities, limited accountability and corruption.²⁰ 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.²¹ 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.²²

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.

Organization of Institutional Responsibilities and Roles

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.²³

Consequently, legislative quality is evidenced by the strength of established institutions and their ability to smoothly coordinate with one another.²⁴ 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.

¹⁹OECD (2001).

²⁰Mousmouti and Crispi (2015).

²¹*Ibid.*

²²Republic of Kenya (2009).

²³UN-Habitat (2016): *World Cities Report*.

²⁴Acemoglu D & Robinson J (2008).

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.²⁵ Shockingly, as the fighting continued, it was the common citizens who 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.²⁶

Clarity in Standard of Drafting

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 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. 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.²⁷ As such, the law has to be characterized by precision and coherence. The legislative language must be plain, certain, clear, grammatically correct and gender neutral.²⁸

As countries contend with urbanization and the challenges and opportunities that it presents, urban laws form part of urban development and management. Countries therefore come up with new laws, amend existing ones or consolidate different laws into one main piece of legislation. The first two actions may have a detrimental effect on the clarity of legal provisions. For instance, a new Act may be passed without repealing an earlier one leading to inconsistencies. The amendment of an existing Act may also present challenges due to the difficulty of tracking all amendments.²⁹ Consequently, this leads to confusion, poor accountability and informality. The third Act may improve clarity but only if the different tensions and inconsistencies within the consolidated laws are ironed out.

²⁵ Republic of Kenya (2014).

²⁶ J van den Brink, Rogier (2008).

²⁷Xanthaki, H (2011).

²⁸Xanthaki, H (2013).

²⁹Mousmouti, M (2014).

Capacity for Implementation

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 - proper 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

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 tools 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 tool must be evaluated to consider how 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% of cities and villages have detailed plans despite this being a legal requirement.³³ The high rate of non-compliance is attributed to the fact that the central government failed to take financial and human resource implications into account during the legislative process.

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.

³⁰ Ayres and Braithwaite (1992).

³¹ Braithwaite, J (2011).

³² Mousmouti, M & Crispi, G (2015).

³³ *ibid.*

Planning Principle 1: Land Management

Introduction

Land management is the process of putting land resources into efficient use and 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.³⁶

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.³⁷ Also, in many cases, the land registers and cadastral maps are incomplete, inconsistent and out of date, thus unreliable.³⁸ Processes for recording land transactions are often distributed over many organizations engendering an environment that may be susceptible to motivation fees.³⁹ More pressing is the existence of the “security of tenure gap”⁴⁰ that has curbed the implementation of sustainable and affordable land administration systems. Accordingly, this section will assess some of the technical aspects that play an integral role in the efficacy of land administration frameworks.

Technical Aspects

Cadastral Systems

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.⁴¹ This is especially imperative for jurisdictions where people cannot afford registered rights.

³⁴ GLTN (2016).

³⁵ S Enemark et. al (2015).

³⁶ See *supra* note 1.

³⁷ See *supra* note 2.

³⁸ *Ibid.*

³⁹ *Ibid.*

⁴⁰ The security of tenure gap refers to the difference between countries that have efficient and effective land administration systems in place (30%) and those which do not (70%). See *supra* note 2, 7.

⁴¹ See *supra* note 1.

New approaches to spatial information are required to upgrade and manage. While conventional cadastral systems use documentation of the surveyed land parcels as a basis for entering rights into a land registry, the Fit for Purpose (FFP) approach adopted by UN-Habitat's Global Land Tool Network (GLTN) 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.⁴² This is basically a participatory approach undertaken by locally trained land officers and involving all stakeholder. Similarly, while conventional cadastral systems are highly standardized, the FFP approach appears to be flexible in terms of accuracy and also in relation to the variety of tenure types to be secured which allows the land administration system to be upgraded and incrementally improved over time.⁴³

Flexible and Socially-Responsive Tenure Systems

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 pre-requisite 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 should provide legal provisions for the recognition of digital signatures that enable automated administrative procedures, accountability measures for public servants, insurance laws, legal mechanisms enabling housing finance for lower-income groups and thus establishing the process for tenure security.

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 so because the land laws in these jurisdictions are highly restrictive and biased towards formal land rights.⁴⁴ 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.⁴⁵ 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.⁴⁶

⁴² See *supra* note 2, 10.

⁴³ *Ibid* 11.

⁴⁴ See *supra* note 2.

⁴⁵ *Ibid* 97.

⁴⁶ 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.

Continuum of tenure rather than just individual ownership can act as another important tool to improve access to land tenure.⁴⁷ 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.⁴⁸ 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.

Equally important is having a process of securing land rights that is designed along administrative as opposed to judicial lines.⁴⁹ The judicial process in most countries is non-inclusive, cumbersome and expensive which negatively impacts on the fulfillment of land tenure.⁵⁰ The FFP approach recommends that the activities of recording and registering rights should be conducted by administrative institutions under delegated authority, wherever possible. This will allow minimal court involvement in land administration which frees them to solely focus on the resolution of land disputes.⁵¹

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.⁵² Having land tenure domain processes reflect gender equity begets a system that affords equal access to tenure for all.

Coordinated Planning Hierarchy

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.⁵³ 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.⁵⁴ Ultimately, this dialogue should legitimize the local political decision making.

⁴⁷ UN-Habitat (2016): *Framework for Evaluating Continuum of Land Rights Scenarios*.

⁴⁸ Ibid.

⁴⁹ See *supra* note 2, 66.

⁵⁰ Ibid.

⁵¹ Ibid.

⁵² Ibid 81.

⁵³ See *supra* note 2, 92.

⁵⁴ Ibid.

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.⁵⁵ 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.⁵⁶

Possibility for Land-Use Changes and Overlays

Land management legislation should include rights to land and property as well as the right of use. However, the right to 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.⁵⁷ 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.⁵⁸

UN-Habitat's Principle 5 (limited land-use specialization) aims at adjusting the use of functional zoning to implement mixed land-use policies. The purpose of Principle 5 is to limit single function blocks; they should cover less than 10% of any neighbourhood. Apparently, there are two ways to adjust zoning policies and apply Principle 5:

- a) Combine compatible land-uses into one block and neighbourhood, and;
- b) Introduce mixed land-use zoning while respecting market demand and cities' urban by-laws and regulations.

A growing number of cities around the world (Portland, Philadelphia, Los Angeles among others) are moving away from conventional zoning codes, that tend to separate where we live from where we work, learn, and shop, and insist on big, fast roads to connect them all. A new generation of form-based codes is emerging. These codes encourage a mix of uses and building types while emphasizing the form and function of public and private realms. Form-based codes are concerned with the character of the public realm, specifically how public realm character is affected by the development of private property. 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.

Regulatory Support for Sale/Rent of Social Housing

Affordability of accommodation is a key feature of a well-managed city. One way that cities 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

⁵⁵ Ibid 54.

⁵⁶ Ibid.

⁵⁷ Ibid.

⁵⁸ Ibid.

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% below the market rate)⁵⁹. 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% of the total monthly income of the household⁶⁰. 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.

Principle 4 of UN-Habitat's Strategy for Sustainable Neighborhood Planning calls for a social mix of housing prices and tenure types in any given neighborhood. The social mix is a socio-spatial concept with the following qualities: "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"⁶¹. The recommendations are meant to leave room for National or regional 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.

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 legal

⁵⁹ UN-Habitat (2016). *World Cities Report*, p. 56.

⁶⁰ Sustainable Development Goal 11.1: By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.

⁶¹ UN-Habitat (2014): *A New Strategy of Sustainable Neighborhood Planning: Five Principles*.

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.

