



SUSTAINABLE CITY DEVELOPMENT: A BRAZILIAN GOAL PLAN IN PRACTICE

Desenvolvimento sustentável da cidade: um plano de objetivo brasileiro na prática

Fernanda Cardoso Romão Freitas¹, Daniela Gasperin²

¹Pontifical Catholic University of Sao Paulo, Sao Paulo, Brazil

²Future Studies Group – NEF, Pontifical Catholic University, São Paulo, Brazil

E-mail: f-cromor@hotmail.com, palestrante@daniellagasperin.com.br

ABSTRACT

By 2050, two-thirds of all humanity will live in urban areas; as a result, sustainable development will become fundamental for the management of cities. Making cities sustainable means creating opportunities, safe and affordable housing, and building economic and resilient societies. To achieve sustainable development, it is crucial to harmonize three core elements: economic growth, social inclusion, and environmental protection. These components are intertwined and fundamental to the well-being of individuals and societies. This research portrays the Municipal Goals Plan as a strategy foreseen in the Sustainable Cities Program, in view of the United Nations Conference on Sustainable Development, held in Brazil in 2012 and known as Rio +20. The study has a descriptive exploratory character, the use of a case study of the municipality of Antônio Prado, located in southern Brazil, was chosen as a technical procedure testing, and describes how a small municipality could develop and apply the Municipal Goals Plan, based on the objectives of sustainable development (SDG). The results displayed in 42 months of Management (2017-2020) were very satisfactory and actually reached 90% of the 97 actions foreseen by the work teams and this mostly due to three factors: 1) the engagement of those responsible for Administrative Management; 2) the importance of planning, at both strategic and operational levels; and 3) the commitment of the teams in the execution of the actions. These three key factors for the success of the plan triggered an effective collaborative construction work, which may be called collaborative governance.

Keywords: Sustainable development; Strategy management; Sustainable cities program; Goal plan.

ACEITO EM: 24/08/2020

PUBLICADO: 30/05/2021



DESENVOLVIMENTO SUSTENTÁVEL DA CIDADE: UM PLANO DE OBJETIVO BRASILEIRO NA PRÁTICA

Sustainable city development: a Brazilian goal plan in practice

Fernanda Cardoso Romão Freitas¹, Daniela Gasperin²

¹Pontifical Catholic University of Sao Paulo, Sao Paulo, Brazil

²Future Studies Group – NEF, Pontifical Catholic University, São Paulo, Brazil

E-mail: f-cromor@hotmail.com, palestrante@daniellagasperin.com.br

RESUMO

Em 2050, dois terços de toda a humanidade viverão em áreas urbanas; com isso, o desenvolvimento sustentável se tornará fundamental para a gestão das cidades. Tornar as cidades sustentáveis significa criar oportunidades, moradias seguras e acessíveis e construir sociedades econômicas e resilientes. Para alcançar o desenvolvimento sustentável, é crucial harmonizar três elementos centrais: crescimento econômico, inclusão social e proteção ambiental. Esses componentes estão interligados e são fundamentais para o bem-estar dos indivíduos e das sociedades. Esta pesquisa retrata o Plano de Metas Municipais como estratégia prevista no Programa Cidades Sustentáveis, tendo em vista a Conferência das Nações Unidas sobre Desenvolvimento Sustentável, realizada no Brasil em 2012 e conhecida como Rio + 20. O estudo tem caráter exploratório descritivo, a utilização de um estudo de caso do município de Antônio Prado, localizado na região sul do Brasil, foi escolhido como procedimento técnico de ensaio, e descreve como um município de pequeno porte poderia desenvolver e aplicar o Plano de Metas Municipal, com base sobre os objetivos do desenvolvimento sustentável (ODS). Os resultados apresentados em 42 meses de Gestão (2017-2020) foram muito satisfatórios e chegaram mesmo a 90% das 97 ações previstas pelas equipas de trabalho e isto principalmente devido a três fatores: 1) o engajamento dos responsáveis pela Gestão Administrativa; 2) a importância do planejamento, tanto em nível estratégico quanto operacional; e 3) o comprometimento das equipes na execução das ações. Esses três fatores-chave para o sucesso do plano desencadearam uma efetiva obra de construção colaborativa, que pode ser chamada de governança colaborativa.

