

Original Research Article

An Assessment of Tehran Physical-Spatial Development Planning Laws; Using PLAF Model

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Abstract

Problem statement: Despite the introduction of the concept of “sustainable urban development” - following the consequences of one-dimensional economic development - urban researchers still pay less attention to legal practices in this area. Laws are presented as a development framework, related to historical contexts, institutional capacities, etc., and their success is introduced in achieving “what is necessary”. since their success is not always guaranteed; to describe them, one must go beyond the level of a legal draft; and its implementation process and results should be studied as a whole unit. Therefore the research question is how Tehran’s physical-spatial development laws are based on the planning law assessment framework (PLAF) analytical model.

Research objective: This study attempts to provide a descriptive-analytical study of the status of physical-spatial development planning laws in Tehran, on the path to sustainable urban development.

Research method: This applied-developmental research used indicators derived from the PLAF analytical model and carried out data processing by a group consisting of eight experts. Finally, the qualitative criteria measured, are quantified and compared.

Conclusion: Finally, the results of this mixed research showed on the path to sustainable urban development Tehran’s physical-spatial development law, is not in the desired situation both in terms of functional effectiveness and technical dimensions. Among the six thematic categories studied, the planning laws related to “building codes” and “land-based finance” are in the best and worst status in terms of “Functional effectiveness”, respectively. Also, the planning laws related to “Development Rights” and “public spaces” are in the best and worst condition in terms of “technical aspects”, respectively. The same situation is reflected in the final score, and the planning laws related to “plots and blocks” and “Development Rights” have the highest, and the planning laws related to “public spaces” have the lowest scores among all categories. Finally, it is noteworthy that the ultimate descriptions of this research can explain the legal reasons for the gap between the spatial situation of Tehran, between the desired vision of urban sustainable development.

Keywords: *Planning law assessment framework, PLAF, Tehran, Urban Sustainable Development, Un-habitat.*

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Introduction

The urban physical-spatial development, which is done to respond to various aspects of urban life, creates a built environment that is a simultaneous physical representation of the history of the city, and its current life and activities (Taqipour, 2021, 61). In this regard, for long-term periods, laws as an effective framework affect the path of urban development towards sustainable development or intensification of inequality and poverty (Talen, 2012, 13).

On this point, in a context consisting of various historical, political, and social dimensions, different cities have pursued different perspectives and mechanisms for legislation; And also, they determine the objectives and functions of the legislation based on the needs and priorities arising from different actors and legal-political traditions (Mousmouti, 2012). What is controversial is that the success of such laws is not always guaranteed. That is, what transcends a law beyond the level of a draft is its "effectiveness," or the realization of what "should" be in the implementation phase and its results as a whole (Xanthaki, 2013, 58).

In this regard, planning and, assessing urban development are among the tasks of urban management (Enemark, McLaren & Lemmen, 2016, 2015). By reviewing the programs that directly or indirectly affect the physical-spatial development of Tehran, we reach a diverse range of policies, programs, and regulation - since the 13th century - which has led the organic development of Tehran to the planned development (Taqipour & Alipour, 2021); And they cause us to know the built environment of Tehran as an objective representation of them.

Whereas the mere existence of laws cannot guarantee the effective management of urban areas; achieving the desired situation in cities' development depends on the "will" arising from the professional and moral commitment to protect the public interest, and the "ability" of the participants to implement its law (Bordass & Leaman 2013; Hill,

Lorenz, Dent & Lu"tzkendorf, 2013). The issue of this research is "How are the status of the functional effectiveness and technical aspects of planning laws and executive statements of Tehran's physical-spatial development? By using the planning laws assessment framework (PLAF, 2018), it is expected that the strength and weaknesses points of the laws in relation to the Sustainable Development Goals will be quickly identified.

In expressing the importance of this research, it should be noted that many basic laws and the manner of their implementation have been enacted in completely different circumstances of the current situation. And despite widespread changes in cities, most of them have remained unchanged so the connection between them and the cause of their legislation has been lost (Talen, 2012, 51). On the other hand, despite the increasing attention of experts to the issue of "urban places" and the need to change and improve their conditions; The issue of laws and their effects on the management has not been well considered in their scientific productions (Layard, 2020, 1447).

Research Background

In general, the legal function of the city includes a collection of laws, policies, institutions, and principles that shapes the management of urban areas (PLAF, 2018, 2), and advocating any formal action in the city, is the institutional capacity that determines the relationship between people and executive apparatus, and people with each other. By regularizing and predicting diverse urban functions, They also increase development opportunities (Faraji Rad & Kazemian, 2012, 144).

Urban laws reflect many factors, such as urban activities (Enemark et al, 2016), urban society's cultural and aesthetic norms (Garau, 2014), technology, materials, and different stages of their development (World Bank Group, 2015), geometric arrangements (Porta & Romice, 2010), and city economies, in the historical pattern of spatial growth of the city. Finally, the buildings and infrastructures

that create the built environment can be considered as a physical expression of laws that have accumulated over a long period.

On the other hand, laws are among the most important social constructions (Xanthaki, 2011, 76) which are powerful tools for making changes in human factors (UN-Habitat, 2016).

Laws are dealings that unite all members of a community, preserve public security, and protect the citizens' rights against abuse by other individuals, organizations, and the government (De Jager, 2015, 83). Hence, adherence or the obligation to adhere to them has led to an increase in the assurance of public life and activities certainty; and it is necessary to make other actors' behavior predictable (Taqipour, 2021, 163).

