Cities and Covid-19: challenges and strategies based on the Brazilian case

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Abstract

This policy brief analyzes and examines the correlation between cities and the COVID-19 pandemic moment, showing the challenges and possible strategies as indicators for urban sustainability. In addition, in order to exemplify, a Brazilian case was highlighted describing and highlighting the evidence, which can be used as tools for the Sustainable Development of cities, one of which is the implementation of information systems.

Introduction

The Covid-19 pandemic has highlighted worldwide discussions about the advanced urbanization process that has permeated the global dynamics in recent decades, which has caused dense demographic increases. Thus, socio-environmental and socio-economic issues began to resonate as driving themes to think and rethink more sustainable and intelligent dynamics that would enable the development of urban regionalities. Thus, two main characteristics began to guide the discussions around urbanization, being them a) sustainable cities, and b) Right to the City - RTTC.

These discussions, even though they were already essentially relevant, gained strength from the Pandemic's difficulties. Regarding sustainable cities, it is verified that its essence finds support from the systematic division that makes up the objectives for sustainable development, that is, under the economic, environmental, social and institutional perspectives, seeking a balance between these elements (Gonçalves et al., 2021). On another note, the right to the city is not a strictly defined concept, having a multipurpose connotation, on the one hand by the population in general, and on the other, established in normative texts, such as the Statute of the City-Law 10.257 of 2001 in Brazil, already in a global perspective the New Urban Agenda of UN- Habitat (Dias et al., 2022) . With the issue of the pandemic, these two themes: sustainable cities and the right to the city, gained even more notoriety, due to the multiple global disorder and unpreparedness of cities to establish mechanisms to contain and organize pandemics.

Regarding the term right to the city, one should recall Lefebvre's propositions in 1968 when he coined the expression, denoting access to fairer, more equitable and even sustainable cities (Lefebvre, 2016).

However, the term over the decades has also been used in the form of claims by populations that do not have access to essential city services, which denotes the idea of unsustainability in cities.

In Brazil, Law 10.257 (Statute of the City) characterizes this right as the "objective" to be achieved by the Brazilian Urban Policy, defining this right as the "right to a sustainable city" (Brasil, 2001). Indeed, the association between the right to the city and sustainable cities still proved to be quite distant, especially in the pandemic context, in which, notably urban mobility, health issues, public health systems, among other instruments, went through a moment of chaos. , highlighting that this chaos devastated mostly low-income populations.

However, the 2030 Agenda of the United Nations is based on Sustainable Development for all, and mainly in an inclusive way. In addition, SDG number 11 stands out insofar as cities are the main challenge for populations by 2050, whose data show great urban swelling and an estimated urban population of 70% of the global population living in cities (UN HABITAT, 2019). This challenge, however, proved to be even greater based on the pandemic context, in which the most vulnerable populations were gradually larger and multiplying. In this context, a strategy that can help both urban management and the actors involved in the public policy process are smart cities, which should not necessarily be "robotic" cities, but cities with information systems, monitoring and well-managed to provide quick response to everyday challenges.

It is necessary to consider that although it is often confused with other similar but more specific terms - smart cities, information cities and virtual cities - smart cities aim to cover all these aspects, and the main missing component: people (Albino et al., 2015).

Therefore, in more precise perspectives, smart cities are at the interface between the social and

technological-informational dimensions (Anand; Navío -Marco, 2018). From these conceptions about smart cities, it is necessary to emphasize that the crucial role of sustainable cities is also to have access to methodologies capable of providing quick answers to the various problems and urban phenomena (UN HABITAT, 2019).

In this way, it is necessary that more than providing the urban environment with quality, mechanisms are created that allow the "intelligence" of these spaces. As an example, it again uses the global positioning of the pandemic itself, which forced the readjustment of the use of spaces to a rationality that previously seemed non-existent.

In fact, amid so many recent processes used specifically to make improvements in urban life possible, the issue of the pandemic disrupted these processes, freezing current ideas for (re)thinking cities. Among the main issues that emerged from the Pandemic are the outbreak of public health systems, health crises like never seen before, instability in car use, leisure and circulation on urban roads.

