

## From information to action: lessons from the Santa Tereza Zero Waste project in Belo Horizonte, MG



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**Resumo:** The present article discusses how expanded governance and community engagement can transform solid waste management. Based on experiences of the Santa Tereza Zero Waste Project, in Belo Horizonte, the study analyzes the importance of involving beneficiaries in the co-construction of territorial solutions, overcoming traditional governance models based on an industrial logic and the mere provision of public services. By using listening devices, spaces for debate, and monitoring mechanisms, the project highlights paths for effective and sustainable participation of the stakeholders involved, contributing to an environmental transformation “from information to action”.

The global socioenvironmental crisis and the challenges arising from solid waste management in cities require governance models that go beyond traditional paradigms. In the industrial model, citizen participation is limited to compliance with standards and the provision of services under a merely functional logic. In contrast, the proposal for expanded governance aims to integrate citizens as beneficiaries and co-producers in the construction of territorial solutions, promoting “cross-cutting cooperation” that enables both co-production of services and sharing of the value generated (Souza, 2021).

This co-production is achieved through the engagement of people in solving their everyday problems, working collectively to create shared solutions. Services are not only implemented for citizens but also are developed in partnership with them and are continually adjusted to meet their changing needs over time. This dynamic model generates more appropriate and innovative solutions, in contrast to the standardized and immutable models that have failed to solve the current challenges of urban waste management for decades.

The Zero Waste proposal is an approach that, based on a set of initiatives such as recycling, composting, and reuse, seeks to rethink how we deal

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with waste by promoting maximum reduction in waste generation and further use of discarded materials. From this perspective, waste is treated as a resource. The integration of popular recycling, carried out by waste pickers, with agroecology, which acts directly with organic waste and promotes new modes of living well, is essential for the success of this proposal (Souza, 2021). Together, these practices account for most waste generated, strengthening local economies, promoting social and environmental justice, and indicating pathways for coexistence in cities.

Within the context of Zero Waste, it is essential to consider the role of plastic disposal, especially in large cities, where recycling still faces major challenges. The complexity of the materials, the low recyclability of many types of plastics, and the misinformation about their disposal make it difficult to reintegrate this waste into the productive chain. However, when citizens become directly involved in the management of their waste, they increase their understanding of the impacts of consumption and begin to adopt more conscious practices, such as reducing the use of single-use plastics, replacing previous choices with reusable materials, and properly separating recyclables. This transformation in habits, driven by community engagement, is an essential step towards reducing the generation of plastic waste and strengthening the principles of Zero Waste.

The Santa Tereza Zero Waste Project (Belo Horizonte, MG) is developed by the Coopesol Leste Waste Picker Cooperative, which acts in the management of dry recyclable waste, in collaboration with the Roots Ativa Collective, responsible for the management of organic waste with composting services and the management of an agroecological vegetable garden. The beneficiaries, residents of the Santa Tereza neighborhood and surrounding areas, act as co-producers and financiers of the product, reinforcing the idea that co-production takes place through the engagement of people in solving their everyday problems, within a collective scope, and the shared construction of solutions. Moreover, the ecosystem promotes learning and environmental education, in practice, favoring community engagement by guiding and discussing with citizens the value and benefits of zero waste practices in consumption and waste disposal in their daily lives.

## **DISCUSSION**

### **CO-PRODUCTION IN ACTION: DIALOGUES AND CHALLENGES OF COMMUNITY ENGAGEMENT**

The Santa Tereza neighborhood in Belo Horizonte is known for its strong cultural identity and sense of community. However, despite its protagonism in several initiatives, it faces a reality marked by the absence of effective policies to promote waste management for recycling. There is no institutionalized selective waste collection and residents were, for a long time, without any type of guidance or structure aimed at allowing adequate waste segregation and disposal. In this scenario, the Santa Tereza Zero Waste Project emerges as a concrete, albeit localized, response to the socioenvironmental urgency of the territory. In five years of operation, the Zero Waste Project has recovered more than 250 tons of dry and organic waste that would otherwise be sent directly to the municipal landfill. Of this total, approximately 24% corresponds to recovered plastic waste. Moreover, the project has an extremely low rejection rate: only 2.6% of the total flow of recyclables and less than 1% of the overall total of materials recovered.

The proposal of expanded governance adopted by the project is based on the assumption that effective transformation of territorial challenges depends on the active and full integration of beneficiaries. This integration goes beyond the simple normative segregation of waste or limited participation in social control forums – structures that, in Belo Horizonte and many other municipalities, are practically non-existent in waste management policies. Instead, beneficiaries are invited and encouraged to share their expectations, lifestyles, and conditions of accessibility to the service, contributing to the co-construction of solutions for the territory.

