The common and the unfolding in the solidarity economy from ecological sanitation

O comum e os desdobramentos na economia solidária a partir do saneamento ecológico

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Abstract

As sanitation conditions in Brazil are precarious in rural areas, it is important to build territorial actions that value culture and strengthen good living based on solidarity economy to achieve sustainable solutions. Dardot and Laval see the "common" as a counterpoint to the current political and economic context, in which individuals assume the role of protagonists in their lives and manage the "commonalities" for their community. In this approach, the Oswaldo Cruz Foundation (Fiocruz), through the Observatory of Sustainable and Healthy Territories of Bocaina (OTSS), constituted an ecological sanitation research in the Caiçara Community of Praia do Sono, in Paraty, with the participation of the community during the whole process and, through a qualitative evaluation, the relationship between the community and the common could be understood. Local builders were hired as social mobilizers, thus valuing endogenous resources. Through this articulation, joint action with public agencies was sought to foster actions that came from the community itself and inclusive public policies that put a society at the center of the process. Supported by the concept of common and by semi-structured interviews, this psychosocial study examines the unfolding of the solidarity economy.

Keywords: Social Environment; Traditional Communities; Sustainability; Action Research; Ecological Sanitation.

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Resumo

Como as condições de saneamento no Brasil são precárias nas áreas rurais, é importante construir ações territorializadas que valorizem a cultura e fortaleçam o bem viver, baseadas na economia solidária para alcançar soluções sustentáveis. Dardot e Laval veem o comum como um contraponto ao atual contexto político e econômico, em que os indivíduos assumem o papel de protagonistas em suas vidas e gerenciam os "comuns" para a comunidade da qual fazem parte. Partindo dessa abordagem, a Fundação Osvaldo Cruz (Fiocruz), por meio do Observatório dos Territórios Saudáveis e Sustentáveis de Bocaina (OTSS), constituiu pesquisa-ação de saneamento ecológico na Comunidade Caiçara da Praia do Sono, em Paraty, com envolvimento da comunidade durante todo o processo e, por meio de avaliação qualitativa, pôde-se entender a relação da comunidade com o comum. Como os construtores locais foram contratados como mobilizadores sociais. os recursos endógenos foram valorizados. Por meio dessa articulação, buscou-se a atuação conjunta junto aos órgãos públicos para fomentar ações que partissem da própria comunidade e políticas públicas inclusivas que colocam a sociedade como protagonista do processo. A partir do conceito de comum e de entrevistas semiestruturadas, esta pesquisa psicossocial tem como objetivo relatar o desdobramento da economia solidária no comum. Palavras-chave: Ecologia Social; Comunidades Tradicionais; Sustentabilidade; Pesquisa-Ação; Saneamento Ecológico.

Introduction and state of the art

Currently, access to clean water and basic sanitation are considered human rights by the United Nations (UN), as a guarantee that individuals can have adequate conditions of health and good living (ONU, 2012). Thus, this is considered a common right that everyone should have access to. However, the global reality reveals that 665 million people still have access to unsafe water sources and about 2.4 billion people do not have access to adequate sewage treatment services (WHO, 2016). This panorama usually occurs in areas of social vulnerability, pointing to the inequality behind this issue.

Another point to be considered is the difference in meeting the basic conditions of these services between the rural and urban areas. Historically, the conditions of sanitation infrastructure in rural areas are more critical (UNU-INWEH, 2010). As the distance between homes and the decentralization of services increases and brings complexity to the maintenance of the sanitation network, the State and privatization contracts often prioritize areas with high population density, characterizing the inequity in meeting this service. Thus, projects for these areas often come from non-governmental organizations (NGO) and communities that realize their need and understand the importance of caring for the common, as pointed out by McKean and Ostrom (2011). However, this self-perception is complex and often it should happen from an inter-sectoral action fostered by the State.

The situation of rural sanitation still needs to be better structured in Brazil. However, the Brazil Rural Sanitation Program (PSBR), published in 2019, brings innovations and seeks to strengthen local communities by focusing on the relevance of the use of social technologies, local training and the maintenance of systems with the participation of local communities (Funasa, 2017). Thus, a new perspective of decentralization of the sanitation and social participation systems is presented, which can boost new economic flows in each territory, based on a solidarity economy approach and new relations with the common good.

The social technologies, mentioned in PSBR, are sociotechnical, participatory solutions and based on local demands. They are considered adapted, have unconventional systems, present an alternative to the conventional view and seek to promote social emancipation (Dagnino, 2009). The dissemination of these technologies is emphasized in Brazil in social movements and, more recently, as public policy (Dias, 2017), with the participation of the State and NGO.

