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ID 1671 | LISBON SOCIAL DIMENSION IN URBAN RESILIENCE

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ABSTRACT: The world has been facing a continuous increase in the number and size of urban areas. Social dynamics changes are inevitable, calling for the need to examine and monitor urban systems, in particular urban resilience to social problems and to changes in socio-ecological systems. This paper intends to analyze and understand how the municipal policies in Lisbon have been contributing (or not) to the resilience of the urban system, through a social dimension. We have looked at what is that socially drives the urban system, what, why and how social disturbances and changes affect its resilience, and how the municipal policies may contribute to it. A literature review on urban resilience and social innovation was developed to identify a proper methodology to be adopted and to identify the main elements to be addressed in this analysis. The methodology adapted consists of five steps: (i) translation of the social dimension into urban resilience, through social dynamics and social innovation concepts; (ii) definition of the focal scale; (iii) identification of indicators; (iv) development history; (v) interpretation from the perspective of long-term resilience. In applying the methodology to the city of Lisbon, the city governments´ policies were analyzed, and the social drivers, social disturbances, and changes affecting the urban system resilience identified and assessed. The results indicate that demography, social vulnerability, mobility and city attractiveness prove to be key drivers to assess the social contribution to urban systems resilience. These key drives can be applied to other cities with the same urban development typology as Lisbon. Research on the Lisbon's system showed that the city has been facing, over the last 50 years, a mix of desirable and undesirable qualities. Desirable qualities seem to facilitate the urban system's transition to a sustainable behavior, building urban long-term resilience; while the undesirable qualities can be seen as an opportunity to reverse the city social disturbances negative trends by changing current city governance policies.

1 INTRODUCTION

The world has been facing a continuous increase in the number and size of urban areas. The United Nations (2014) has already alerted that the world has, currently, a population of 7.2 billion of which over half (54 percent) lives in urban areas.

Cities, as growing drivers of the world's future and engines of economic growth, present several social challenges, as poverty and disease, but at the same time offer opportunities for sustainability. Social dynamics changes are inevitable, calling for the need to examine and monitor urban systems, in particular urban resilience to social problems and to changes in socio-ecological systems.

The present paper intends to analyze and understand how the municipal policies in Lisbon have been contributing (or not) to the resilience of the urban system, through a social dimension.

Thus, a literature review was performed on the concepts of urban resilience and social innovation, in order to identify a proper methodology to be adopted and to identify the main elements to be addressed in this analysis. After, the methodology developed by Kumagai, Gibson, & Filion (Kumagai et al., 2010) was adapted to the context and purpose of this paper and applied to the city of Lisbon.

A particular focus of this paper is on governance actions. More specifically, on Lisbon municipal policies and plans and their respective strategies, objectives and proposed actions to be devloped and implemented.

2 LITERATURE REVIEW

2.1 URBAN RESILIENCE

Urban systems are complex and dynamic systems with ecological and human issues that depend on each other at multiple scales , where ecological functions are altered to accommodate the human activities and structures (Kumagai et al., 2010). Cities, urban systems, as living systems – open, dynamic and connected systems – are continuously evolving through the influence of internal interactions and external factors (Bai, 2003), being considered one of the best examples of a social-ecological system (SES) (Levin, 1999).

Cities may change abruptly and faster than the human capability to understand the influence of certain factors on those changes (Resilience Alliance, 2007), demanding a profound knowledge on cities complexity and development, and capacity to adapt (Batty, Barros, & Alves Junior, 2004). Resilience Alliance (2007) considers that the abrupt changes of cities depend both on temporal and spatial perspectives and that what may appears to be an abrupt change to a certain system might be a gradual or insignificant to another system. For example, the urban gentrification process can take decades, market cycles in housing prices crashes over months and sometimes years, stock markets crashes over days, while urban traffic jams occur over minutes (Batty et al., 2004).

The concept of resilience applied to urban systems can be defined as the "degree to which cities are able to tolerate alteration before reorganizing around a new set of structures and processes" (Alberti et al., 2003), and measured by the way cities balance simultaneously human and ecosystem functions (Resilience

Alliance, 2007). The decrease of resilience increases vulnerability, leading to the urban system exposure to greater risks of the vagaries of surprise and uncertainty (Folke et al., 2002). Generally, the resilience decrease takes progressively smaller shocks to cause crises or chaos on systems. This is a cumulative process that tends to shift a systems towards criticality (Resilience Alliance, 2007).