One of the most relevant outcomes of this model is the awakening of a critical conscious about the issue of plastic, a material that is ubiquitous in everyday consumption and has low recyclability. Many beneficiaries were unaware of the challenges associated with recycling this type of waste and, after becoming involved in the project, they began to actively discuss their forms of consumption. This includes everything from reducing the use of disposable plastics in everyday life to directly pressuring local producers to use less plastic in the packaging of their products. An important example was a discussion group held between residents and agroecological producers who are partners in the project, aiming to discuss the challenges of packaging perishable foods, such as vegetables, eggs, and fruits that require special care. The discussion revealed both the desire of consumers for alternatives with less impact and the difficulties faced by producers in offering viable solutions. This is a debate that remains open, and which has proven to be one of the main bottlenecks faced by producers involved in the Zero Waste proposal, but that also demonstrates the power of transformation generated by direct community engagement.

To support this form of collaborative management, the project developed three fundamental devices, which structure and strengthen the expanded governance (Souza, 2001):

- 1. Raising Awareness and Disseminating a Common Language:** Listening and feedback mechanisms promote the dissemination of a shared vocabulary and vision among all stakeholders. This increase in awareness ensures that beneficiaries, operators, and other partners “speak the same language”, facilitating cooperation and mutual understanding of the limitations and potential of the territory.
- 2. Spaces for Debate and Building Common References:** The creation of spaces for debate – similar to what is called an “agonistic public space”, meaning environments where diversity of opinions and constructive confrontation are valued – allows individual experiences to be discussed and integrated into collective reference frameworks, enabling reflection on challenges and strategies to overcome limitations, promoting continuous learning and the adaptation of the model to local realities.
- 3. Monitoring and Integration Mechanisms for New Stakeholders:** Devices that monitor the overall performance of the ecosystem and the individual contribution of each stakeholder are essential for the perpetuity of the project. The equitable distribution of the monetary value generated, based on the fulfillment of the stakeholders’ commitments, reinforces the sustainability of the initiative and ensures that all those involved can maintain their participation in the long term.

These mechanisms demonstrate that expanded governance is not limited to a control instrument but rather is designed as a dynamic process of socioenvironmental transformation. By integrating the beneficiaries as co-producers of the solution, the Santa Tereza Zero Waste Project overcomes the limits of the neoliberal model of public management, which reduces democratic participation to a formal exercise of representation. Instead, governance becomes rooted in the territory, based on listening, co-responsibility, and collective work – capable of generating more effective, just, and sustainable responses to contemporary environmental challenges, such as the urgent reassessment of the use and disposal of plastic packaging.

## **CONCLUSION**

### **TOWARDS ZERO WASTE: LESSONS AND PERSPECTIVE FOR COLLECTIVE ACTION**

The experience of the Santa Tereza Zero Waste Project demonstrates that the adoption of an expanded governance model, combined with effective community engagement, can transform solid waste management. By involving the beneficiaries in the co-construction of the solution, the project breaks with the traditional and instrumental logic of public services, promoting the emergence of a cooperative ecosystem (Du Tertre, 2001). The creation of listening, debate, and monitoring devices not only allows stakeholders to share efforts and develop essential intangible resources – such as trust and sense of belonging – but also fosters continuous learning and the adaptation of solutions to local needs (Souza, 2021; Du Tertre, 2001).

However, practice reveals significant challenges. One of the main ones regards the logistics of participation: the proposed project assumes that beneficiaries take their waste, once it has already been segregated, to the Zero Waste Centers where the materials are received, sorted, and properly forwarded. Therefore, there is no door-to-door collection. This lack of a more accessible service limits the scope of the project, since not all residents are able or willing to go to the Centers, especially those with mobility issues, intense routines, or without adequate means of transportation. Moreover, the project faces recurring difficulties in financing technical assistance, ongoing operational costs, and turnover of beneficiaries, which requires constant restructuring of bonds and mobilization strategies. Another recurring challenge is the questioning, by some residents, about charging the service, because the responsibility for waste collection and management should be exclusively of the public authorities.

On the other hand, the positive aspects are highlighted by the strong engagement of citizens, who become protagonists in solving their daily problems and in the shared construction of solutions. This active

participation allows beneficiaries to understand technical terms and contribute with their practical experiences to improve public policies. The dialogue among beneficiaries, operators, and partners goes beyond the simple distribution of pamphlets or bureaucratic meetings: it is a formative and transformative process. The lessons learned from this experience serve as inspiration to implement similar models in other contexts, showing that the integration of information and community action can address complex environmental challenges – especially those related to plastic waste – through expanded, collaborative, and territorialized governance.

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