

## **URBAN ILLEGALITY IN THE FORTALEZA METROPOLITAN AREA: SPECIAL SOCIAL INTEREST ZONES AS AN ALTERNATIVE SOLUTION**

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### **ABSTRACT**

This paper presents some results from scientific research on the urban illegality conditions in the Fortaleza Metropolitan Area (FMA). This metropolis has been experiencing an intense growth of the informal, illegal and spontaneous city, a growth which shows itself in many ways and through distinct processes. This expansion is especially associated with the formation of shanty towns, turning areas of disorderly occupation made up of precarious housing units into a part of the metropolitan landscape. Although the expansion of poverty is mostly concentrated in Fortaleza, it is already occurring in other FMA cities. The problem is getting worse due to the fact that there is not a minimal institutional apparatus to put into practice the rules which might have controlled this situation. To better understand these phenomena, the following methodological procedures were used - a survey and analysis of census databases (IBGE) regarding their quantitative and spatial aspects, as well as analysis of technical work commissioned by the Ministry of Cities<sup>2</sup> (Ministério das Cidades); a critical reading of technical reports<sup>3</sup> drawn up by consultancies hired by state and city governments; interviews with the consultants and municipal institutions; an analysis of databanks, field surveys and diagnoses which provided grounds for drawing up urban policy instruments in the list of priorities of the state and cities belonging to FMA; - fieldwork carried out in occupied areas; these were adopted as working themes in subjects of Universidade Federal do Ceará's architecture and urban planning course between 2002 and 2007. The text is subdivided into three parts. The first one provides a context for the issue of land illegality through the analysis of urban planning processes which has taken place in FMA cities since the mid-1990's. The second attempts to assess the importance of the problem through several surveys which indicate different results, although they address the same spatial outline. The final part uses the process of revising Fortaleza's Master Plan and the proposal for Special Social Interest Zones as a strategy to promote land and urban regularization.

### **I. A BRIEF ANALYSIS OF THE URBAN ILLEGALITY ISSUE IN FORTALEZA**

How have the city of Fortaleza and other cities which are a part of its Metropolitan Area been growing? Which factors have been conducive to the disorderly expansion of this metropolis? How is land illegality expressed in this metropolis' popular settlements? What new nuances may be added to the clandestine, illegal or irregular production of intra-urban metropolitan spaces in Fortaleza?

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<sup>2</sup> Studies from the Center for Metropolis Studies (Centro de Estudos da Metrópole) about precarious urban settlements, carried out in 2007 using data from IBGE's Demographic Census.

<sup>3</sup> The municipal master plans drawn up between 1998 and 2001 by consultants hired by city governments through PROURB - Urban Development Program (Programa de Desenvolvimento Urbano), coordinated by the Ceará's state government, are worth mentioning.

Those issues provide the starting point for this paper. In order to carry out this study about Fortaleza's situation, we will limit ourselves to the urban illegality associated with popular settlements, acknowledging the following as the agents involved: the government, the real estate sector and the population which has a lower purchasing power and which, in the face of ineffective public policies on housing, look for a solution which is suitable to their own means and strategies.

Data from IBGE's (Brazilian Institute of Geography and Statistics) latest population count show that the FMA already has more than three million inhabitants. Besides Fortaleza, another dozen cities make up the FMA. These cities have been absorbing part of the problems associated with the issue of housing arising from the capital, notably those in the outskirts of Fortaleza. Its population is concentrated in the capital city of Fortaleza and neighboring cities; there has been a conurbation process of different features, all of which are associated with each axis' predominant housing configurations, some of which are

- firstly, motivated by the fact that large social interest housing developments were located on the border between Fortaleza and neighboring cities in the Southwest and West (Maracanaú and Caucaia) during the 1970's and 1980's. Those estates were promoted by the State Housing Company (Companhia Estadual de Habitação, COHAB-CE) and funded by the National Housing Bank (Banco Nacional da Habitação - BNH);
- secondly, in a continuous process which intensified from 1970 onwards, through the expansion of vacation homes along both the East and the West coasts, which are gradually becoming primary residence neighborhoods;
- thirdly, through the expansion of irregular, occupied, at risk areas along the urban rivers (Cocó and Maranguapinho) and on dune cordons in strips of beach which has intensified since the 1990's;
- lastly, deriving from the implementation of private housing estates and housing developments from the 1990's onwards in the Southwest expansion axis promoted by the real estate sector, replacing old country houses and small ranches.

The analyses carried out from technical works and scientific research which address housing conditions contained in Brazilian metropolitan spaces have been pointing out Fortaleza as one of the most unequal, precarious and deficient metropolitan areas. Fortaleza has had an explosive demographic growth and its housing conditions are among the most inadequate, which favors the expansion and aggravation of social and environmental vulnerabilities.

As a rule, studies which aim to characterize the issue of housing precariousness in cities classify the subnormal types of housing in the following manner: shanty towns, occupied without any payment for the land's acquisition; tenement houses, whose inhabitants pay rent for a room and share areas with access to water with others; irregular or clandestine lots, commercialized illegally, not registered with the municipal government and with no access to infrastructure networks. More recently, other subnormal categories started being taken into account, such as squatter buildings and high risk areas. These are separate from the category of shanty towns and even the small housing estates provided by the government, whose projects and building processes led to their speedy deterioration. In a short period of time future actions by the local government became necessary (Rodrigues, 2003).