In the same way, by accepting freedom as the rule of social life, the laws also prevent the loss of the values and rights of others, as well as the endangerment of their interests (McLeod, 1999). So, societies enact laws and regulations to frame the decisions of their actors and to facilitate appropriate action.

Notably, the roots of today's urban laws and the formal entry of the planning view into the field of urban development should be sought in events such as the Soviet Revolution, World War I, the economic crisis of 1929, and the economic collapse of Europe and Japan after World War II; But what has always been controversial is the legitimate limits of state and market intervention in development stemming from different perspectives of political philosophy. This is a topic that has formed different orientations mainly around the two ideologies of neoliberalism and social democracy in urban studies (Slaev, 2017, 404).

After all, increasing global awareness of the consequences of one-dimensional development, and the emergence of various movements; "Sustainable urban development" as one of the most universal, multidimensional, and of course most reliable contemporary concepts, has been recognized as the basis of the argument for achieving the desired situation (Un.org, 2015). It brings this idea that "for

the simultaneous realization of planetary health and sustainable human development, we need a strong and social movement that encompasses all social classes" (Whitmee et al., 2015). So today we can no longer wait for the result of the confrontation between the state and the market to achieve the desired development or even be optimistic about it.

In this regard, Van Oosten et al. (2019) by addressing the stakeholder perceptions, pointed out that urban intervention legitimacy depends on three dimensions included participation of the actors involved (input legitimacy); the effectiveness of the resulting policies (output legitimacy); and efficiency, responsiveness, openness and inclusiveness of procedures (Van Oosten, Runhaar & Arts, 2019). This approach has received much attention in recent years (Westerink et al., 2017; Van Oosten, Uzamukunda & Runhaar, 2018; Van Oosten, Gunarso, Koesoetjahjo & Wiersum, 2014).

In fact, from the subcategory of "institutionalism" political school viewpoint, "governance" is considered a middle point of view. While rejecting the state-market dichotomy, it emphasizes the importance of institutions and states that the city with all its functional aspects is a social institution and construction (Ding, 2009). Therefore, the built environment of the city is significantly affected by the legal structures and the institutional environment that are determined by the role and practice of social power. And as a whole, it follows a development aspect in the physical-spatial dimensions of the city, which can be referred to as "urban building governance" (Taqipour, 2021, 62).

More specifically, in recent decades, to stimulate and encourage local growth and economic development, redefinition, change of approach, and restructuring of urban governments have occurred. Redesigns have turned local governments from providers of welfare and social services into more respectable, reliable, and remarkable institutions (Kazemian, Aslipour, Taqipour & Alipoir, 2022, 2022, 20); And they introduce the realization of sustainable development as the dependent variable of the

realization of urban good governance (Det Udomsap & Hallinger, 2020, 8).

In this regard, the laws of urban development can be considered promising for the realization of substantive and procedural goals in the physical-spatial of the city. In fact, laws, as promising tools to improve conditions, sometimes can turn into a bag of ineffective and disgusting impositions for various reasons, such as the loss of a clear connection between the reasons for establishing laws and the context conditions. Therefore, one of the managerial tasks is “control and evaluation”. This task includes a comparison between “shoulds” and “are”; And it shows the progress towards achieving the goals (Mousmouti & Crispi, 2015).

To achieve the set goals, urban management deals with the legal functions of the city and legislation. and for various reasons such as internal failures in understanding and implementation, or the occurrence of uncertainties or external obstacles, it may have deviated in pursuit of its goals (Kazemian, 2018, 54). Therefore, adapting and recognizing the gap between the desired situation and the existing situation, “control and evaluation” provide the platform for corrective actions. In this regard, in 2018, UN-Habitat introduced the assessment framework of urban planning laws, which is introduced below.

Planning Law Assessment Framework

The pace and the extent of urban transformations make the provision of public interests and the achievement of sustainable urban development dependent on the legislation of effective laws in the physical-spatial field. Therefore, the UN-Habitat (2018) explains the Planning Law Assessment Framework (PLAF) in the line with the Sustainable Development Goals (SDG) (2015):

- SDG 10: Reducing inequality within and among countries
- SDG 11: Making cities and human settlements inclusive, safe, resilient, and sustainable
- SDG 16: Promoting peace, justice, and powerful and effective institutions at all levels.

In the absence of a valid global definition, one of the basic assumptions of this model is the complexity of determining the effectiveness of laws. So, referring to the definition of Karpen (2012), the providers of this model introduced the effectiveness of laws including three dimensions: the ability to adhere to them (Effectiveness), the ability to achieve the desired objectives (Efficacy), and spending the minimum possible cost to achieve the goal (Efficiency). Also, they highlight the two aspects of “Overarching structure” and “Real life accomplishments” (PLAF, 2018). And, PLAF respectively evaluates them with the two indicators called “functional effectiveness” and “technical aspects” in six categories arising from mainstream subject areas of urban’s built-environment laws. In this way, 8 to 10 indicators are introduced for all six categories. Five themes contain “functional effectiveness” indicators. And 3 to 5 of them cover “technical aspects” (Table 1). The status of each index has been evaluated according to 5 different scenarios and each scenario is given a numerical value between 0 and 4. Since the numbers of indicators for evaluating technical aspects are different, each index is given a coefficient so that the total score for each category is 40 at most.