It is to this extent that community participation gains centrality in the selection and implementation of territorialized social technologies for the sake of what is common, such as water resources.

In line with social technologies, when people from the same territory, neglected by the State, experience problems and economic and social challenges, these groups are driven to seek solutions and develop proposals for solving the problems that exist there. Based on this dynamic, the solidarity economy is presented as a possibility for the capitalist system (Pacheco, 2016). Having been disseminated since the 1990s, the solidarity economy aims to bring social improvements to people and territories, and the objective of proposing initiatives for local solidarity products and services that value endogenous flows. It can be fostered by encouraging the formation of associations/cooperatives or self-managed civil organizations with solidary values and collective bases. Thus, there are several management alternatives in the solidarity economy that can be integrated in a hybrid way, with different agents: volunteers (non-monetary), market (mercantile) and State (non-mercantile) (Singer, 2009).

It is exactly because of the possibility of managing resources in common and their practical and institutional conditions that Ostrom (2000) defends the collective management of the administration of the common as an alternative model to market capitalism, through the formation of institutions self-organized by members of the territory, as an alternative to state and market power.

Ostrom (2000) deeply discusses the "tragedy of the Commons," in which goods are expropriated for the sake of capital. The "tragedy of the commons" is related to a social trap in which there is a conflict between individual interests and the common good in the use of finite resources. Therefore, the unrestricted use of a finite resource by predatory exploitation would exhaust the collective resource itself, the common one.

Both Dardot and Laval (2017) and Ostrom (2000) criticize the view that the polarities represented by the entities "market" and "State" are emough for the functioning of society.

For Ostrom (2000), the study at the microsocial level of several cases of natural resource managed collectively revealed the existence of certain "common" resources that, due to their characteristics and nature, can only be managed rationally by the collective, as well as other resources would have more propitious characteristics to be managed privately or publicly.

Dardot and Laval (2017) have a somewhat broader view, since they perceive that public intervention starts from a market failure. These authors develop a line of reasoning based on the understanding that the State produces goods that could not be produced spontaneously by the market, since the latter only serves private interests as a result of a voluntary purchase act. In other words, it is not the characteristics or nature of the good that make it better produced and managed by the market or by the State, as Ostrom sees it, but the interest or not in its commercial aspect to be produced by the market. Thus, the State or other non-profit social organization ends up addressing the goods that are necessary for the well-being of the population, which justifies the fact that public goods, to a large extent, are provided by the State. Therefore, "the supply of a good by the State or by the market is linked not only to its nature, but also to political, cultural, social and historical factors that cannot be obliterated by theory, as does the standard economy" (Dardot; Laval, 2017 p. 151).

Based on the understanding of Dardot and Laval (2017), we assume that local action, with action research and the dissemination of social technologies applied to the sanitation theme, can strengthen the common and

encourage endogenous flows in the community through the solidarity economy, with the participation of the State and communities in intersectoral actions.

In this context, in the Paraty region in Rio de Janeiro, a place of high social and environmental diversity with Conservation Units and traditional communities inhabiting their territories, the arrival of predatory tourism has drastically changed the relationship of people with the common since 1970 (Gallo et al., 2016).

With the arrival of tourism, that is, the market, the population and the community began to have ample access to capital, but they had to offer their places of living as a bargaining chip, generating a rupture in many of the relations they had with nature and each other.

Regarding the health of the environment, what is perceived in the various communities in the municipality of Paraty is a rupture in the care for the common, especially in relation to water resources. If in the past community members drew their waters directly from the river, there was an intrinsic care for the waters, as it was known that they would supply everyone. From the moment that tourism arrives and water starts to be channeled directly from the spring, this relationship with the common changes drastically, influencing social and environmental relations and bringing a rupture in this care of water resources (Machado, 2019).

Locally, it is possible to perceive what Ostrom (2000) discusses in the "tragedy of the Commons," where the causal nexus of inappropriate sewage and waste disposal and its relationship with the quality of the water that flows to the sea and directly influences in fishing, surfing and tourism, which are currently the forms of subsistence of traditional community members (Machado, 2019).

In this sense, it is worth discussing which sanitation measures are appropriate for rural areas, which are territorialized and adapted to local conditions, strengthening the understanding of care for nature and the valuation of the common based on the action of the collective agent.