An earlier approach developed by the Resilience Alliance (Resilience Alliance, 2007), the urban resilience four cores, looks into urban resilience structured in four subject areas:

- Metabolic flows, consider production, supply and consumption chains which do not start or end within the city premises;

- Governance networks, include institutional structures and social organizations and the society capacity to learn, adapt and reorganize to meet urban challenges related to rapid urbanization and its environmental impacts;
- Social dynamics, consider demographics, human capital and inequity, as well as urban individuals and their interactions (groups or communities) with urban landscapes, and the influence of a cultural set of patterns determining a social order;
- Built environment, the urban physical patterns and their spatial relations and interconnections, such as: ecosystem services in urban landscapes, modeled by the process of urbanization, subjected to complex patterns and processes interactions.

Understanding the role of time and how it affects future urban options is a very important part in urban resilience (Resilience Alliance, 2007). These four core subjects allow the study of the urban system resilience (as a whole) and of each of the four subjects of the urban system individually.

Many applications of resilience to urban systems have been dealing with the potential future changes and disturbances that may affect the system, disregarding whether or not the results contribute to a sustainable behaviour. Sustainability includes, as one of its crucial elements, lasting well-being which can be understood as the "decent life for everyone based on integrity of socio-biophysical systems and maintenance of their support functions, while paying attention to intra- and inter-generational equity" (Gibson, 2006; Kumagai et al., 2010). Intra-generational equity requires ensuring that sufficient and effective choices are pursued for all in ways that reduces dangerous gaps in sufficiency and opportunity – and security, health, social recognition, political influence, and so on – between the rich and the poor, while intergenerational equity requires favoring the present options and actions that most likely will preserve or enhance the opportunities and capabilities of future generations to live sustainably (Gibson, 2006).

In order to differentiate from those applications, Kumagai et al. (2010) developed a methodology to assess the resilience of urban systems regarding lasting well-being, the system transition to a sustainable behavior and governance activities through the perspective of long-term resilience. Their methodology consists in understanding what drives the urban system under assessment, what characterizes it, how did the urban system developed/changed through time and in analyzing it through the lens of long-term resilience.

The long-term resilience of an urban system is "the system capacity to respond to change and disturbance and to enhance the conditions for well-being, based on careful attention to the complex interrelationships of all factors and to the specifics of particular contexts through governances combining adaptation with transition" (Kumagai et al., 2010).

Kumagai et al. (2010) identifies as one of the urban resilience study major problems the fact of resilience might be desirable or undesirable. The ecological literature tends to assume resilience – the maintenance or re-establishment of system capacities to maintain structure and function – as positive, but when considering human systems such assumption is more difficult to do and might become considered as regrettable. For example, the resilience of systems that support organized crime and perpetuate racism or high-consumption habits is undesirable because it would not promote lasting well-being of the urban system. It can be assumed that every urban system has a mix of desirable and undesirable qualities and that is not always desirable to have a resilient system (Kumagai et al., 2010).

Building long-term resilience of urban systems requires that the efforts to enhance the resilience of systems delivering desirable services be accompanied by, and integrated with, efforts to facilitate transition to systems that foster and support sustainable behavior (Kumagai et al., 2010).

Building long-term resilience also requires governance structures and practices and can be achieved through five governance activities (Kumagai et al., 2010):

- Recognition (by governance arrangements) of complex system in terms of boundaries, contexts, interdependency, fast and slow variables, modularity, and interactions;
- Anticipation (based on recognition) of future possible disturbances and vulnerabilities;
- Active transition (enabled by anticipation) to act previously to disturbance;
- Adaptability against inevitable surprising disturbances and

- Communication backed by trustworthy networks, willingness to learn and change, and structural flexibility must support and enable the other four activities.

Kumagai et al. (2010) also states that the incapacity to make transition needed to deal with anticipated changes further reduces the potential adaptive capacity of the urban system.

2.2 SOCIAL INNOVATION

The term social innovation (SI) was first addressed, in the academic literature, by Max Weber and Emile Durkheim, who defined SI as “innovations in the organisation of work and of society” (Hubert, Thébault, Schinas, Bonifacio, & Konings, 2010). Max Weber defined a relationship between the concepts of social order – set of social structures, institutions and practices which linkage aims to maintain and apply behavioral and relationship ways – and innovation – improved solutions application to meet new, in-articulated, and/or current market needs (Maranville, 1992) – as the social change impact of certain behaviors considered, in the beginning, as uncommon or unexpected (Hubert et al., 2010).

