

THE COOPERATIVES' ROLE WITHIN THE SCOPE OF RIO DE JANEIRO STATE'S RECYCLING NETWORK¹

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Abstract. The recyclable material collectors' cooperatives are responsible, theoretically, for regulating the exercise of these workers in order to safeguard their rights and favor them. Likewise, they seek to facilitate their qualitative insertion in their relationship with the recycling industry. However, although they are a way to better organize and distribute the work of waste pickers, they can also lead to their precariousness. In view of this, this article seeks to offer an analysis of the relationship of the cooperatives that operate within the scope of Rio de Janeiro State's Recycling Network with their waste pickers, in order to clarify how this organization can help dignify the work of the waste picker or maintain you in your marginalized condition. Aiming to deepen this analysis, the themes of Paul Singer's solidarity economy and the degrees of efficiency of João Damásio de Oliveira Filho unfold here, starting from a theoretical survey and then presenting empirical foundations of the work experiences in "Facade Cooperatives".

Keywords: Recycling Cooperatives; Efficiency Degrees; Solidary Economy; Spatial Distribution.

O PAPEL DAS COOPERATIVAS NO ÂMBITO DA REDE DE RECICLAGEM DO ESTADO DO RIO DE JANEIRO

Resumo. As cooperativas de catadores de materiais recicláveis respondem, teoricamente, pela regulamentação do exercício desses trabalhadores, a fim de lhes resguardar direitos e favorecê-los. Da mesma forma, buscam facilitar sua inserção, de modo qualitativo, na relação com a indústria da reciclagem. Contudo, embora sejam uma forma de organizar e distribuir melhor o trabalho dos catadores, elas podem também acarretar sua precarização. Em vista disso, este artigo busca oferecer uma análise da relação das cooperativas que operam no âmbito da Rede de Reciclagem do Estado do Rio de Janeiro com seus associados catadores, com vistas a esclarecer como

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essa organização pode ajudar a dignificar o trabalho do catador ou mantê-lo em sua condição marginalizada. Visando a aprofundar essa análise, desdobra-se, aqui, as temáticas da economia solidária de Paul Singer e dos graus de eficiência de João Damásio de Oliveira Filho, partindo de um levantamento teórico para, em seguida, apresentar fundamentos empíricos das vivências de trabalho em uma "Cooperativa de Fachada".

Palavras-chave: Cooperativas de reciclagem; Graus de eficiência; Economia solidária; Distribuição espacial.

EL PAPEL DE LAS COOPERATIVAS EN EL CONTEXTO DE LA RED DE RECICLAJE DEL ESTADO DE RÍO DE JANEIRO

Resumen. Las cooperativas de recolectores de material reciclable son las encargadas, teóricamente, de regular el ejercicio de estos trabajadores, con el fin de salvaguardar sus derechos y favorecerlos. Asimismo, buscan facilitar su inserción cualitativa en la relación con la industria del reciclaje. Sin embargo, aunque son una forma de organizar y distribuir mejor el trabajo de los recicladores, también pueden conducir a su precariedad. Ante esto, este artículo busca ofrecer un análisis de la relación de las cooperativas que operan en el ámbito de la Red de Reciclaje del Estado de Río de Janeiro con sus recicladores, con el fin de aclarar cómo esta organización puede ayudar a dignificar el trabajo del reciclador o mantenerlo en su condición de marginado. Con el objetivo de profundizar en este análisis, aquí se desarrollan los temas de la economía solidaria de Paul Singer y los grados de eficiencia de João Damásio de Oliveira Filho, partiendo de un levantamiento teórico para luego presentar los fundamentos empíricos de las experiencias de trabajo en un "Cooperativa de Fachada".

Palabras-clave: Cooperativas de reciclaje; Grados de eficiencia; Economía solidaria; Distribución espacial.

Introduction

In general, a cooperative is an organization made up of workers from a specific social or economic group that aims to regulate the profession they exercise with the objective of safeguarding their rights and favoring them. Each cooperative has its own way of functioning, from the distribution of positions to resistance to bankruptcy. Although some offer free access to the public, their service is usually focused on the specific number of members. It is worth noting that, with regard to picking and

recycling activities, it is a fact that workers have achieved better working conditions from the moment they are a cooperative (MEDEIROS; MACÊDO, 2006).

Thus, there is a dynamism in the power relations that involve the plot entangled by the recycling industry. Based on Santos (2008), it is possible to say that, on the one hand, we have the centralization of the actors that make up the upper circuit of this industry and, on the other, the marginalization of those who make up the lower circuit, who can even assume the role of the businessman. Mediating the value and work of these two circuits, we have an intricate network of intermediaries and intermediaries. It is possible to affirm, due to an understanding of recycling as a network composed of diverse actors that exercise their daily functions through roles in power relations, that, no matter how much power comes from different poles and different subjects, there will be a circulation of forces among all the actors, in order to order them hierarchically. Therefore, there are *nodes* differentiated: there are those that have greater power of determination and command of the network.

In this sense, the purpose of the cooperatives of recyclable material collectors is to facilitate the insertion of these workers in a qualitative way, in the direct relationship with the recycling industry. As some scholars have said, recycling is not just about collecting. However, as stated by Burgos (2008) when considering the collector the base of this sector, the collection is a fundamental point for the maintenance of this network. In this bias, the lower circuit works as a mechanism for draining the value of labor in the economy of the poor and, likewise, as a mechanism for inserting these subjects in the logic and scales of capital. Such a circuit, however, is also responsible for maintaining and perpetuating the situation of poverty and subordination of the agents and firms that are linked to it.

Therefore, given this information, this article seeks to make a theoretical review and an empirical basis on the relationship between cooperatives and their waste pickers, in order to better understand how this organization can help dignify the work of the waste picker or keep it in its condition. marginalized. Our hypothesis is that the cooperatives of recyclable material collectors, although they are a way of organizing and better distributing the work, can also lead to their precariousness.

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Methodology

This section is dedicated to presenting the methodological path taken to carry out this article. Our work aimed to understand the role of the actors involved in the recycling network and, also, the conflicts and barriers that exist in the production of recycling, whether in the implementation of public policies, or in the limits of collective actions. In addition, it sought to analyze the socioeconomic situation of waste pickers, based on data collected by the Center for Socio-Environmental Studies Pangea (2018). The approach we proposed encompassed a broad spectrum of social and spatial processes, actions and relationships, which required different methodological procedures, both qualitative and quantitative.

It is understood that the “scientific methodology is much more than some rules on how to do the research. It helps to reflect and provides a 'new' look at the world: a scientific, curious, inquiring and creative look ”(GOLDENBERG, 2004, p. 11). Thus, methodology is not only a tooling tool for the observation of social phenomena, but also a mechanism for the perception of reality that mediates the process of apprehending knowledge, in order to achieve new perspectives on the object chosen for the investigation, which can be qualitative or quantitative.

