



New tools for sustainable urban land regularization in permanent preservation areas: The 11.977/09 Brazilian Law Implementation

Bruna Pimentel Cilento

Pontifical Catholic University of Campinas, Graduate Program in Urbanism, Campinas (SP), Brazil
brunapcilento@yahoo.com.br

Julia Lopes da Silva

Pontifical Catholic University of Campinas, Graduate Program in Urbanism, Campinas (SP), Brazil
julialopes123@gmail.com

Laura Machado de Melo Bueno

Pontifical Catholic University of Campinas, Graduate Program in Urbanism, Campinas (SP), Brazil
laurabueno500@gmail.com

Patricia Rodrigues Samora

Pontifical Catholic University of Campinas, Graduate Program in Urbanism, Campinas (SP), Brazil
patricia.samora@puc-campinas.edu.br

ABSTRACT: The right to housing is intrinsically related to urban-environmental conflicts as a result of the process of social and spatial exclusion – characteristic of the economic system in force –, causing a significant portion of the low income population to be neglected and left on the margins of human rights, particularly when it comes to the right to housing, which, in turn, causes this population to occupy and set dwelling in environmentally sensitive areas. In this context, the regularization of land in Brazil has gone through an important advancement with Federal Law no. 11.977/2009, due to innovative possibility to regularize human settlements of social interest in consolidated urban areas, even when partially or fully inserted in Permanent Preservation Areas (PPA's). This article discusses the challenges for the application of said urban law in the process of legalization and transformation of informal urban settlements inserted in PPA's from the perspective of their socio-environmental sustainability. This way, the necessary interventions must aim at improvements in environmental conditions, in accordance with the recovery of the social liabilities of the occupied area, so as to ensure an ecologically balanced environment using compensatory, mitigating, and recovery actions to these areas. Such actions must enhance the interaction between the environment and the city and take into consideration the importance of the legal regulation to promote a sustainable regularization of the urban land where social justice can prevail.

Keywords *sustainable urban land regularization, compensatory, mitigating and recovery actions, irregular urban settlements, social and environmental sustainability.*

1. INTRODUCTION

As these people have scarce financial resources because of the low salaries paid, one of the main side effects of the lack of access by this population to the urban land – a fact that results particularly from the high costs of real estates equipped with infrastructure – is the distance created between these people and an appropriate social environment, which therefore keeps them away from a balanced environment.

This fact demonstrates that the essential need for housing lead these people to find their place somewhere else, often in sensitive environmental areas as the PPA's (Permanent Protection Areas), which are mostly located beyond the perimeter of the structured city, in a predictable move from the legal to the informal, characterizing a “split city” and a social apartheid (MARICATO, 1995).

The spatial segregation institutionalized between poorer people and the middle class, follow the excluding logic of the real city and its open wound in the capitalist system in force in Brazil.

In this sense, the division of self-produced lots, self-built constructions, and the poor conditions of life lead to precariousness, danger, health hazards, and complete degradation of humans and the nature, bringing about the tragic harmony between the environment and the excluded people and the possibilities available to them.

The expansion of this scenario of irregularity of housing settlements in environmentally sensitive areas (MARTINS, 2011) indicates that their protection is intrinsically related to the demand for housing for popular classes with low income or no income at all.

This is the context in which the right to housing for low income population translates into one of the most challenging commitments of Brazilian urban policies provided for in the constitution, but which advances very slowly (or retrocedes very rapidly).

For this reason, the Statute of City (BRASIL, 2001) and posteriorly Program *Minha Casa Minha Vida* (BRASIL, 2009) listed the urban land regularization as one of the instruments to legalize the occupied land and its necessary urbanization, so as to correct the distortions caused by the populational growth, the spatial exclusion, and the negative effects to the environment, thereby ensuring its social function in a sustainable way.

2. TOOLS FOR LAND REGULARIZATION

2.1 Sustainability and Regularization of Urban Land of Social Interest in Brazil

The regularization of urban land of social interest is more than the legalization of the downright ownership of the land lot by its occupant, as it depends upon establishment and particularly the enforcement of special, minimum urbanization norms, since irregular settlements in Brazil are very often comprised of self-built residences with serious technical deficiencies when it comes to ventilation, natural light, dimensions, and spatial distribution.

