Analysis and Economic Evaluation of the Invasion of the Public Space with Improvements of Particulars,

Case Study Urbanization Fuente Del Dorado

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Abstract

There is a diversity of urban regulations that refer to public space, its destination,
use and enjoyment, but actually and outside the legislature, this ideal scenario is not fulfilled, either due to the omission of regulatory entities, regulation misunderstanding or the ways that some citizens act in search of their own benefits. This study shows the economic impact of the occupation of public areas with improvements made by individuals in the Fuente del Dorado urbanization in Bogotá, viewing the regulatory scenarios and their original regulations, and based on these, the strategic guidelines to avoid partial or complete loss of public areas due to invasions by individuals.

**Keywords:** Urban regulations, Public space, Urbanization

1. Introduction

The issue of the invasion of public space has become one of the contraventions of the main pillars to develop models of territorial occupation and land use plans for territorial entities, mainly in the cities with the greatest demographic confluence and decelerated growth, such as Bogotá, it is therefore important to develop the diagnosis and estimation of the costs that the occupation of the public space brings with improvements of individuals to make viable the way to confront the illegal incursion and strengthen the principles regulated by the Law of territorial ordering, to finally implement strategies that allow the restitution of public space.

Due to this situation, in this study, public areas occupied illegally and located outside the adequate and normative development in the Fuente del Dorado urbanization were identified, as well as the commercial values of the illegally occupied areas were determined making appraisals by method of the market already estimated these possible items that have ceased to perceive the Bogota capital district by the occupation of the areas of cession. On the other hand, cartography was carried out where illegally occupied public spaces, their different homogeneous physical zones (HPZ) and homogenous geoeconomic zones (HGZ) of the case study are reflected. Finally, we determined the cadastral values of the invasion zones and the property tax of the areas that the private sector has stopped paying.

2. Analysis

2.1 Public space

Sometimes, a look to the past delays and hinders the march towards the future, this does not seem to be totally valid in the topic of public space. It is possible to look, with the eyes of today, at the urban values that left history and took them to the present in the new urban layout.
The National Constitution of 1991 itself, says in Article 82 "it is the duty of the State to ensure the protection of the integrity of public space and its destination for common use, which prevails over the particular interest", being that the same document defines in its article 63 that "the public goods, the natural parks, the communal lands of ethnic groups, the lands of defense, the archaeological patrimony of the Nation and the other goods that the law determines, are inalienable, imprescriptible and indefeasible" [11], in this way it is evident that the district is the entity that should regulate illegal occupations.

Likewise, the Constitution delegates to the Municipal Councils the regulation of land uses and the control of activities related to the construction of real estate intended for housing. The Urban Reform Law, the Municipal Regime Code and the Natural Resources Code, include fairly precise standards aimed at the conservation and improvement of the quality of life in the populations through the provision, maintenance and adaptation of the public space. These provisions emphasize the importance of the participation of municipal administrations searching mechanisms to improve the quality of life in their territories and settlements, taking into account the determining role that the common space assumes in this search. With a legal device like this, the public space in the Colombian city should tend towards improvement.

Although it was previously mentioned, Law 9 of 1989 defines public space as "the set of public buildings and architectural and natural elements of private buildings, intended for their use or effect on collective needs that therefore go beyond the limits of the individual interests of the inhabitants "[8] as such, is an articulating element of human settlements and regulator of environmental conditions; At the same time, it is an open place for social life and where the great conflicts of society and place for the enjoyment of everyday life are expressed. It includes sports venues, parks, squares, environmental reserves, heritage sites, cultural sites, the road and pedestrian network.

In the Bogota capital district, the Public Space Advocacy is an Administrative Department, created through the Agreement 18 of 1999, whose mission is to contribute to the improvement of the quality of life through an effective defense of public space, an adequate administration of real estate heritage of the city and the construction of a new culture of public space, which guarantees its collective use and enjoyment and stimulates community participation.

2.1.1 Antecedents of the invasion of public space in urbanizations.

In Colombia increasingly large urban problems are presented because an inadequate planning and not taking into account the distinctive features of each sector so that even if there are accurate diagnoses of urban planning, the control entities usually do not
fulfill their function of right way. Thus, in Bogotá being the capital, the regulations stipulated for very similar reasons are not complied with either.

For this reason it is important to contemplate that for the development and growth of the city to take place, it is important to organize all sectors, for which a relevant aspect is urbanization, which "is considered as a dense population concentration in a relatively small territory with a complex structure of organization "[9].