Contrary to Brazilian metropolises located in the southern region, Fortaleza gathers most of its housing sub normality around the formation of shanty towns. Several factors may be pointed out as causing this situation, although their nature is hypothetical and arises from field verification and preliminary analyses of technical reports. Some of those factors are:

- popular demand was partially met by social interest housing programs promoted by COHAB-CE and by BNH in peri-urban fringes; it was also later partially met by the implementation of popular lots in remaining large empty spaces. One of its features is an incomplete urbanization, especially of open spaces and institutional areas, which were later occupied by social groups who were excluded from public policies and unable to get access to the real estate sector's offers for low income brackets.
- the lack of inspection by government agencies for urban control in the less privileged areas of the city; this favored the formation of shanty towns in urban areas of permanent conservation, such as riverbanks, streams and lagoons, dune slopes and strips of beach;
- this continuous poverty situation, given the predominance of informal employment relations and, consequently, a low level of income, induces home sharing as a survival strategy in poorer neighborhoods. Families live together in the same lot,

either on a second floor, encouraging self-built vertical expansion, or in the back of the lot, in which case its occupation rate increases;

- the following point to a juxtaposition of precarious housing types: the presence of a rental market for low income people in popular suburban neighborhoods and the recent formation of tenement houses in shanty town areas located in small urban fragments close to where people employed in the non-specialized and unofficial tertiary sector work;

- the informal habit of offering the right to housing in country houses and small ranches in peripheral fringes to families (usually more than one family), who will act as the care takers of the property.

All of those factors bring to light the importance of new detailed studies on the formation of FMA shanty towns. Such studies would be carried out in connection with other types of housing, including the following: popular lots in suburban neighborhoods; large housing estates and the expansion fronts where the residential segregation areas are concentrated.

## II. ANALYSIS OF FIGURES PERTAINING TO THE FORMATION OF SHANTY TOWNS IN FORTALEZA

Urban illegality, when associated with precarious living conditions in Fortaleza, presents itself as a historical problem in this city's production of space. Castro<sup>4</sup>, while describing Fortaleza's 1887 plan, points out that 30% of families lived in straw huts close to strips of beach and on the banks of rivers and lagoons, a clear indication of shanty town formation.

The analysis of urban form elements, such as streets and lots, points to the presence of disordered fragments close to central areas and along main roads. It also clearly shows the presence of informal and spontaneous occupations in other stages of the city's expansion; such occupations were gradually inserted into the urban fabric.

Its speedy growth during the 20<sup>th</sup> century was directly linked to migration flows from Northeastern Inlands caused by droughts. It caused natural resources to be compromised by a continuous and irregular occupation process, since the migrating families did not have any means to acquire land or a home.

Large removals associated with the implementation of roads in the main transport system led to the implementation of large suburban housing estates in the golden age of the Financial Housing System (Sistema Financeiro de Habitação - SFH) in the 1970's and early 1980's, both in Fortaleza and in cities of Greater Fortaleza, such as Maracanaú and Caucaia. However, the lower offer of social housing programs after the end of BNH occurs in a period during which impoverishment increases. Thus, the shanty town is increasingly reaffirmed as the predominant type of housing among the poor. There is an expansion of an informal housing market in public land, dubbed "*local government land*", either for sale or rent.

In 1985 COHAB-CE, together with the State Secretariat for Social Action (Secretaria de Ação Social do Estado), carries out the first census of subnormal settlements, counting over 250 shanty towns in Fortaleza. In 1991 this census was updated and 314 shanty towns were identified, in which over 108 thousand families lived. This represented approximately 30% of Fortaleza's inhabitants. On the latter date, the formation of small shanty town cores in the neighboring cities of Maracanaú and Caucaia was already noticeable. They were located in the housing estates' green areas and on the banks of rivers, streams and lagoons.

Figure 1 shows Fortaleza's Shanty Town Map, grouping the data from the 1991 census as well as the sectors considered subnormal by IBGE in the 2000 census. It should be emphasized that a significant part of areas considered as subnormal crowds by IBGE had already been identified in the specific shanty town census, carried out by the state government. It is worth reminding that areas defined by IBGE as special subnormal sectors are those which gather at least fifty households, in which the disordered occupation by precarious housing is predominant, and whose land situation is irregular and lacks urban infra-structure.

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<sup>4</sup> This information was obtained from an undated text, written by Professor Jose Liberal de Castro. In that text He details information from Fortaleza's historical plans.



Figure 1: Fortaleza: Shanty town map according to the 1991 and 2000 census  
Source: Pequeno, 2009.

A preliminary analysis of this mapping allows us to see: - a larger amount of areas to the West of Fortaleza where later large housing estates were built, resulting in the trend of rapid increase in shanty town areas toward the suburban cities; - a clustering and greater size of areas situated near the strip of beach in the West, next to the Mucuripe port, in the central portion of the coast and in the city's farthest limits where its main rivers debouch; - its diffusion and fragmentation through small shanty towns which supposedly occupy open areas in irregular lots in the city's central parts; - the development of a shanty town formation semi-circle, from the far West of the city, around the central neighborhoods and going in the direction of the port sector, along the railway; - the distribution of shanty towns along the rivers, occupying permanent conservation areas and representing environmental degradation lines; - the emergence of new areas is concentrated in the outskirts, and a semi-circle is formed in the bordering areas between Fortaleza and neighboring cities; - the formation of actual masses of shanty town areas making up large territories of social and spatial exclusion.

The dismantling of institutions responsible for the implementation of the social interest housing policy in all of Brazil has the effect of extinguishing COHAB-CE. The responsibility of providing housing is transferred to municipal governments. Following the neoliberal guidelines in its administrative reforms, the state government dismantles most of its work structure in that sector. However, neither did Fortaleza's municipal government nor other governments for the metropolitan area organize a structure to face the situation.