Moreover, these settlements have a lack or even absolute absence of basic infrastructure (such as sewer systems, rainwater galleries, drinking water supply, lighting, sidewalks, garbage collection, and road systems adjusted to the needs of that population, etc.) and public services, such as schools, health centers, transportation, official justice offices, not to mention the difficulty to access means for professionalization and formal employment, the exposure to risks, discrimination, and urban violence, all of which are elements that should be considered in the process of regularization of land of social interest by the Public Power.

Therefore, in order to accomplish a socio-environmental sustainability in Brazilian cities, the regularization of land in Permanent Preservation Areas stands as a very important action.

However, this also brings a conflict between environmental preservation and the demand for urban settlements for lower income population (MARTINS, 2011), even if the need to expand the access of this population to the formal housing market is widely known.

In this sense, it is not possible to adopt the single alternative of removing thousands of families occupying environmentally sensitive areas and then resettle them somewhere else. More than that, projects for the adaptation and regularization of the existing settlements to the specific conditions of the occupied area must also be taken into consideration.

The urban land regularization processes carried out before the introduction of Federal Law no. 11.977/09 (BRASIL, 2009) took place in a punctual manner, and still do as they clash against legal and environmental hindrances.

These processes also could not prevent the expansion of the territory to peripheral zones, nor the populational densification in those areas, and many of the reoccupations of risk areas and environmentally protected area. It indicates the need for changes in the legislation to debureaucratize the regularization process, as one of the major difficulties faced – not to consider the state inertia and the commercial fundamentalism (MARICATO, 1995) – is to define which legal, urban, and environmental tools would be appropriate to each reality.

Known as the Law of Program *Minha Casa Minha Vida* (My Home, My Life), the abovementioned law was introduced to meet this need by establishing general directives for regularization programs and by creating other tools, such as the urban demarcation and the legitimization of ownership, which enabled the regularization of social interest land in PPA's, according to paragraphs 1, 2, and 3 of Article 54 of said law.

The main challenge for that legalization and urbanization proceeding to occur – in addition to facing the conservative views and the eminently conservationist approach to natural resources – is to provide evidences that the environmental intervention to be proposed can lead to improvements in environmental conditions when compared to the previous irregular occupation. In other words, it is necessary to demonstrate and execute social and environmental improvements in the occupied area as a single, concise act of sustainability to consummate socio-environmental justice where environmental conservation and recovery thrives hand in hand with the preservation of the right for decent housing.

2.2 Challenges to enforcement of Law 11.977/09

The provisions set forth in Article 54 of Law no. 11.977/09 (BRAZIL, 2009), when interpreted concurrently with the provisions of the Forestry Code (Federal Law no. 12.651, May 25, 2012), more precisely in its Articles 8, 64, and 65, denote an apparent victory of the defense to the right for housing, as said provisions has been adopted by the legal regime in force.

This regulation for the sustainable occupation of land in urban areas had been previously edited by CONAMA (Brazilian National Environmental Council) in its Resolution no. 369, of March 28, 2006, (BRAZIL, 2006) that empowered the competent authority to authorize the suppression of or intervention in the vegetation of PPA's for that purpose, as long as this regulation requirements are complied.

Nevertheless, the Federal Laws mentioned above listed the procedures required to implement the regularization project, thereby further facilitating the process. It established some provisions that differ from said CONAMA Resolution, particularly regarding the deadline for consolidation of occupations to be regularized, that is, areas occupied until December 31, 2007. Said laws have also provided the municipal licensing/environmental authority with more autonomy to propose measures for intervention and recovery of PPA's, as pointed out below:

Article 54. The project for the regularization of land of social interest **shall consider the characteristics of the occupation and the occupied area in order to define specific urbanistic and environmental parameters**, and identify land lots, circulation roads, and areas destined to public use.

(...)

Paragraph 2. **The technical study** referred to in Paragraph 1 shall be elaborated by a legally qualified professional, reconcile with the land regularization process, and contain at least the following elements: (...)

III - **proposal of interventions** to control geotechnical risks and floods;

IV - **recovery of degraded areas** and other areas not subject to regularization;

V - **evidences of the improvement in urban-environmental sustainability conditions**, considering the appropriate use of water resources and the protection of conservation units, as the case may be;

VI - **evidences of the improvement in the conditions of occupation by dwellers provided by the proposed regulation** (...); (BRAZIL, 2009, bold added.)

The Law of Program My Home, My Life strengthened the municipal authority to control and organize subjects in the local interest, such as the regularization of settlements in PPA's, enabling the municipality to carry out the technical study of the regularization project as long as it meets the basic conditions imposed by said law.