By the way, because of the urban disorder that has been generated by invasions of public space and illegal constructions, there is the imperative need to overcome and anticipate the future development of the city, not only with the issuance of urban regulations, but also with the control of public administration. The same did some congressmen and political groups in different periods also considering that in the country and in the city these rules took a bit longer to be regulated, such as these unsuccessful efforts on issues of development and urban organization, for the lack of a global vision, this is demonstrated by different initiatives that were not approved or that were denied for some reasons: Ceiling Bill (MRL, 1960); Bill presented by Hernán Toro Agudelo (1964); housing and urban development project (Ministry of Economic Development, 1969); comprehensive urban reform project, by Mariano Ospina Hernández (1970); urban reform project (Ministry of Economic Development, 1971); project to create the bases of urban planning, presented by Luis Carlos Galán Sarmiento (1978); Law 61 of 1978, organic of urban development (declared unconstitutional CSJ); Bill on expropriation of real estate (Ministries of Economic Development, Finance and Justice, 1982); project to promote the improvement and orderly growth of cities (N.L., 1985); project that declares the acquisition of urban properties of public utility and social interest and authorizes the extinction of the domain, by Edmundo López Gómez (1985); project that establishes the basic norms for a reform and urban (UP, 1986); project on the use of urban properties, zones of influence in cities and municipal capitals, presented by Javier García Bejarano (1986), among others.

After several failed attempts, Law 9 of 1989 was finally created, which constituted the legal instrument to confront and solve the complex urbanization problems. However, it was far from being a perfect law, as it happens with all legislative creation. However, it is an improvable norm and in order to place it at the height of historical requirements, it is essential to introduce the necessary modifications, fill in the existing gaps and harmonize it with the constitutional and legal provisions issued after its promulgation.

Throughout its content, Law 9a of 1989 deals with issues related to the planning of municipal development, public space, the acquisition of property by voluntary alienation
and expropriation, the protection of residents in urban renewal projects, the legalization of titles for social interest housing, urban planning licenses and sanctions, land banks and land integration and readjustment, the extinction of ownership over urban real estate, financial instruments for urban reform, among others, generating initial basic parameters to organize urban planning issues.

On the other hand, Law 388 of 1997, subsequently seeks, among other things, "to ensure that the use of land by its owners is in line with the social function of the property and allows the constitutional rights to housing and public services to be effective. domiciliary, and ensure the creation and defense of public space, as well as the protection of the environment and the prevention of disasters "[9].

In Bogotá, issues related to public space and urban planning were regulated by Agreement 7 of 1979, so that, in accordance with the Law, in Bogotá, Agreement 6 of 1990, issued by the District Council, was issued in chronological order. in compliance with the provisions of Law 9 of 1989. In 1993, the specific regulations of Agreement 6 of 1990 were issued through decrees 734, 735, 736 and 737 and some other decrees and subsequent agreements. With the issuance of Law 388 of 1997, the District felt the need to create the Territorial Ordinance Plan that ordered the latter law and therefore the mayor, after having completed the procedure established for this purpose, issued the Decree 619 of 2000 with which the Plan of Territorial Order for Bogotá was accepted. This last decree determined that while the regulation of the same was issued, the town planning rules of the city were those that were in force at the time of the expedition, that is, the regulations of Agreement 6 of 1990, up to the Territorial Ordinance Plan (TOP or POP) in force, Decree 190 of 2004.

When starting this topic, it should be emphasized that, as noted above, Law 388 of 1997 introduced novel concepts, of which soil classification can be mentioned. In this law, four different types of land are defined, such as urban land, urban expansion land, rural land and protected land. On this occasion, the case study is located in the so-called urban land, defined by the Law, as "the areas of the district or municipal territory destined to urban uses by the Plan of Ordination, that have road infrastructure and primary networks of energy, aqueduct, and sewerage, making possible their urbanization and building, as the case may be."[9].

It should also be mentioned that the Territorial Ordinance Plan, among other things, divided the city of Bogotá into 117 Zonal Planning Units - ZPU - which have been defined as territorial units formed by a neighborhood or set of neighborhoods, both on land urban as in ground expansion, which maintain a morphological or functional unity. These units are a planning tool at zonal and neighborhood scale, which conditions the general policies of the Plan in relation to the particular policies of a group of neighborhoods.
Of these 117 ZPUs, 25 are subject to development treatment, so its regulation should be done through partial plans and basically in its vast majority, correspond to land of the city not yet urbanized, so they are not subject of this course.