Mainly to match the objectives, substance, and possible legal interpretation of laws, every law can be structurally evaluated. These structural features, which are introduced as “functional effectiveness”, are explained based on theoretical foundations in Table 2.

Specifically, in terms of physical-spatial development laws, the mission includes the functional integration of buildings, roads, and all places that create the city environment (Cullen, 2015). Therefore, in the PLAF model, planning laws are evaluated in six different thematic categories under the title of “Technical Aspects” (Table 3).

Finally, in line with the research question, and to summarize the conceptual framework, it should be highlighted that “laws” as a part of legal issues have been mentioned in the functional dimension of urban management; And “control and evaluation” are

Table 1. PLAF’s Categories, Indicators, and Sub-indicators. Source: PLAF, 2018.

Indicators	Categories	Sub-indicators				
Functional Effectiveness	[for all six Categories]	Consistency of policy objectives	Transparency and efficiency of mechanisms and processes	Organization of institutional responsibilities and role	Clarity in the standard of drafting	Capacity for implementation
	Land and Urban Planning	Legal land registry	Flexible and socially responsive tenure systems	Coordinated planning hierarchy	Possibility for land-use changes	Planning at scale and affordable housing policies
	Public Space	Mechanisms to allocate adequate space to streets (% of the land, number of intersections, width and length, street density, the existence of street plans, etc.)	Mechanisms to allocate adequate space to non-street public space (green areas, playgrounds, sports facilities, public facilities, etc.)	Acquisition of land for public space	Planning standards for public space	Management of streets and public space
Technical Aspects	Plots and Blocks	Flexibility in plot size that allows for diversification for different land uses and affordability	Maximum block length in any direction (for predominantly residential/mixed land use, excluding industrial and other uses that require larger blocks)	Land subdivision into urban plots (agricultural land subdivision)	Plot consolidation (adjacent lots of the same or different owners)	Plot readjustment
	Development Rights	Allocation of Floor-Area Ratio (FAR) or equivalent	Use of Floor-Area-Ratio (FAR) or equivalent	Urban form (a lot of coverage and setbacks)	-	-
	Building Codes	Age of building code	Uniformity or differentiation of application	Scope for local materials	Resource-efficient measures (water, land, energy, material, and waste)	Consideration of low-cost options for small/low-cost housing
	Land-Based Finance	Fiscal cadaster	Land value sharing mechanisms triggered by planning decisions or public investments	Developers’ fees/ contributions	Property tax	-

Table 2. Indicators of Legislative Functional Effectiveness. Source: PLAF, 2018.

Theoretical description	
Consistency of policy objectives	In lawing, “Objectives” is the most immediate mark of legislative quality. Legislations not only need to have clear objectives but also must be grounded on the local needs and challenges within a reasonable policy framework. Also, goals should be stated in a way that is easily understood by everyone.
Transparency and efficiency of mechanisms and processes	Involving different common citizens in drafting urban laws, and the legislator’s adherence to providing their opinions, Improves the quality of laws. In fact, when people participate in the establishment of laws, they tend to obey the law, as it was made with their participation. In this regard, laws should include mechanisms to ensure that affected people are not only heard but also their views are taken into consideration during making decisions. In fact, since the mechanisms and processes defined in the laws determine the relationship between the law’s objectives and results; They heavily affect the quality of legislation.
Organization of institutional responsibilities and role	The quality of legislation is crystallized by the power of the established institutions and their ability to continuously coordinate with each other. A good law should determine the institution responsible for its implementation and equip them with the necessary technical and financial implementation mechanisms. Therefore, institutional and procedural structures have a central position in the technical standards; And they are mostly determined by law. In this regard, in the design phase of the laws, sufficient study and investigation around these structures can increase the effectiveness of the laws to a significant extent.
Clarity in the standard of drafting	Legal provisions need to be understood by both the common citizens and are expected to enforce them. This is fundamental to upholding the rule of law. The effectiveness of a law depends on its ability to communicate its objectives and the means of achieving them. As such, the law must be precise and coherent. The legislative language must be plain, certain, clear, grammatically correct, and gender neutral.
Capacity for implementation	Law enforcement does not happen automatically; And from the beginning of planning, designing, and drafting laws, executive matters should be considered and integrated with it. Therefore, law implementation presupposes a holistic viewpoint. 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. Hence, for law implementation, considering financial and human capacities is a factor to determine legislation quality.

Table 3. Categories of urban planning laws. Source: PLAF, 2018.