Regarding qualitative research, Minayo (2001) states that this methodology contemplates “a level of reality that cannot be quantified, measured in all its complexity” (p. 21). Ramires and Pessoa (2013) add that

Qualitative research has as its identity the recognition of the existence of a dynamic relationship between the real world and the subject, a living interdependence between subject and object and an interpretive posture, constituting itself as a field activity that has internal conflicts and tensions. (p. 25)

In this sense, in order to understand the conflicts and disputes involving the recycling production networks, it was necessary to use, at a certain moment, qualitative methodological resources, which allowed us to approach the reality researched more accurately. In the qualitative form of research, “the researcher's concern is not with the numerical representativeness of the researched group, but with the deepening of the understanding of a social group, an organization, an institution, a trajectory etc.”

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(GOLDENBERG, 2004, p. 12). The quantitative metric, then, is replaced by intensity, in a subjective immersion in which observation is careful, through interviews, participatory action and analysis from different documentary sources.

Understanding that the research must contemplate the economic, political and historical links that build social relations, and considering the complexity of the spatial reality established in this work, we use so much quantitative data, from the bases of the Center for Socioenvironmental Studies Pangea, to analyze the relationship capital-work and the socioeconomic condition of the collectors, as for qualitative data, from the analysis of documents and, mainly, from the experience of the researcher in the field of recycling. In this experience, we sought to understand the spatial organization of the recycling production networks and the advances and obstacles that characterize public policies in this sector in Brazil, from the perspective of the collectors.

Thus, we seek to start from the phenomenon itself, and not from its representation, going beyond appearances and overcoming the first impressions offered by the production networks and public policies established for the historical and geographical scenario analyzed, in an attempt to reconstruct the reality in the abstract plane to then return to the concrete plane.

The research work itself, observation in the field, corresponds to the large scale and, at this level, it is only a part of the phenomena that can be properly apprehended; the others must be foreseen on a smaller scale and, for this, it is necessary to use representations that the field research cannot provide. Field work, in order not only to be an empiricism, must be linked to the theoretical formation that is also indispensable. Knowing how to think about space is not just putting problems in the local framework; it is also to articulate them effectively to the phenomena that develop over much wider extensions. It is no less true that research, insofar as it corresponds to the extraction of an abstract from a concrete, through research and field observation, attaches great importance to the level of conceptualization on a large scale (of course, research can also start, above all, from abstractions already elaborated; the training of researchers is then different and much less hesitant). (LACOSTE, 2006, p. 91)

Therefore, the commitment assumed by our research, when proposing the understanding and problematization of the relationships established in the recycling scenario, was to contribute to a more qualified look at the actors involved in the production network recycling (governments, industries, traders, cooperatives, etc.)

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with a view to formulating and implementing actions aimed at them and the subjects who carry out the activities of picking and recycling in their daily lives.

Among the documents we analyzed, we highlight the report developed in 2014 by the Getúlio Vargas Foundation (FGV), under demand from the State Secretariat for the Environment of Rio de Janeiro, and by the Center for Social and Environmental Studies Pangea. It is important to highlight that, although presenting data on recyclable material collectors, the National Household Sample Survey (PNAD) and the Demographic Census of the Brazilian Institute of Geography and Statistics (IBGE) consist of household sampling and self-report studies and their methodology it may underestimate information about these workers, as many of them do not have a fixed residence and those who do have it live in places that are difficult to access, making it impossible for enumerators to work. This panorama is corroborated by the specialized literature (PORTO-GONÇALVES, 2006; BOSI, 2008; BURGOS, 2008; ROSADO, 2009; DAGNINO; DAGNINO, 2010), which reveals that most waste pickers live in the peripheries, on the streets or even in the dumps .

We mapped the organization of the entire recycling production network in the state of Rio de Janeiro, identifying cooperatives, private companies, public agencies and other active players. From interviews, we seek to verify the conflicts, tensions and institutional barriers in the scope of the organization and functioning of this network. To this end, the data collected were organized into mappings and classifications, as we understand that these do not exist on their own, but are constructed through the questioning that is done about them, based on a theoretical foundation. Necessary articulations were established between them, the interviews, the researcher's experiences and the theoretical references of the research, responding to the proposed objectives, promoting relations between the concrete and the abstract and the general, the particular and the singular³.

³ Addendum, for the development of the report, I was able to participate both as an employee in its execution and in the creation of the system destined to compile the information collected in the research, generating maps and data files applied in 3,084 questionnaires with the collectors. I was also able to count on the collaboration of 40 (forty) enumerators, who were in charge of conducting visits to recyclable material collectors, conducting the appropriate face-to-face interviews in 44 municipalities in CRUZ, Uilmer Rodrigues Xavier da, *The Cooperatives' Role In The Scope Of The State of Rio de Janeiro's Recycling Network*

Both the quantitative data raised and the theoretical reflections brought new questions to this research, such as: What are the networks and how do they operate? Which networks do cooperatives belong to? What are the most marketable materials? What are the criteria for joining the network? What are the main challenges? To answer these questions, we turned to the networks themselves and conducted interviews with the main leaders of each one, covering all those that exist in the state of Rio de Janeiro (Chart 1).

Chart 1. Field research and participating actors.

Cooperative	Address	Date	Networkk
Recooperar, Itaboraí	Jose Leandro Street, no number, lot 57 quadra 20 -	06/04/2018	Cata Sonho
Associação dos Catadores de Lixo do Jardim Gamacho (Association of Waste Pickers of Jardim Gramacho) Metropolitan Landfill (ACAMJG)	Almirante Midosi Street, lot 16, square 42 - Jardim Gramacho - Duque de Caxias	06/08/2018	Mesc
Cooperativa são Vicente de Paulo	Pastor Martin Luther king Júnior Avenue, 3099 - Engenho da Rainha	06/12/2018	Recicla Rio
Cooperativa Reciclando Para Viver (Recycling for Living) - RPV	Marechal Câmara Avenue, 350 - Rio de Janeiro	14/06/2018	Movement Network
COOPAMA	Rua Miguel Ângelo, 385 - Maria da Graça	06/21/2018	Febracom

Source: Elaborated by the author, (2018).

The methodological instruments used were the field notebook, with questions of semi-open structure, and an audio recorder⁴.

the state of Rio de Janeiro. In this work, lasting 6 (six) months, Global Positioning System (GPS) devices were used as a methodological resource, in order to obtain precision regarding the location of each of the collectors.

⁴ As a recycling network partner and, because of that, with bigger access to the networks, I could carry out the observation of the researched field, with the objective of looking for a possible dialogue between theory and practics.