Thus, municipal governments take on the challenge of planning and managing housing policies. In Fortaleza's case, there is a need for change in welfare practices carried out by the Social Service Foundation (Fundação de Serviço Social), in order to find new ways to meet the demands. However, the practices are still directly linked to City Hall, keeping a clientelist feature in the form of a Special Committee for the Implementation of Social Interest Housing Programs (Comissão Especial para Implantação de Programas Habitacionais de Interesse Social - COMHAB).

In the late 1990's, Fortaleza becomes a part of the Brazil Housing Program (HBB), funded by the Inter-American Development Bank (IDB) and by federal bank Caixa Econômica Federal (CEF), by forming a partnership with the Special Secretariat for Urban Development (SEDU), which was later incorporated into the Ministry of Cities, aiming to promote its institutional development in order to address those issues. It began organizing databanks, making an official list of settlements in precarious conditions, formulating policies and programs, drawing up specific procedure and regulation booklets for Social Interest Housing (HIS), commissioning projects, training technicians, acquiring equipment. All of that was part of the program which the municipal government adopted between 1999 and 2006. The benefits obtained from HBB were reduced, since the issue of housing did not manage to move local authorities between 1993 and 2004, although the pressure from social movements was great.

Almost at the end of the partnership, in 2004, Habitafor - Fortaleza's Social Interest Housing Foundation was created as a means to speed up the process of obtaining

and managing funds. When it was created, there was a clear dismantling of sectoral actions distributed among the several municipal bodies. Habitafor took on the role of promoting integrated planning and coordinating such actions.

In its first years, this Foundation has experienced difficulties in formulating housing policies and efficient programs to address issues such as the formation of shanty towns and other types of urban illegality which devastate the city. The execution of urbanization and housing provision works has shown poor judgment when defining which areas will be targeted.

Although they focus on different types of precarious housing, such actions have been targeting shanty town areas in a situation of environmental risk. Such areas represent a priority for housing provision services as the most vulnerable sectors. Other issues that have attracted little attention from the Foundation's interventions are land and urban regularization of occupied areas and housing estates which were precariously built by the local government in the last two decades.

One can see that when the local government establishes high risk areas as a priority it is actually reducing its intervention target and reducing the size of the problem to be addressed. This occurs regardless of the change in the municipal administration's political orientation. In spite of the availability of funds to compile a new registry of irregular occupied areas (shanty towns and lots), as made available by the HBB Program, the fact is that the surveys were limited to the occupied areas in a risk situation. Three moments were recorded. The first was the counting of 4,500 families in 43 risk areas in 1997, made by the Center for the Defense and Promotion of Human Rights of Fortaleza's Archdiocese. Then the HBB Risk Areas Intervention Plan, carried out by COMHAB in 2001, counted 79 areas with over 9,300 families. The third was a survey made by Fortaleza's Municipal Emergency Management Agency in 2006, pointing to over twenty thousand families in 102 endangered areas.

The occupied areas in risk situations are already expanding into neighboring cities. They are forming degradation corridors along urban rivers and strips of beach (Pequeno, 2009) or are even sparsely distributed around lagoons. It should be highlighted that the spaces which join risk areas, coincide with social-occupational types entitled 'popular-worker and lower'<sup>5</sup>, where there is a higher density of workers from the informal and non-specialized tertiary sector, from the traditional secondary sector and workers in the construction industry. (Pequeno, 2008).

It is difficult to implement a broad and multi-faceted housing policy without determining the size and space occupied by the housing universe in precarious conditions. A significant number of land issues will remain unresolved if there is no survey on irregular lots, especially in a city in which precarious housing conditions become homogeneous in suburban spaces.

As for the land regularization processes, so far there are experiments on sustainable land regularization in shanty towns located on federal government land, as well as the formulation of a land regularization program for housing estates built between 1988 and 2004 by the local government.

Even considering the interventions in risk areas, the fact that municipal policies have little effectiveness is clear. A low number of areas were covered by such policies and there is no planning process which defines priorities. Of the 79 risk areas identified by the HBB Program in 2001, only three were intervention targets. Two were targeted by the local government and one by the state government. In all of them most families were removed and later resettled on empty pieces of land close to low, high-density multi-family buildings. The new aspects introduced by those projects were defining rooms for commercial use in their typology, distinguishing houses according to the number of bedrooms and the small size of common areas, in order to avoid common expenses.

However, some negative aspects may be pointed out, indicating the low quality of such housing projects, including the following: the room's small size, precarious finishing, excessive occupation density of resettlement areas, lack of treatment of

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<sup>5</sup> Studies carried out by the author about FMA infrastructure, adopting the same methodology as the Metropolis Observatory Research Network (Rede de Pesquisa Observatório das Metrópoles). The studies identified seven social-spatial typologies, characterized by the social and occupational content of data expansion areas according to data from the 2000 census sample carried out by IBGE.

open spaces, the way the settlement is segregated from the area around it, among others.

Considering the increasing and dominant formation of shanty towns in the urban landscape, gathering on the same site housing precariousness, lack of infrastructure, disorderly occupation of spaces and an irregular land situation, would it be possible to state that other types of illegal settlements are being neglected by state and local governments?

The results from studies carried out by the Ministry of Cities' Center for Metropolis Studies regarding the urban settlements in precarious conditions favor that hypothesis. Such studies bring new figures pertaining to urban and housing precariousness in FMA. In our case, a discriminative analysis was adopted as the methodological procedure, building a type of census sector in precarious conditions based on the similarities between results obtained for sectors which are considered to be subnormal in some variables obtained per household and person in charge in IBGE's 2000 Demographic Census. It should be noted that the consultancy service offered by the Center for Metropolis Studies (CEM) is based on the premise that the adopted methodology offers an intermediate tool to diagnose more precisely urban precariousness, which depends on verification carried out on site.