Land Management Assessment Framework

Land Management									
Indicator	Sub-indicator	Ranking					Score	Weight	Weighted Score
		0	1	2	3	4			
Legislative Functional Effectiveness	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.		1	/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 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	/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.		1	/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.		1	/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.		1	/4
Land Management: Technical Aspects	Cadaster	No land information system is present.	A land information system is present. 0%-50% of the cadaster transactions are uncontested and up to date within the last 6 months.	A land information system is present. 50%-80% of the cadaster transactions are uncontested and up to date within the last 6 months.	A land information system is present. 80%-100% of the cadaster transactions are uncontested and up to date within the last 6 months.	A land information system is present and publicly available. 100% of the cadaster transactions are uncontested and up to date within the last 6 months.		1	/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.		1	/4
	Coordinated planning hierarchy	No obvious mechanism exists to relate plans to one another.	Mechanisms exist to relate plans to one another but are not complied with.	Mechanisms work to relate plans to one another but 50% or less are implemented and updated in accordance with superior, smaller-scale plans.	Mechanisms work to relate plans to one another. 50%-100% are implemented and updated in accordance with superior, smaller-scale plans.	100% of existing plans are implemented and updated. Legal mechanisms help local level plans comply with the superior, smaller-scale plans.		1	/4
	Possibility for land use changes and overlays	Not possible to change land use once it is assigned.	Land use change is possible but takes at least 12 months.	Land use change is possible but takes at least 9 months.	Land use change is possible but takes at least 6 months.	Land use change is possible and takes less than 2 months. Land use plans allow overlays in existing single-use districts.		1	/4
	Regulatory support for sale/rent of social housing	No consideration of housing affordability.	Regulations exist to provide minimum percentages of social/low-cost housing for sale/rent in every new urban development but are not implemented.	Regulations exist to provide minimum percentages of social/low-cost housing for sale/rent in every new urban development. The obligation can be complied with by paying or developing the housing elsewhere.	Regulations exist to provide minimum percentages of social/low-cost housing for sale/rent in every new urban development but the percentages are not adequate to the housing deficit.	Regulations exist to provide minimum percentages of social/low-cost housing for sale/rent in every new urban development. The percentages are adequate to the housing deficit.		1	/4
							Total Score:		/40

Planning Principle 2: Public Space

Introduction

The Charter of Public Space⁶² 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 quality⁶³. 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.⁶⁴

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 to the sustainable creation, management and design of public spaces, identifying mechanisms that successful cities have put in place.

Technical Aspects

Allocation of Land to Streets and Non-Street Public Space

Currently most cities do not provide for an adequate amount of public space, including streets⁶⁵. A recent study conducted by UN-Habitat⁶⁶ on the land that cities dedicate to streets

⁶² 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).

⁶³ UN-Habitat (2013): *State of the World’s Cities: Prosperity of Cities*.

⁶⁴ Garau, P (2014).

⁶⁵ 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).

⁶⁶ UN-Habitat (2013): *Streets as Public Spaces and Drivers of Urban Prosperity*.

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 percent, with the lowest level (6%) 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) 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 frameworks of regulatory tools that allow cities to dedicate private land to public use in the process of urbanizing without paying any monetary compensation.

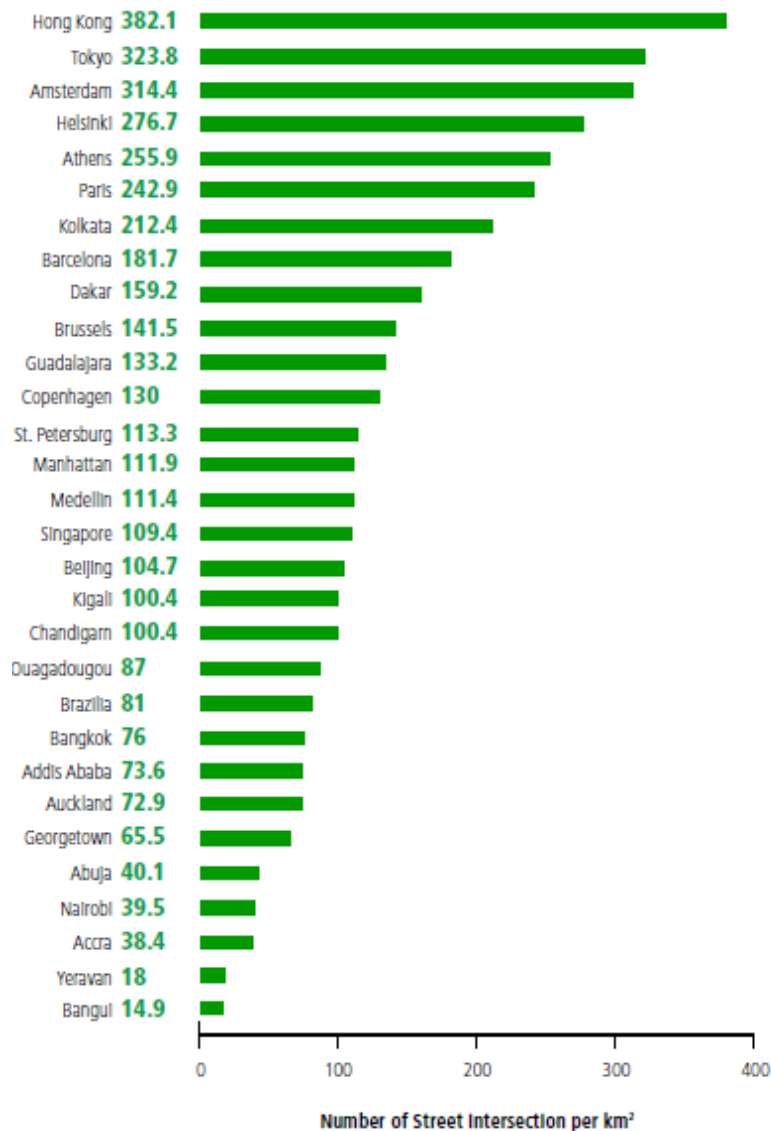
In several countries of the global south, subdivision regulations and minimum standards do not take into consideration public space requirements. In several African countries no minimum requirement is in place and it is left to the discretion of the urban planners and private developers the creation of streets, sidewalks, open and green areas. 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% of the land for both streets and open spaces.⁶⁷ 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. The figure below displays the number of street intersections per km² of urban area in the selected cities. According to the Global Sample of Cities, the range of intersections is from 382.1 (Hong Kong) to 40.9 (Bangui) crossings per km². In general, streets with 100 crossings per km², on average, allow for walking distance between crossing 100 meters apart. Cities that have longer blocks and that have less than 100 crossings per km² have long distances between streets which reduce street life, urban intensity and mobility, and facilitate congestion⁶⁸.

⁶⁷ Executive regulations to law 199/2008.

⁶⁸ UN-Habitat (April 2013): *The Relevance of Street Patterns and Public Space in Urban Areas*, Working Paper.

Figure 1: Number of Street Intersections per km² from UN Global Sample of Cities

Acquisition of Land for Public Space

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 it 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 cost 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 chapter 8: 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, and 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 landowners⁶⁹. Lastly, it might be problematic when building a 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% of the gross area for open space. Such open space shall consist of a minimum percentage of parks and playground proportioned to the density⁷⁰.

Table 2: Parks and Playgrounds Allocation in the Philippines

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

⁶⁹Alterman, R (2007): *Much More than Land Assembly Land Readjustment for the Supply of Urban Public Services*.

⁷⁰ Philippines Housing and Land Use Regulatory Board (2008): Revised Implementing Rules and Regulations for BP 220.

Land Readjustment: This is a land assembly tool able to change the existing physical layout of plots, streets and public space when it appears to be no longer adequate. It entails the consolidation of all plots in a given area to allow for the re-planning of the same to create a sufficient street network and adequate public spaces. In Colombia for example almost 50% 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)⁷¹.

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 Law⁷² allows local authorities to take up to 40% 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/or 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. From the early 1940s, these regulations included requirements for owners and developers to transfer and actually develop some share of the developable land for public and social uses. These transfer requirements represent a way of recovering the cost of infrastructure works, since both the land transfer and the installation of infrastructure such as roads, parks, squares, and public facilities are charged to the developer. Juridical discussions on the nature of these urban charges have determined that they are charges to the real estate owner in order to compensate for the increased land value generated by public authorization to develop the land. The tool has proven to be useful in Medellín where the city has adopted a formula to calculate the developer exaction for a given project based on the location of the proposed development. The developer can decide to either transfer the land exaction to the city or pay the equivalent cash value. The Medellín example represents one approach to developer exactions in which a specific formula is used to calculate the amount due from the developer.

⁷¹IGAC (2003): *Gestión del Suelo Urbano en el Marco del Ordenamiento Territorial*.