Afterwards, social innovation re-emerged as a concept and practice to deal with economy restructuring implications, changes introduced by the development on information technology and mass unemployment. Since then, several definitions and considerations on social innovation have been developed in the last years by several authors (Cloutier, 2003; Hämäläinen & Heiskala, 2007; Hubert et al., 2010; Moore, Westley, Tjornbo, & Holroyd, 2010; Mulgan, Tucker, Ali, & Sanders, 2007; Mulgan, 2006; Nussbaumer & Moulaert, 2007; Phills, Deiglmeier, & Miller, 2008; B. F. Westley, Zimmerman, & Patton, 2006; F. Westley & Antadze, 2010).

F. Westley & Antadze (2010) definition of this concept can be highlighted: "complex process of introducing new products, processes or programs that profoundly change the basic routines, resource and authority flows, or beliefs of the social system in which the innovation occurs" (F. Westley & Antadze, 2010).

The social system may be defined as "any organized assembly of human resources, beliefs, and procedures united and regulated by interaction or interdependence so as to accomplish a set of specific functions" (F. Westley & Antadze, 2010) with its own boundary, culture and political identity, economic structure and social interactions established (F. Westley & Antadze, 2010)(F. Westley & Antadze, 2010). Westley (2008) alerts for the importance of social systems to keep their identity while, at the same time, to be able to adapt to change and novelty.

Christensen et al. (2006) states that a social innovation with a broad or durable impact will be disruptive, catalytic, and will challenge the social system and social institutions as well as will enable some changes in their convictions and governance ideals. In other words, Westley and Antadze (2010) and Westley (2008) refer to a broad or durable impact social innovation as a successful social innovation that must have a wide scope, crossing as many social levels as possible, and reaching different scales.

Huddart (2010) states that social innovation "opens up new approaches to addressing complex problems and covers a lot of ground, but is still taking shape", and proposes twelve principles to guide strategy around social innovation after developing an analysis of initiatives considering environmental, economic and social spheres. Principle 7 “Commit to social inclusion”, for example, considers that the inclusion of vulnerable populations leads to more wide solutions and enduring results.

Society can be defined as "a myriad of rules, some formal, others informal such as cultural practices that determine how people interact with the ecosystems around them" (Resilience Alliance et al., 2010), and the capacity of a society to generate a steady flow of social innovations is an important contributor to overall social and ecological resilience. In a broad sense, social innovation can be seen as part of the solution for the complex problems regarding SESs in the world (F. Westley & Antadze, 2010; F. Westley, 2008).

Westley and Antadze (2010) and Westley (2008) present the example of vulnerable populations' re-engagement (community reintegration of lonely, homeless, mentally ill and poor people) as a frequently addressed subject in social innovation agenda and as a contributor to resilience increase. Contrarily, the exclusion of some population from primary services, for example, leads to a loss of resilience and also to the exclusion of these population opinions, points of view and diversified experience. Therefore, social

innovation serves and is served by vulnerable populations, and their re-engagement in social systems identity as persons of interest and involved ones is linked to social-ecological resilience (F. Westley & Antadze, 2010; F. Westley, 2008).

3 METHODOLOGY

The methodology adopted in the present paper is based on one existing methodological approach to resilience in urban systems available in the resilience theory literature and developed by Kumagai et al. (2010).

Kumagai et al. (2010) methodology assesses the resilience of urban systems and uses as its focal system the City Region of Tokyo, adopting a long-term perspective, considering people's lasting well-being and governance actions through five steps:

1. Translation of resilience into urban context: defines the elements that characterize and drive the type of urban system in analysis (for example, a city under or already developed or a post-industrialized city), and establishing the framework for performing the resilience assessment;
2. focal scale definition: defines the spatial and temporal boundaries;
3. indicators identification: the focal scale indicators are grounded by the identified elements;
4. development history: analysis of the indicators evolution across time
5. interpretation from the perspective of long-term resilience: assesses the long-term resilience of the focal scale according to the change/evolution of indicators, considering governance activities to build long-term resilience for the lasting well-being of people.