Table 1 shows the growth, in absolute figures and in percentages, considering only the number of households. While before only Fortaleza and Caucaia had subnormal sectors, the study shows that all other cities, except for Horizonte, have sectors which are considered to be in precarious conditions. Furthermore, Fortaleza and Caucaia have new urban and housing precariousness figures, reaching much higher numbers.

As for the entire FMA, little over 24% of its households would be in a precarious situation. Maranguape should be noted for the fact that nearly 1/3 of its population would be living in precarious settlements, surpassing even Fortaleza. The same would be true of Itaitinga, a small town that was created after being declared independent from another district. Over 25% of households are in precarious conditions. Our attention is drawn to the fact that cities which have experienced more intense industrialization, such as Horizonte, Pacajús, Maracanaú and Eusébio, show the best results.

*Table 1: FMA - Precarious settlements according to city - 2007*

municipality	(A) Households in subnormal sectors	(A)/(D) %	(B) Households in precarious settlements	(B)/(D) %	(C) Households in subnormal sectors and precarious settlements	(C)/(D) %	(D) Households in all types of sectors
Aquiraz	0	-	1,274	9.82	1,274	9.82	12,979
Caucaia	1,653	3.07	9,544	17.75	11,197	20.82	53,771
Chorozinho	0	-	177	7.53	177	7.50	2,352
Eusébio	0	-	192	2.65	192	2.65	7,258
Fortaleza	82,956	15.77	60,949	11.59	143,905	27.36	526,057
Guaiúba	0	-	722	20.45	722	20.45	3,530
Horizonte	0	-	0	-	-	0.0	6,767
Itaitinga	0	-	1,575	25.69	1,575	25.69	6,130
Maracanaú	0	-	3,958	9.39	3,958	9.39	42,149
Maranguape	0	-	5,195	34.66	5,195	34.66	14,987
Pacajus	0	-	436	5.31	436	5.31	8,204
Pacatuba	0	-	1,131	10.28	1,131	10.28	10,998
Sao Gonçalo	0	-	643	11.44	643	11.44	5,622
Total FMA	84609	12.07	85,796	12.24	170,405	24.32	700,804

*Source: Ministry of Cities / Center for Metropolis Studies, 2007, from IBGE's 2000 census data.*

With regard to the other cities which make up the FMA, one can state that the diffusion of shanty town formation advances in two directions. There is on one hand, the expansion of poverty from the suburbs of Fortaleza toward those cities and, on the other hand, the arrival of permanent migration flows from rural areas and the state's countryside toward the metropolis, for which those cities are entry points.

Furthermore, the process of urban reorganization of those metropolitan cities, associated with new productive activities, results in the formation of several irregularly occupied areas in a precarious situation. As for cities where the industrial sector is expanding, the implementation of popular lots without properly urbanizing open spaces and institutional areas, the formation of shanty towns is already present. On the other hand, coastal cities, where tourism and the real estate market take advantage of the areas occupied by traditional communities, have their peri-urban spaces as a preferred target for resettling those people in a disorderly and precarious way.

### III. PROSPECTS FOR FIGHTING URBAN ILLEGALITY IN FORTALEZA

With regard to facing the issue of urban illegality associated with occupied areas, the analysis will be restricted to the city of Fortaleza due to the lack of specific information on other cities belonging to the FMA.

Despite the attempts made since the 1990's<sup>6</sup> to establish urban planning processes in the other cities, their scenario remains one of institutional deficiency regarding the agencies, policies and tools for urban planning and management. Although the situation is alarming, not once was the housing issue addressed, in terms of land irregularities, whether during the diagnostic stage or when proposing strategies for action.

Even in Fortaleza one notices that land and urban regularization faces difficulties to be dealt with, due to shattered initiatives which mostly cater for specific situations as experimental projects. Other factors contribute to this situation, among which are the following: the fact that Habitafor<sup>7</sup>, a municipal institution responsible for implementing a social interest housing policy, is still being structured, as well as local resistance from landowners in solving issues which involve land regularization.

Starting in 2002, the process of revising Fortaleza's Master Plan according to the City Statue Act has offered a space in which political and ideological conflicts surface, especially the understanding that the city is produced in an unequal and contradictory way. It should be emphasized that these seven years of conflict between social movements, the government and the private real estate sector expose how fragile local consultancies are with regard to both their lack of knowledge about these new instruments and their problem accepting and using participatory methodologies. This results in a diagnosis which does not correspond to reality and as a rule, is restricted to the technical approach without incorporating the community's view of the problem.

In its first revision attempt, the Master Plan bill was withdrawn from the City Council by the mayor's office due to a complete lack of discussion and debate about the proposals with the society, favoring business owners in the building industry. Additionally, other issues can be mentioned, such as: the theoretical-conceptual weakness and the fact that its technical team is outdated and still using conventional urban planning procedures. The Public Attorneys' Office recommendation, arguing against the type of contracting and the quality of services, and the actions demanding rights which were implemented by NGOs, social movements and unions all contributed to the bill being withdrawn.

Even if the hired consultancy was exempt from a bidding process due to its reputable knowledge<sup>8</sup>, the products they presented were disqualified by specialists from

<sup>6</sup> In the late 1990's Master Plans were drawn up for FMA cities through the state government's Urban Development Program. Those plans have been recently revised and to some of them the City Statute principles were applied. However, those processes took place in a technocratic way, without further concerns with their implementation.