⁷²Israeli Planning and Building Law, 5725—1965

Table 3: Table format from Medellin POT Article 252 outlining approved uses and transfer obligations⁷³

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

An alternative approach is to allow the city to negotiate the exact amount of the exaction on a case-by-case basis.

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. The strength of formula-based approaches such as that employed in Medellín is that less is demanded of officials charged with implementing the policy. The weakness is that even with slightly different formulas for different zones within the city, the unique features of any given proposed development may result in either over- or understating the desired “equitable distribution of costs and benefits.” In some circumstances landowners and developers may be willing to negotiate over additional contributions (*voluntary exactions*) when the existing planning regulations do not permit nonagricultural development or do not allow for sufficient densities. For example in Israel developers can negotiate to allocate more land than the compulsory 40 percent or to carry out in-kind construction of a public facility in order to have their development rights upgraded⁷⁴.

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

⁷³ Source: Juan Felipe Pinilla - Compiled from the POT of Medellín

⁷⁴Alterman, R (2007): *Much More than Land Assembly Land Readjustment for the Supply of Urban Public Services*.

planning incentives was in New York City⁷⁵, 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.

Planning Standards for Public Space

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 taxation⁷⁶.

Planning authorities can use building codes for public facilities to influence sidewalk widths, setbacks, and allowable 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 maintain 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 Melbourne⁷⁷ and São Paulo⁷⁸ 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 use.

In 1994 Melbourne introduced the “active edges” regulations to regulate 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 meters or 80% 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% increase in pedestrian traffic. The

⁷⁵ The City of New York (1961).

⁷⁶ Bertaud, A. & Malpezzi, S. (2003).

⁷⁷ City of Melbourne (2016).

⁷⁸ Municipality of São Paulo (2014).

economic vitality of the city has improved proportionally—as evidenced by the increase in jobs, tax revenues, and property values⁷⁹.

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, Improving the overall quality of public space and Deploying the water management issue to create the desired residential environments. 80 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: Mostly public functions create Great Streets: shops, cafés, restaurants and education, Great Streets have a minimum of a new public function in every 15 meters (6-8 public functions every 100 meters) and finally, Offices are not important for great streets, living is possible if not too dominant as a single function⁸¹.

Form-based codes have a strong legal basis and one of their peculiarities is that they dictate a broader set of design principles and the use of specific standards in lieu of case specific review processes. This approach reduces the discretion of planning authorities and makes the physical outcome more predictable.

Encouragement of temporary public-space uses of idle land: The city of Monterrey in Mexico has introduced a creative way to obtain and use as public spaces private vacant and unused plots. 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 would have made⁸². 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 fee⁸³.

The Management of Streets and Public Space

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*⁸⁴. In several countries the public management appears to be ineffective among other reasons for the

⁷⁹City of Melbourne in Collaboration with Gehl Architects (2004).

⁸⁰ Rotterdam Municipality (2008).

⁸¹ The City at Eye Level (2012).

⁸²Municipality of Monterrey (2014).

⁸³ Ibid.

⁸⁴Biennial of Public Space (2013).

unclear or fragmented mandate among different authorities (environment, public works, planning, etc.) and for the lack of adequate resources to properly maintain the public spaces.

In many cities, there is no 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 departments⁸⁵. 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 ensure that its environmental conservation function is carried out. JCPZ resulted from the merger of several entities after an institutional review process conducted by the City of Johannesburg. The organization has a growing portfolio in excess of 20 000 ha of green open spaces and 3.2 million trees⁸⁶.

In Colombia, Bogota's Defense of Public Space (*Defensoria del Espacio Público* - DADEP) 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.⁸⁷ The Defense of Public Space succeeds in financing large part of its activities through the management and profitable use of its assets⁸⁸. Bogota' also issues community leases in exchange for maintenance and guardianship. The *Defense* can create administration, maintenance and economic improvement of public space contract (*Contratos de administración, mantenimiento y aprovechamiento económico de espacios públicos* - CAMEP)⁸⁹. These are voluntary agreements through which community organizations can receive from the city the use of public spaces with the commitment to maintain and manage them with the revenues generated with 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 partners with the City Council of Nairobi to sell advertising space on streetlamps on public roads. Companies can "adopt" highway, street and slum lights and in return for advertising, firms must maintain the costs associated with lighting the lamps. There are several examples of private companies interested, for example, in becoming patrons of a playground, a park, a street and several cities have in place incentives to stimulate the involvement of the private-sector in the development and management of public spaces.

⁸⁵ UN-Habitat (2015): *Global Public Space Tool Kit*.

⁸⁶ <http://www.jhbcityparks.com>.

⁸⁷ Regimen Legal Bogota D.C. (1999).

⁸⁸ Regimen Legal Bogota D.C. (2003).

⁸⁹ *Ibid.*

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 streets⁹⁰.

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 countries do not have clear requirements in place which are able to guide planners and private 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 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.

⁹⁰Commission for Architecture and the Built Environment (2007).

Public Space Assessment Framework

Public Space									
Indicator	Sub-indicator	Ranking					Score	Weight	Weighted Score
		0	1	2	3	4			
Legislative Functional Effectiveness	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.		1	/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 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	/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.		1	/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.		1	/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.		1	/4
Public Space: Technical Aspects	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 to allocate adequate space to streets but they are not sensitive to outcome.	Mechanisms exist and function to allocate adequate space to streets, at least in terms of quantity.	Mechanisms exist and function to allocate adequate quantity and distribution of street space.	Mechanisms exist and function to allocate adequate quantity and distribution of street space at all scales (from city master plan to more detailed plans). There are more than 100 street intersections per sqkm.		1	/4
	Mechanisms to allocate adequate space to non-street public space (green areas, play grounds, sport facilities, public institutions, 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). Public institutions are adequate to the need in each district.		1	/4
	Acquisition of land for public space	No mechanism to obtain land from private owners exists. Land is acquired through 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 is allowed.		1	/4
	Planning standards for public facilities	No regulations for public space planning.	Some basic guidelines (set backs and building lines) make public spaces inaccessible.	Detailed guidelines (walls and fences) make public spaces inaccessible.	Very detailed planning standards (building types, facades, roofs).	Extremely detailed (furniture, kind of trees, material of the pavement, etc.) incentivize active facades and sidewalks. Design guidelines increase public space safety and accessibility for women and children.		1	/4
	Management of streets and public space.	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.		1	/4
							Total Score:	/40	

Planning Principle 3: The Urban Morphology: Plots and Blocks

Introduction

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. However, plot and property do often coincide, but what defines a plot is accessibility not property. Functionally, a plot influences the size, function of buildings and their inhabitants as well as dictating who can build the city and the resources needed to develop it. On the other hand, blocks 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 (industrialization etc.) have driven changes in urban morphology with consequences for the integrity of traditional urban form impacting on the plot. 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. More problematic, at least in almost every jurisdiction worldwide, is the inadequacy of policy and regulatory frameworks that govern land and housing supply and property rights to effectively cater for the majority urban poor. Accordingly, this document 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. As a result, 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). This approach has radical implications for urban form and procurement 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 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.