The main purpose of this methodology was to look at how urban system incorporates resilience. In the case of Lisbon, presented in the next sections of the paper, the purpose was to look at how urban resilience can incorporate a social dimension. Therefore an adaptation of the Kumagai et al. (2010) methodology was necessary and developed.

Kumagai et al. (2010) identified four aspects to interpret resilience in the urban context - demography, mobility, tax revenue and resource-efficiency (relevant to relate resilience to the urban redevelopment of post-industrialized cities such as Tokyo City Region). In the case of the city of Lisbon, the objective has been to translate and integrate social resilience into urban resilience context, and four drivers of urban resilience were adopted:

- Demography: understands how and why population has been changing and provides an analysis of the emerging demographic issues that must be considered by governance;
- Social vulnerability: understands people's emerging needs and risks, and provides an analysis of the social state for governance priorities;
- Mobility: provides an analysis of the socio-economic relations between the urban system and its surroundings regarding the population access and use of the transport network;
- City attractiveness: - relates to how attractive the urban system is, what are its strengths and how governance is managing such strengths;

As in the Kumagai et al. (2010) methodology, a particular focus of this paper will be on governance actions. The political and planning measures adopted by the city governments over time, as well as the actions and initiatives developed were analyzed.

The following section shows the application of the adapted methodology to the case of the city of Lisbon. It includes, first, a brief presentation of the city government policies over the years, and after the identification and analysis of the four drivers that will allow the further assessment of the case study's social disturbances through the long-term resilience perspective.

4 CASE STUDY

The present case study is the city of Lisbon, capital of Portugal and one of the Lisbon Metropolitan Area municipalities, as represented in Figure 1. Lisbon is the focal scale in this study.

The city of Lisbon is the most populous one of Portugal, with a population of 506.892 inhabitants within its administrative limits (INE - Instituto Nacional de Estatística, 2014a; PORDATA, 2015), within a surface area of 100 km2 (IGP - Instituto Geográfico Português, 2014).

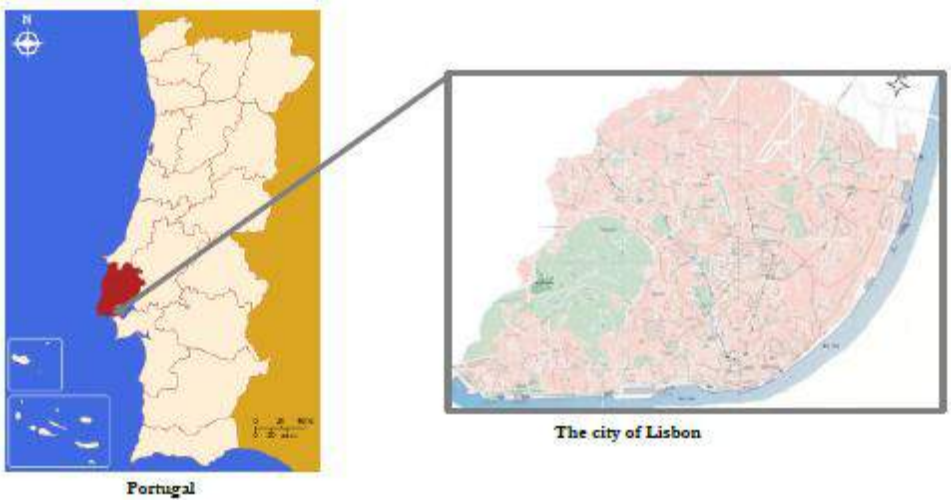

Figure 1: Location of the city of Lisbon in Portugal.

Owner of a characteristic charm and located across Tagus River, Lisbon is considered a global city due to its financial, commercial, artistic, educational and touristic importance, and the country's main economic and urban center. Within its limits, Lisbon has the biggest and busiest airport – Portela Airport – and the oldest underground subway in the country – Lisbon subway.

During the last 80 years, Lisbon urban area has been evolving according to the major directives of development defined in the city master plans. About 80 years ago, the country and the city governments "started" the Lisbon expansion through the construction of roads and new housing neighborhoods, economic housing neighborhoods and housing for poor. The need for a city master plan was recognized, but the urgency for the constructions did not allow it to be done in advance, leading the city government, afterwards, to admit that with the knowledge of a master plan, several problems would have had different solutions than the ones adopted. Thus, in 1938 the city government (under the administration of the Engineer Duarte Pacheco) hired the urban architect Étienne de Gröer to, along with municipal technical services, define the major guidelines of the city expansion and develop the first master plan of Lisbon, which was concluded in 1948, the Lisbon Urban Master Plan of 1948 (LUMP 1948).