So for the remaining 92 Zoning Planning Units, the Administrative Department of District Planning has elaborated the regulatory decree projects of the Zonal Planning Units that appear below. In the same way, the Mayor of the city has issued regulatory decrees of the Zonal Planning Units.

Now, if it is well known that the problem raised in this work, has a form of treatment through the filing of a declaration of will, which is addressed to one of the jurisdictional bodies that is the procedural act, in this complaint that exists an illegal occupation on a public space, also exercises criminal action, currently regulated in the Criminal Procedure Code.

The previous thing that is not more than the definition of the Complaint, that is at this moment the legal form to take a process for the recovery of the public spaces of treats the present work, also is certain that this one has not had greater transcendency, for what defining the subject of study, the complainant must refer to the invasion of land or buildings, which may also be favorable or not the ruling of this interposition, thus demonstrating that both the current process is not the most appropriate, as that the system plays down the importance of the situation and does not provide the appropriate and timely tools for the treatment and prevention of the invasion of public space.

2.1.2 Study area: Fuente el Dorado Urbanization.

The Fuente El Dorado urbanization is located in the city of Bogotá-Colombia, in the town of Fontibón, Zone Planning Unit No. 114: Modelia, Ferrocaja Fontibón cadastral sector, approximately between Carrera 83 and transversal 89 and between calle 23 A and calle 22 F.

The boundaries are: North: with undeveloped land, South: with undeveloped land, East: with the Modelia urbanization, West: carrera 86 (Via del plan vial).

![Figure. 1. Localization Fuente del Dorado urbanization. Source: Geographic Information System SINUPOT.](image-url)
To analyze the issue of the invasion of public space, it is a must to consider that one of the fundamental principles of Law 388 of 1997 is the social and ecological function of property (public and private property), which means that although the property is private and have their own rights also has duties with the city, which are aimed at protecting the nature and welfare of society, likewise it is left as a priority the scoop of general interest against private interest where it should be taken into account that decisions that are taken in the municipality and the actions carried out in it, both by governments and by individuals, should benefit the majority and not a few, in accordance with the provisions of Law 9 of 1989, which establishes that it is the responsibility of the local mayors, as dependencies of the District Department of Government to know about the presumed invasion, the undue use or affectation of the public space intended to the satisfaction and collective needs, fixing the competent entity for the comptroller of the urban infringements.

The urban planning regulations currently allowed in the city are directly related to what in the legal field is called Territorial Planning Plan. The instruments that determine the urban norms of a city have been named like this since 1997 with Law 388, since previously they were known as Development Plans. The Fuente El Dorado urbanization was approved by Resolution 115 of 1975 and plan with reference 7948 of November 5 of 1974 with identification S195 / 4, initially proposing a gross area of 41582.45 m2 and developed by the Alberto Mazuera & CIA LTDA Society.

The specific regulation for urbanization indicates within the ZPU, which is in the No.2 polygon, in urban consolidation treatment, as seen in Figure no. 2, which maintains the original standard.

Figure 2 Regulatory sector No. 2 of ZPU.
2.1.3 Assignments destined to public space.

Public space is the place where any person has the right to move, as opposed to private spaces, where the passage can be restricted, usually by criteria of private property, government reserve or others. Therefore, public space is that space of public property, domain and public use.

Law 9 of 1989 defines public space as "the set of public buildings and architectural and natural elements of private buildings, intended for their use or affect the collective needs that transcend the limits of the individual interests of the inhabitants "," [8] as such, is an articulate element of human settlements and regulator of environmental conditions; At the same time, it is an open place for social life and where the great conflicts of society and place for the enjoyment of everyday life are expressed, including sports venues, parks, squares, environmental reserves, heritage sites, cultural sites, the network road and pedestrian.

The National Constitution of 1991, referred to in Article 63, that "public property, natural parks, communal lands of ethnic groups, lands of shelter, archaeological heritage of the Nation and other property as determined by law , they are inalienable, imprescriptible and indefeasible ", [11], in this way even though at present this regulation is in force, there is a need to look for management strategies regarding the illegal occupation of the goods that the Constitution refers to.

Now, taking as a basis the aforementioned, in relation to the case of this study, it can be affirmed that initially the urbanization project was developed in accordance with the provisions of the approving resolution of the construction license and this at the
same time reviewed everything stipulated in the rules that governed at the time of approval of it.