In this scenario of crisis of commons with respect to water, environmental and social resources in the Mosaic of Bocaina and based on the demands of the Forum of Traditional Communities of Angra dos Reis, Paraty and Ubatuba (FCT), a partnership was established with the Oswaldo Cruz Foundation (Fiocruz), supported by the National Health Foundation (Funasa), for the creation of the Observatory of Sustainable and Healthy Territories of Bocaina (OTSS). OTSS is a technological-political and territorial space that generates critical knowledge and innovative technologies, especially social technologies, to promote sustainable development and health (Gallo et al., 2016).

One of the differential features of this work is that the demands for ecological sanitation in the research field in the Caiçara Community of Praia do Sono were defined by FCT, involving participatory planning with the community leaders. Thus, this project is characterized as an action research that addresses ecological sanitation in a territory chosen by the communities themselves, with their real involvement and the hiring of community members as researchers and builders, to foster dialogue with other agents in the territory throughout their development and to strengthen endogenous flows. Thus, the process was built collectively involving FCT, Praia do Sono Residents' Association (AmaSono), Fiocruz, Funasa, Federal University of Rio de Janeiro (UFRJ) and the other local agents, with the premise that the collective agent, the common, is capable of generating local transformations that can expand and foster global actions (Gallo et al., 2016).

The implementation of structural and structuring actions for ecological sanitation aimed to create adequate conditions to strengthen good living from the common in traditional Paraty communities and to promote territorialized and inclusive public policies that, in turn, place community members as protagonists in care actions in their own territory. Ecological sanitation is based on the principles of autonomy and self-management, decentralization of services, recycling of nutrients and strengthening of a solidarity economy through the engagement

of community members throughout the process to make decisions and build their own systems.

Thus, when working in the field of sanitation, in order to involve community members, we sought to rescue a community way of dialoguing and managing the common. Following, we present how the action research and qualitative data collection methodology was built.

Methodology

Action research is a type of social investigation conceived and associated with concrete actions to solve a collective problem with which researchers and participants representing the situation are involved in a cooperative or participatory way (Thiollent, 2011) in favor of the common. The development of this research has the intention of proposing a counter-hegemonic line of action, contrary to the neoliberal approach to production and consumption, currently rooted in the implementation of sanitation, which does not consider peoples as having the answers to their own problems.

As approached by Ostrom (2000), resources must be managed locally from the community and, for this, it is important to strengthen local activities, including people as agents/researchers in their own way of living and traditional knowledge.

Still, for a awareness of the oppressed to emerge, it is essential to make room for populations impacted by the scarcity of services and public rights, so that solutions can emerge from a new becoming, from a social will (Freire, 1983).

Methodologically, the OTSS ecological sanitation project is based on: (1) action research (Thiollent, 2011) as a way to include the various agents of the territory in the construction of innovative solutions based on the common; (2) in the ecology of knowledge, valuing all its forms, traditional and academic, to favor a horizontal dialogue of all types of knowledge (Santos, 2007); and (3) in critical reflection (Freire, 1983), to provide a praxis, an action aware of the agents, of themselves, and of their territory. Based on the need for constant dialogue, the use of integral and systemic action research (ISAR) was defined

to build solutions collectively based on consensus, combining the work of university and community researchers (Morin, 2004).

ISAR focuses on the active team and the objective and subjective experiences of each participating individual. This approach provides a modeling that considers the voices of the agents-researchers-community members involved from the decision making throughout the process in a dialogical way and by consensus, by the collective agent (Morin, 2004). As it is an action research, the process itself is non-linear and happens from the interactions between all agents with the common (Dionne, 2007). Data collection and systemic evaluation occurred cyclically and exponentially throughout the entire process based on qualitative research with participant observation, the evaluation of results by a multidisciplinary team and the conduct of semi-structured interviews with the community members of the Caiçara Community of Praia do Sono and local agents to learn about their relationship with water and sanitation (Machado; Maciel; Thiollent, 2017). Semi-structured interviews took place between June and July 2018 with nine respondents: three representatives of local public agents and six local community members. In this work, partial results are presented, from a psychosocial perspective, from the understanding of the strengthening and challenges in community relations, from the solidarity and common economy.

The methodology for data analysis was interpretative analysis. From the understanding of the need to integrate the different narratives, in the classification, the objective is to extract lessons from a dynamic language, which guarantees a reliable picture when comparing practice and theory. In this sense, the data reduced in statements are presented through journalistic language, which has the advantage of connecting the various observations to the reality experienced, adding dynamism to the research and explaining each lesson by observations and speeches (Morin, 2004). As the process is fully translated as pedagogical, the conclusions come from a critical reflection of the whole process.