Categories	Theoretical description
Land and Urban Planning	<p>Management of land is the process of putting resources of land into efficient use. An Effective land administration system provides a basis for land and property valuation and taxation, security of tenure, improved access to credit investments, minimization of land conflicts, and sustainable land use. In this regard, attention to tenure security to determine land ownership is a key tool that can enable global and national land policies to recognize and support social, customary, and more informal land tenures; Therefore, the land management system should go beyond a technical tool, and also consider social dimensions such as gender. Because in some parts of the world, land rights and property security are not the same for men and women. It should be noted that affordability of accommodation is a key feature of a well-managed city.</p> <p>Land-use planning and restrictions are important tools to ensure the effective provision of services and infrastructure and the pursuit of sustainable development. The efficacy of land-use planning depends on the coordination of the planning system hierarchy in place. In this way, 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. However, it is important to specify permissible land-use changes in city planning so that urban development is not left to the discretion of the relevant government agency.</p>
Public Space	<p>Public space includes all places that belong to, or are used by, the public. These spaces are enjoyable and accessible for everyone free of charge and without profit motives. Public spaces are a key element of individual and social well-being. Society recognizes itself in its public places and follows the improvement of its spatial quality. For various reasons, cities suffer from the inadequate provision of “public spaces” (such as lack of proper planning for urban development; over-reliance on expropriation; etc.). on the other hand, cities have legal frameworks that allow them to obtain land from private landowners during subdividing, in the process of converting the land from rural to urban use or its developing. In this context, it is necessary to remember that in the field of public spaces, only the quantity is not enough. Public spaces should be designed in such a way that people enjoy spending time in them and encourage social interactions. This means that regardless of citizens’ social, economic, political, etc. status, the main aspect of public spaces is their design for all. Therefore, public spaces can make the city more inclusive and equal.</p>
Plots and Blocks	<p>Historically, the size of the plot has been determined by the development market. Also, it is clearly understood that a wide variety of macro-processes can lead to morphological changes. In this way, the relationship between plots and blocks has brought consequences for the traditional form of cities. Therefore, in several countries there is no standard for plot size; However, there are standards that affect private and public open space, dwelling size, room sizes, and minimum distance between opposite windows. And such things have indirectly affected the size of the plots. However, for the construction of buildings, parts are measured and registered that are fully accessible from the public space. In this way, although the plot and the property often coincide, what defines a plot is its access, not the construction on the land. Also, in relation to blocks, smaller blocks are preferred, because they not only create a more flexible network but also increase the possibility of frequent links and pedestrian and visual connectivity. Smaller blocks by improving the walkability, provide the opportunity for more activities on the street. However, it should be mentioned that small blocks can lead to undesirable statuses, such as a decrease in overall density, less capacity for mixed uses; It brings less area for potential development, etc.</p> <p>Here, “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). In this regard, for various socio-economic reasons, high densities are generally considered more sustainable. Such it slows down urban sprawl, reduces public service costs, reduces parking demand and car dependency, and increases support for public transport. “Plot consolidation” or “amalgamation” also refers to the joining of two or more adjacent plots together for land registration under a single title. The consolidation process involves voluntary negotiations and agreements that are conducted openly and democratically. Plot consolidation can be used as a tool to redevelop an area, or to manifest density in a city through infill development. Also, “Plot readjustment” is technically a method of land consolidating, whereby, in an inner-city neighborhood or an urban fringe, a group of adjacent land parcels is voluntarily gathered; And separated again for a better situation to access infrastructure, roads, etc.</p>
Development Rights	<p>“Development rights” clearly refers to the right to undertake development on the land, and assists public authorities to promote social well-being through the provision of adequate and affordable housing. while the ownership rights of the owners are reserved for them; But the right to develop is in the hands of local government authorities; The importance of this issue is in controlling and directing the type and intensity of development. In this regard, the allocation of development rights should be done in accordance with the city’s densification and livability objectives. In this way, ‘Building potential’ refers to the ability to develop a plot, as a proportionate combination of plot coverage on the ground floor, and the building height (vertical development). In such a way ‘the floor space index’ or a ‘Floor-Area-Ratio’ (FAR), and ‘Plot coverage’ or ‘Footprint’ are tools for dictating the development rights.</p>
Building Codes	<p>Adequate planning rules and building regulations are a prerequisite to the supply, design, production, and management of affordable, safe, resilient, and energy-efficient housing. It is so important that building rights and principles reduce arbitrary of the proctors in planning and building permits too.</p> <p>Building codes and regulations should be locally relevant and should be adaptable to the continental conditions of any country. Adequate building safety regulations shall be tailored to local needs, adapting to a risk profile, building culture, availability of materials, equipment, and income levels. Building codes shall even recognize the gradual construction, in the sense that sometimes the owners tend to develop or modify their spaces over time, according to the needs and conditions they face.</p> <p>To provide low-cost housing, since construction instructions are generally prepared by experts in a top-down manner; They do not consider the necessary options for providing affordable housing for the poor people, While these procedures should be able to consider such rules, both at the level of construction techniques and the materials used.</p>
Land-Based Finance	<p>Land has known as one of the principal methods of generating financial resources, leading to the concept of ‘land-based finance’ (LBF). 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. This income should include a fair and equitable sharing of value between the land owner (developer) and the public. Such a guarantee is expected to lead to positive socio-economic effects. In this regard, property tax” refers to the tax levied on both land and the buildings on it. On the one hand 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 and therefore deprive 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 on it. This value should be established by a comprehensive and up-to-date fiscal cadaster, also known as a valuation roll.</p> <p>The success of LBF relies heavily on fiscal cadaster which is properly provided and maintained. A fiscal cadaster is a list of all land information, and determining property value can be a source for different fields(such as taxation).</p>