What really matters in the present study is to verify how this sector, like many others in Bogotá, was later urbanly degraded the substantial areas of public use, especially green areas, pedestrian and vehicular roads, with their respective platforms, which have been invaded progressively and without any regulation by the state.

Meeting today with a sector that unlike the initial plan, has few green areas, additionally where the urban structure has been largely lost and that is not observed the pleasant environment that in its beginnings.

This is how at different times between the initial year of land division 1975 and construction, until today, buildings were added, especially on the fronts of the properties that had the largest green area, due to their backwardness compared to their neighbors, which was exploited in search of an advantage or gain of space to build, initially closing these green areas, later covering them and finally raising buildings that are integrated into the houses, mostly single-family, but also seen in some double-family houses and extreme way of the five floor multifamily that chose to close public roads, assuming them as communal areas, where garbage storage rooms, guardhouse and garden boxes were built.

All the above generates discomfort to the community of the sector and surroundings, which in some cases preferred to stick to the legal framework and interpose resources that remain only in complaints, which generates dissatisfaction among the community and the deterioration of interpersonal relationships between residents.

But in a special way, these processes that are advanced many years ago, have not had the attention and diligence that is pertinent, on the part of the officials on duty, passing these from one administration to another, without having a prompt and timely solution. In addition, it becomes a social problem from the point that in view of the evident lack of control, the rest of the properties are being appropriated progressively from the public space, without this having an apparent end.

It is important to take into account that public goods are owned and / or public domain, that is, they are assets owned by the State and are assigned to a public use or service, likewise private property corresponds to the full legal power about a property that according to law 388 of 1997, fulfills the social and ecological function of property.

2.1.4 Penalties for non-compliance with urban regulations - land uses

The law 388 of 1997 in its article 103 and the decree 1052 of 1998 in its article 84,
establish that "... the location of commercial, industrial and service establishments in contravention of the norms of land uses, as well as the temporary or permanent occupation of public space with any type of furniture or facilities, without proper license. ", is considered urban infringement. On the other hand, it also establishes that "In all cases of actions that are carried out without a license or without complying with it, the Mayor, ex officio or at the request of a party, shall order the police measure to immediately suspend these proceedings, in accordance with the procedure referred to in Article 108 of this Law. In the case of the Capital District, this function corresponds to the Local Mayors, in accordance with the provisions of the Organic Statute of the Capital District. ". Indicating that the regulatory body will be the Local Mayor's Office, which will be able to verify at any time the strict compliance with the aforementioned standards. So in case of non-compliance with these requirements, it is up to the Local Mayor, through the legal office, to require it in writing so that within a period of 30 calendar days he obtains them, impose successive fines for up to 5 monthly minimum wages for each day of non-compliance and up to the end of 30 calendar days, order the suspension of commercial activities.

On the other hand, Law 810 of 2003 indicates that for those who parcel out, urbanize or build on non-developable or non-parcable land, and / or those who parcel, urbanize or build on land affected by the road plan, public service infrastructure, or destined to public facilities; as they have not complied with the minimum requirements demanded by the current urban planning norms, they will be issued the police order for the demolition of the work and the suspension of domiciliary public services, in accordance with the provisions of Law 142 of 1994.

Likewise, focusing on another important issue such as environmental issues, it must be whether construction, urbanization or parceling are carried out in environmental protection areas, or located in areas classified as risk areas, such as wetlands, water bodies or of geological risk, the amount of the fines will be increased up to one hundred percent (100%) over the successive fines that will range between fifteen (15) and thirty (30) minimum legal daily wages per square meter of affected soil area, without in any case the fine exceeding the five hundred (500) legal monthly minimum wages. For those who intervene or occupy, with any type of furnishing, installations or constructions, the public parks, green areas and other public use goods, or enclose them without the proper authorization of the authorities in charge of the control of the public space, or those who carry out interventions in area that forms part of the public space that does not have the character of public use goods, without having the proper license, in addition to the demolition of the construction or closing and the suspension of domiciliary public services, in accordance with the provisions of the Law 142 of 1994. This authorization may be granted only for parks and green areas for security reasons, provided that the transparency of the enclosure is at least 90%, so as to guarantee citizens the visual enjoyment of the parks or green areas and that their destina-
tion is not violated to the use of common. For the immediately preceding cases successive fines will be applied that will oscillate between twelve (12) and twenty-five (25) effective daily wages by square meter of intervention or occupation, without that in any case the fine surpasses the four hundred (400) legal monthly minimum wages.