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Cooperatives and Recycling Activity

The marginalization of workers at the base of the recycling pyramid is linked not only to the weakening of their work by capitalist exploitation and the widespread collection of waste pickers, but also to a double precariousness that, at the same time that excludes it from labor laws, minimizes its importance in the production network and in society as a whole (SILVA, 2017). For Silva (2017), recycling cooperatives have the role of bringing to light the needs and questions of this worker. For this aspect, it would be up to them to directly interfere in the labor relations that involve the upper and lower circuits of the recycling industry through the development of public policies that take into consideration the non-precariousness of work, in an action of influence over the State. The author claims that, although there are challenges inherent in the daily life of recyclable material collectors - challenges that relate to their workforce and their social importance -, cooperatives have collaborated to empower these workers and change the logic of their work.

In this sense, Leite (2011) recalls that cooperatives of recyclable material collectors appeared in Brazil in the 1980s, linked to environmental guidelines and the exponential generation of solid waste, having intensified between the end of the 1990s and the beginning of 2000s. Its discussion goes in the sense that the cooperatives are responsible for the support and promotion of public policies aimed at the actors of the collection, including the direct involvement of these subjects with these guidelines by understanding their roles in the recycling production network.

On the other hand, Silva (2017) demonstrates that the function of cooperatives is also to symbolically rescue workers from waste collection, as policies establish a territorial alteration of the subjects, in a movement from the margin to the center of labor relations, through empowerment. The author found that cooperative collectors assume an understanding of the importance and value of their work, while single (non-cooperative) workers experience greater insecurity.

Leite (2011) highlights the paradoxical reality of recyclable material collectors, given the importance of their work as an environmental practice. According to her,

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concomitantly with this practice, the capitalist logic, which generates precarious profits and labor relations for the components of the lower circuit, is perpetuated, in view of the offer of cheap raw material for the upper circuit of the processing of recycled material industry.

The need to make workers in the recycling production network aware of the importance of their workforce is permeated by the need to transgress massive exploitation, arising from unequal power relations in the network. This condition is widely discussed by Freitas (2010), for whom the precariousness of work, linked to the maximization of profits from the upper circuit of the recycling industry, contributes to the alienation of waste pickers and to the production of an imaginary that implies their marginalization.

Freitas (2010) relates workers in the recycling sector to the Marxist concept of *lumpenproletariat*. For him, this category includes the worker who, because he does not understand the social importance of his workforce, due to his alienation from the capitalist mode of production, is more intensely exploited. In this sense, it is about the non-rationalization of the subject derived from mechanistic work that feeds back into the capitalist system and its logic of profit production, which, in turn, ends in the accumulation of permanent capital and inequality between classes.

The maintenance of a lumpenproletariat is related to the existence of an industrial reserve army, to the increase of poverty and to the uneven development of the capitalist production system, especially in the global periphery. According to Freitas (2010), a representative group of lumpenproletariat would be that of recyclable material collectors who, although their importance is recognized in the prism of environmental concern, suffer from the precarious condition of work, lacking public policies. This demonstrates that the ecological discourse leads public and private institutions to “skip” workers, understanding the networks of recycling production from middlemen or entrepreneurs, relegating the collectors to a relatively small cost on the materials collected, thus requiring more hours worked to accumulate more material.

The reflections of Freitas (2010), Leite (2011) and Silva (2017) on the importance of the organization of waste pickers with a view to raising awareness and empowering the class dialogue with the need to break and transgress the rules and logic of capitalism, which depends on the alienation of workers to maintain the reproduction of capital. The production of profit, in this way, is not only related to the material conditions intrinsic to poverty and the exploitation of surplus value, but also to symbolic issues that involve the comprehension of the collectors of their daily reality.

As Silva (2000) states, space (and, of course, any network, since it comprises a spatial tangle) is not only the result of material apprehensions that support the capitalist system, but also of symbolic forms built from social relations and work. Thus, the change in meanings about the reality of the recycling production network corresponds to a transgression of the logic of the capitalist production system, a logic that encompasses the production of permanent capital, uneven development and, therefore, the boosting of production of poverty and the precariousness of the work of the subjects involved with the picking.

The flow of information and negotiations between cooperatives of recyclable material collectors offers greater gain to cooperative workers, as it expands the market for buying and selling by expanding cooperation circles. These circles, before, were only subject to the relationships established in the lower circuit, with other local cooperatives and intermediaries (SANTOS, 2008).

Solidarity Economy by Paul Singer and Degrees of Cooperative Development by João Damásio de Oliveira Filho

The way cooperatives operate is subject to the legislation in force in each country. In Brazil, it is Law n. 5,764, of December 16, 1971, which sanctions it, with the purpose that cooperatives provide services to their members (BRASIL, 1971).

The economist Paul Singer talks about the functioning of cooperatives, for whom such organizations must function in solidarity, aiming at equality and democracy. According to him,

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The solidarity company manages itself democratically, that is, it practices self-management. When it is small, all decisions are made in assemblies, which can occur in short intervals, when necessary. When it is large, general meetings are rarer because it is very difficult to organize a meaningful discussion with a large number of people. Then the members elect delegates by section or department, who meet to deliberate on behalf of everyone. Routine decisions are the responsibility of those in charge and managers, chosen by the partners or by a board elected by the partners. (SINGER, 2002, p. 18)

Although there is difficulty in conceptualizing cooperatives in Brazil, the objectives of this system are clear, as they place, above all, the desire to offer economic advantages to their members, the bargaining power that cooperatives reach and the elimination of intermediaries / middlemen. According to article 4 of Law no. 5,764, the express characteristics of the cooperatives are:

a) voluntary membership, with an unlimited number of members, except for technical impossibility to provide services; b) variability of share capital represented by shares; c) limitation of the number of shares of capital for each associate, however allowing the establishment of proportionality criteria, if this is more appropriate for the fulfillment of social objectives; d) inaccessibility of capital shares to third parties, outside the company; e) singularity of vote, with the central cooperatives, federations and confederations of cooperatives, with the exception of those engaged in credit activities, choosing the proportionality criterion; f) quorum for the operation and resolution of the General Assembly based on the number of members and not on the capital; g) return of the net leftovers for the year, in proportion to the operations carried out by the associate, unless otherwise decided by the General Meeting; h) indivisibility of Reserve and Technical and Educational Assistance funds; i) political neutrality and religious, racial and social indiscrimination; j) provision of assistance to members, and, when provided for in the statutes, to employees of the cooperative; k) admission area for members limited to the possibilities of meeting, control, operations and provision of services. (BRAZIL, 1971)

The aforementioned law defines the National Cooperative Policy, establishes the legal regime for cooperative societies and takes other measures. It is noticed that its main characteristics refer to the standards set by the Rochdale pioneers⁵.