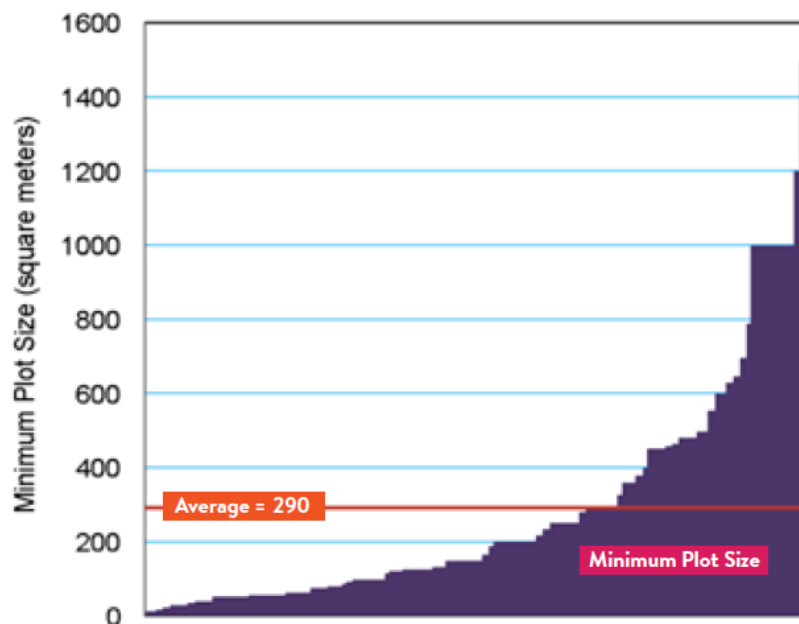
Invariably, the overarching goal of successive iterations of government policy on the built environment is to create sustainable communities which are safe, inclusive, well planned and offer equality of opportunity and good services for all. In order to do so, regulatory frameworks need not only be clear and effective, but also guarantee inclusion of the interests of vulnerable groups and provide a forum for local and national discourse as well as balance the competing private and public interests. In terms of functional effectiveness of law, the table below will demonstrate what the ideal standard should be when assessing vital elements that define regulatory frameworks in the built environment.

Technical Aspects

Minimum Plot Sizes

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 450 m² which is obviously unaffordable to the majority urban poor and lower middle-income families. 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 20-100 m². In several African countries the minimum plot size remains too large and in discordance with the needs of dense and walkable urban centers but also of smaller cities and urban areas. For example, in the Nigerian State of Kogi sizes of plots range between 900 and 1350 square meters, in Rwanda the standard plot is 600 square meters⁹¹.

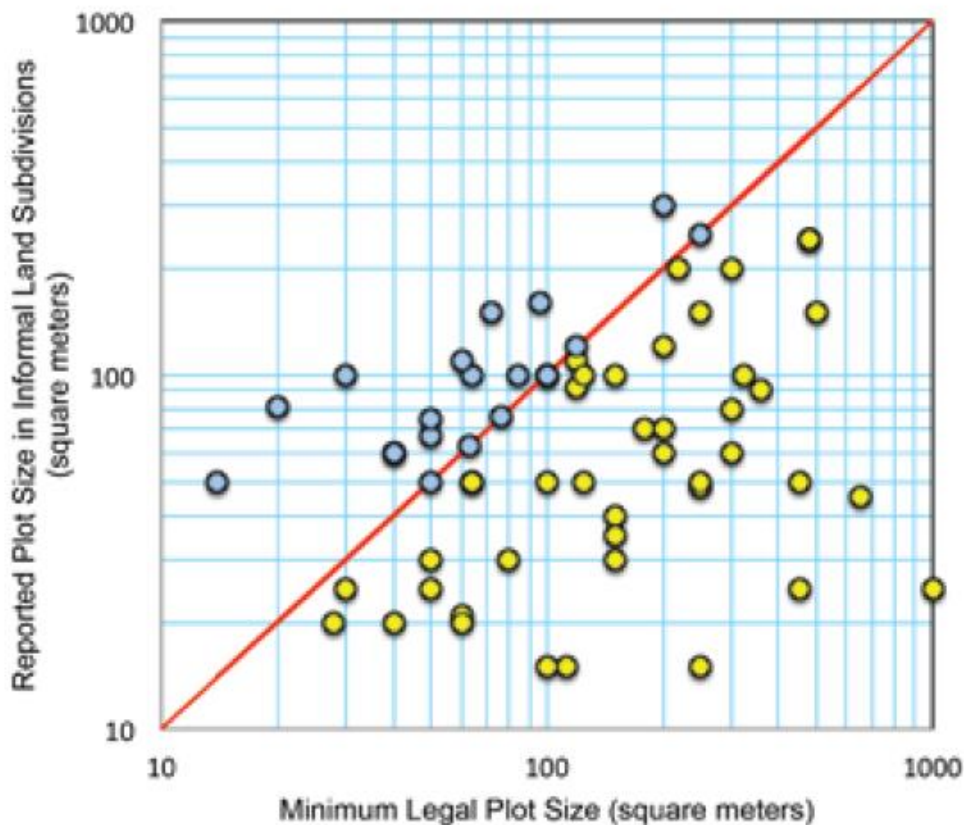
Figure 2: Minimum Plot Sizes Compromise Densification Efforts⁹².



⁹¹ UN-Habitat (2014): *Urban Legal Assessment*.

⁹² UN-Habitat (2016): *The Fundamentals of Urbanization: Evidence base for Policy Making*, p. 16.

Figure 3: Two-thirds of the Reported Plot Sizes in Informal Land Subdivisions do not adhere to Plot Size Minimums.



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 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/ha or 61 people/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 response, 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.

Maximum Block Sizes

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 m in Chinese cities. In the Philippines the maximum length of block is 400 meters. However, blocks exceeding 250 meters have to be provided with a 2-meter alley approximately at mid-length.⁹³

Short blocks promote walkability while excessively large blocks (400m) 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 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 m to 100 m, with sizes between 60 and 80 m striking a good balance between these competing demands.

Plot Subdivision

Dividing land into two or more plots is referred to as plot sub-division. In some common law jurisdictions⁹⁴, the process of plot subdivision is a legal one, carried out through conveyance, where the resulting plot is described and recorded in a land 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 jurisdictions⁹⁵, 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

⁹³Philippines, Housing and Land Use Regulatory Board (2008).

⁹⁴ For example, U.K, Kenya and India

⁹⁵ U.S.A and Australia

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 effected. Zoning regulations in land management are an integral part of the urban morphology. Therefore regulations on plots and blocks should be in line with, UN-Habitat's Principle 5 (limited land-use specialization) aims at adjusting the use of functional zoning to implement mixed land-use policies (see chapter 2: Land Management).

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 and capacity and a detailed analysis of the local society and economy need to be undertaken to achieve the aforementioned result.

Plot Consolidation

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 is a system of negotiations and voluntary agreements, conducted openly and democratically. Plot consolidation may be used as a tool for the redevelopment 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 planning authority clearly and transparently communicate the policy objectives in reference to this process. Moreover, when in line with planning objectives, plot consolidation should be incentivized through mechanisms like right of first refusal for neighbors, or higher allowable densities.

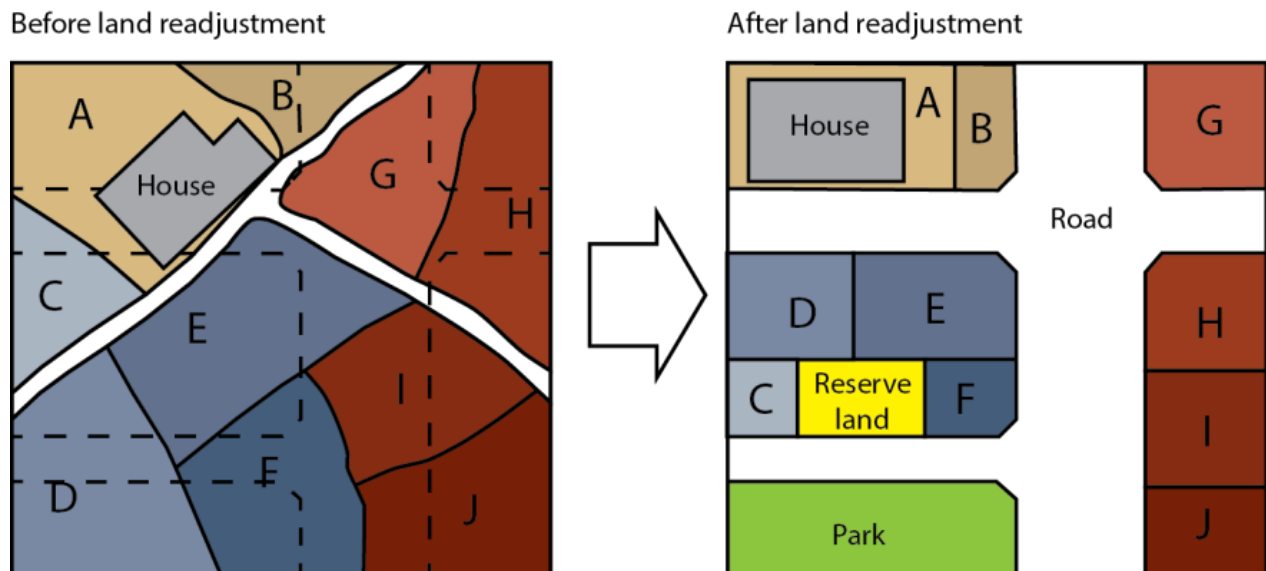
Plot Readjustment

Plots 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, 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 4: Example of Land Readjustment⁹⁶



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 majority 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' Principle 2 and 5 which are part of the bigger strategy 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.