<sup>7</sup> Created in late 2004, Fundação Habitafor had its first management during mayor Luizianne Lins' administration. When it first started out, an institutional diagnosis showed that the roles attributed to it were spread among fifteen secretariats and autonomous agencies.

<sup>8</sup> The initial team had Professors from Universidade Federal do Ceará (Ceará's Federal University - UFC), who were included as consultants of the Technology Center Foundation (Fundação do Centro de Tecnologia) from that institution. Changes in legislation pertaining to soil use and occupation right in the beginning of the process led to political and methodological disagreements between the team of consultants and the city government. This resulted in this team withdrawal from the process. Other consultants formed another team of professionals, and most of them were not linked with the university and did not have the same qualification. They took on the role of conducting the process by meeting the demands and pressures of the real estate market.

different but related fields of expertise. A number of problems were pointed out. Some are the absence of the metropolitan issue, the use of outdated information from the 1991 Census, the indiscriminate inclusion of all instruments from the City Statute in the proposal, in a general way and without addressing any of their specific aspects applied to the current situation in Fortaleza, among others.

In its second term, which began in 2006, the new municipal administration hires a team of professionals, once again based on their reputable knowledge, to work as consultants responsible for revising the Master Plan.<sup>9</sup>

The new process had the recommendations published by national campaigns promoted by the Ministry of Cities as its paradigm. Its beginning was marked negatively by the society's limited and ineffective mobilization and training, due to the short time given for drawing up the new plan. The consequence was that similar problems that affected the previous process reoccurred.

Thanks to the consultant's profile, as well as the local government's position favoring grassroots participation, there was a very positive expectation on the social movements' side. However, because of methodological procedures adopted and the short amount of time available for drawing it up, the Master Plan's revision was then carried out in an atmosphere of suspicion and conflict between the parties involved. In the initial stage, when there would be a confrontation between popular and technical views, the weakness of the methodology used was exposed, with reaction coming from different sectors. Although the problem was being discussed with the Master Plan's managing group, which gathered representatives from different sectors of the society, the alleged lack of time to finish the planned stages prevailed.

Thus, the Housing Center (Núcleo de Habitação - NUHAB), a network of entities and NGOs which provide consultancy services to grassroots movements, supported by some segments of public universities, joined forces to offer training sessions. Their subject was using Special Social Interest Zones (ZEIS) as a tool to promote land regularization, considering the urban illegality environment which has spread across the city.<sup>10</sup>

Lectures, debates, field classes and practical activities were used to train several community leaders to become part of the process of drawing up the plan. These leaders were elected as delegates and began representing their neighborhoods and communities in regional hearings. From then on, they manage to formulate proposals for land and urban regularization as ZEIS in the most critical sectors of the areas they represent and begin to have a direct influence on the process of drawing up Fortaleza's Master Plan.

At the end of that process, the city was able to rely, for the first time, on proposals to solve the issue of illegality in occupied areas, all of which were gathered in a ZEIS map and classified by type according to the occupation conditions: shanty towns; popular lots or housing developments; open, urban spaces or underused buildings. Despite compromise between the local government and sectors of the real estate market, the proposal manages to be approved in the Master Plan congress and is sent to the City Council for discussion.

After the required meetings were held by the consultancy company, as well as the meetings of the management team, which was created to follow the process of drawing up the master plan, the discussion process with the society is slowly forgotten. This weakened the social movements' initiatives to promote mobilization and favored changes and regressions in the bill.

After being analyzed by the City Attorneys' Office, the new Master Plan remained under discussion at the City Council. As one of the most controversial topics, the adoption of ZEIS provoked reactions from council members who represent the most conservative sectors, especially those contrary to ZEIS, located in more valuable real estate areas.

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<sup>9</sup> The new consultancy was provided by Instituto Polis, a non-governmental organization from São Paulo. A team of professionals was brought to Fortaleza, to which local professionals were added.

<sup>10</sup> Special Social Interest Zones (Zonas Especiais de Interesse Social - ZEIS) have been the object of study of many researchers in the field of urbanistic Law and urban planning, among which are Alfonsín (1997); Souza (2001); Fernandes (2003); Saule (2004), and others.



Considering the goal of this paper, we will focus on analyzing the points pertaining to land and urban rectification associated with areas of shanty towns and clandestine and irregular lots, especially those associated with the use of ZEIS. It is worth emphasizing here that the Urban Territorial Responsibility Bill (Lei de Responsabilidade Territorial Urbana - Bill 3057/2000), still awaiting approval by the national congress, highlights the need for subnormal settlements to be recognized as ZEIS in the respective master plans so they can be regularized in the future (article 88, Bill 3057/2000), as well as considering possibilities for cities who fully manage their social assistance to make indexes more flexible (article 38, Bill 3057/2000).

With regard to Fortaleza's Master Plan Bill, drawn up with the assistance of a contracted consultancy company, the technical quality of that plan must be highlighted, given the relevance of their instruments to the different zones which make up the macrozoning. Nevertheless, we should also point out the problem arising from outsourcing that activity, since when the responsibility over the direction urban policies will take is transferred to others, instead of these policies being developed in the institution itself, there are greater difficulties in implementing them, such as: the discussion with the City Council about the proposed guidelines, the definition of urban indexes and parameters, the choice of priority projects, updating the diagnosis, among others.