⁵ According to Bulgarelli, despite suffering from the crisis caused by the Industrial Revolution, on October 28, 1844, the first cooperative model emerged, which still serves as a parameter for cooperatives today. Driven by the desire for cooperation and overcoming the crisis they were in, 28 Rochdale weavers built the first formally organized cooperative. Among its main objectives, they were “to supply needs left by unemployment, to have political and religious neutrality, to control the board elected by members, to do business in cash, to repay dividends according to the capital paid” (BULGARELLI, 1965, p. 26). The 28 weavers, since then, represent a landmark of cooperativism, because, from this desire for equality and justice that they had, other cooperatives were born and gained strength around the world. Among their intentions and aspirations is the search for a democratic work

Cooperative societies are classified as: Single

- a) or 1st degree cooperatives: designed to provide services directly to members;
- b) Central cooperatives and federations of cooperatives, or 2nd degree: made up of singular cooperatives that aim to organize, in common and on a larger scale, the economic and assistance services of interest to the affiliates, integrating and guiding their activities, as well as facilitating the reciprocal use of services; and
- c) Confederation of cooperatives, or 3rd degree: constituted by centrals and federations of cooperatives and whose objective is to guide and coordinate the activities of the affiliates, in cases where the size of the enterprises transcends the scope of capacity or convenience of performance of the central offices or federations.

Despite being seen as simple societies, cooperatives have, according to article 4 of Law no. 5.764, its own form. Article 3 of this law also expresses that “the cooperative society contract is signed by people who reciprocally commit themselves to contribute with goods or services for the exercise of an economic activity, of common benefit, with no profit objective” (BRASIL, 1971) . In this way, the law makes it clear that the cooperative is a society, and not an association, as it mentions a “cooperative society contract” whose objective is the “exercise of economic activity”. This is what Singer (2002) adds when stating that

The solidarity economy is another mode of production, whose basic principles are the collective or associated property of capital and the right to individual freedom. The application of these principles unites all those who produce a single class of workers who have equal capital in each cooperative or economic society. The natural result is solidarity and equality, the reproduction of which, however, requires state mechanisms for solidarity redistribution of income. (p. 10)

system, through which a more just and egalitarian society in their rights and duties would be possible, in which the members were also their elected leaders. These cooperatives must maintain political neutrality and aim, above all, at commitment and humanity in their productive practices. Capital must be objectified by them as a mere instrument, and not as a determining factor. They must not pursue profits and, above all, they must turn to the development and improvement of human beings (BULGARELLI, 2000).

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In addition, as they are non-corporate companies, they are not subject to bankruptcy, as determined by Article 4 of Law 5764 (BRAZIL, 1971) and Article 94 of the Bankruptcy Law (BRASIL, 2005). In other words, cooperatives are companies that carry out economic activities without being business: they are not aimed at profits, even though they are registered with the commercial boards. This shows that they have their own way of operating and, with that, a right that is peculiar to them.

For Singer (2002), the work of cooperatives must be thought from the solidarity economy, which is based on an egalitarian thought, both of rights and of production and possession of the means of production. As postulates,

We usually define solidarity economy as a mode of production that is characterized by equality. For equal rights, the means of production are collectively owned by those who work with them - this is the central feature. And self-management, that is, solidarity economy ventures are managed by the workers themselves collectively in an entirely democratic way, that is, each partner, each member of the enterprise has the right to one vote. If they are small cooperatives, there is no important distinction of functions, everyone does what they need. Now, when they are bigger, then there is a need for a president, a treasurer, in short, some specialized functions, and this is especially important when they are very large, because then a large part of the decisions have to be made by the people responsible for the different sectors. They have to strictly comply with what the collective guidelines are, and if they do not do so, the collective replaces them. It is the reverse of the relationship that prevails in hetero-managed enterprises, in which those who perform responsible functions have authority over others. (p. 16)

Cooperativism in Brazil is also mentioned in the Federal Constitution of 1988, in order to encourage economic activities.

Art. 5. All are equal before the law, without distinction of any nature, guaranteeing to Brazilians and foreigners resident in the country the inviolability of the right to life, freedom, equality, security and property, in the following terms :

[...] XVIII - the creation of associations and, in the form of the law, that of cooperatives are independent of authorization, and state interference in their operation is prohibited. (BRAZIL, 1998)

The incentive for the organization, creation and operation of cooperatives is evident without the interference of government agencies, which can act only as normative and regulatory agents, as shown in the following excerpt from the Constitution:

Art. 174 - As an agent normative and regulating the economic activity, the State will exercise, in the form of the law, the functions of inspection, incentive and planning, this being determinant for the public sector and indicative for the private sector.

[...] § 2 - The law will support and encourage cooperativism and other forms of associations;

§ 3 - The State shall favor the organization of gold mining activity in cooperatives, taking into account the protection of the environment and the economic and social promotion of gold miners;

§ 4 ° The cooperatives referred to in the previous paragraph will have priority in authorizing or granting research and mining resources and mineral deposits.

[...] Art. 187 - The agricultural policy will be planned and executed, in accordance with the law, with the effective participation of the production sector, involving producers and rural workers, as well as the commercialization, storage and transport sectors, taking into account, in particular:

[...] VI - cooperativism.

[...] Art. 192 - The national financial system, structured in such a way as to promote the balanced development of the country and to serve the interests of the community, will be regulated in a complementary law, which will also provide for:

[...] VIII - the operation of cooperatives and the requirements for them to have operational and structuring conditions specific to financial institutions. (BRASIL, 1988)

The Federal Constitution of 1988 reinforces and introduces values treated in Law no. 5.764, since it carries a democratic, pluralist and solidary vision, especially in its articles 1, 3 and 170. The Federative Republic of Brazil, operating with this vision, embraces principles and values such as citizenship, human dignity, social value of work, free initiative and political pluralism, as well as objectives such as freedom, social justice, solidarity, development, reduction of inequalities, promotion of the common or collective good and non-discrimination. Such postulates make up the foundations of cooperativism, thus secularly enshrined.