Some trends were adopted, even in the midst of the pandemic, such as, for example, university attendance that previously took place 100% (fully) face-to-face, and with the pandemic, the technological means of information, proved to be essential tools for not freezing services educational, and proposing meetings, lectures and meetings (Menezes et al., 2020). This does not mean that there has been progress, but that it was possible to quickly resolve one of the main global demands, education.

It is necessary to consider, however, the inclusive access to all students, since the lack of access to technological means for this type of immediate solution is still a latent reality, which goes against the idea of the right to the city and, consequently, to the city sustainably. Once again, it is necessary to emphasize the term "information", that is, several measures are taken based solely on what must be done, but, for the most part, decision makers forget that they must also foresee those that do not come from such accesses.

Brazilian case

As discussed earlier, in Brazil, Law 10.257 brings a series of urban policy instruments to promote the right to the city and urban sustainability. Among the instruments, a policy instituted in 2009 by the Ministry of Cities, called the Multipurpose Land Registry - CTM. Although this register is an extremely useful tool, as it has the ability to provide, in its systematic scope, useful and real information on the entire urban situation,

whether it be land use and occupation, tax collection, road monitoring system, etc. It appears that many Brazilian municipalities still adopt this policy only for the purpose of collecting tax taxes, such as the Urban Property Tax (Leite et al., 2022).

As an example of the usefulness of the CTM when data are crossed with other information systems such as the Geographic Information System - GIS or other types of information systems, the main argument is the control, information and availability of data so that managers and urban policymakers may have access to such mechanisms, thus enabling an efficient decision-making process.

In this sense, although the CTM has low adherence in Brazil, either due to its supposed burden or due to various obstacles in its implementation, it has proved to be a relevant instrument, insofar as, in order to promote diagnoses, policies and strategies, there is a need to of access to information.

Policy recommendations / conclusions

Before the aspects presented by the introduction and by the Brazilian case, it is verified the absence of an essential element to promote public policies, that is, the Information. There is no way to promote measures for sustainable cities, or even to achieve the right to the city without thinking about the origin of the data to be examined, or even how to format and diagnose such data.

Multipurpose information systems, that is, having access to information is an indispensable resource to support planning policies territorial, control of pandemics and endemics (such as the case of the cholera epidemic) in which John Snow coined the idea of Geoprocessing (Hino et al., 2006) .

Thus, we verify the connection that exists between aspects of sustainable cities (presented in the introduction) and the post-pandemic reality. Proposing a new way of managing the challenges, contingents and existing obstacles, especially from the point of view of inequality, considering that, although new means, tools and intelligent alternatives are a reality, there is a population mass still lacking in such resources (Mata et al., 2020), which essentially provides a rescue of traditional models, and a directed thought, not to the so-called "hybrid model" of articulation education, work, etc.

In this sense, thinking about the right to the city, articulating the sustainability of cities, becomes a challenge to be articulated with access to information. It is from this perspective that the proposition of information, monitoring and management systems for

urban spaces is examined. Thinking about and diagnosing urban spaces is thinking about access to health, education, housing and other essential elements for a healthy quality of life (Alfonsin, 2001).

Therefore, the Brazilian case, both from the perspective defined by the City Statute law that had a wide positive impact by the UN when it was structured (Rolnik, 2019) points to a certain path, and in 2001, it already pointed to metrics that years later were incorporated into the UN's global agendas, even if without any direct connection. In addition, the Registry established by the Brazilian Urban Policy, that is, CTM, proved to be an information system capable of helping public managers and urban public policy makers to face various urban phenomena, in this case, illustrated by Covid-19. Among urban phenomena, for example, mobility, swelling and unnecessary use of certain urban services.

In view of the above, it concludes with the recommendation that in order to achieve urban sustainability by promoting the right to the city, it is necessary to have broad information mechanisms to diagnose, monitor and put into effect the elaborated policies. Finally, that these information instruments are instituted through public norms of a necessary nature.

Acknowledgments

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