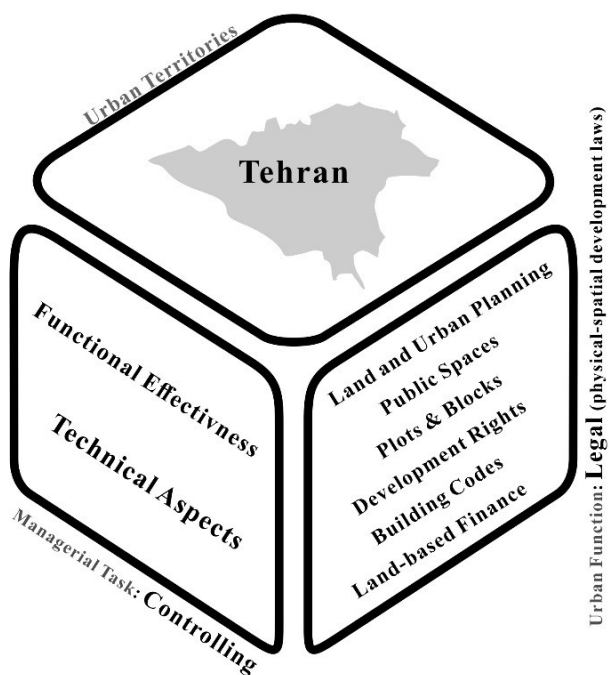


Fig. 1. Research conceptual framework. Source: Authors.

under their five management tasks (Kazemian, 2018, 54). In this regard, according to the “Planning Laws Assessment Framework” (PLAF), the control and evaluation of urban planning laws require measuring the two dimensions of “functional effectiveness” and “technical aspect” in six thematic categories, including “Land and Urban Planning”, “Public Space”, “Plots and Blocks”, “Development Rights”, “Building Codes”, and “Land-Based Finance”. Therefore, the conceptual framework of the research can be drawn in the form of Fig. 1 and expect that the results would lead to the quick identification of the strength and weaknesses of the physical-spatial development planning laws of Tehran, in the line with the realization of sustainable urban development.

Methodology

This research is descriptive-analytical that has both developmental and practical aspects. To analyze the data, the indicators and analytical techniques introduced in the PLAF model have been used (Table 1). Since in the descriptive document of this model, it is recommended to collect data in the form of focused groups (consisting of 5 to 10 experts) to achieve reliable results; In this research, first, 10 experts were

purposefully invited to participate in the research; And after the withdrawal of some of the invitees, or their suggestion for the participation of more knowledgeable people (snowball method), finally 8 active specialists in the field of urban management participated in this research (Table 4). In this way, the researcher also played the role of mediator and coordinator of the group. It should be mentioned that to improve the quality of the answers - due to the structured interview - the questionnaires were provided to the participants before the meeting; they were asked to be ready to present their views. Finally, the responses were collected and shared in a focus group to reach a conclusion from the members.

Tehran’s Physical-Spatial Development

Laws

More than ever, the expansion of specialized knowledge, the increase of citizen expectations, the advance of regional competitions, the importance of sustainable development, etc. have revealed the inadequacies and dysfunction of Tehran’s spatial organization.

Reviewing the plans that directly or indirectly affect Tehran’s development gives a demonstration of a diverse range of policies, programs, and laws. Which are prepared and approved by various authorities in a systematic format and, of course hierarchically. These establishments are distinguished by their subject focus either on economic (Sectoral) or spatial dimensions. As an illustration, Taqipour (2021) in the research entitled “Explanation of Tehran’s Building Governance”, focusing on the city’s spatial binding documents, divides the hierarchy of policies and programs (plans) leading Tehran’s urban development into five levels (Vision (Utopian), Macro (Roadmap), Structural–Strategic (Comprehensive), Structural–semi-operational (Detailed), Operational (Action)). Also at each level, two spatial and economic (functional) approaches were distinguished. Its operational level includes five regulations, such

Table 4. Participants. Source: Author.

Gender	Age	Expert knowledge	Stockholder
Male	31	MA of Urban management	
	33		Academic specialist
Female	32		
	30	PhD in urban planning	Municipal expert in charge
Male	34		
Female	36		
Male	41	MA in Architecture	Municipal manager
	36	PhD in financial management	