After the new legislation for developing Municipal Master Plans (MMP) in 1990, the Lisbon Municipal Master Plan of 1994 (LMMP 1994) established the occupation, use and transformation rules of the municipal territory. However, it did not consider its implementation schedule, being mainly an administrative and supportive document.

In 2001, the city government of Lisbon initiated the process of revising the LMMP 1994 and during the years the LMMP 1994 was under revision, the city government realized several workshops and forums of discussion for stakeholders to participate and assured, afterwards, that their contributions and opinions were considered in the development of the new MMP, Lisbon Municipal Master Plan of 2012 (LMMP 2012).

The LMMP 2012, the MMP currently in force, establishes the major development strategies and the urban policies for the municipal territory. It also defines its implementation schedule, acquiring a strategic character and no longer being just an administrative and supportive document. The LMMP 2012 reflects an integrated vision of the municipal territory and aims to reinforce the city competitiveness, to ensure territorial equity and to support territorial integration and cohesion. Table 1 presents the resume of the main objectives of the three Municipal Plans of Lisbon analyzed, LUMP 1948, LMMP 1994 and LMMP 2012.

LUMP 1948	LMMP 1994	LMMP 2012
Limitation of the urban development	Protect urban life quality	Attract more inhabitants
Regulation of the land use	Harmonize the relation between housing and services construction	Attract more business and jobs
Establishment of the use of high speed paths	Humanize the city and its public spaces	Stimulate urban rehabilitation
Administrative, social and cultural equipping of each neighborhoods and the city	Improve mobility, transports and parking	Qualifying public space
Sanitation and improvement of dwelling and work places	Recovery and rejuvenation of the city resident population	Return the riverfront to the people enjoyment
Conservation and protection of architectonic and natural city wonders	Increase Lisbon potential as a city metropolis	Promoting sustainable mobility
		Increase environmental efficiency

Table 1: Main objectives for the three Municipal analyzed, LUMP 1948, LMMP 1994 and LMMP 2012. Data source: CML - Câmara Municipal de Lisboa (2012, 1994a, 1994b), Groer and CML - Câmara Municipal de Lisboa (1948) and Soares (1994).

The International Society of City and Regional Planners (ISOCARP)[1] assigned, in 2013, an excellence award to the LMMP 2012 for its innovative character regarding the theme: Frontiers of Planning – Evolving and Declining Models of City Planning Practice.

4.1 DRIVERS

As referred before, the analysis of the social dimension was developed according to four drivers: (i) demography; (ii) social vulnerability; (iii) mobility; (iv) city attractiveness. For each driver it was considered a set of available data, allowing the analysis of the drivers.

As for the driver demography, it is possible to state that the evolution of the population living in Lisbon has been decreasing since 1981 as a consequence of the Lisbon Metropolitan Area massive urban development and of the increase of the Lisbon price per m2. As an attempt to revert this situation, the LMMP 1994 defined as one of its major objectives the recovery of the city resident population, which was reinforced in the LMMP 2012 with the definition of the goal: attract more inhabitants. Moreover, the LMMP 2012 intends to: (i) create an affordable housing program through an incentive system directed to the middle class, and of parking for residents, especially in the neighborhoods with an identified need; (ii) approach work and resident places through the previous elaboration of a multifunctional MMP; (iii) protect residential neighborhoods from high levels of noise and bad air quality due to traffic; (iv) construction of new sports equipment and rehabilitation of older ones.

However, this continuous decrease in resident population, mainly due to the exit of the younger population from the city of Lisbon, has been contributing to the population ageing. In fact, in 2001 the ageing population index registered its highest value in Lisbon (203,4%), followed by an apparent stabilization. Nevertheless, local government recognized, in 2008, that this tendency of ageing population had reached a critical point and started developing assisting programs to promote a healthy and active ageing of the city inhabitants. The LMMP 2012 even highlights, as a priority, the intention of constructing day centers, residential housing, nursing homes, university residences and multifunctional spaces for seniors.