In Fortaleza's case, which has Brazil's fifth largest city population<sup>11</sup>, the lack of a qualified technical team to perform these services may be seen as an indicator of a future which is not very promising. Some of the causes of that problem are the extinction of the Municipal Planning Institute (IPLAM) in past administrations; the several administrative reforms the city went through, causing the duties of planning and urban control to dissipate; the subdivision of the city into administrative areas without any concerns about integrating their actions later.

According to the Master Plan, in article 123: *Special Social Interest Zones - ZEIS - are parts of the territory, either public or privately owned, whose priority destination is promoting the urban and land regularization of existing and consolidated low income housing settlements and developing social interest and popular market housing programs in non-built, non-used or underused areas; the latter is subject to special building, division, soil use and occupation criteria.*

Three types of Special Social Interest Zones were defined by the Master Plan:

- *ZEIS (1) made up of irregular settlements of a disordered occupation, in public or private areas; they comprise a low income population; they are precarious from the urban and housing points of view; their purpose is land, urban and environmental regularization (article 126);*
- *ZEIS (2) made up of clandestine or irregular lots and housing estates, public or private, which are partially urbanized, occupied by a low income population; their purpose is land and urban regularization (article 129);*
- *ZEIS (3) made up of areas which possess infrastructure, gathering non-built land or underused or non-used property; their purpose is the implementation of social interest housing developments, as well as other uses which are valid for their zone, after a specific plan has been drawn up. (article 133)*

With regard to the ZEIS in connection with the other urban policy instruments which are part of the Master Plan, it is worth highlighting that such ZEIS are already associated with some of those instruments, which include the following: compulsory division, for type 3 ZEIS (open, urban spaces), immediately pointing out the need for this land to fulfill the social role of property; onerous assignment of the right to build, and type 1 and 2 ZEIS (shanty towns, precarious housing developments and lots) are the targets of compensation for their urban regularization; transfer of the right to build as a way of compensating landowners which are defined as type 3 ZEIS and that will have their building potential decreased; a real estate consortium, also for type 3 ZEIS, ensuring the possibility of forming a partnership between the owner and the local government aiming to expand the offer of social interest housing; urban consortium operations with ZEIS areas having priority in interventions, favoring the urban and environmental recovery of degraded areas inclusively.

The possibilities mentioned above point out the instrument's potential given its flexibility in establishing specific urban indexes and its capacity to establish a link with the other instruments.

<sup>11</sup> Classification according to data from the last population count made by IBGE in 2009.

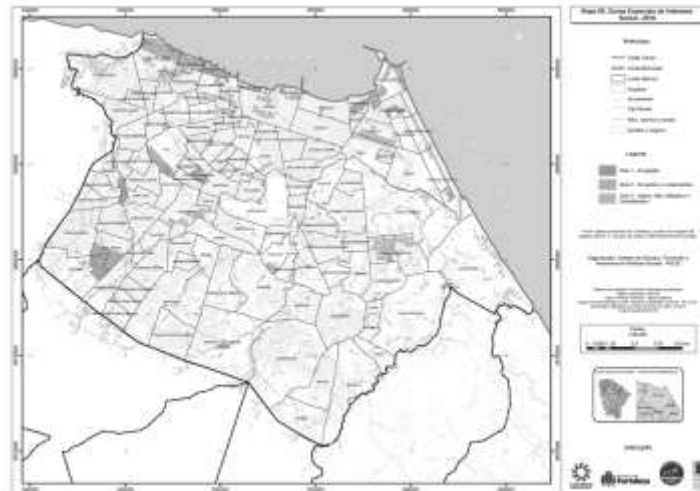


Figure 2: Fortaleza: Type 1, 2 and 3 ZEIS, according to 2007's Master Plan  
Source: Fortaleza's Participatory Master Plan, 2007

After an initial analysis of the spatial distribution of ZEIS areas in relation to the process of urban growth in the city, it can be stated that, despite the growing number of families who live in shanty town areas in Fortaleza and the amount of housing estates still in an irregular land situation, a first look over the areas defines as ZEIS leads us to consider the low impact of their adoption in this Plan.

However, considering that this first grouping may represent only the beginning of a dynamic, in an optimistic view, it is possible to point out that it may, in case of a successful experience, be used in the future in other parts of the city.

It should also be highlighted that the mere inclusion of ZEIS in the plan is not enough if later the implementation procedures are not detailed. In Fortaleza's case, the instrument Special Social Interest Zones was already a part of the Urban Development Master Plan of 1992 under a different name; see articles 73 to 76, which address spontaneous settlements and their possibilities in terms of urbanization and land regularization. However, no area was ever mapped, which made this plan (which is still valid) progressive in content but at the same time empty with regard to its applicability and implementation.

As for the distribution of the proposed ZEIS, one can see that the areas so far shown are concentrated in strips of beach and surrounding areas, a clear reaction to the pressures of the real estate sector on the communities who live in those sectors; this represents a resistance strategy adopted by the inhabitants of those shanty towns. The following map presents the set of areas considered as ZEIS.

Based on the analysis of the Master Plan, of all areas identified as probable ZEIS we emphasize in this study an area situated in the Sapiranga-Coité neighborhood, also known as Água Fria, due to the name of the lot in that sector.

This soil division has been registered with the local government since March 1957, and its owners were Mr. Péricles Moreira da Rocha and Mr. João Gentil Junior. It was only launched in the 1970's. Located along the way to country houses and small ranches in Messejana, the target audience of this development was the more privileged classes who used to take that route on weekends on their way to country houses, small ranches and vacation homes. At the time, entire blocks were sold to those who realized the area offered an easy investment and a positive mid-term reward.