In principle, the provisions set forth in said law seem to invert the logic of implementation of the urban planning law, which currently favors financial interests to the wills of the

commercial real estate sector in lieu of the public interest. However, the power of the capital and the right to private property suggest that said legal provisions may become meaningless in the Brazilian legal system without political power.

The acquiescence of the State with illegal urban land occupations and its tolerance to clandestine or irregular occupations, added to public management practices that better suit to trends in the real estate market and civil construction industries and consumables, such as automobiles, that is, sectors that profit from the marginalization and deterioration of conditions of life by producing asphalt, works, roads, bridges, and vehicles for a long and lengthy transportation of these populations, all lead to the false illusion that these excluded populations have actual access to the formal city, which further damages the effectiveness of urban policies intended to preserve and control the use and occupation of the soil (MARICATO, 1995).

Moreover, it is worth noting that if the real estate speculation suggests that the “vocation” of the occupied area leads to losses to that financial sector, prohibitive legal provisions are rapidly enforced without any tolerance or analysis by all other indicators that led to such a housing informality (MARICATO, 1995).

The ongoing criminalization of poverty and – more specifically – movements that claim for land and housing practiced by the Judiciary Power, the Police, and the general media evidences the ideological construction of the private property concept and the creation of urban and environmental legislation in Brazil to favor the interests explained above. (MARICATO, 2011).

In this context, “justice” is made by overlooking the law, and not by the way it is practiced (MARICATO, 1995), which does not implement a right or protection to this part of society, but a complete abandonment, since the inspection of the use and occupation of the soil is exercised in a discriminatory fashion, according to the interests of the real estate market and the political manager, which makes use of the need for regularization and the absence of public services to disregarded populations to reinforce the paternalistic relationship between the Public Power and the occupants of irregular settlements.

In other words, this fosters the elected ruler’s pork barrel with this destitute portion of its supposed voters by means of small “favors” and palliative public works, giving the false impression that those occupants have a right to the city.

This is why the land regularization can bring effective benefits to people settled in environmentally sensitive areas, for the legalization of the ownership added to the implementation of basic infrastructure works and access to public utilities and spaces stand as primordial elements for the democratization of socio-environmental relationships, provided that measures for the environmental compensation, mitigation, and recovery are actually implemented.

Nevertheless, in addition to the challenges inherent to the force of speculative capital and the interest in maintaining the status quo of environmental segregation and social exclusion in pork-barrel practices by many members of government, there are other issues to be overcome and rethought in the policies for urban land regularization. One of the most important is that the use of such urban policies must not lead to the inversion in

the concept of construction of a city, where urban improvements and environmental preservation measures become the result of a disorganized and later legalized occupation.

Disorganized occupations of the land must be an exception to the rule and serve to adjust an incoherence to the legal order in force, and must be in tune with all other urban policies, particularly those intended for the planning, inspection, and control of the use of land, urban expansion, and populational densification. Otherwise, the risk to have the informal city as the model to be followed would be imminent.

Also, the use of such instrument to regularize occupations in PPA's must not slacken the interpretation of irregularities in the use and occupation of the land by private interests in order to obtain illicit financial advantage, as this would disfigure its purpose of repairing the socio-environmental segregation of poorer populations.

For this reason, it is important to point out that regularizations must not serve as a tool for impunity in cases of illegal land lotting practices, often used in evident bad faith, as these have already been described in Article 51 of the Federal Law on Land Lotting as a crime against the public administration (BRAZIL, 1979).

It should be emphasized that the participation of the parties interested in all phases of the regularization process is critical for its success, particularly the occupants - directly affected -, but also representatives from the organized civil society that exercise social control by means of councils related to municipal, environmental, city, and housing matters, as this would lead to a higher possibility to understand, correct, and overcome the problems they face and also to raise the awareness on the importance of preserving and taking care to a space that belongs to them.

Also, another obstacle to be overcome is how to convince environmental defenders that the idea of strict protection of natural resources apart from urban social and cultural issues and the absence of effective popular housing policies distorts the real dimensions of environmental problems and reinforces social conflicts and environmental degradation. In other words, the right to housing as part of the right to a sustainable environment.