⁹⁶UN-Habitat (2015): PILaR handbook.

Plots and Blocks Assessment Framework

Plots and Blocks									
Indicator	Sub-indicator	Ranking					Score	Weight	Weighted Score
		0	1	2	3	4			
Legislative Functional Effectiveness	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.		1	/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 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	/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.		1	/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.		1	/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.		1	/4
Plots and Blocks: Technical Aspects	Minimum plot size for residential use	801 sqm-or more.	501-800 sqm.	301-500 sqm.	101-300 sqm.	20-100 sqm or there is no minimum size.		1	/4
	Maximum block length in any direction	No criteria is present.	more than 400m.	300-200m.	200-130m.	Less than 130m.		1	/4
	Plot subdivision and plot shapes	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 discretionary).	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.		1	/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 discretionary.	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.)		1	/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 discretionary.	Rules and requirements are complicated and difficult to use. Municipal institutions involved are not coordinated. Owners' participation is inadequate (more than 70% or less than 60% consent) and not meaningful.	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	/4
						Total Score:		/40	

Planning Principle 4: Development Rights

Introduction

Development rights broadly refer to the ‘rights to undertake development on land.’ These rights fall under two categories: the right to convert rural land to urban use; and the right to build at greater densities than the established baselines. Notably, for development rights to exist, there has to 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 such that if a landowner intends to change his/her current use of land, he/she 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.

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 on one hand and the right to develop it on the other. 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 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 rationale for vesting development rights in public authorities is twofold:

Firstly, the possession of development rights by public authorities is an invaluable planning tool. By regulating land use and density in specific zones, the local authority has the ability to 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 in Brazil, higher FARs have been granted in some segments of

the city as a way of promoting transit-oriented development in corridors where rapid bus transport systems were installed.⁹⁷

Secondly, in accordance with the New Urban Agenda (2016) and the Declaration and Programme of Action from the 1995 World Summit on Social Development, vesting of development rights in public authorities assists them in attaining social well-being through the provision of adequate and affordable housing. This may be achieved through the sale of development rights with an incentive to developers who prioritize affordable housing. 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 m² of building area, raising US \$122.5 million that was in turn used to fund the construction of 13,000 social housing units.⁹⁸

Importantly, the allocation of development rights should be linked to the city’s densification and livability objectives. Global statistics show that while development rights are widely regulated, they are often poorly linked to the city’s 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% of cities report one or more regulations that limit building size in their expansion areas. Of the 85% that report such regulations, 68% had Maximum Floor-Area-Ratio regulations, 59% had Maximum Building Height regulations and 57% 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.

⁹⁷Smolka, M. (2013).

⁹⁸ Sandroni, Paolo (2011): Urban value capture in São Paulo using a two-part approach: Created land and sale of building rights.

Figure 5: Presence of Building Size Regulations across UN Regions⁹⁹

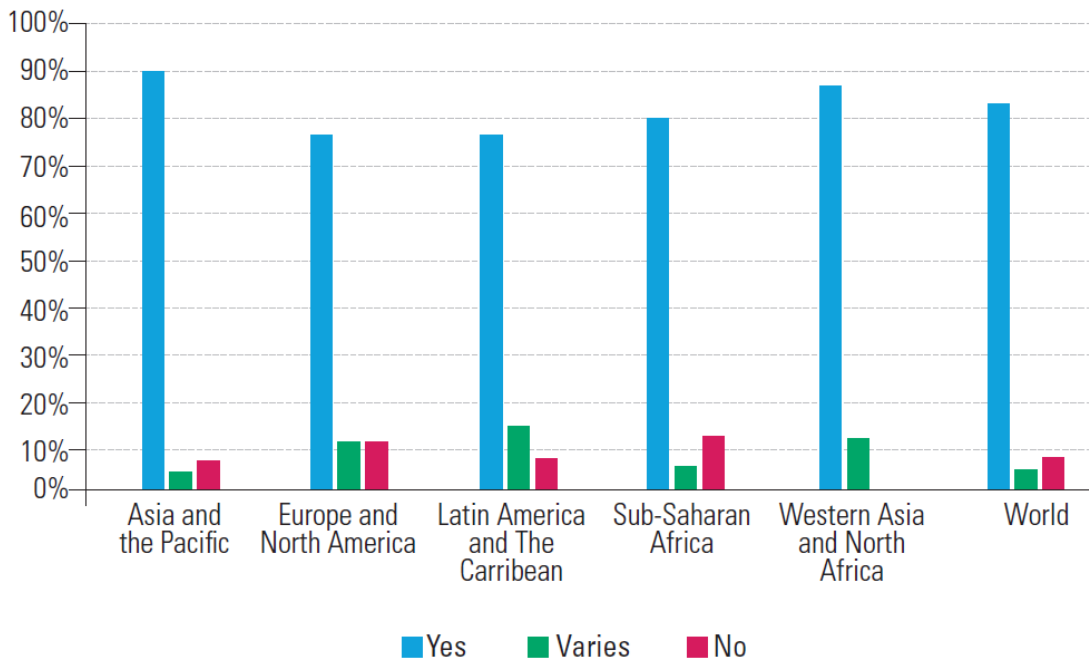
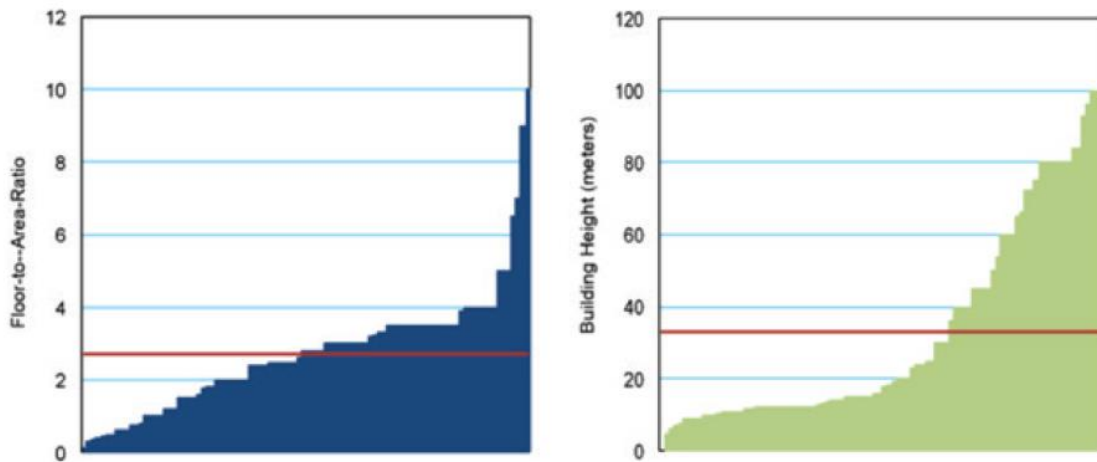


Figure 6: Maximum Allowable FAR (Left) and Building Heights (Right) from a Global Sample of Cities. (In increasing order from left to right. The red line indicates the average¹⁰⁰).



A further clear example of overly restrictive development controls is that 62% of all cities, and 72% 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% of cities; additional dwellings could not be added in single-family plots in 60% of cities; and additional floors could not be added in 65% of cities.¹⁰¹

⁹⁹ UN-Habitat (2016): *The Fundamentals of Urbanization: Evidence base for Policy Making*, p. 18.

¹⁰⁰ UN-Habitat (2016): *The Fundamentals of Urbanization: Evidence base for Policy Making*, p. 19.

¹⁰¹ Ibid.

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. Our analysis includes four key technical aspects that can be adjusted to better the urban form, urge densification, and finance urban projects.