The infant mortality and illiteracy rates, both have been decreasing, being nowadays almost eradicated. This decrease is mainly due to the national government reforms on health and education initiated around 1970 (when both indexes were very high) that allowed all population to access education and medical care. Nowadays, the increase access to education and health services continuous to be guaranteed through, for example, the LMMP 2012 action guidelines for these issues: (i) construction of new 1st cycle and pre-schools, rehabilitation of older 1st cycle schools and opening of nursery schools vacancies; (ii) construction of an hospital, of health centers and continuing care units.

[1] ISOCARP is an international association, founded in 1965, that gathers the most recognized and highly qualified urban planners.

The set of data available for the driver social vulnerability presented different evolutions. In one hand, the criminality in Lisbon (number of crimes per thousand inhabitants) has been decreasing, presenting in 2015 its lower value ever.

On the other hand, the unemployment rate of the inhabitants of Lisbon has been increasing, presenting a more pronounced increase since 2010. It can be argued that this pronounced increased is due to the financial and economic crisis in the country since 2009. As an attempt to counterbalance this pronounced increase, the LMMP 2012 has as one of its objectives to attract more jobs, improving the capacity to create more jobs and install more workplaces and increasing the city economic sustainability.

However, the loss of economic power has been contributing to the increase of vulnerability of Lisbon population. The continuous increase of the number people in homeless situation is one of the examples of this increase of vulnerability. This complex issue of has been recognized, as critical, by the city government, who has been developing programs to support this vulnerable population in an integrated way.

But, with so many issues contributing to the increase of vulnerability of the city (loss of economic power, increase of unemployment and increase of homelessness population), the need for special attention and for the assistance to the population increase. The Food Bank in Lisbon has been able over the years to increase its assistance to people and institutions, even with a slight decrease in the number of received products.

As for the mobility, the city of Lisbon has registered, over the years, a continuous increase in the number of people entering the city work or study. This is coincident with the major decline in the resident population of Lisbon and consequent continuous growth of the resident population in the other municipalities of the Lisbon Metropolitan Area (population that no longer lives in Lisbon but continues to work there).

Along with this, there is also an increase, although much lower, in the number of people exiting the city to work or study. This might be justified by the exit of some sectors of activity from the city of Lisbon to the periphery (other municipalities of Lisbon Metropolitan Area) due to improvement of the accesses and infrastructures near Lisbon and mostly due to lower rental costs. The need to attract more business and more companies to the city is recognized by the local government in the LMMP 2012, where is declared the intention to: (i) be possible to locate companies in any point of the city; (ii) reserve space for companies in future urbanizations and supply of adequate spaces for companies installation; (iii) use better the existing business areas; (iv) intervene in the market to compete with the business clusters in the border municipalities through MMP new soil programming mechanisms; (v) increase the edificability index and reduce the permissions in urban polarities and business areas; (vi) support initiatives regarding the reuse of abandoned industrial spaces.

The increase of people circulating in the city every day along with the development of accesses and public transportations, led to the increase of collective transports investment, namely to the expansion of Lisbon subway, through the increase on the subway's network length. Also the number of the subway passengers has been increasing though the years. Nowadays, is under discussion the expansion of the subway network to more four areas of the city.

The local government identifies in the LMMP 2012 the need to ensure a sustainable mobility through (i) the promotion and increase of collective transport, (ii) the reversion of traffic congestion, (iii) the daily use of bike paths, (iv) the improvement of sustainable and multi-modal mobility and (v) the qualification of public space. The LMMP 2012 also has several actions identified to be implemented to promote this sustainable mobility, as for example: (a) the increase of bike network, security and comfort in the use of bicycle in urban areas; (b) the creation of a bike sharing service, and of conditions to increase subway network through channels reservation to the network expansion; (c) Reduction of the number of vehicles entering the city through the control of parking supply for those who enter the city to work; (d) Increase the parking supply for residents. Most of these actions are already implement or to be implemented.

At last, the driver city attractiveness. The increase of the real estate valorization, for example, has been leading to the exiting of population from the city of Lisbon to its periphery. As already identified, the LMMP 2012 highlights several actions to attempt to stop this exit.

As for the number of startups operating in the city, despite the financial and economic crisis lived, the innovation persisted, and the number of startups has been increasing over the years. The local government emphasizes the need to keep promoting these business model, promoting, in the LMMP 2012, business incubators through the continuity of the existing start-up model.