From the understanding of the branches that divide cooperativism, it is also necessary to think about another, more specific standardization, called the Bylaws, which consists of a contract instrument. This statute brings together precepts capable of structuring a cooperative in an administrative way and guiding the way it works. According to article 21 of Law no. 5,764, the Bylaws should recommend:

- I - the denomination, headquarters, duration, area of action, object of the company, establishment of the fiscal year and the date of the survey of the general balance sheet;
- II - the rights and duties of the associates, the nature of their responsibilities and the conditions for admission, dismissal, elimination and exclusion and the rules for their representation at general meetings;
- III - the minimum capital, the value of the share, the minimum of shares to be subscribed by the associate, the way in which the shares are paid in, as well as the conditions for their withdrawal in the event of dismissal, elimination or exclusion from the associate;
- IV - the way of returning the surpluses registered to the associates, or of the apportionment of the losses determined by insufficient contribution to cover the company's expenses;
- V - the mode of administration and inspection, establishing the respective bodies, with definition of their attributions, powers and functioning, the active and passive representation of the company in or out of court, the term of office, as well as the process of replacing the administrators and tax advisers;
- VI - the formalities for calling general meetings and the majority required for their installation and the validity of their deliberations, with no right to vote for those who have a particular interest in them without depriving them of participation in the debates;
- VII - cases of voluntary dissolution of the company; VIII - the mode and process of disposal or encumbrance of the company's real estate;
- IX - how to reform the statute;
- X - the minimum number of members. (BRAZIL, 1971)

However, in order to achieve this level of organization of cooperatives, the work of waste pickers is essential. They are responsible for collecting the waste, selecting the materials considered desirable and discarding the undesirable, making the sorting by which they separate the different types of materials. Their work ends when they manage to obtain new goods, which are nothing but raw materials capable of generating other products for the market. In the midst of this process, it is also necessary to consider storage, commercialization, transport and reprocessing. In view of this, we seek to think of this entire production process as a value chain, which takes into account all stages of production and distribution that add value to products and services until reaching the final consumer.

The recycling network has been gaining space, so that it has gained prominence in recent years, especially due to its dissemination and its socio-environmental impact. Brazil needs to move forward both in theoretical discussions about the fate of what is “discarded” and in selective collection practices. It is not just about what is being done today and where it might take tomorrow, considering the accumulation of garbage in CRUZ, Uilmer Rodrigues Xavier da, *The Cooperatives’ Role In The Scope Of The State Of Rio de Janeiro’s Recycling Network*

cities. Rather, it is a political and social discussion about an entire class, which is the main responsible for an essential work that, however, has been carried out in a subordinate, invisible and unrecognized way.

Among the advances, memories were also present, if we think about the main actors that make up the scavenging scene: the scavengers themselves. In order to find out who they were, where they were located and how they were inserted in the production of recyclable materials, the National Movement of Waste Pickers (MNCR) carried out, in 2006, an experimental study, coordinated by Professor João Damásio de Oliveira Filho, with the support of the Ministry of Social Development and Fight Against Hunger (MDS), the Fraternal Aid Organization (OAF) and the Pangea Center for Social and Environmental Studies.

This study identified 115 cooperatives of recyclable material collectors in Brazil and approximately 25 thousand cooperatives. The degrees of development⁶ of these cooperatives and the weaknesses found stimulated the formation of the first Federal Government programs aimed at waste pickers.

[...] one can imagine a cooperative with few members, but with adequate equipment and facilities, which performs better than a cooperative with many members, but lacking minimally functional equipment and facilities. It is, on the other hand, evident that the ideal would be cooperatives of some size, with a considerable level of cooperative members and high production and storage capacity, in order to benefit from economies of scale and bargaining power vis-à-vis the intermediaries that populate the oligopsonic market for the sale of recyclable materials. (OLIVEIRA FILHO, 2006, p. 23)

According to Oliveira Filho (2006), there are different categories of cooperatives in operation. In them, working conditions, infrastructure, equipment and production can vary widely, as there are several ways to measure the efficiency of a production

⁶ First degree cooperatives are made up of people, like Canabrava Collectors and Ecological Agents Cooperative (CAEC) and Canabrava Recyclables Cooperative (Cooperbrava). Second degree cooperatives are made up of cooperatives, that is, central and cooperative federations, two of which being the Federation of Recyclable Material Collectors' Cooperatives (Febracon) and the Cata-Bahia Network. The Third degree cooperatives, Cooperatives de 3.º grau, although exceptions, they are confederations, that is, cooperatives formed by networks of 2nd degree cooperatives. The efficiency cited by Oliveira Filho (2006) does not fit this terminology, as there are 1st degree cooperatives that are more efficient than a 2nd or 3rd degree cooperative. It is worth mentioning that the 1st, 2nd and 3rd degree cooperatives correspond to a legal order, while efficiency is an economic variable. Thus, these variables do not intersect.

process or an organization. According to the author, “one of the most common is the use of the relationship (product) / (work) - both in physical terms and in terms of valuation (R \$) - in order to allow the evaluation of any differentials in production per capita , that is, per cooperative worker ”(p. 23).

Physical efficiency is measured in kilometer / month per cooperative, while economic efficiency - or average gross return - is calculated by the commercialized value of physical production per capita per cooperative in collection / month. Oliveira Filho (2006) clarifies that, although they are correlated, these two criteria do not match, since the commercialization conditions of recyclable materials can vary a lot, according to the region, the city and the bargaining power in which the production is negotiated.

In addition, it is necessary to consider market efficiency, which refers to the cooperative's ability to place its recyclable products on the market advantageously and represents the ratio between economic efficiency and physical efficiency indexes. In the words of Oliveira Filho (2006), “there is little point in a high per capita volume of collection, if there is no scale to face the middleman, or if the marketing channels are obstructed by structural issues, such as logistics and transportation” (p. 47). In this sense, the cooperatives of recyclable material collectors are very different, not because of their size, their number of cooperatives or their location, but rather because of the efficiency with which they produce.

The conditions for this production are the most adverse. Few recyclable material collectors' cooperatives have an infrastructure that is adequate and cooperates for its full functioning and efficiency. Many operate in the open or without their own territorial space, regardless of the group and the efficiency to which they are allocated (OLIVEIRA FILHO, 2006).

A cooperative that does not have adequate built-in space for sorting, processing, baling, storage - in addition to social and physiological vital space - loses efficiency. Therefore, any gain in efficiency must assume that the built area per capita is a fundamental indicator and that investments in built infrastructure are essential as a precondition for the proper functioning of the activity. (OLIVEIRA FILHO, 2006, p. 65)

This, however, is not enough. “Investing in equipment directly linked to the activity is essential for increasing productivity and increasing overall efficiency” (OLIVEIRA FILHO, 2006, p. 68). Here, we are referring to platform trolleys, cargo elevators, big-bags, stationary buckets (storage boxes), metal containers, forklifts, hydraulic compacting presses, sorting belts, industrial scales and roll-on trucks with julyet and brass .

Another factor that deserves special attention is the personal protective equipment (PPE) aimed at workers, which must include gloves, uniforms, shoes, masks, aprons, ear protectors, glasses and helmets. Lack of worker protection is a source of disease and a vector for work accidents. According to Oliveira Filho (2006), regardless of the degree of efficiency of the cooperative, all are still insufficient in this regard. In addition, such conditions consist of requirements from the Occupational Safety and Medicine Service (SESMT).