Technical Aspects

Allocation of Floor-Area-Ratio (FAR) or Equivalent Attribution of Building Potential

‘Building potential’ in this case refers to the ability of a plot to be developed - which includes 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 less discretionary manner. As such, 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 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 developments on this land, he has 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%. 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.¹⁰² 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.¹⁰³

Vertical Development Rights

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.

¹⁰² Walters, Lawrence (2016).

¹⁰³ Sandroni, Paolo (2011): “Recent experience with land value capture in São Paulo, Brazil.” *Land Lines* 23(3):14-19.

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.

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 so as to avoid the discrimination of one landowner as a result of diminished ability to put their land to maximum commercial use. 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.¹⁰⁴

Plot Coverage Requirements

‘Footprint’ or ‘plot coverage’ rules, dictate what proportion and area of a given 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.

Setbacks

Development rights regulation can have a significant impact on street dynamics and walkability, by managing the distance between building and street (often called setbacks), which affects plot coverage and built density. As such, regulation should be developed clearly in furtherance of 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.

¹⁰⁴Smolka, M. (2013).

Conclusion

Development rights are an important tool for developing a sustainable and affordable city, especially when urban planning objectives like liveability 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.¹⁰⁵ 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.

¹⁰⁵ UN-Habitat (2016): *The Fundamentals of Urbanization: Evidence base for Policy Making*, p. 20.

Development Rights Assessment Framework

Development Rights									
Indicator	Sub-indicator	Ranking					Score	Weight	Weighted Score
		0	1	2	3	4			
Legislative Functional Effectiveness	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.		1	/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 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	/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.		1	/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.		1	/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.		1	/4
Development Rights: Technical Aspects	Allocation of Floor-Area-Ratio (FAR) or equivalent (combination of horizontal and vertical building potential)	No regulation exists on FAR in urban plans and/or there are no urban plans.	Regulations on FAR exist but they allocate different potentials with great discretion.	Regulations on FAR exist and they allocate different building potentials with criteria to limit the discretion (by zoning, existing/planned infrastructure, environment, historic sites, etc.)	Regulations on FAR exist and they allocate different building potentials with criteria to limit the discretion. Mechanisms exist to capture the increments in land values.	All land has the same virtual FAR allowed. Mechanisms exist to capture the increments in land values. Differences (higher/lower) are either compensated or usable elsewhere.		1.25	/5
	Vertical development rights	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 is conditioned to a building license and the fee is proportioned to the volumes built.	Vertical development rights for additional 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. Additional 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.		1.25	/5
	Plot coverage requirements in urban areas: the percentage of the plot that is covered by the building(s) or structure	Less than 30% or no requirement.	Between 40%-50%.	Between 50%-60%.	Between 60%-80%.	More than 80%.		1.25	/5
	Setbacks (mandatory regulations in terms of the spaces to be left between the proposed construction and the boundary of the plot. Excessive setbacks and distances between buildings do not allow for a compact and walkable city)	No regulations at all.	Setbacks required on all sides (front, back, sides).	Setbacks required on 2 sides (front/back or sides).	Setbacks required on 2 sides (front/back or sides) but regulations prohibit fences and walls.	Regulations do not require setbacks or minimum frontage. Promotion of continuous and active building facades for a compact, vibrant, and walkable city.		1.25	/5
							Total Score:		/40

Planning Principle 5: Building Codes

Introduction

Adequate planning rules and regulations are a prerequisite to the design, production and management of efficient and equitable human settlements. In this sense, a successful risk reduction shall be based on building and land use regulations. Building codes can work as catalyst to leverage the total investment in building and infrastructure toward greater safety and security.

The Sendai Framework for Disaster Risk Reduction was adopted at the Third UN World Conference in Sendai, Japan, on March 18, 2015, consisting of 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”*.

The Sendai Framework for Disaster Reduction identifies the need to *“mainstream and integrate disaster risk reduction within and across all sectors and review and promote the coherence and further development, as appropriate, of national and local frameworks of laws, regulations and public policies, which, by defining roles and responsibilities, guide the public and private sectors in: (i) addressing disaster risk in publically owned, managed or regulated services and infrastructures; (ii) promoting and providing incentives, as relevant, for actions by persons, households, communities and businesses; (iii) enhancing relevant mechanisms and initiatives for disaster risk transparency, which may include financial incentives, public awareness-raising and training initiatives, reporting requirements and legal and administrative measures; and (iv) putting in place coordination and organizational structures”*.

The Framework encourages national and local risk reduction strategies and plans that strengthen economic, social, health, and environmental resilience. This involves an assessment of the disaster risk management capacity to carry out these mechanisms and the encouragement of 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 Sendai Framework identifies *“Priority 3: Investing in disaster risk reduction for resilience,”* which implies to encourage the revision of existing or the development of new building codes and standards and rehabilitation and reconstruction practices at the national or local levels, as appropriate, with the aim of making them more applicable within the local context, particularly in informal and marginal human settlements, and reinforce the capacity to implement, survey and enforce such codes through an appropriate approach, with a view to fostering disaster-resistant structures.

Building and land-use regulation has proven to be a tool for increasing people's safety and resilience and limiting the risk that they face 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.

Establishing a legislative foundation for a building and land use regulatory authority will protect public health and safety and reduce disaster and chronic risk. The National Policy can define the role of national and local government agencies to regulate land use and construction as well to implement instruments for effective disaster and chronic risk reduction.

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 needs of the country, adapting to its risk profile, building culture, availability of materials, equipment and income levels.

Low-income and lower-middle-income countries have the least capacity to cope with disaster losses. 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 ensure regulatory provisions that represent (i) the value and (ii) resources of the community.

It is necessary to have a broad consensus on the balance of risks and costs acceptable for building performance as provided for in the provisions of the code. All stakeholders must accept specific implementation and enforcement mechanisms as legitimate and fair. Meeting these requirements implies effective stakeholder consultation and participation (public review process, focus group discussions).

Provision of safe land is also an important step that local governments can take toward controlling disaster and chronic risk in urbanizing area. In the absence of effective systems, cities in low income countries have rapidly expanded into hazardous territory without clear title or critically needed infrastructure. Therefore, the planning legal framework requires regulatory mechanisms enabling the urban poor to access land that is not in high-risk areas as well as regulations that allow for tenure security (both for business and housing), in an affordable manner.

Land use management is a fundamental tool for reducing disaster risk. Authorities should draw on hazard maps to differentiate building requirements in proportion to expected hazard loads. It is imperative to reference hazard zones in building codes with emphasis on added structural requirements. Hazard mapping distinguishing geographic zones in terms of expected hazard event frequency and intensity is necessary for flood, earthquake, landslide, snow load, wind, and coastal hazards. Hazard maps should be directly referenced in the building code. The legal framework shall institute alternative uses to occupy hazard zones (for instance urban agriculture park or recreation areas), in order to minimize new exposure risks and informal settlement.

Building codes shall also recognize prevalent building practices: for example 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. However, formal systems of building codes almost never recognize this type of construction, widening the gap between the formal and informal building sectors.

It is of high importance to ease the burden of building permitting procedures on local governments. This would 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. More generally, this would include measures that reduce arbitrary discretion in planning and building permit approvals.

Process efficiency for inspections minimizes the bureaucracy around building controls (and also reduces time, number of procedures, and transaction costs needed to obtain the necessary approval). Building codes shall also provide administrative simplification and similar measures to reduce regulatory compliance costs. Furthermore, risk management shall be applied to construction permits and inspections: building applications should be categorized into different risks groups (for example, fast track building permit procedures for small commercial buildings). In the legal assessment framework of building codes, the following technical aspects shall be contemplated: 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.

Technical Aspects

Age of the Building Code

Building codes should be periodically reviewed in light of their effectiveness in delivering safe and resilient housing. Building code documents shall 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. It shall 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.

Uniformity of Differentiation of Application

As a preliminary remark, the need for a solid based legislation shall be underlined. Indeed, 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 must 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 massive 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 the full range of interested stakeholders (building professionals, developers, representatives of finance and social service sector) should be provided for. The process shall be inclusive of the range of relevant building practices including the non-engineered construction of the informal sector and engineered structures.

Scope for Local Materials

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 shall 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.