As this is a research involving human beings, carried out in a Conservation Unit, the research project was submitted, evaluated and had a favorable opinion from the Research Ethics Committee of the National School of Public Health (REC/ENSP) with registration number 1,527,081 and was duly authorized by the State Environmental Institute (Inea), with authorization for scientific research (number 044/14).

Following, we present the community, the actions carried out and their impacts from a psychosocial approach, with the inherent challenges and collective learning.

Results

The results presented refer to information obtained from participant observation and semistructured interviews and, for ethical reasons, our informants are identified by pseudonyms. The voices of interested parties demonstrate the culture of the common and the transformations that took place after the dynamics of action research, from a psychosocial perspective. The results were introduced in detail under the following topics of interaction with the community: (1) the territory; (2) the actions taken; and (3) developments in the solidarity economy and in the Common Economy. In the discussion, the challenges of the common and community participation are presented.

The territory

The Caiçara Community of Praia do Sono is part of the State Ecological Reserve of Juatinga (REEJ/Inea) is a protected area of approximately 100 square kilometers in the municipality of Paraty, state of Rio de Janeiro. In the traditional community, 314 natives live: 177 men and 137 women. People who were born and raised in the reserve region - regardless of whether they lived there for a lifetime or not - are considered "native" or "caiçaras." Therefore, the feeling of belonging and identity is deeply linked to the territory. These people live from

artisanal fishing, subsistence agriculture and, more recently, tourism (Igara Consultoria em Aquicultura e Gestão Ambiental, 2011).

Being in an ecological reserve of high environmental conservation since 1970, the region has undergone predatory tourism practices that have profoundly changed the way of dealing with the common. Land grabbing, land fraud and attempts to remove community members fostered the community unity and the common to resist in the territory. However, the arrival of capital has also led to a fragility of social relations in caring for nature and water resources.

Most homes in Praia do Sono have domestic sewage separated by different pipes, sewers from the kitchens and cleaning (gray waters) and another pipe for the portion coming from the bathroom, with fecal material (toilet waters). Most of the toilet waters are led to sinks and infiltrated into the soil. Gray waters, on the other hand, are preferably directed to water collections directly, without treatment. Most sewage from kitchens does not have a grease box and, when it does, maintenance is not carried out periodically (Machado et al., 2018).

As Ostrom (2000) approaches in the "tragedy of the Commons," with the influx of abundant resources on the part of tourism, the common performance is weakened in relation to the care with water resources. Thus, in certain aspects, the community itself began to divide in terms of performance and distribution of resources. The leaders, understanding this fragility in the fragmentation of care for the common, raised this need with the FCT for the organization of a ecological sanitation project in Praia do Sono and the propagation of new ways of acting.

The actions conducted by the ecological sanitation action research

The aim was to carry out action research with the maximum involvement of the community and local agents based on intersectoral action to foster public policies and community actions. For this, collective plans and actions were carried out with the participation of community members and local agents throughout the following processes: (1) characterization of the territory and choice of technology with the community; (2) environmental educommunication actions at school; (3) construction of modules in the school, in nine houses and in the residents' association, with the hiring of local builders as social mobilizers; (4) conversation circles and alignment meetings to monitor the project with the community and local agents; (5) dissemination in other territories with the development of a constructive booklet and conversation circles; and (6) semi-structured interviews with community members and local agents.

Regarding ecological sanitation, the prototype was developed based on a constant dialogue between sanitary engineering and permaculture, representing an association between technique and popular wisdom in a horizontal way. There was a consensus that the suggested alternatives should emphasize the autonomy of the local population, promoting the training and dissemination of social technology that can be easily replicated (Gallo et al., 2016).

Thus, it was decided to act with the concept of ecological sanitation, which consists of recognizing the excreta and waste water of houses as a resource available for reuse, in contrast to conventional sanitation, which sees them as waste. It went from the culturally accepted standard "use-discharge-forgetfulness" to the look of protection of resources "use and reuse," with the involvement of residents in the process of understanding, building and maintaining the process. These systems promote the correct handling and use of human and animal excreta as products, ensuring sanitary safety and closing the nutrient cycle (Machado, 2019).