There are several work facilitators, when we think about the daily lives of recyclable material collectors, and one of them is represented by the advantage established by the presence of trucks, utility vehicles and pickup trucks in high and medium efficiency cooperatives. In the absence of these resources, it is common to find horse-drawn carts. Carts pulled by pickers are a constant presence in all types of cooperatives, even in high performance ones. However, as Oliveira Filho (2006) argues, “there is little point in investing in physical facilities and buildings, if the collectors do not have carts and trucks to carry out the collection” (p. 76).

In this segment, we can say that investments are essential for quality results: “the addition of new investments in construction and the acquisition of new equipment has the immediate potential impact of not only generating new jobs, but generating them with quality and efficiency ”(OLIVEIRA FILHO, 2006, p. 76). It is necessary, then, to think about these investments, as they have a strong relationship with physical and monetary production, directly impacting the gross revenue of cooperatives of recyclable material collectors.

For Oliveira Filho (2006), there are three types of cooperatives that have different levels of production, commercialization and, consequently, efficiency: those with high

efficiency, those with medium efficiency and those with low efficiency. For him, such a performance classification is qualitatively associated with the following situations:

Situation 1: group formally organized into an association or cooperative with its own press, scale, trolleys and shed, with the capacity to expand its physical structure and equipment, in order to absorb new waste pickers and create conditions to implement industrial recycling units. In this situation, the cooperatives are already ready to verticalize the production of recyclable materials. Cooperatives in this situation must be seen as important vectors of social inclusion.

Situation 2: group formally organized into an association or cooperative, with some equipment, but needing financial support for the acquisition of other equipment and / or warehouses. The cooperatives of this group are in an intermediate phase - with a lack of equipment to expand production - needing reinforcement of infrastructure to expand the collection and thus formally include new collectors of recyclable materials.

Situation 3: group in organization, with few equipments - some of them owned - needing financial support for the acquisition of almost all the necessary equipments, in addition to own warehouses. The formal establishment of your cooperative will mean the inclusion of new jobs for recyclable material collectors.

Situation 4: disorganized group - on the street or dump - without any equipment, and often working in conditions of extreme precariousness for middlemen and depositors. Financial support is required for the complete assembly of the building and equipment infrastructure. The formal establishment of your cooperative will mean the inclusion of new jobs for recyclable material collectors. (p. 79)

In view of this, the data provided by the MNCR enabled the typological segmentation of the universe of cooperatives in four situations. These data, however, are not sufficient to attest to the production efficiency of a cooperative, although the efficiency does have to do with the structural level of organization and the material and location conditions. "However, it happens that there are large cooperatives, with a lower level of organization and less efficiency; just as there are small cooperatives, with a reasonable level of organization (but well equipped) and with a high level of efficiency" (OLIVEIRA FILHO, 2006, p. 80).

The implementation of a high efficiency cooperative, with collection, sorting, processing, storage and marketing, requires a set of factors and minimum working conditions, not only for good production, but also for the efficiency of its activity. However, "it is useless to provide the creation of new jobs, if these workers are placed in a subordinate and subordinate position" (OLIVEIRA FILHO, 2006, p. 89), after all, it is

necessary to consider the main producers of recyclable materials, both on the floor of the cooperatives and on the streets.

[...] in this category, the cooperative members are working in the most extreme conditions possible, working directly in open-air dumps and on the streets. They are often forced to compete with other waste pickers for recyclable materials discarded there, without minimum hygiene conditions and live with animals that transmit diseases. (OLIVEIRA FILHO, 2006, p. 99)

It is not just a matter of regulating a workforce, but of thinking about the social inclusion of an entire category that needs minimum working conditions, not only for efficiency and productivity, but also for its safety. This means, in the same way, guaranteeing jobs and income for a portion of the population that is not absorbed by the formal labor sector, even though it represents an immense economic and environmental impact for society. In this sense, Pereira and Goes (2016) argue that “making payment of urban environmental services to waste pickers was an act of justice, since much of what is currently recovered is due to the work of this public” (p. 26). However, as added by Oliveira Filho (2006),

[...] the greater importance of this proposal will be achieved by rescuing the citizenship of an almost clandestine portion of the population who, upon receiving a dignified opportunity to perform their work, may, for the first time, raise their heads and look directly into the eyes of your interlocutors and say: “I am a useful citizen and my work is recognized!”. (p. 147)

In order to raise a debate about cooperatives for economic efficiency and social effectiveness, it is necessary, first, to understand that cooperation has always been present in the history of humanity. It is worth remembering that, in the past, men came together to achieve certain goals, such as getting food, for example. According to the Michaelis dictionary, cooperating means an act or effect of cooperating; provision of aid for a common purpose; collaboration, solidarity (COOPERATION, 2020). What is seen, however, is that, since the evolution of men, this feeling of cooperation has given way to the desire to accumulate power and explore the work of others, among others.

Understanding of the Practices in the waste picking scenery

We seek the necessary information to understand the practices in the researched scenario with those who are included in their daily lives. In it, we are faced with a legitimate model to be followed, as interviewee B points out, when he says that “specifically, in the state of Rio de Janeiro, the State, through public policies, brings the Ecco Ponto⁷ cooperative as a model of cooperative to be followed”. According to him, the Ecco Ponto cooperative has become a reference, as it has a physical structure that has trucks, buckets, internal area and good facilities to manage all projects aimed at waste pickers in the state of Rio de Janeiro.

According to interviewee B, the choice of a cooperative as a model is a delicate issue, which requires attention, as it can generate classification parameters directly linked to a quantitative assessment, which can lead to the exclusion of other cooperatives that do not receive the same investment. As a complement,

[...]as the State and NGOs create plans for the execution of projects, using as reference a cooperative already structured, they also create mechanisms for the exclusion of other cooperatives, including exclusion clauses in their public notices. (Interviewee B)

Another issue that deserves to be pointed out concerns the legitimacy of cooperatives, because, according to our survey, not all so-called cooperatives are, in fact, cooperatives. According to interviewee B, “in this scenario, façade cooperatives are found, which can be used in a shady way to circumvent taxes, in view of the social benefits and environmental license that are facilitated, when there is a cooperative in its corporate name”. Still according to him, these facade cooperatives are commonly known as “coopergato”⁸. He adds that “many times, cooperatives do not offer the democratic choice of choosing a president, typical of the logic of cooperative

⁷ It is a shell cooperative that is located at Estrada João Paulo, 1005, in Barros Filho, Rio de Janeiro / RJ.

⁸ “Cooperativas de fachada” (SINGER, 2002), “coopergatos” or “cooperfraudes” (shell cooperatives) are false cooperatives that now infest the country. They are capitalist enterprises that simply pay their workers their direct wages, that is, the money that the worker takes home. Today the so-called indirect charges represent something close to half of the total payment that workers receive from their employers. In this sense, it is extremely seductive for an entrepreneur to transform his firm into a pseudo-cooperative, as this practically halves his spending on payroll. Today, there are even consultants specialized in transforming companies into false cooperatives.

members, maintaining in the leadership an actor who occupies the place of owner of the cooperative".