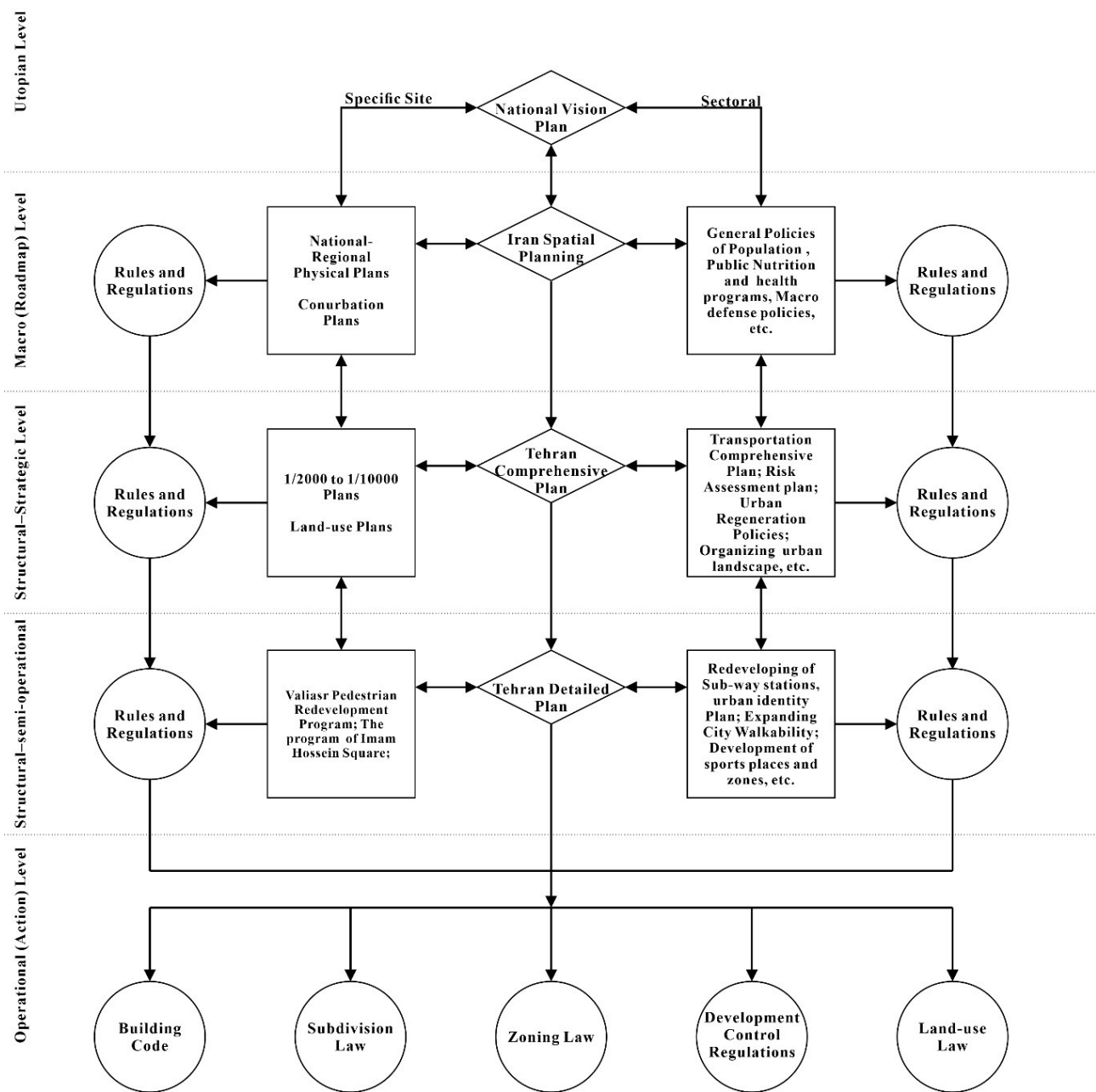


Fig. 2. The hierarchy of programs (plans) leading Tehran's physical-spatial development. Source: Taqipour, 2021, 86.

building code, land-use law, subdivision law, Zoning law, and development control regulations (Fig. 2).

Discussion

According to the methodology, the participants' opinions about the existing status of Tehran's urban planning laws were collected based on the indicators introduced in Table 1. In the following, they were shared to reach a conclusion. Consequently, Table 5 reflects the results of this research activity.

The results show that to achieve sustainable urban development, planning laws in the category of "Plots and Blocks" have the best state, and then the planning laws in the categories of "Building Codes", "Land and Urban Planning", and "Development Rights", "Land-based Finance", and "Public Spaces" respectively.

In this regard, getting the lowest score by public spaces laws is more worrying. Because these spaces increase community cohesion, civic identity, and life quality. Accessing them not only improves the quality of life but also is the first step towards civic empowerment and greater access to institutional and political spaces. In this way, the appropriate design of public spaces not only helps to improve the overall landscape characteristics of a city but also stimulates economic activities and increases urban productivity. Finally, the weak management of these spaces has resulted in their abandonment, destruction, and privatization; and can be considered a threat to existing public spaces; which distorts their long-term effectiveness prospects (PLAF, 2018). Consequently, the status of laws in each category can be summarized as follows.

• Land and urban planning

The "Functional Effectiveness" of "Land and Urban planning laws" scored 9 out of 20. Therefore, it is noteworthy that:

- Although there are Consistent policies in the field of land and urban planning; The regulations have different objectives.

- In the evaluation of the transparency and efficiency of the mechanisms and processes of this category, it was also clarified that despite the existence of some rules to guide the outcome of decisions; The processes are complex and non-transparent and can be easily manipulated.

- Regarding the organization of institutional responsibilities and roles, it was emphasized that "Several institutions are responsible for implementing the regulations. Coordination mechanisms exist but they work only occasionally."

- About clarity in the standard of drafting, it is represented that language rule is unclear and ambiguous and the need to court decisions to interpret some of them is a testimony for this claim.

In this way, human and financial resources are inadequate to implement the legislative framework and it takes at least 2 years to reach the least capacities.

- In terms of "Technical Aspects", this category has scored 7. The point obtained by the agreement on the following descriptions:

- The information system of legal land registration is not updated, and Its coverage is less than 80%.

- Mechanisms exist to recognize informal land rights. But the process of registration or its fee is quite prohibitive.

- About "Coordinated planning hierarchy"; It is a legal mechanism that exists to relate plans to one another, but does not ensure compliance with larger plans and does not guide smaller plans.

- It takes a long time (at least 9 months) to change the land usage.

Finally, there is no commitment to predict the

Table 5. Results of the focusing group. Source: Author.

Indicators	Land and Urban Planning	Public Space	Plots and Blocks	Development Rights	Building Codes	Land-Based Finance
Functional Effectiveness	9	6	11	8	12	5
Technical Aspects	10	6	12	15	8	10
Total	19	12	23	23	20	15

demography and the policies related to it for affordable houses in the planning missions.