However, the distance from the center of town and from areas where most of the other real estate investments were, in addition to the lack of urban infrastructure, caused it to be unsuccessful, since at the time, urban transportation conditions toward the Southwest, where the lot is, were deficient.

When analyzing the urban project for that division, the indifference to local topography is clear. This compromised the natural draining of surface water resources, whether running or still water, temporary or intermittent. Other lots situated nearby were subjected to similar procedures, deriving in the expansion of

extreme vulnerability situations and compromising ecosystems whose importance is relevant to Fortaleza's urban environmental quality, such as mangrove swamps, dune cordons and tableland woods, and causing micro and macro climate changes.

Additionally, the expansion process of the real estate market, associated with the explosive demographic growth of the 1970's and 1980's, led to a number of land occupations, due to reasons mentioned previously in the first part of this article. Such reasons cause shanty towns to be the housing option for the poor to this day. Open spaces and institutional areas in these residential lots were priority targets of those actions.

In the case of Planalto Água Fria, interviews with community leaders who have lived in the area since the 1970's indicate that the residential occupation began in areas which were destined to two of its squares. This occupation was fast and disorderly. The Lagoa Seca and Campo do Alecrim communities settled in those areas. After they reached their limits, these communities began expanding onto the lots' streets and onto the neighboring blocks.

Some housing estates derived from housing policies were implemented by the state government in that same lot. They contributed significantly to the neighborhood's occupation process, since they caused the arrival of public works and infrastructure in surrounding areas.

This land occupation took place in two moments: first, with Alvorada Housing Development (Conjunto Habitacional Alvorada), promoted by Ceará's Social Security Institute (Instituto de Previdência do Estado do Ceará) and aimed at state civil servants in the late 1980's; second, during the 1990's, with a housing estate built by COHAB-CE which met the demands of clientelist social movements through the commonly named popular housing societies of the area. Both changed the local dynamics, bringing new social groups to the area and generating conflict with inhabitants of irregular occupations.

Parque Colosso lot, situated to the north of the area of study, should also be noted as part of the urban dynamics of the sector under analysis. It has been approved since 1985 and although still uninhabited, it is still waiting for shanty towns around it to be removed, which would add to it a greater exchange value and thus make the investment more profitable. (see Figure 3)

From the 1980's onwards the city's growth, combined with residential segregation, begins to move southwest. This sector is consolidated as a new center and attracts large facilities, private teaching institutions, shopping centers and others along Washington Soares Avenue - FMA's main axis of residential segregation.

After that, from the 1990's onwards, the growth of tourism as economic activity turned this area into an important target of the real estate market. The implementation of private housing estates grew rapidly in the areas around that lot and in some of its blocks. The social and spatial inequalities increased greatly. At the same time, they were close to people's workplace since the formal tertiary sector, the construction industry and other non-specialized services, such as domestic work, favor the growth, expansion and multiplication of occupied areas. These move into some permanent conservation areas and compete with the real estate sector for territory.

Although its informal occupation process is shattered, the social movement manages to become stronger in that part of town when fighting for access to the infrastructure networks and better transport conditions. At the end of the 1990's, some communities in that sector became a target of the international cooperation program focused on fighting urban poverty<sup>12</sup>. Integrated development plans were drawn up for that program and a debate started about land regularization via ZEIS. After that, some young community leaders of that neighborhood became part of the teaching body of the Urban Planning and Popular Research School that belongs to the NGO, CEARAH Periferia<sup>13</sup>. They excelled as assiduous participants of training activities and of actions demanding the right to the city and housing. They applied the

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<sup>12</sup> Urban PRORENDA: a program of international cooperation between Brazil and Germany, valid between 1992 and 2002. It was carried out in two stages, adopting shanty town areas as a target of interventions related to community empowerment, creation of jobs and environmental sanitation.

<sup>13</sup> A non-governmental organization founded in 1992 by assistants to the popular movement in urban and housing issues. It is internationally renowned for its innovative practices in training community leaders.

instruments made available by the City Statute commendably to their neighborhood's situation and made a significant contribution to the discussion about the Master Plan and about actions to regularize land.

In this second review of the Master Plan, reinforcing what had been formulated in the training provided by NUHAB, these young leaders participated effectively in public meetings and proposed ZEIS based on a connection between areas which were occupied irregularly and empty urban spaces nearby. Souza (2001) names this strategy inverting priorities. In this geographer's opinion, in order to map ZEIS there has to be a juxtaposition of situations which gather precarious urban access to infrastructure networks, a situation of social and economic inequality in relation to the surrounding area and land irregularities.

It should be noted that this sector shows other occupied areas; one can imagine the conflict between landowners, real estate developers and the local communities who have been there for decades over increasing real estate speculation. There is an immediate need for the either the state or municipal government's presence in order to mediate and avoid possible territorial conflicts. The ZEIS may be the instrument which best adapts to the situation described above.



*Fig.3 - Fortaleza: Planalto Água fria Lot: shanty towns, housing estates, empty areas*



*Figure 4 - Lagoa Seca: irregular occupation in Planalto Água Fria, 2005.*

*Source: edited by the author.*

Figure 4 shows the occupation of Lagoa Seca, one of the first in the neighborhood and which was built on a public square, a piece property for public use. The intensity of the occupation in that area, in its subnormal parts, combined with the precarious infrastructure networks and the situation of environmental degradation of urban lagoons uncovers the need for an integrated urbanizing plan. This is to truly ensure its urban and environmental recovery, as well as its sustainable land regularization combined with the resettlement of families in empty areas nearby. One can see that the availability of empty spaces considered as type 3 ZEIS in the proposed Master Plan could guarantee not only better urban housing conditions for families in occupied areas by reducing density, reopening streets, organizing the transportation system, but especially by providing housing.