Palavras-chave: Desenvolvimento sustentável; Gestão de estratégia; Programa de cidades sustentáveis; Plano de metas.

INTRODUCTION

Most of the global and Brazilian population live in urban areas. The accelerated urbanization process in Brazil generated the phenomenon of Metropolization, urban occupation that surpasses the limits of cities. (IBGE, 2010)¹.

In this context of urban transformations and from the perspective of sustainable development, it is possible to say that recycling this territory is more clever than simply replacing it; after all, urban clusters can be a great instrument of restructuring for local development. (Leite, 2012). In 2012, at the United Nations Conference on Sustainable Development, the Sustainable Development Goals (SDGs) were agreed to meet the urgent environmental, political, and economic challenges our world has been facing. Among the SDG's – Sustainable Development Goals – there is the “Sustainable Cities and Communities” Goal 11 (UNSDG) which aims to make cities sustainable and inclusive. Among the targets established in this SDG, the target 11 talks about making cities and human settlements inclusive, safe, resilient, and sustainable. Brazil, along with the member countries, was a signatory and committed to their implementation until 2030. This agenda is an opportunity for the improvement of Public Management and for the consolidation of policies that promote a fairer and more supportive country. (GPS, 2013)².

The agenda consists of 17 Sustainable Development Goals and 169 goals that contemplate the social, environmental, and economic dimensions in an integrated and indivisible way. The implementation and success of the agenda will depend on policies, plans and development programs, which will be the responsibility of the countries and guided by them. (GPS, 2013)³.

Since cities and communities aim to become sustainable and inclusive, it is necessary to think about development in a local way, considering the specific needs and priorities of each location. (United Nations, 2015)⁴.

In this sense, the Sustainable Public Management Guide (GPS) is a tool that guides the elaboration of the diagnosis of cities, to facilitate the understanding and use of the indicators of the Sustainable Cities Program. (GPS, 2013). Considering the importance of involving public management so as to achieve these objectives, the research seeks to answer the following question: can a small municipality develop and implement the Municipal Goal Plan based on sustainable development ends?

Thus, this study's general aim is to demonstrate how the city, the object of this study, developed a sustainable urban management tool to consolidate policies that promote a municipality with economic growth, social inclusion, and environmental protection.

In view of a concept that can contribute to the achievement of the Sustainable Development Goals (SDGs) adopted by the United Nations, the Society 5.0 will be a Hypothetical Society, in which digital transformation is combined with the creativity of diverse people to bring about problem solving and value creations that lead us to sustainable development. (Sato, 2019).

The research is structured with a brief theoretical construction on urban growth and the principles of sustainable development, followed by the justification of the methodological choice, with the subsequent results observed in the case study, as well as the final considerations.

¹ IBGE. Brazilian Institute of Geography and Statistics. (2010) Census 2010. [R] retrieved on July 02, 2020, from <https://agenciadenoticias.ibge.gov.br/agencia-sala-de-imprensa/2013-agencia-de-noticias/releases/13937-asi-censo-2010-populacao-do-brasil-e-de-190732694-pessoas>.

² GPS. Sustainable Public Management Guide. São Paulo, 2013. [R] retrieved on July 03, 2020, from <https://www.pucsp.br/catedraignacysachs/guia-gps.htm>.

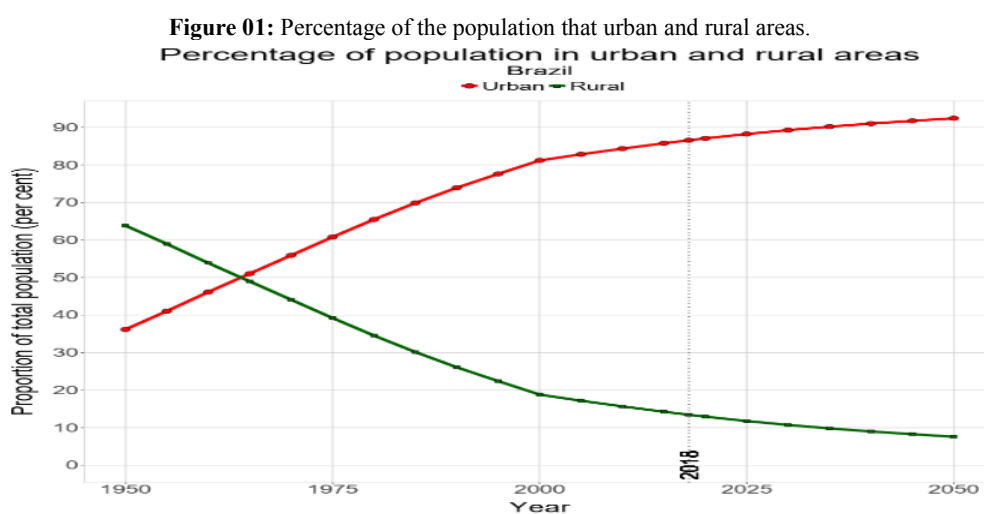
³ UNITED NATIONS (2015). ODS. Sustainable Development Goals. [R] retrieved on June, 23, 2020, from <https://nacoesunidas.org/pos2015/>.

