

Analysis of solid waste collection in the municipality of Delfim Moreira, South of Minas Gerais

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Abstract: The work studies the rate of solid waste collection in Delfim Moreira. Research was carried out using specialized websites, and waste collection related articles and data were crosschecked with some indicators. The study shows that, despite a larger number of residents, there is no waste collection in the rural area. It emphasizes the importance of management performance and proposes possible alternatives, such as educational actions and other environmental practices that could be implemented.

Key words: Solid Waste; Consumption; Waste in the rural area; Public Power

INTRODUCTION

The 474 municipalities in Minas Gerais, with populations below ten thousand inhabitants, have their own dynamics and represent 56% of the total in the State of Minas Gerais (AMM 2019). The rural areas of these municipalities have some particularities when compared to urban areas, such as population dispersion, economic rates, difficulties in technical assistance and the use of unconventional technologies. Despite this, they show several potential sources of solid waste generation. Data from the IBGE (2010) shows rural population as representing only 6% of Brazilian population and the collection of “rural waste” in Brazil covers only 31.6% of households. Although the population is becoming more urban, the situation of rural communities must be considered, most of which lack water supply systems, waste treatment and solid waste collection (RENK et al., 2011). In general terms, these aspects can bring obstacles in attracting services from sanitation companies (BRASIL, 2015). The municipality of Delfim Moreira, located in the southern region of the state, has 8,025 inhabitants (IBGE 2019), with approximately 62% of these residents in rural areas. Also, according to Brazil (2013), the municipality adopted the Integrated Solid Waste Management Plan under the terms set out in the National Solid Waste Policy (BRAZIL 2010), implementing collection and final disposal in a regional consortium system. Nonetheless, the collection of rural waste in this locality is not conducted by the municipal public administrators but, rather, by the residents themselves.

The characteristics of the generated solid waste are influenced by socioeconomic factors, such as the increase in purchasing power, which stimulates a greater consumption of superfluous waste and increases the number of recyclables, which essentially stresses the need to seek the stages that other developed countries have already attained in the management of urban solid waste (MONTEIRO 2017). In this sense, the economic power of the population plays an important role in the increasing consumption of goods and products with these characteristics.

METHOD AND SOURCES

The methodology used for this work was based on scientific articles and the compilation of data provided by official agencies available to the population on the world wide web.

RESULTS AND DISCUSSION

Waste can be classified in different ways. All of which examine what materials form the waste; i.e.: its composition, origin and the potential risk it brings to the environment and public health. When classified by origin, it is categorized into home, commercial, industrial, hospital, public, rubble and determinants (ABNT 2004). However, there is no characterization of the so-called “rural waste”. The waste produced in the rural area is quite diversified and lacks due attention. Rural properties have a low population density, are very dispersed and often difficult to access, further challenging the situation around waste treatment. The solution often comes through burning, grounding and incorrect disposal in

watercourses, forests, haulage, roads, land and pastures. According to the study, the collection is carried out only in the urban area of the municipality and, according to SNIS (2020), around 400 tons of waste was collected in 2019. The 2 or 3 times a week frequency of the service provided to the urban population was 37.00%. The percentage of the population served once a week, amounted to 63.00%.

The social representation of the community occurs through communication and individuals express their intentions, in addition to claiming their rights in law through social movements. Thus, this space is produced through struggles and conflicts of all kinds, which occur within city boundaries and are part of their social construction (OLIVEIRA 2013). The right to an ecologically balanced environment is an essential requirement for all individuals in society to enjoy a minimally dignified life, which constitutes itself as a true fundamental right, a faculty that is supported in our legal system for its effective protection (ANTUNES 2012).

Since their ancestors, populations of rural areas are taught and accustomed to live with the solid waste it generates, but with the increase in the consumption of manufactured goods, this waste is not part of the rural environment and may represent serious risks to the population under the most diverse aspects.



Figure 1. Delfim Moreira - Image: Mauricio Pereira

Tabel1. Urban/Rural Population – Delfim Moreira

Urban	3.045 – 38%
Rural	4.980 – 62%

CONCLUSION

Based on the principle that the generation of waste is a socio-environmental issue, intrinsic to public health, and that it can cause several sanitary, ecological, aesthetic and economic problems (MARTINS 2020), the regular collection of this waste by public agencies would be one of the

obvious solutions to minimize the problem. The lack of this service could cause serious environmental damage in the future, in addition to presenting a serious risk factor to the population's health and the existing fauna. Educational actions and other environmental practices could be implemented so that residents could conduct the packaging of rural waste appropriately or even carry out the commercialization of waste with recycling potential.

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