As Social Technology (ST) selected for implementation in the project, instead of a linear system, a closed cycle system of water and nutrients was agreed based on ecological sanitation. The system, called the evapotranspiration tank, consists of a sealed box and uses sewage as a raw material, with nutrients and water for the soil, to generate products (bananas) and return water to the atmosphere via evapotranspiration, as shown in Figure 1:

Figure 1 - Evapotranspiration tank



Source: Gallo et al. (2016).

The Martim de Sá Municipal School of the Caiçara Community of Praia do Sono was chosen in the first phase for its centrality in the community and for its symbolic power, suitable for the dissemination of this practice through environmental education (Gallo et al., 2016). Based on this assumption, the structural and structuring actions for the implementation of the first ecological sanitation module at the Martim de Sá Municipal School, in Paraty (RJ), took place in order to instigate participation through the inclusion of the agents interested in each action for the strengthening of collective consciousness.

The second spiral of action research implemented ecological sanitation modules in the homes of residents and a module in the residents' association of Praia do Sono, with discussions and interventions from June 2014 to December 2018.

Through contact with the community and with the various local agents we verified the need to focus on structuring, formative actions, not only for the learning of the new social technology, but also that would allow the development of a new water culture starting from a change in the relationship of individuals with the common, understanding the relevance of the more sustainable use of water, also to maintain tourism and fishing.

The developments in the solidarity economy and in the common

During the construction of the sanitation modules, community builders were hired to transfer social technology through an effective knowledge ecology and to be trained as multiplier agents in future constructions, either as part of the project or through other initiatives, from civil society and/or public authorities.

Thus, the builders were involved as participating members of the multidisciplinary team and were part of the decision-making process on the construction site, dialogue with the community, planning activities and evaluating the process, contributing to learning and critical reflection, as it can be seen in their speeches:

The cool thing was that we learned this, right? (Carlos)

And now we can make other systems, right? (Roberto)

There are many learnings. Mainly, for me, it was a great learning experience, right? For me to be a community member[...], and I'm working together with a technical team now. That's something. So, it has been an exchange, right? Because this, this is something, because nobody knows everything, right? (Rafael)

As Santos (2007) points out, it is from a constellation of knowledge and a non-colonizing approach that we can build new, counter-hegemonic actions, which effectively value the diversity.

In the participant observation and in the interviews, the following elements could be captured with positive impacts on the endogenous flows and on the valorization of the local economy: (1) social incubation, by hiring local labor and generating wealth in the community with the training of the builders as social multipliers; (2) impact on local tourism and solidarity economy, as ecological sanitation modules become part of the community-based tourism visits that have emerged, as it can be seen in the following voices of the participating community members themselves: sanitation is now part of our itinerary (Pedro) and we could never have imagined that an ecological sanitation system would enter the community-based tourism itinerary of a caiçara *community* (Olavo); (3) in the generation of food in the territory, based on the sanitation technology that generates bananas and other fruits, using sewage as a raw material, as a community member points out: the banana is there to eat. Good, right? You will produce food with your... with your waste, that you are turning it into a problem, it becomes a solution (Guilherme); and (4) in the mobilization of community members to build for themselves: and other communities, right, looking for us, looking to want to know how it is done (Luiza), as mentioned by an interviewee published in Machado et al. (2018).

As Singer (2009) shows, it is from the valorization of endogenous flows and the construction of cooperatives and associations that possibilities of solidarity economy can be built, as perceived by the community members:

When we see the community today, there are seven people there who know how sanitation works, because they worked with it, right?! [...] When it is over, if someone wants to do it within the community, or outside, they are already capable of doing it [...]. If one day the city decides to do it, there is already someone to hire. So this is training, right?! (Pedro)

A turning point, given that the project had public funding and support from the city hall at certain times, was the change in the awareness of certain residents about the care with their waste and sewage, as it is the case of a resident who owns a camping site and did a raffle and was based on the collective support to build her system, hiring

a builder who was trained by the project: We did a raffle at home, at the camping, and a lot of people bought it. And we were able to build with the raffle money, practically. [...] We saw many people who bought it because they liked the idea (Milena).

Next, we have the perception of community members from the exchange of experience, with a new perception of care for water resources and the common:

Most of us make a pit with bricks, but it has no bottom, which pollutes the soil, now we are ashamed, because we have learned the correct way to treat our sewage. (Olavo)

Now I'm ashamed to throw my sewage in the hole, because I know I can do it differently. (Aloisio)

From the crap the food grows, right? [...] Now that you said it, that's it. A flower grows in a dump. (Guilherme)

Ah, I really want to learn, you know?! So it caught people's attention, you know?! So I think this is already a change in people's minds (Luiza).