The attractivity of the city to tourists (either foreign or national) has also been increasing, with the overnight stays in Lisbon hotel and similar establishments doubling between 1992 and 2012. The city of Lisbon has even been rewarded for its excellence. In the last 10 years, the city has been distinguished with a total of 29 World Travel Awards, and in the year of 2014 Lisbon received 8 awards including the Europe's Leading Destination. The LMMP 2012 strengthens the need to keep improving the touristic appealing of the city through (i) the creation of more public spaces to overcome the lack of green areas in the city historical center, (ii) the improvement of public space "life" for people and (iii) the qualification of the riverfront for recreation, leisure and tourism. The last two points are being implemented, being still possible to see some of these works in the city under development.

5 DISCUSSION AND CONCLUSION

The urban spatial planning along with the drivers analysis (as presented in the previous section) show that the Lisbon urban system has been facing, over the last 50 years, a mix of undesirable and desirable qualities.

The undesirable qualities correspond to the social disturbances that the urban system has been more difficult to respond to, and which have been the major concern of the current city government in an attempt to revert their negative trends. Thus, it is possible to identify them as the decline in the resident population, mostly the younger and active one, and a consequent ageing demographic trend over the last 30 years, the fast increase of unemployment rate in the last years, the continuous exit of companies from Lisbon to the periphery registered over the last decade and the increasing population leaving in a homelessness situation

All these social disturbances have been recognized by the current government as critical issues that need to be addressed and overcome. For all, were designed strategies and actions, mainly in the LMMP 2012, to be implemented, in an attempt to revert the negative trends, as, for example:

- the creation of affordable housing program through an incentive system directed to the middle class and the approach of work and resident places, to attempt to revert the decline in resident population;
- the construction of day centers, residential housing, nursing homes and spaces for seniors, to promote a healthy and active ageing;
- the improvement of the capacity to create more jobs and install more workplaces, to attempt to revert the increase of unemployment rate;
- the possibility of locating companies in any point of the city, the reservation of space for companies and the intervention in the market to compete with the business clusters in the boarder municipalities, to attempt to revert the exit of companies and
- the development of programs to integrate and support homeless population.

The current MMP not only addresses the undesirable qualities as an attempt to revert them, as it identifies and addresses the desirable ones as a way of promoting lasting well-being.

As for the desirable qualities, these can be identified as those that create capacity for the urban system of Lisbon to respond to disturbances, more specifically, the positive trends previously identified (infant mortality and illiteracy rates almost eradicated, increase of the number of startups, increase of the touristic appealing, decrease in the number of crimes and the increase in the assistance of the Food Bank to people and institutions).

Once again, for all these issues, the current city government identified strategies and actions, mainly in the LMMP 2012, to be implemented, as:

- the construction of new schools and rehabilitation of older ones;

- the construction of an hospital, of health centers and continuing care units;
- the promotion of the business incubators;
- the increase of bike network, security and comfort in the use of bicycle;
- the improvement of sustainable and multi-modal mobility;
- the qualification of public space and
- the requalification of the river front for recreation, leisure and tourism.

Some of these points have already been implemented by the current city government, as the ones regarding sustainable mobility. Others, as the requalification of the river front is being implemented.

As a conclusion, it is possible to state that the municipal policies of the current city government, mainly in the representation of the LMMP 2012, are promoting lasting well-being and contributing to maintain the desirable qualities in that state, as desirable. Moreover, it can be said that these qualities are contributing to the long-term resilience of Lisbon urban system, once they not only promote lasting well-being, as they create capacity for the urban system to respond to disturbances and facilitate the urban system transition to a sustainable behavior. Thus, the municipal policies of Lisbon addressing these desirable qualities are contributing to the urban system resilience.

In terms of the undesirable qualities, it is important to highlight that in previous plans to the LMMP 2012, not all the social disturbances were identified and addressed, which led to a critical point, as being faced nowadays. Even for the case when the social disturbance was addressed, as in the LMMP 1994 attempt to revert the decline of resident population, it appears that the strategy defined to revert the negative trend was not well succeeded, once the trend continued to occur afterwards.

The undesirable qualities represent the social disturbances that the urban system must continue to deal with and that the current city government is attempting to revert, being necessary more time to understand if this attempt will be well succeeded or not.

Thus, municipal policies represent an important contributor for an urban system resilience, as long as they are strategic and, most important, as long as they are flexible to be able to adapt to the changes occurring in the urban system.

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