Resource-Efficient Measures

The use of resource-efficient measures 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% of the raw materials and energy produced worldwide are used in the building sector and the cement industry alone is responsible for 25% of the annual

worldwide CO₂ emissions from fossil fuels.¹⁰⁶ The adoption of an energy efficient building codes 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. Some cities have been able to successfully incorporate the use of resource-efficient building techniques into the city building code. San Francisco, U.S.A. for example passed a Green Building Code (for all buildings in the city) in 2008, which has been continuously updated to combine the mandatory elements of the state-wide California Green Building Standards Code with stricter local requirements. The ordinance from 2008 defined the typologies of building and structures and the ways to promote resource-efficient building practices through training and coordination with other task departments with expertise, such as the Department of Public Works, the San Francisco Public Utilities Commission and the Department of Building Inspection. The Green Building Code of 2016, upgraded the sustainable building practices level by requiring newly constructed residential and commercial buildings and major renovations to existing buildings to: reduce energy and water use, divert waste from landfills, encourage alternate modes of transportation, and support the health and comfort of building occupants in San Francisco.¹⁰⁷

UN-Habitat recommends the following procedures for incorporating energy and resource efficiency into building codes¹⁰⁸:

- ✓ 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, HVAC
- ✓ Water efficiency: mandatory rainwater harvesting, water reuse and recycling
- ✓ Renewable energies (mandatory use of solar PV in nonresidential building . 300m² for lighting and other electrical appliances)
- ✓ Sustainable site planning: sewage separation and treatment; waste management; land/vegetation and landscaping; drainage, urban layout and street orientation; erosion prevention, etc.
- ✓ Energy management and conservation for buildings through Energy Certification of Buildings
- ✓ Procedures for building inspection and penalties for non-compliance

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

¹⁰⁶ UN-Habitat (2015). “Sustainable Building Design for Tropical Climates”.

¹⁰⁷ SF Environment (2017).

¹⁰⁸ UN-Habitat (2016). “Mainstreaming Energy and Resource Efficiency into the Built Environment”.

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. could include improved information systems on risks, and building practitioners' qualifications.

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.

Consideration of Low-Cost Options for Small/Low-Cost Housing

Special consideration should be given to low cost housing by having differentiated standards by small, low rise, low cost affordable housing. It shall be reminded that 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 led many countries to borrow unaffordable standards from abroad, usually from high-income, colonial and imperial countries in the Global North, often called the developed countries. 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

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

Another critical factor forcing many urban dwellers into the informal sector is the extreme scarcity of land, which leads to prices that are unaffordable (land being under pressure as a result of increased demand and speculation). Therefore, building code provisions shall reach a balance between the costs of regulations with the ability of people to pay. Moreover, this includes the consideration for local, resource-efficient, and low-cost building materials for small and low-cost housing options.

An improvement to building code compliance shall imply a larger commitment to land policy and land management reforms.

Building Codes Assessment Framework

Building Codes									
Indicator	Sub-indicator	Ranking					Score	Weight	Weighted Score
		0	1	2	3	4			
Legislative Functional Effectiveness	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.		1	/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 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	/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.		1	/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.		1	/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.		1	/4
Building Codes: Technical Aspects	Age of building code	No building code.	30 to 50 years.	20 to 30 years.	10 to 20 years.	0-10 years.		1	/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.		1	/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.)		1	/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: water, land, energy, material and waste.	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.)		1	/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.)		1	/4
							Total Score:		/40

Planning Principle 6: Land Based Finance

Introduction

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).¹⁰⁹ 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 land owners and the public.¹¹⁰ 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 socio-economic changes in the society.¹¹¹

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 involves the use of land to generate revenue. This 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.¹¹² 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.¹¹³

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 land owners 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 tend to promote transparency and accountability in local authorities.

¹⁰⁹ Walters, Lawrence (2016).

¹¹⁰ Tong, Joanna (2015).

¹¹¹ UK Aid (2015).

¹¹² 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.

¹¹³Ruiz, Francisco, and Vallejo, Gabriel (2010).

There are various LBF options.¹¹⁴ These include:

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.

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.¹¹⁵ 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.

Developer exactions – These are based on the understanding that new developments in urban areas often put a greater strain on municipal authorities by increasing the need for improved infrastructure and other services. They therefore require the developers to meet the cost of putting more infrastructure in place.¹¹⁶

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.

Sale of development rights – Here, urban authorities separate land ownership from the right to further develop it. The effect of this separation is that the development rights may then be sold either to the landowners or to other parties on the open market.

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.

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

¹¹⁴ Walters, Lawrence (2016).

¹¹⁵ Peterson, George E, and Thawakar, Vasudha (2013).

¹¹⁶ Bauman, Gus and Ethier, William (1987).

be used in a way that benefits not only the land owners but also the public. Thirdly, property tax, being the main form of LBF, must be fully laid out for the benefits of land value sharing to be captured.

Technical Aspects

Fiscal Cadaster

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.¹¹⁷ 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.¹¹⁸ The estimated values can then be used for taxation as a basis for financing of public services.¹¹⁹

An effective land valuation and taxation system requires a reliable cadastral system. For instance, according to the FFP approach (see Chapter 3: Land Management), the function of valuation and taxation needs a map with cadastral numbers of the individual parcels and properties.¹²⁰ 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.¹²¹ 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.¹²²

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 proper 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, authors such as Smolka and De Cesare have asserted that if informal settlements are included in the property tax system, many of the residents will pay the tax voluntarily.¹²³ 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

¹¹⁷ Ibid 63.

¹¹⁸ Ibid.

¹¹⁹ Ibid.

¹²⁰ Ibid 54.

¹²¹ Ibid.

¹²² Ibid.

¹²³Smolka, Martim, and De Cesare, Claudia M (2013).

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.

Land Value Sharing

Land based financing is based on equitable sharing of benefits and burdens of urban development. That is, land owners and developers ought to share the value of their land with the public.¹²⁴ Indeed, all the seven LBF techniques intend to benefit the public in some way. This section shows how the public may benefit from LBF in a phenomenon referred to as 'land value sharing' using two examples.

As noted earlier, developer exactions 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.

In sale of development rights, a local government reserves the right to authorize any further development. This means that where the local authority determines that there is developmental potential, it can divide it into rights and sell them. 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 two examples show how various forms of land based financing may be used to benefit not just land owners and developers but also the public by availing funds for public investments.

Property Tax

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.¹²⁵

¹²⁴Booth, Phillip (2012).

¹²⁵ Bird, Richard M (2004).

Property tax is critical in land based finance and land value sharing for several fundamental reasons. Firstly, recurring taxes on land provide land owners with an incentive to develop their land in order to afford the tax. The effect of this would be 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 the intention is use it. McGill (2011) argues that this would in turn reduce the demand of land which would stabilize prices and lead to more affordable housing.¹²⁶ Indeed, McGill predicts more long term effects of property tax by noting that it would reduce 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.¹²⁷

Furthermore, as property taxes are recurring, they provide a stable source 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.

¹²⁶ McGill, Greg (2011).

¹²⁷ Ibid.