With regard to the common, McKean and Ostrom (2011) points out that collective management does not always happen easily and often the group of individuals interested in protecting a common resource does not succeed in establishing the rules for the simple lack of ability to communicate and establish trust with each other. The social conditions that favor or not coexistence and practical agreements need to be considered. However, it is from the engaged individuals of the community that new collective relationships can happen, as highlighted by the speech of the leadership:

We are transferring responsibility to other people, you know, building it for us. With that, we depoliticize the process [...]. And when we see that a project like the one we have been discussing, which is our project, the sanitation project, is one of them, it has this logic of leading us [...] that policy. That is very important [...] Let it be

with three, two leaders. [...] Because, when we start a movement, it is not very easy. It is very difficult, right, for people to empower themselves, to believe. (Pedro)

Final remarks

In the process of integral and systemic action research, the discussions and activities carried out in the various meetings and visits provided relevant information regarding the conception of all agents on the issue of sanitation in the community, its causes and possible solutions (Machado et al., 2018). The qualitative analysis brought a systemic perception about the challenges and a macro and psychosocial understanding of internal resistance in the community and in the local agents.

Despite fostering social participation from the common, there were many challenges in terms of community interaction throughout the process. In addition to the lack of participation, there were many criticisms of the process, especially to residents who did not attend meetings and who, despite receiving interventions in their homes, were not responsible for maintenance, believing that the responsibility would be left for the action research project. It is worth mentioning that this lack of engagement was also perceived by the local agents.

As Ostrom (2000) points out, when a community envisions implementing collective benefits, the challenges become evident, and if the benefits are for everyone, regardless of individual effort, this can generate discouragement in cooperating with activities in favor of the common.

This is a fact that has been discussed especially in relation to predatory tourism, as financial enrichment privileges some, but the common and the territory are harmed. At this point, Dardot and Laval (2017) emphasize the risk of the "tragedy of the Commons." Common goods are very sensitive and, although they are somewhat protected in the hands of traditional communities, they can at any time collapse, since selfish and profit-maximizing behavior is a social product,

and these communities are not immune to this type of behavior. Therefore, the commons are institutions that make possible the common management, but this only happens if they are in accordance with rules and limits of several levels established by the individuals involved in the collective management. It is necessary that the rules are well adapted to local needs and conditions, in addition to being in accordance with the objectives in question.

This reality is established and the community's own discomfort with the accumulation of capital, as it can be seen in the following statement: Because with the arrival of tourism, people become very individual, you know, then, they no longer think collectively as they did before [...]. There is no longer that cooperation from each other to help each other, right? (Rafael).

From this approach, it is clear that common goods are the object of extreme attention, as they can be exploited individually, and there is a risk of decrease or global exhaustion if the individuals involved in their management prioritize the personal benefit over the collective. However, Ostrom (2000) states that these collectively managed goods can remain in a lasting and efficient way, as they really have been, in some cases, for hundreds or thousands of years, depending on the collective social organization behind them. This is the case of management by peasants and traditional communities, involved in a self-organized and self-governing collective action.

Even with the challenges throughout the process, it can be seen that there was a gain in awareness among community members and local agents; however, it is clear that there is a time necessary for understanding and engaging in the process, as shown in the following statement:

From that project, we started to have a discussion that had never been done, about water treatment, about sewage system. We didn't know, the people here didn't know anything about it [...]. Today, anyone who lives here who participated in the meetings [...] knows how they are going to develop such an ecological sanitation system. (Julia)

This gain in awareness, including who owns the responsibility for carrying out the sanitation, showed that a large part of the interviewees, after four years of interventions and dialogue, consider that the responsibility belongs to everyone, the individual and the public power, and that both have to position themselves to take care of the territories, as shown in the following statement:

Dude, I think the responsibility rests with all of us. Because we are very used to saying that the responsibility lies with the public authorities. But the responsibility is ours. Do you know why? Who generates these wastes? I'm the one who generates this thing. So I have an obligation to take care of that. (Rafael).

As the collective agent shared many different voices and perceptions, establishing a comprehensive and inclusive common proved to be a challenge and at the same time an opportunity to change views on sanitation, solidarity and how to care for common goods.

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Authors' contribution

Machado collected and analyzed the data from his doctoral research. Maciel and Thiollent analyzed the research critically as advisors. All authors conceived the project and wrote the manuscript.

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