The cooperatives managed by big capital, which are front cooperatives managed by agents of the business community, weaken the legitimate cooperatives, since the entrepreneurs, with their stationary buckets of 30 m³, place several buckets in collectors' cooperatives and create a relationship of dominance and influence area. This is because, with the distribution of several buckets throughout the territory, logistics are facilitated and production increases, generating more revenue for the industry.

In general, during the field research, we also found resistance to the computerization of the economic activities of waste pickers' cooperatives. Our hypothesis is that this facilitates illicit transactions, irregular payments, sales without invoices and inaccurate numbers about financial transactions, both with regard to the payment of personnel and with regard to the quantification of materials collected and / or sold by cooperatives.

According to the survey on the recycling production network in the state of Rio de Janeiro, 136 cooperatives were identified, of which 79 have interference in the production network. The others, due to their size, no longer directly influence the morphology of the network. Most of the cooperatives of recyclable material collectors are located around Avenida Brasil, in the city of Rio de Janeiro, and in areas adjacent to the railway stations in several municipalities in the state (Figure 1).

In the last decade, advances in the solid waste recycling industry in Brazil have enabled a new space for generating work and income for those who work with waste pickers. This process took place thanks to the organization of social enterprises in a broad context of discussion of the role of such workers in the recycling scenario. Many of the advances are due to their achievements in the field of social, economic and political organization, which can be seen in the constitution of the social network of waste pickers, their economic enterprises and their political participation (OLIVEIRA FILHO et al., 2020) .

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The great challenges for recycling cooperatives in recent years were the creation of new solid waste management strategies in the enterprises and the redefinition of the market according to a regime of economic and political integration of the waste pickers' actions. With the increase in the number of social enterprises, the cooperatives created new management strategies to (1) increase the production scale, (2) improve the price of the material according to the market, (3) promote collection in large generators, (4) incorporate the provision of services in selective collection, (5) close partnerships with private companies in the management of selective collection in organizations and (6) constitute a mechanism for integrating the production and sale of solid waste in a cooperation network (OLIVEIRA FILHO et al., 2020).

The establishment of production and commercialization networks proved to be not only a challenge, but also a mechanism to make the other strategic points of solid waste management viable in the definition of the social enterprises of waste pickers as an inclusive business. Therefore, the Business Plan and Economic Feasibility Studies for Waste Pickers in Rio de Janeiro is guided by the strategy of network management of cooperatives and the evaluation and analysis of information from five networks in the state of Rio de Janeiro. The networks of cooperatives of waste pickers in the state of Rio de Janeiro can be identified by the following names: Rede Cata Sonho, Rede Mesc, Recicla Rio, Rede Movimento and Rede Febracom (OLIVEIRA FILHO et al., 2020).

According to Oliveira Filho et al. (2020), to analyze the degree of efficiency of a cooperative, it is important to consider where it is located, raising questions about urban infrastructure, basic sanitation, security, the location factors of warehouses and the distribution and marketing of recyclable materials. It is also important to take into account the group of cooperative members and stratify their gender, in order to know their reality.

The organization and structure of the cooperative cannot be lost sight of, that is, whether its buildings are covered or in the open, and whether they have big bags and plastic containers for packaging. It is also necessary to analyze factors related to production, such as conveyors, presses, scales, a freight elevator, computer equipment and a printer - in other words, office items. In relation to safety, it is necessary to

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install fire extinguishers on the site, check if there are enough PPE for each cooperative member and investigate whether they are using them properly or if they need training and monitoring (OLIVEIRA FILHO et al., 2020).

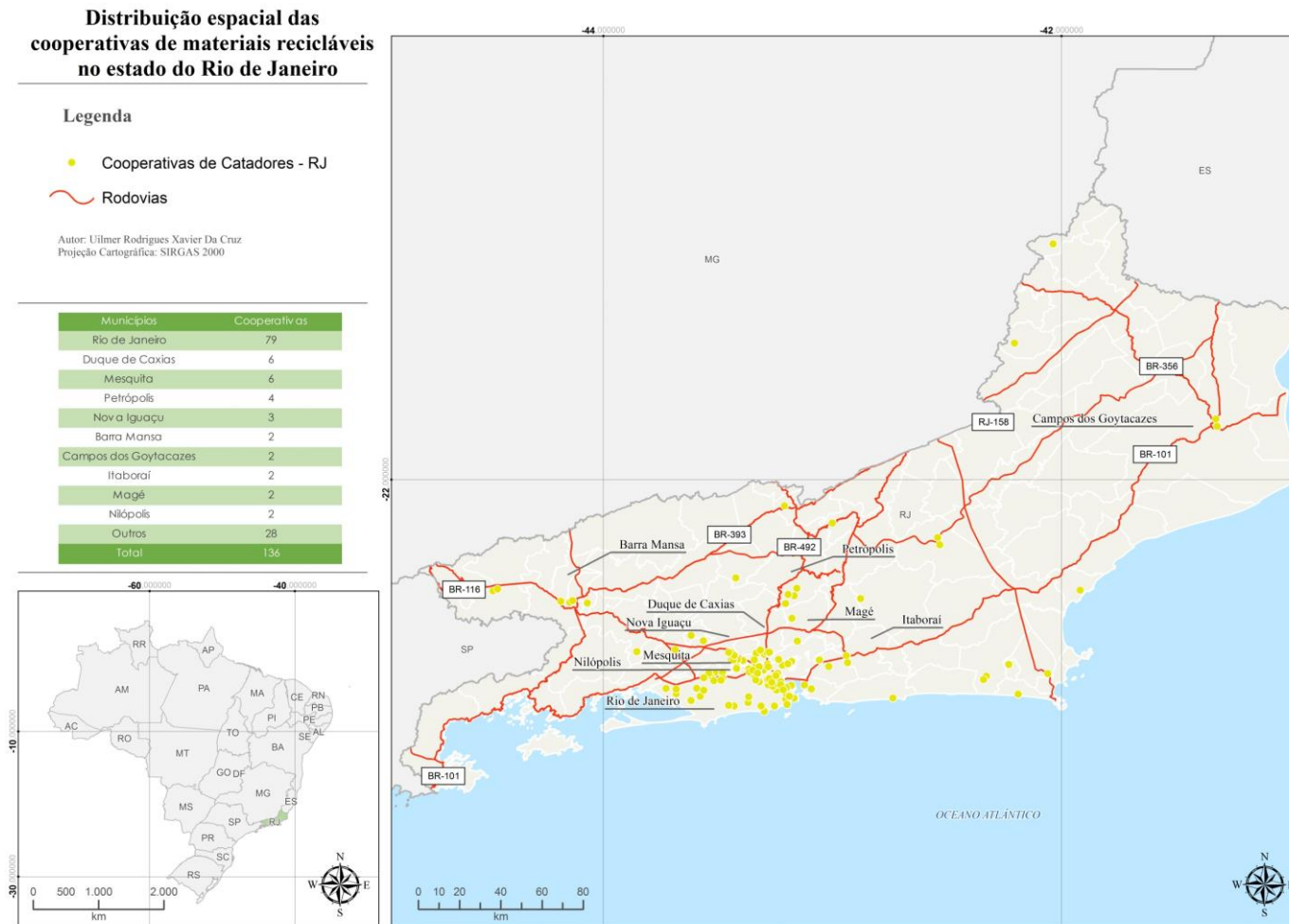
Considering that the management is carried out by the cooperatives themselves, it is necessary to analyze whether there is transparency in this process, as well as in the participatory marketing of all the material. It should also be checked whether the cooperative has legal, accounting and administrative assistance from any NGO, the private sector or universities (OLIVEIRA FILHO et al., 2020).

