

Diagnosis of the women waste collectors from the Tabatinga City in Amazon

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Abstract— *The municipality of Tabatinga, distant one thousand and one hundred kilometers from the capital of the state of Amazon, suffers decades of lack of employment. In addition to this problem, the city does not yet have an adequate management system for its solid waste, recyclable materials to ensure their livelihood. Among these collectors were selected eighteen women with the purpose of discovering the work situation of each one of them, as well as social issues of the same. This work aimed to understand the life of the collectors with more scope, outside the limits of the municipal trash, to build a situational chart that can support governmental intervention measures. For that, semi-structured interviews were used "in loco" in addition to a wide and diversified bibliographical research.*

Keywords— *Female Waste Collectors; Solid Waste.*

I. INTRODUCTION

Waste pickers exist for a long time, for Dias (2016) the recovery of materials from garbage is an activity millenarian, in fact, in the middle ages the less favored survived thanks to the remains of the ruling classes.

According to Coelho et al. (2016b), about 1.5% of the world's economically active population in Asia and Latin America obtain their livelihood from selective waste collection activities.

In Brazil, the Institute of Applied Economic Research (IPEA) sought in 2016 to present an estimate of the number of waste pickers active in the national territory, reaching 387,910 individuals (PEREIRA & GOES, 2016). These data are very close to the 398,348 collectors released by the Center for the Study of Metropolis of the University of São Paulo (USP, 2016).

With the introduction of the National Solid Waste Policy, municipalities were forced to close their dumps until August 2, 2014, which did not happen and the dumps survived to this day. With this, Brazil missed a great opportunity to close the dumps and end environmental liabilities generated (LOSS et al., 2015).

II. SSOLID WASTE AND RECYCLING IN BRAZIL

In addition, the use of solid waste in Brazil has led to an increase in the Brazilian population's purchasing power, coupled with insufficient investment in the area of recycling (SANTIAGO et al., 2013; DE SOUZA JUNIOR et al., 2017).

Thus, the Brazilian Association of Public Cleaning and Special Waste Companies (ABRELPE, 2017) announced that in 2016, 78.3 million tons of Urban Solid Waste (RSU) were produced, of these only 2.4 million tons. were recycled (BORGES et al., 2017), a very small value that left a niche market with great economic potential.

Brazil loses about R \$ 120 billion per year for not allocating adequate waste (BRAZIL, 2018). This considerable amount of money is greater than the total revenue of the Industrial Pole of Manaus of R \$ 92.67 million in fiscal year 2018. This resource could generate hundreds of thousands of direct and indirect jobs, as well as reduce the environmental impact of the landed garbage giving greater survival at landfills.

This decade was the scene of two very singular events regarding the management of solid waste in the national territory. The first was the creation of the National Solid Waste Policy, in the form of Law 12,305 / 2010, which is recognized as a legal framework for dealing with waste in the country (DURSO et al., 2017).

Law 12,305 presented modern mechanisms such as the introduction of reverse logistics by production companies, economic incentives for the formation of intermunicipal consortia, valorization of waste collector cooperatives, and the accountability of generators and public power in waste management (SILVA, 2015 b). But in its articles 54 and 55 it is possible to see the key points of this law, in the first are defined the closures of the dumps in a term of 04 years, in the second, it defines that states and municipalities must elaborate their plans of waste management in a term maximum of 2 years from the

edition of the law (BRASIL, 2010; BASTOS & FIGUEIREDO, 2018).

The second event refers to the change of deadlines for the closure of the dumps, giving a survival to this environmental liability. In this case, both Articles 54 and 55 were reassessed and relaxed so that municipalities could adapt to the new national reality. The main change occurred in article 54, where the dates of closure of the dumps were scaled as in figure 01, (SILVA, 2015 a).

Deadlines are already ending, as in the case of the capitals and municipalities that make up their metropolitan region, for them, the closure of the dumpsites in those locations should have happened until the last day of July 2018. What ended up not happening with 136 municipalities of the State of Tocantins. At the time, of the 139 municipalities of Tocantins only Palmas, Araguaína and Gurupi closed their dumps (ERÍLIO, 2018).