Another significant challenge is to have the population that achieves access to the formalized city by means of such regularization process be also granted access to better opportunities of qualification, employment, and education, so that they do not stand as mere reproducers of the structure of oppression faced in the capitalist system in which they are inserted. More than that, it is important that this population begin to question that structure as individuals that are subject to reiterated segregations, not only spatial, but only cultural and intellectual segregations that reveal the social abyss produced by differences in social classes and individuals.

However, it is worth noting that the public power frequently poses resistance to the application of such measures due to the conservationist approach to the environment. It is important to understand that the regularization of settlements in environmentally sensitive areas brings benefits to the occupied area its occupants, and also to the urban as a role. Therefore, to do so, the myth of an untouchable nature must be brought down.

2.3 Environment and Nature

Diegues (2001) affirms that, throughout history, humanity took several measures in the attempt to preserve nature. In the 19th century, the USA started to create natural reserves and national parks. Seen as one of the main elements of preservation of nature, that strategy served as a role model for several other countries in the world, including Brazil. The broader objective of those protected natural areas is to preserve spaces with important ecological attributes. When they were created, those areas were intended to protect nature from urban-industrial civilization. However, the existence of this wild, pristine, untouchable natural world is now part of a modern myth. Diegues affirms that there is no such a thing as nature in its pure state. Today, biogeographers refer to natural regions that now usually correspond to areas extensively manipulated by mankind. Thus, we may reach the conclusion that, in order to better manage our preservation areas, particularly our environmentally sensitive areas, we should rethink the way these areas have been treated, as the current reality of poverty and lack of decent housing alternatives that lead to irregular occupation and self-construction are often disregarded.

When planning environmental preservation areas in urban regions, the public power enters a battle against their occupation, which has shown to be an endless struggle, as the real estate mindset that thrives in the cities continuously pushes lower income populations to the margins, which are very often considered to be environmentally sensitive areas. According to Ferreira & Ferrara (2012), it is also worth noting that the critical environmental condition of several Brazilian cities is not solely related to the occupation of preservation areas. Those who believe in the existence of a sustainable urbanization in richer neighborhoods are deeply mistaken. According to some authors, it is important to accept the fact that no country that has promoted economic growth through urbanization has been successful in avoiding environmental impacts. However, not every urbanization is necessarily negative. In order to promote a less aggressive urbanization, we must change our basic standards to avoid repeating the same predatory processes used in northern countries, and instead adopt an ideal of socio-environmental justice. Therefore, by accepting the existence of countless people left apart from our economic system, incapable of including themselves into the logic of cities, and consequently led to occupy environmentally sensitive areas, the public power can grant appropriate treatment to these situations by taking compensating, mitigating, and repairing actions. And this is exactly what the implementation of Law no. 11.977/09 determines.

According to Bueno & Almeida (2015), the regularization of a settlement within a Permanent Preservation Area must be based on actions aimed at promoting the environmental recovery and compensation, and minimizing environmental impacts. Environmental remediation actions involve removing the pollutant from the environment and restore the degraded environment, which may involve resettling families already located within the restriction boundaries (between 15 to 30 meters from water bodies) and the reforestation of the area. On the other hand, environmental compensation actions are used to provide infrastructure to deficient housing areas through the implementation of rainwater infiltration wells, for instance. Finally, mitigating actions are intended to prevent or reduce the magnitude of the effects of urbanization by implementing sewer collection and treatment, erosion control, etc. It is worth noting that, when implemented, these actions minimize not only the local environmental impacts, but also positively affect

other surrounding urban areas. The application of these measures, as well as the regularization as a whole, bring countless benefits to the occupied area and to the occupying population.

On the other hand, the forced removal of populations living in environmentally sensitive areas, or the failure to take measures to regularize and implement remediation, compensation, and mitigation measures bring several negative impacts, as we discuss below.

2.4 Negative Aspects – Non-Application of Law no. 11.977/09

Irregular occupations in PPA's are found in Brazilian cities in a more or less accentuated manner, according to the dimension of the municipality and its economic and structural reality. As a result, the absence of policies intended to recover and preserve environmental protection areas and eliminate the risks posed to the occupants and nature can only increase this segregation from the formal city along the years.

An example of this fact is the complex case of *favelas*, or shantytowns, located in the district of Itaim Paulista, far east of the capital of São Paulo (FONSECA, M.; LUZ, F.; CORREIA, J., 2014). The preparation for the removal of families settled in Favela Monte Taó (Figure 1), at the sides of the Itaim stream, was a hindrance to the intervention process (Figure 2). This was because no appropriate housing alternatives were offered to the families settled in the PPA, disregarding their right to decent housing. As a consequence, all that they received was an indemnification payment that was not proportional to the minimum amount required for them to adjust to a sustainable housing option, which led to the maintenance of their precarious quality of life and the inefficacy to eliminate risks, since many of them moved out just to occupy other degraded areas of the same favela.