As part of a zone where the Master Plan showed moderate occupation as a proposal, Planalto Água Fria's main urban indexes in its immediate vicinity are the minimum lot with 150 m<sup>2</sup>, an occupation rate of 40%, a permeability rate of 50% and maximum building height of 48m. In taking actions such as compulsory division, real estate consortiums, transferring the right to build and even consortium urban operation, we could be facing an alternative for this urban front's development, provided that we could overcome the hurdles which drive the city toward social and spatial segregation, which increase social segmentation, differentiation and exclusion.

An accurate analysis of urban soil occupation conditions in this sector point to situations in which spatial inequalities increase. Figure 5 shows a clear example of the social and economic inequality situations which are in effect in Fortaleza in terms of land access.

Some differences can be noted between them when gathering four neighboring blocks in that same lot. Block 1 shows an entire block occupied by a single family, who are believed to be one the first inhabitants of the neighborhood and who arrived with the first illegal occupants of that lot. Block 2 on the other hand, was entirely divided as a horizontal condominium grouping 36 residential units and a private

leisure area, internal circulation is restricted to its members and there is a strong security system. Block 3, an irregular disorderly occupation, gathers more than forty families who live in precarious housing and whose access to infrastructure and transportation networks is difficult. This requires different types of improvisation. Block 4, an entirely empty block, including vegetation. What those blocks have in common, in addition to their location in the same lot and their dimensions, 120 x 80 m<sup>2</sup>, is the fact that nearby streets which provide access to them are entirely occupied by extensions of shanty town areas. This contributes to environmental degradation conditions and makes the neighborhood even more vulnerable.

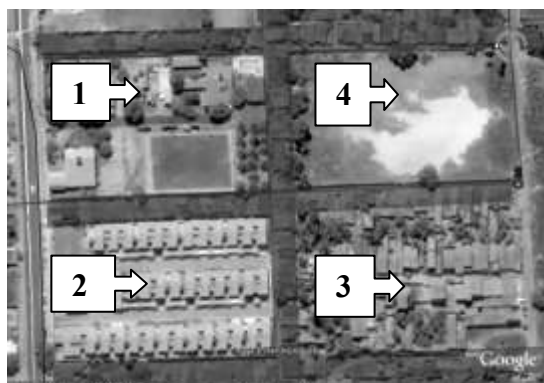


Figure 5 – Planalto Água Fria: blocks in a situation of inequality, 2005



Figure 6 – Açude Coité: inequality in a situation of environmental risk

*Source: edited by the author.*

Figure 6 shows another example of a situation which shows the uneven way in which the city is being produced, even if the common aspect is its aggressive occupation when it comes to the appropriation of urban permanent conservation areas. In that case, the banks of the same water resource, an important element in the draining system of the sector being studied, are occupied by two segregation patterns. One is a small closed lot northwest of the pond. The other, in the southwest, is an at risk area occupied by a group which is in a condition of extreme social exclusion.

A situation such as this uncovers the need to adopt normative criteria and procedures which may prevent these areas from becoming environmentally compromised when the time comes to regularize their situation. In addition to families' resettlement, permanent conservation areas which are occupied irregularly should be put to new uses.

## FINAL COMENTS

Although of a preliminary nature, the analyses carried out offer a bleak perspective with regard to the issues of land and urban regularization in Fortaleza's Metropolitan Area, including the capital and the other cities.

Considering the policy to reduce the state government's participation in the urban and housing development sectors, it is unlikely that any planned action which includes the metropolitan area will be taken. As for the cities which comprise the FMA, even though the marks of urban illegality are increasingly clearer, the ineffectiveness of the institutions responsible for implementing urban and housing policies show that no change is likely to take place in the near future.

However, we believe that the first steps have been taken with the inclusion of some instruments from Fortaleza's Master Plan, in the appropriate locations. They still need to be detailed. It is believed that the effective adoption of ZEIS in Fortaleza, the capital and FMA's hub city, may result in this instrument being used by neighboring cities and the positive inclusion of those institutes in municipal Master Plans.

In order to change the current situation, it is necessary for municipal managers to show political will to address such issues, which have been historically neglected. Furthermore, the following factors are considered essential: more professionals need to be hired, the acquisition of equipment, as well as drawing up official lists and defining the minimum procedures to be followed.

Based on estimates of the size of the problem, it is believed we are facing a phenomenon which is to be resolved progressively by multi-professional teams which are open to participation and certain of how important the society's participation is in planning processes. In this case, as set forth by the Urban Territorial Responsibility Bill (PL 3057/2001), those should be the minimum requisites for cities to fulfill the requirements to have full management power over their urban development policy.

Separate experiences and experimental projects are being implemented in several Brazilian cities. However, the specific features of each city must be taken into account when adopting urban procedures and parameters. It is still necessary to investigate qualitatively and quantitatively the urban indexes to be adopted; and to contrast the current situation of the informal and spontaneous city, especially with respect to the social and environmental diversity in FMA's suburban space, and the situation established by urbanistic rules, the size of which approaches that of an unattainable ideal city for most of the population.

Although far from offering a definite conclusion, we also emphasize that the situations outlined here contribute to reinforcing the need to execute urbanistic plans for the ZEIS areas of in a broader nature, including other scales. Likewise, minimum standards of what can be considered a space occupied by a family must be established. The aim is to avoid legitimizing and legalizing extreme poverty by regularizing precarious settlements with families living in extremely small lots and in subhuman conditions.

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