• Public spaces

As stated earlier; This category has the lowest total score. Generally, both in terms of “Functional Effectiveness” (6 out of 20) and “Technical Aspects” (6 out of 20), it could not able to provide acceptable planning laws.

In this way, the descriptions received from the “Functional Effectiveness” are as follows:

- Despite the consistency in policies, being the different objectives of existing regulations,
- A complicated and bureaucratic process with no clarity.
- Fragment among responsible for existing coordination mechanisms that do not work.
- The unclear and ambiguous language which requires a court for its interpretation.
- And insufficient financial and human resources needed to implement the framework of laws and it takes time (at least 5 years) to reach an acceptable level of them.
- Also, from “Technical Aspects”:

There are some mechanisms to allocate space to streets but they ensure an adequate supply of public space only in some parts of cities.

There are Mechanisms to allocate space to non-street public spaces but they are not sensitive to the outcome. In the case of the acquisition of land for public space, expropriation is not the only available tool, and land owners are contributed to the process of urbanizing/ subdividing the land. But, notably, the requirements are either inadequate or not followed.

Also, planning standards for public spaces exist but they do not ensure vibrant, safe, and accessible public spaces.

Finally, The management of these spaces fragmented among different institutions is very unclear and fragmented.

Plots and Blocks

In comparison with the others, the assessment emerges that the laws that belong to the “Plots and blocks” category have a better situation (23 out of 40).

In the field of “Functional Effectiveness”, we can say:

- Regulatory measures in this area have consistent objectives.
- Although the mechanisms provided for them are not as complicated and unclear as those of “public spaces” or “land and urban planning”, it is still not possible to control them effectively and introduced dysfunctional.
- In the “Organization of institutional responsibilities and roles”, coordination mechanisms could coordinate appropriately in responsible institutions just occasionally.
- Regarding clarity in the standard of drafting, unclear and ambiguous language was used so that their interpretation require court decisions.
- And “Capacity for implementation” was introduced such that financial resources are inadequate to implement the legislative framework but could be realistically improved in a few years (2- 3 years) along with capacity development.
- Also, in the field of “Technical Aspects”:
- The planning laws are flexible in the plot size, which allows for diversifying different land usages with different affordability. The proof of this is the condition of providing a residential unit of at least 35 square meters for issuing a license in Tehran. And this is not against parts with any larger size if needed.
- Also, there are no criteria for maximum block length in any direction for predominantly residential or mixed land use.

About “Land subdivision into urban plots (agricultural land subdivision)” it should be noted that the process is lengthy and costly. Rules going to be followed are clear but subdivision standards are not adequate. Subdivision by a private owner with public approval.

Summarizing the assessments in the field of “Plot consolidation (adjacent lots of the same or different owners)” also showed that the planning laws are straightforward. Consolidation is used to increase densities in urban areas already serviced (infill) and it is a part of urban policy and programs. Existence of incentives such right for densities higher than allowed, etc. proved the above-mentioned issues.

On the other hand, Plot readjustment’s Rules and

requirements are complicated to use. Municipal institutions involved are not coordinated. Owners' participation is inadequate (more than 70% or less than 60% consent) and not meaningful.

• **Development rights**

Respectively, descriptions of sub-indicators of "Functional Effectiveness" are:

In terms of consistency of policy objectives, consistent policies exist in this area but regulations have different objectives.

In terms of transparency and efficiency of mechanisms and processes, processes are clearly defined fairly with discretion but their control is dysfunctional.

In terms of the organization of institutional responsibilities and roles, several institutions have responsibilities in implementing the regulations. Coordination mechanisms exist but they don't work.

In terms of clarity in the standard of drafting, the language used is unclear and ambiguous and although there are some rules or court decisions to direct the results of the decision, they can be manipulated easily. Finally, in terms of capacity for implementation, Human and financial resources are inadequate to implement the legislative framework but could be realistically improved in a few years (2- 3 years) along with capacity development.

Respectively, descriptions of sub-indicators of "Technical Aspects" are:

- In terms of allocation of Floor-Area Ratio (FAR) or equivalent, regulations on FAR exist and they allocate different building potentials with specific criteria that limit discretion.

- In terms of use of Floor-Area-Ratio (FAR) or equivalent, vertical development rights for volumes need to be acquired and paid before the building license is administered.

- In terms of urban form, regulations on lot coverage and setbacks exist and ensure safety, health, and appropriate densities, but do not make continuous and active building facades for a compact, vibrant, and walkable city.

• **Building codes**

This category gains the highest score in the

"Functional Effectiveness" indicator (12 out of 20); also in the same category, there is the highest difference between the two indicators here(4 points). Respectively, descriptions of sub-indicators of "Functional Effectiveness" such as consistency of policy objectives, transparency, and efficiency of mechanisms and processes, organization of institutional responsibilities and roles, clarity in the standard of drafting, and capacity for implementation, are:

- Regulatory measures in this area have consistent objectives.

- Processes are clearly defined with a fair amount of discretion but checks and balances are dysfunctional. Several institutions have responsibilities in implementing the regulations. Coordination mechanisms exist but they work only occasionally.

- Legislative texts are written in an unambiguous language that is understandable for professionals only.

- Human and financial resources are inadequate to implement the legislative framework but could be realistically improved in a few years (2- 3 years) along with capacity development.