Amazonas has 9 municipalities that have international borders with Venezuela, Colombia and Peru. In this case, these municipalities should be in the closure phase of their municipal dumps, the same applies to the

municipality of Parintins for having, in 2010, a population of 102,033 inhabitants. (IBGE, 2019).

III. FEMALE WASTE COLLECTORS

Women represent 31% of the people who declared themselves as solid waste pickers in the 2010 census, this corresponds to 136.39 women who have in their waste collection their main source of income (RODRIGUES & ICHIKAWA, 2015; DAGNINO & JOHANSEN, 2017; REGO, 2017). This number, contrary to the idea of many theorists who represented women as the majority in the dumps.

Over time, organizations such as the National Movement of Recycled Material Collectors (MNCR, 2014) and the Center for Studies on Support for Development, Employment and Citizenship (CEADEC, 2016) have erroneously cited women representing 70% of national collectors. There are cities and even states where women are the majority in the dumps, as is the case of Tabatinga, in the interior of the Amazon, but on a national level the reality is different (MOREIRA, 2013).



Fig.1: Deadlines for the closure of the dumps in Brazil.

Women has greater occupational limitations and are vulnerable to work-related illnesses. In the first case, this happens not only in the field of recycling, but also because of the "responsibilities of the home" as well as the raising of children. In the second case, Coelho et al. (2016a) observed that the physical and mental health of cataras is closely linked to precarious working conditions and the unhealthiness of the dump.

Even though they are subject to an unhealthy work environment, to the routines of stressful work, exposure to vectors that are harmful to their health, the collectors have some professional satisfaction (COELHO et al., 2017).

IV. METHODOLOGY

This study was based on exploratory-descriptive research, with solid waste pickers working in the Tabatinga dump.

Only women were selected for this study since, at this moment, the objective is to understand the reason that led them to choose this type of activity as provider of their livelihood and, in most cases, of their entire family. The total sample size was 18 women with ages ranging from 13 to 67 years.

For the structuring of the data, interviews with the collectors were used to obtain the information, making it possible to construct a professional and social diagnosis of this worker. In the semi-structured interviews, the number of dependents was questioned, if the family had this activity as the main income generation, regarding the working day, existence of partner or not, level of education, nationality and if they had any kind of governmental benefit. Physical aspects such as color, age or possible disability were also raised.

The survey of the field data took place between October 8 and 27, 2018, where the researcher, for a better

understanding of the routine of work and to gain the confidence of the workers, remained daily in the dump, coexisting and maintaining a "body to body "with the scavengers.

From this approach of greater presence among the collectors it was possible to get closer to them, formalizing bonds of trust. Thus, the research was elaborated from semi-structured conversations by the researcher and not as a question and standardized answers as usual, thus avoiding that the respondents could give appropriate answers or felt embarrassed to answer any items in the questionnaire.

V. RESULTS

Based on the field research, it was possible to establish as a preponderant profile of waste pickers in Tabatinga as foreigners, over 40, brown or indigenous and without physical disabilities.

All of them work informally since the municipality does not have any organization of scavengers organized, yet it is possible to verify that all follow a common routine learned over the years acquired with the experience of predecessors in the dumps of Tabatinga and Leticia.

We interviewed 18 collectors aged 13 to 67 years. It was verified that most of them were over 40 years old and although high age all showed vigor without health claim.

Only 04 collectors had some document that proved Brazilian citizenship and had residence in Tabatinga, 11 said to live in the Colombian municipality of Leticia and 3 reported living in Santa Rosa in Peru.

In terms of schooling, 55.5% of the interviewees knew how to read and write. The four Brazilians did not know how to read or write, according to them they had access to the school, but preferred to work from an early age to help with the maintenance of the house.

Of the respondents only 05 were not the main providers of the house, being assisted by the companion or another member of the family. In this way 13 are the main responsible for the sustenance of the house, that is, they are the main maintainers of the family.