The driving force of recycling in Rio de Janeiro is the metropolitan region of Rio de Janeiro, which is intrinsically related to the concentration of 70% of the population in Rio de Janeiro and, according to (Figure 1), spatialization computes around 100 cooperatives of waste pickers, historically important municipalities such as Duque de Caxias. Considering its location, it can be said that the activities of the cooperatives occur next to or at least close to the Gramacho Landfill, characterizing an unhealthy situation, with high risks to the health of the collector due to direct contact with fresh waste. Hygiene conditions in this region are considered terrible. Even in the regions close to landfills, several types of animals are generally found, such as pigs, vultures, rats, cockroaches, etc. (OLIVEIRA FILHO et al., 2020).

Oliveira Filho et al. (2020) also underlines the economic dimensions. In this sense, it is necessary to verify how the payment and the remuneration of the workers work, as well as if the cooperative makes the monthly transfers of the partners' incomes through deposits in current account or savings account. It is optional for each member to make biweekly withdrawals. Individual remuneration is proportional to the number of hours worked.

Regarding regulatory and legal aspects, it should be assessed whether the cooperative is registered with the National Register of Legal Entities (CNPJ) and, if so, when it was actually established. This is necessary to certify that it is a formal organization or that it is still in the process of formalization (OLIVEIRA FILHO et al., 2020).

Figure 1. Rio de Janeiro state's recyclable material cooperatives' spatial distribution in 2019.



Source: Prepared by the author based on the survey carried out using the CATAsig computer program, (2019).

The spatialization of waste pickers' cooperatives (Figure 1), given the correlation between the industrial development of the state capital and the population, clearly establishes a separation on the map between urban and rural. It is an immediate reflection of the progressive increase in production, the population explosion, the gradual growth in the consumption of industrialized products and the disposal of waste, as pointed out by Oliveira Filho (2006), Singer (2002), Santos (2008) and several sums that set out to think about this urban phenomenon called collecting recyclable materials.

Regarding the regulation of cooperatives, Law no. 12,305 (BRASIL, 2010) exempts them from Law 8,666 (BRASIL, 1993), creating a form of agile resource, free of bids, which the State uses, when there is political will, in carrying out its own projects or partner cooperatives.

According to interviewees A, B, C, D and E, however, even though the law favors cooperatives, they still face technical difficulties that force them to turn to NGOs to adapt to the requirements of public notices. In other cases, the cooperatives are not even able to participate in these notices, due to the accumulated debts with the Union and the city halls or due to their presidents, who have their names in the Serasa Experian database and in the Credit Protection Service (SPC), which is a deterrent in several publications.

For this reason, by the way, the concepts of Oliveira Filho (2006) aimed at the analysis of waste pickers' cooperatives are of paramount importance to identify the degrees of efficiency, production and profitability, as well as legal issues of the cooperatives aimed at state and municipal registrations. and environmental licensing. Likewise, those of Singer (2002), when he establishes the notion of a facade cooperative in order to provide theoretical and practical bases so that the researcher, the investor, the State and donor partners know how to identify and establish differences between the real cooperatives recyclable material collectors and the so-called "coopergatos or facade cooperatives".

Conclusion

Globalization creates a growing demand for professions and specializations that meet the interests of the market. Consequently, the number of marginalized jobs also grows, which, without any specialization, appear to serve the population most affected by unequal market share. Thus, it is clear that the upper circuit works for the accumulation of wealth, benefiting directly or indirectly from government aid, while the lower one works for subsistence, with its workers being frequently segregated by society, as is the case of recyclable material collectors. This attests that the conditions of evolution of the economy, combined with the weight of a growing population with a low standard of living, lead to manufacturing activities of multiple services of all kinds, in which family businesses and independent professionals are numerous, capital is small, technology is obsolete and the organization is deficient.

Cooperatives, in this sense, can change this paradigm, since they help to gather and organize workers with the same interest. In the case of the waste pickers who are part of the recycling network, the cooperative gathers all subjects interested in the profit from this activity, which are: (i) waste pickers; (ii) cooperatives; (iii) the recycling industry; (iv) NGOs involved; (v) social movements; (vi) the State itself; (vii) traders who act as middlemen; (viii) cooperative networks; (ix) private companies for extraordinary waste / recyclable materials; and (x) consumers who dispose of waste from their consumption.

However, cooperatives do not always play this role positively in the lives of waste pickers. Often, they can maintain their conditions of being marginalized or overexploited. In addition, they can only serve to guarantee the profits of large entrepreneurs and maintain their hierarchical status of superiority. Nevertheless, they can compose an environment favorable to embezzlement, corruption and money laundering.

The division of labor in warehouses is also a point of contention, since it is not always fair. With this, productivity methods are created in which the apportionment of the amount collected is based on individual productivity. The same dispute happens in

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relation to the spaces, since some collectors seize some points of collection, making the collected material individual property, not collective.

The apportionment system adopted by some cooperatives, which stipulates a minimum production target to reach a minimum wage, continues with concerns that permeate social security rights, paying the social security guide for waste pickers. There is also a concern to qualify the collector, with the offer of courses that reach their daily work, that is, cooperatives, public policies on collection, organization of the production of recyclable materials, safety at work, Brazilian code of occupations, labor market. recyclable materials and network marketing, legal arrangements for waste management and social and economic inclusion of waste pickers, financial and accounting management of cooperatives, budgetary and financial planning, among others.

Thus, the work logic is diverse, fostered by the power struggle and the separation of waste pickers in cooperatives, even though these are mostly family environments, in which different generations work together. It is important to highlight that, even today, the collector remains in unfavorable working conditions, often without reaching the minimum necessary for human dignity, being used as a political argument on platforms that in no way change their reality.

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