Figure 1: Original situation of Favela Monte Taó (Source: FONSECA; LUZ; CORREIA, 2014)



Figure 2: Situation after the removal of families. The stream resumed its original natural conditions and the families - without a housing alternative - moved to other locations not suited for urbanization. (Source: FONSECA; LUZ; CORREIA, 2014)

Unfortunately, there are several other cases of human settlements in environmentally sensitive areas that have not been duly handled. Favela Monte Taó, mentioned above, is one of them. The iconic case of Parque Linear Canivete, in the north zone of the city of São Paulo, is another example.

Finally, it is important to point out the need to prioritize the urbanization of the occupied areas by adopting the processes of intervention in PPA's, preferably measures of recovery, compensation, and mitigation in order to keep the families in those locations instead of removing them from environmentally sensitive areas, since the improper housing approach used in these removals have demonstrated that these families return to other areas or risk or environmentally fragile, which maintains the social and ecological vulnerability in this disgraceful scenario.

2.5 Positive Implications of Law no. 11.977/09

On the other hand, the application of Law no. 11.977/09 ensures that people occupying environmentally sensitive areas out of the restriction boundaries (15 to 30 meters from water bodies) can live in decent conditions, and ensures the reduction of the damages to the occupied areas. As for the social aspects, there is a direct relationship between environmental degradation and health. In precarious areas, the poor quality of water, the inadequate discharge of effluents, and the lack of sewer systems are responsible for diseases such as leptospirosis, dengue fever, hepatitis, and others (MARICATO, 1995). Therefore, the recovery of these locations not only ensures the environmental and water recovery of the area, but also the entire water micro-basin in which the settlement is inserted (BUENO & ALMEIDA, 2015). Moreover, occupations in hillsides and valley bottoms are frequently subject to landslides and floods. Thus, providing the necessary urban infrastructure to these areas would lead to a reduction in the occurrence of these disasters and the consequent improvement in the quality of life of the population, also reducing the vulnerability to the forced removal of the population.

As for the environmental aspects, the remediation and mitigation measures provided for in the Law are extremely beneficial to the environment, as they promote the reforestation of degraded areas, cleaning of the area, recovery of the quality of water, fauna, and flora, etc., allowing the environment to return to its natural conditions to the maximum extent possible. And, finally, compensatory measures prevent future damages to water bodies and the vegetation, since the implementation of infrastructure equipment reduces the impacts of inappropriate housing to environmentally sensitive areas.

3. FINAL CONSIDERATIONS

Deepen the integration of public policies on housing, sanitation and environment, in the actions of interventions in APP's occupations is necessary. The lack of articulation between these key policies and the processes of urbanization and land regularization of urban settlements located in such environmentally sensitive areas, makes possible to achieve only few results in the recovery and preservation of these areas and of the people who live in them.

Importantly, the simple removal of these populations from the occupied areas cannot be seen as a solution to the problem of poor housing and recovery as well as the preservation of the environment. For this reason it is necessary to diagnose the occupied place, rating it by technicians who operate in these three spheres of public policies of land use regulation, and also adopting the environmental licensing procedures and urban and social support that make such regulation possible.

It is remarkable, that the relationship of the inhabitants with the stream neither match their ecological recovery, nor provides its appreciation in the urban space. It's necessary to develop more effective proposals that are able to promote the ecological restoration of an urban stream and enhance its presence to human life.

In the light of the arguments above, and in view of the existence of well succeeded PPA regularization projects, we conclude that the most appropriate way to achieve socio-environmental justice in Brazilian cities is to acknowledge and adjust these settlements to receive the infrastructure required for their consolidation. The expulsion of lower income population from precarious settlements in PPA's can only ensure the continuation of the cycle of deforestation of natural resources and social exclusion.

Hence, it is worth noting that Law no. 11.977/09 stands as an indispensable instrument in the fight for decent housing and good conditions of life to populations that are led to occupy Permanent Preservation Areas, as it ensures that proper infrastructure is provided to these locations. In addition, it allows a balanced and sustainable environment to be accomplished as remediation, mitigation, and compensation measures are implemented in these locations.

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