From the data collected, it was possible to construct an accurate graph for the situational diagnosis of the garbage collectors of Tabatinga. This chart can serve as a tool for future public policy.

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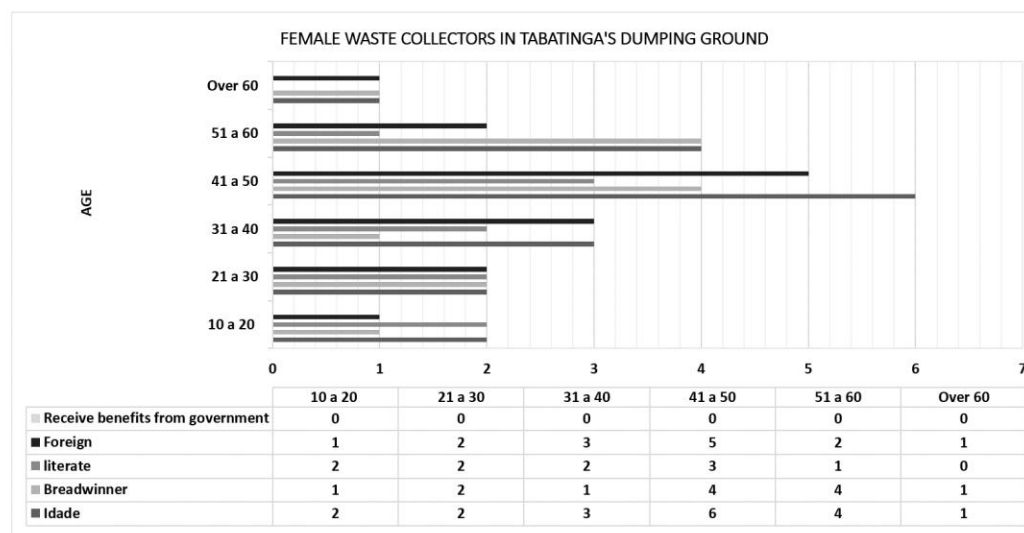


Fig.2: Situational chart of Tabatinga's female waste collector

Two other questions were possible to answer from the dialogue with the collectors to gain a better understanding of the work in the dump. The first is about the perception of the collectors about their working and health conditions and the second was about their satisfaction as waste pickers.

5.1. WORK CONDITIONS

The Tabatinga's dump has a perimeter of 1,259.27 m which is equivalent to 90,526.27 m², used in a discontinuous and disordered way. No waste disposal planning is used to make the collectors nomadic within this area.

For scavengers this type of action is a complication since weekly they are forced to redo their coats. Shelters are the

places used for various purposes such as sun protection, improvised individual separation area, the place that the collectors use to store all the material collected during the workday. This change in location constant causes you to spend a lot of time building new shelters.

For the collectors, these constant changes, combined with the lack of individual protection equipment and the exposure to vectors, mean that all interviewees disapprove of working conditions.

The work environment is very conducive to accidents at work, it is a place full of uneven, flooded, with sharp materials, piercing and with various venomous animals.

5.2. ACHIEVEMENT PROFESSIONAL

Although the situation seems precarious and the workplace dirty and unhealthy, the pickers felt fulfilled and happy with the work performed. Although dissatisfaction with working conditions was unanimous among the interviewees, the majority did not see themselves performing other types of work.

Approximately 77% of the interviewees were said to have been professionally held, partly because of their perceived gains above what they earned outside and the sense of freedom because they did not have to meet pre-established hours.

VI. CONCLUSION

It was possible to conclude that Tabatinga, an Amazonian municipality located in the extreme southwest of the state, working conditions are unhealthy and the collectors are exposed to the most diverse types of diseases caused by vectors and by work accidents.

Even so, only 23% of the interviews say they are dissatisfied and think about getting out of the dump. Most expect an improvement but would not trade this occupation to try and work elsewhere.

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