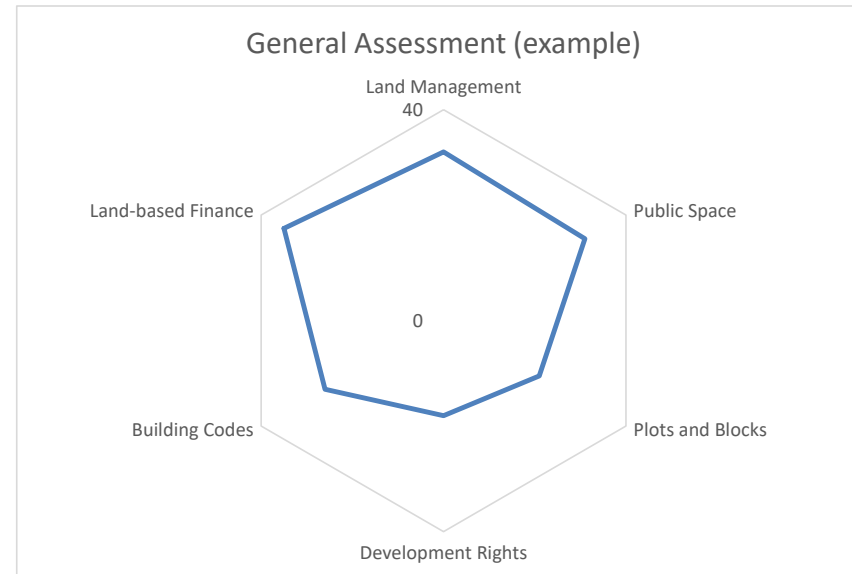
Land Based Finance Assessment Framework

Land Based Finance									
Indicator	Sub-indicator	Ranking					Score	Weight	Weighted Score
		0	1	2	3	4			
Legislative Functional Effectiveness	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.		1	/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 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	/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.		1	/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.		1	/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.		1	/4
Land Based Finance: Technical Aspects	Fiscal cadaster	No fiscal cadaster exists.	Fiscal cadaster is not up to date (over 5 years old), and/or it does not cover informal areas.	Fiscal cadaster is not up to date (over 5 years old) but mechanisms are in place to coordinate with land value taxation.	Fiscal cadaster in place and up to date but does not cover informal areas and is not well-coordinated with land-based taxes.	Fiscal cadaster in place (100%) up to date, covers informal areas, and is publicly available. 'What is taxable' is clearly coordinated and transparent.		1.66	/6.66
	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 fee 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 mechanisms increase the service delivery capacity of the local authority.	Several 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 revenues 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.		1.66	/6.66
	Property tax payments (annual land, building taxes, and land leases) allocated them to urban development	No mechanisms exist.	Simple contributory tools exist to finance public investment through land-based tax. Land owners or developers must at least contribute to direct infrastructure need (in cash or kind).	Land owners or developers cover (in-kind or in cash) all the infrastructure costs required by their development.	Land owners or developers contribute (in-kind or in cash) to all the infrastructure and administrative costs and provision of public services required by their development. Proportions of value increase are taxed.	Land owners or developers contribute (in-kind or in cash) to all the infrastructure and administrative costs and provision of public services required by their development. Proportions of value increase are taxed. Revenue is equitably and locally collected and spent.		1.66	/6.66
							Total Score:		/40

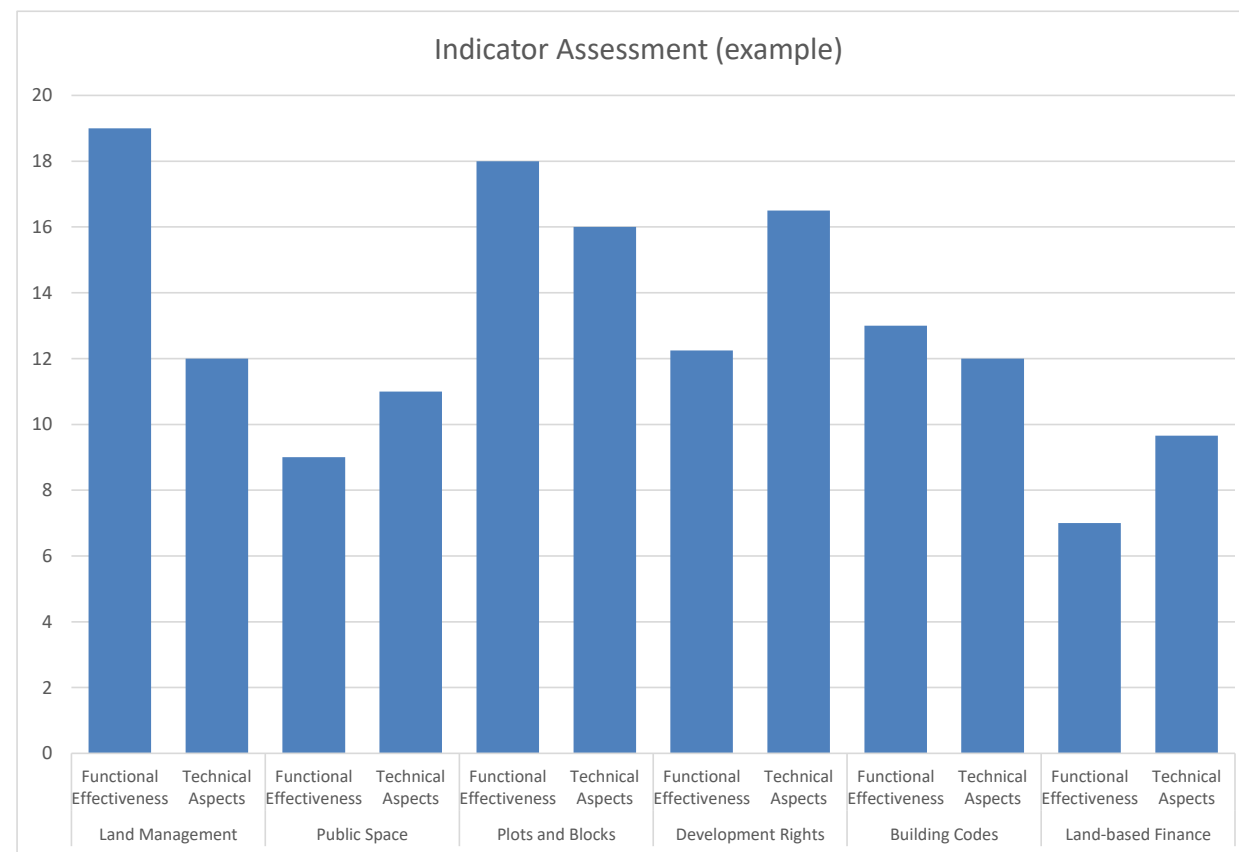
Annex 1: Scoring Framework and Example Graphs

Planning Legal Assessment Scoring

General Assessment (example)	
Planning Principle	Total Score (out of 40)
Land Management	32
Public Space	31
Plots and Blocks	21
Development Rights	18
Building Codes	26
Land-based Finance	35



Indicator Assessment (example)		
Planning Principle	Indicator	Sub-score (out of 20)
Land Management	Functional Effectiveness	19
	Technical Aspects	12
Public Space	Functional Effectiveness	9
	Technical Aspects	11
Plots and Blocks	Functional Effectiveness	18
	Technical Aspects	16
Development Rights	Functional Effectiveness	12.25
	Technical Aspects	16.5
Building Codes	Functional Effectiveness	13
	Technical Aspects	12
Land-based Finance	Functional Effectiveness	7
	Technical Aspects	9.66



Reference List

- 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*.
http://www.biennalespaziopubblico.it/blog/wp-content/uploads/2013/11/CHARTER-OF-PUBLIC-SPACE_June-2013_pdf-.pdf
- 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.
<http://urbanlex.unhabitat.org/law/753>
- 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): 'Land Administration and Information'.
<http://www.glt.net/index.php/land-tools/themes/land-administration-and-information> accessed 19 October 2016.
- 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.

http://planningschemes.dpcd.vic.gov.au/schemes/melbourne/ordinance/22_lpp01_melb.pdf

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*.
<http://portal.monterrey.gob.mx/pdf/reglamentos/zonificacion.pdf>

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*.

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 espaciopúblico 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"
<https://sfenvironment.org/green-building-ordinance-sf-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*.
<https://thecityateyelevel.files.wordpress.com/2013/01/the-city-at-eye-level.pdf>
- The City of New York (1961): NYC Zoning Law.
https://www1.nyc.gov/assets/planning/download/pdf/about/city-planning-history/zoning_maps_and_resolution_1961.pdf
- 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*.
https://unhabitat.org/wp-content/uploads/2014/05/5-Principles_web.pdf
- UN-Habitat (2015): *Global Public Space Tool Kit: From Global Principles to Local Policies and Practice*.
- UN-Habitat (2015): *PILaR handbook*.
- 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".
<https://sustainabledevelopment.un.org/content/documents/22436UN-Habitat.pdf>
- 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*.
<http://www.unisdr.org/we/coordinate/sendai-framework>
- United Nations General Assembly (2016): *Draft outcome document of the UN Conference on Housing and Sustainable Development (Habitat III); The New Urban Agenda*.
- Vanterpool, Varen (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*.
- 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.