- Also, descriptions of sub-indicators of "Technical Aspects" are:

- The age of the building code is about 20- 30 years.

- In terms of Uniformity or differentiation of application, national building codes establish rules for the whole country which are not adaptable for local usages.

- About Scope for local materials, Constructions require building materials which are not available locally and are expensive for small and cheap housing.

- In the field of Resource-efficient measures, building regulations have no consideration for resource-efficient measures.

- And, No consideration in the practical regulations for low-cost options in Planning laws.

• **Land-based finance**

The lowest score with the largest distance from the mean belongs to the "functional effectiveness" of "land-Based finance" laws (5 out of 20). Such that:

Inconsistent policies exist and laws have diverse policy objectives.

There are complex and non-transparent processes so that they can be easily manipulated, despite the existence of some rules to direct the results of decisions.

Several institutions are responsible for implementing the regulations. Coordination mechanisms exist but they don't work

Unclear and ambiguous language with some rules or court decisions guide the outcome of the decision but they can easily be manipulated.

Human and financial resources are inadequate to implement the legislative framework but could be improved in several years (+5 years) along with capacity development.

Likewise, in the "Technical Aspects" indicator:

- There is a relatively updated fiscal cadaster (less than 10 years old) but does not cover informal areas and is not well-coordinated along with land-based taxes.
- In terms of land value which is suggested by planning decisions, Simple mechanisms exist. These are commonly used and enforced. Notably, the revenue collected increases the service delivery capacity of the local authority.
- Developers contribute to some infrastructure costs but they do not cover all the infrastructure costs required by their development.
- Based on the value of undeveloped land, a property tax exists. but it is less than a 20% collection rate. So, it does not deter empty houses and undeveloped land from property tax.

Conclusion

The study of how human makes and organizes space probably has a history as long as his attempt to adapt to nature or overcome it. The verbs represent his efforts to advance his dreams and to achieve comfort and peace. In this regard, after the emergence of the consequences of one-dimensional economic development, also the emergence of the concepts such as "sustainable

development" - due to new approaches- Building which was a complex matter, found new aspects which prove the importance of its management quality (Kibert, 2016). Therefore, to describe the current situation in Tehran's urban building governance in relation to sustainable development goals, the model introduced by the UN-Habitat (PLAF, 2018) was used to measure the functional effectiveness and technical aspects of planning laws.

This framework (PLAF) is a tool for quickly highlighting the urban planning laws' strengths and weaknesses. And this issue studies the laws, regulations, and executive orders at different levels of the city.

Fig. 3 shows the results of this applied research. In "Functional Effectiveness" and "Technical Aspects" the quality of all six thematic categories' laws is almost similar. finally, none of them could get three-quarters of the maximum possible score. In the field of "Functional Effectiveness":

- Except for the "Plots and Blocks" and "Building Codes" categories, which followed the consistency of policy objectives; In other areas, inconsistent and sometimes fragments were observed in policy objectives.
- "Transparency and efficiency of mechanisms and processes" were considered and it was found that even in the best areas (Building Codes, Development Rights, and Plots and Blocks) it is still not possible to control them effectively and the processes proceed with discretion. Also, the "public spaces" category is in the worst situation. It means that the complicated and bureaucratic process with the outcome of the decision is left completely to the discretion of public officers.
- For the "Organization of institutional responsibilities and roles" indicator, the fragmented roles of institutions involved in the implementation of laws were generally it means. This means that either there is no coordinating mechanism between them, or if there is, it works only occasionally.

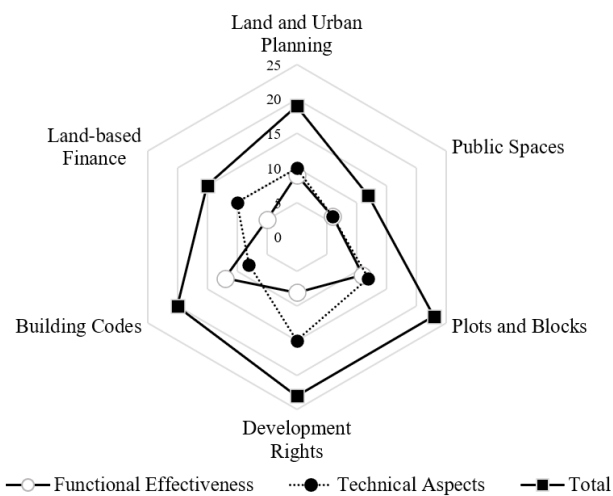


Fig. 3. Assessment of Tehran's Planning Laws. Source: Authors.

Also, the study of “clarity in the standard of drafting” showed that the planning laws in the category of “Building Codes” had a better situation than others which requires court decisions for interpretation. It should be noted that the planning laws in the category of “Development Rights” and “Land-based Finance” can easily be manipulated by public officers despite the court decisions.

Finally, Human and financial resources are inadequate to implement the legislative framework but all six categories could be realistically improved in 2 to more than 5 years along with capacity development.

Along with legislative functional effectiveness sub-indicators, technical aspects were also assessed. Results showed that “Development rights” and “Public Spaces” planning laws are in the best and worst condition, respectively.

Finally, to present an explanatory image of what is going on in Tehran's urban building governance with a comparative approach, it is suggested to study the functional effectiveness, and technical aspects of the developers', lived experience and also the experts' representations of Tehran's urban building governance.

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