⁴ UNITED NATIONS (2018). World Urbanization Prospects. [R] Retrieved June 20, 2019, from <https://population.un.org/wup/Country-Profiles/>.

1 CITIES AND THE INCREASING CHALLENGE OF SUSTAINABLE DEVELOPMENT

The discussion concerning the management of cities is not recent; on the contrary, it dates to a long period in history. Managing urban centres defies politicians, philosophers, and scholars from various areas of knowledge. The history of cities shows that they have always experienced problems and glories arising from their urban formation. In the Christian Era, Rome, at its peak, had such crowded streets that horses and carriages were forbidden to transit, the only way to cross the city was on foot. (Wilson, 2009).

Despite their problems and challenges, cities have promoted important civilizing, economic and social processes. However, the same impulses that caused the first industrial revolution also brought its negative impacts, such as disordered population growth, limitations of natural resources, increased emission of polluting gases, and social and economic inequality. (Henderson, 2000; GPS, 2013²; Conti, 2017; United Nations, 2018⁴). Given this reality, Brazil also experiences this scenario, since 84% of the population already lives in urban areas (Figure 01) and, compared to other countries of South America and the Caribbean Region, Brazil is the region where the largest population living in urban areas is concentrated.



Source: United Nations, 2020.

Considering that this accelerated process of urbanization in Brazil generated the phenomenon of Metropolization, i.e., urban occupation that surpasses the cities' limits (IBGE, 2010)¹ it is evident that the convergence of all these urban challenges requires long-term planning in order to promote a more sustainable and inclusive urban agenda. In this scenario of urban transformations, the sustainable management of cities is one of the great challenges of this century (Sachs, 2002).

Insufficient increases of tax revenue due to lower economic growth and rapid increases of social security due to aging society will be a big constraint on the sustainable development. In the baseline scenario, the deficit in the government will be increased continuously. Even if technology is developed and economy growth is up, the budget and deficit are still significantly negative issues. In this scenario of transformations, the sustainable management of cities is one of the great challenges of this century. (Nakanishi, 2019).

The first and most widespread concept of sustainable development appeared in the document entitled "Our Common Future" which defines it as one that "meets the present needs, without compromising the capacity of future generations to meet their own needs". (Brundtland Commission, UN, 1986; Elkington, 2001). However, this concept has become incipient over the years and the need to deepen this issue has been admitted. It was then that the sociologist John Elkington formulated the concept of the Triple Bottom Line (People – Planet – Profit) or Tripod of Sustainable Development, which today is extremely widespread with the three pillars of sustainability: environmental, economic and social. Since then, science has unfolded in favour of the development of existing dimensions in the phenomenon of sustainable development. The process culminated in the adoption of the 2030 Agenda for Sustainable Development, with the 17 Sustainable Development Objectives – SDG where actually the 11th one refers to Cities as may be seen in Figure 02:

Figure 02: SDG 11



Source: UN, 2015.

The objectives and targets are essentially global and universally applicable, considering different national realities, capacities, and levels of development, as well as respecting national policies and priorities. They need to be implemented in an integrated manner, through a transparent, inclusive, and participatory process with all stakeholders. In Brazil, it is known that the infrastructures and services established were not able to keep up with the growth of the Brazilian development demanded, so the occupation of the territories occurred mostly in a disordered manner, without an efficient and sustainable urban planning. Thus, it is appropriate to say that the construction of a sustainable city requires the preparation of long-term commitments focused on its citizens, as well as the formulation of strategic plans with systemic actions and also the development of participatory governance models.