In other types of infractions, sanctions will also be applied to those who demolish buildings declared architectural conservation or perform interventions on them without the respective license, or fail to comply with the obligations of adequate conservation, without prejudice to the obligation of reconstruction provided for in this law. In these cases, the sanction may not be less than the seventy (70) legal monthly minimum wages. [11].

With this compendium of rules, it is estimated that there are legally elements to defend and enforce the public space and that the current illegal occupation is mainly a cause of lack of vigilance of the district and the entities in charge of monitoring that the urban regulations are fully complied with.

3. Methodology

For the development of this analysis, the Fuente del Dorado urbanization was chosen as the study area, given the need to evaluate and propose a document that shows an analysis related to the invasion of public space with improvements of individuals, contemplating normative criteria applied in the analyzed urbanization. In this way, the methodology used is related below.

1. Making a diagnosis of the different public areas occupied illegally.

2. Identify the public areas that are outside the adequate urban and regulatory development in the Fuente del Dorado Urbanization.

3. Determine Physical and Geoeconomic Areas according to the manual of procedures for the determination of homogeneous urban and rural physical zones 2005 UAEDC.

See Figure 4.

![Methodological scheme](source: the authors)
3.1 Physical homogeneous zones:

These are areas that contemplate similar characteristics regarding the general classification of the land, areas of activity, urban planning, topography, public utilities, roads, use of the real estate and economic activity of the properties, which help to characterize the zones and differentiate these Adjacent areas will be identified by the coding and the meaning that is included in the manual of procedures for the determination of homogeneous urban and rural physical areas.

![Figure 5 Physical homogeneous zones Fuente El Dorado. Source: the authors.]

The urbanization has as a general characterization:

- Soil class: 6 - Urban not protected
- Activity area: 22 - Residential; with defined areas of commerce and services.
- Treatment: 21 - Urban consolidation.
- Topography: 1 - Flat.
- Public services: 53 - Basic services plus three complementary services.

3.2 Geoeconomic homogeneous zones

They are geographic spaces determined from Physical Homogeneous Zones with similar unit values in terms of their price, according to the conditions of the real estate market.

This study proceeds to estimate and determine commercial values applying the market method from the study of recent offers or transactions, of similar goods and comparable to the object of valuation. Such offers or transactions must be classified, analyzed and interpreted in order to arrive at the estimation of the commercial value; it
is stipulated in Decree No. 1420 of July 24, 1998 and Resolution No. 620 of September 23, 2008.

Contemplating this norm, and taking into account the parameters established in it, the results of the elaboration of the appraisals, will serve to determine and approach the socioeconomic, physical, geographic and fiscal aspect, that generates the illegal occupation of the areas destined to public space.

![Figure 6. Geoeconomic homogenous zones Fuente El Dorado. Source: the authors.]

### 4. Results

In the study carried out in the Fuente El Dorado urbanization, it is found that there are 60 properties of 140, which are occupying public space with improvements to their buildings, the most relevant cases are in the occupation and closure of the front yard; where are located garages, bedrooms, premises, among other dependencies. It is estimated that approximately 1080 m² of private construction occupy the public space and approximately $6,800,000 of property tax is not collected each year; calculating this value from the approval and/or construction the value amounts to $278,800,000, which is a highly significant value for a relatively small urbanization. It is evident that a large amount of property tax resources is no longer perceived, this being one of the sources of local resources to build and maintain the public works of greater relevance.

This way it is denoted that this problematic axis is a minimum amount of all the properties that in the city of Bogotá violate the urbanistic norms and do not pay the district the taxes that generate the private benefits, when occupying areas that belong to the citizenship and produce harmful effects in the management of public space.
In this urbanization and in a large number of sectors of the city of Bogotá, the weakness in the application of the sanctioning norms is reflected, in terms of the regulation of the constitutive elements of the public space.

5. Conclusions

Sanctioning measures must be applied to the owners of real estate, taking into account that citizens must internalize that public space improves the quality of urban life.

The regulatory entities must exercise an efficient work to prevent invasions that deteriorate the planning instruments proposed based on urban standards and promote education and citizen culture through projects promoted from the smallest geographical units and gradually extend them in order to form cities that allow to have a good quality of life.

However, municipal entities have an obligation to manage an information tool such as municipal records, to census the network of public space that has been occupied by improvements of individuals, in order to control and apply the respective penalties for property owners that are occupying space irregularly.

Territorial planning entities must implement measures to incorporate and recover public areas, in order to strengthen cities that provide their inhabitants articulation spaces, which are the result of urbanization processes, mainly considering prevention strategies.

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