In order to collaborate with this demand, the Centre for Future Studies of the Pontifical Catholic University of São Paulo, Brazil (NEF) established the Chair, dedicated to the theme of Sustainable Development and called Ignacy Sachs Chair of Socio-Ecological Development. Through the Chair, NEF developed the Sustainable Public Management Guide (GPS²) for cities in order to guide the teams of the secretariats responsible for local management to develop a diagnosis, a prognosis and their strategic priorities, followed by a plan of goals for the sustainable development of cities. Hence, this research, by means of a case study, will demonstrate the actions of a municipality that seeks, through the Municipal Goals Plan, to include the city in this sustainable agenda.

2 DATA AND METHODOLOGY

This work consists on a Case Study of a very recent and successful City Management program at the small city of Antônio Prado, located in the State of Rio Grande Sul, in southern Brazil. Antônio Prado is centenary Italian city, with an architectural collection listed as National Historical Patrimony. The Cities Public Administration aims to ensure a responsible development and is committed to offer its citizens a management based on a Goals Plan.

The Goal Plan is to develop a planning and management instrument that may help the Public Administration to define government priorities, as well as the objectives, deadlines, and commitments of the Municipal Executive Branch. The preparation of the Goals Plan meant, first of all, investing in the improvement of public administration, in its democratic modernization and in the search for the efficiency and quality of services provided to the population, because it is directly related to the goals of sustainable development that guide the Municipal Public Administration with management, transparency and sustainability (GPS, 2016).

In order to develop the City Goals Plan, it was carried out a systemic approach to capture the interactions existing between the different fields that interact in the municipality. The Plan considered the implementation of the projects under a short, medium and long-term prospect, in order to ensure the continuity of the programs; and for this purpose, it was elaborated in line with the Multiannual Plan and the Master Plan.

The Multiannual Plan is composed of programs, objectives, actions, physical and financial goals of an administrative nature, to enable the proper development of the municipality. In addition, the Administrative Management is reformulating the Master Plan and preparing the Urban Mobility Plan. These plans aim to ensure a sustainable development policy, which is a process of mobilization and involvement of the whole society in the formulation of policies aimed at providing better quality of life, equity, and better conditions for sustainable economic and urban development.

3 MAIN RESULTS

Municipal Administration of Antônio Prado seeks the improvement and efficiency of its management, supported by viable actions that provide better quality of life to the population, enabling to balance economic development with environmental sustainability and social justice, through transparent, democratic and sustainable governance.

Thus, the Goal Plan had its starting point in the Government Management (2017-2020) with the signing of the commitment letter to join the Sustainable Cities Program. The year 2017 prioritized the elaboration of the Municipal Goals Plan with the involvement of managers of the following areas: Chief of the Cabinet, Secretariat of Administration, Finance Planning, Health, Education, Culture and Sports, Housing and Social Assistance, Works, Road and Traffic, Commerce and Tourism, Agriculture, Environment and Industrial Development. In fortnightly meetings and continuous training, 11 Goals of the 17 foreseen by Sustainable Development were acceded, namely: Governance; Equity, Social Justice and Culture of Peace; Urban Planning and Design; Cultural for Sustainability; Education for Sustainability and Quality of Life; Dynamic, Creative and Sustainable Local Economy; Responsible Consumption and Lifestyle Options; Environmental Goods; Minor, Mobility, Less Traffic; Local Action for Health; and Local Management for Sustainability.

The collaboration and cooperation of the team selected 50 indicators that would be developed in the following years, such indicators are found in the Sustainable City Program. The chosen number of indicators is foreseen for small cities, namely:

- 1) Women in managerial positions in the municipal government;
- 2) Ombudsman;
- 3) Transparency portal;
- 4) Goal program;
- 5) Law of access to information;
- 6) Municipal conferences;
- 7) Spaces for participation, deliberative and public hearings in the municipality;
- 8) Data in open format;
- 9) Number of families enrolled in the single register for social programs with per capita family income of up to half the minimum wage;
- 10) Municipal policy of assistance to drug users and alcohol addicts;
- 11) Aggression against children and adolescents;
- 12) Cases of neglect and abandonment of children and adolescents;
- 13) Children and adolescents who have suffered sexual violence;
- 14) Reports of violence against women and girls;
- 15) Aggression against the elderly;
- 16) Municipal housing policies;
- 17) Thefts
- 18) Master Plan;
- 19) Accessible sidewalks;
- 20) Cultural Centres, houses and cultural spaces;
- 21) Actions for the preservation, appreciation and dissemination of material and intangible patrimony;
- 22) Municipal public resources for culture;
- 23) Fully literate children up to eight years of age;
- 24) Demand for vacancies in early childhood education;
- 25) Full-time education of early childhood education;
- 26) Demand for vacancies in elementary school;
- 27) Internet access in middle and high schools;
- 28) Youth and Adult Education (EJA) in the integrated form of professional education;
- 29) Students with access to sports court;
- 30) Participation of family farming in crops and livestock;

- 31) GDP of the Municipality;
- 32) Companies that carry out reverse policy in the municipality;
- 33) Policies for the promotion of cultural activities and the production of local products
- 34) Jobs in tourist activities;
- 35) Per Capita water consumption;
- 36) Integrated solid waste management plan;
- 37) Access to household waste collection service;
- 38) Selective collection;
- 39) Amount of waste per capita;
- 40) Sewage network;
- 41) Specific legislation on environmental issues;
- 42) Bike lanes and cycle lanes;
- 43) Traffic congestion;
- 44) Low birth weight;
- 45) Child malnutrition;
- 46) Sports equipment
- 47) Basic health units;
- 48) Vaccine coverage;
- 49) Investment in preventive health; and
- 50) Controller General of the Municipality.

Then, the general and specific objectives for each indicator were constructed, meeting the targets foreseen according to the Sustainable Development Goals. Then, 97 actions were prepared with an initial target for January 2017 and a target intended in December 2020. The results presented in 42 months of Management (2017-2020) were very satisfactory. The execution reached 90% of the 97 actions foreseen by the work teams; the success is mainly due to three factors:

- 1) the engagement of those responsible for Administrative Management;
- 2) the importance of planning, both at the strategic and operational levels; and
- 3) the commitment of the teams in the execution of the actions.

These three fundamental factors of the plan triggered an effective collaborative construction, that one may very well call Collaborative Governance. The research carried out by Conti (2017) in several most representative European Metropolises, showed that Collaborative Governance Systems actually foster Sustainable Development, facilitating cooperation in the development of public policies.

Therefore, it proves to be extremely valuable for the effectiveness of the municipal plans of sustainability, as it articulates the different stakeholders in the participatory process, using several tools for building long-term planning, the involvement of different actors enables team engagement and consequently strengthens strategic planning and operational execution (Tenorio, 1998; Ronconi, 2001; Tatagiba, 2003; Frey, 2004; Wachhaus, 2014). In other words, this research has found that being part of the governing process is an indispensable factor in the search for sustainable development.

CONCLUSION

The Sustainable Cities Program combines the idea of change with the opportunities and experiences that are already available to be placed into practice in the construction of the new development paradigm. It is necessary, because of a worldwide consensus that our development model has been causing a systematic destruction of the planet's resources, endangering the continuity of the human species itself. It is urgent, because of the consensus that the capacity of governance and confrontation of the planetary socio-environmental crisis does not correspond to the speed of the process of destruction of natural resources and climate change underway yet. In response to the question that motivated this research, it is possible for a small municipality to develop and apply the Cities

Goals Plan, if the starting point is the socio-environmental responsibility for the consolidation of policies that promote a municipality with economic growth, social inclusion and protection to the environment.

This case study has proved that now, more than ever, the search for consciousness is present. Although everyone has their individual consciousness, with their own way of behaving and interpreting life, it is clear that we need to develop a collective outlook, which means surpassing individual interests in favour of collective interests. The strategic management of the future will be the participative management; however, this future can only be viable with the emergence of new bold research to catalyse interdisciplinary social and hard sciences and engineering. This kind of systemic synergies are essential to shape human-technology partnerships that provide a sustainable, vibrant, liveable people-centric world. (Spadoto et al., 2019).

The formulation and execution of the Cities Goals is widespread in groups of people who seek a better city management. Consequently, if social interaction is the result of an individual's fundamental potential for the community that represents the Basic Social Capital needed joining rights and duties. This trend is growing fast as could be seen in the development of recent Lisbon ranking (Akande et al., 2019).

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