The Socioeconomic Impact of Paralyzed Public Works: Analysis on the University City of the State of Amazonas

Alessandro Marques Martins
ammartins.sandro@gmail.com
FAMETRO University Center – Brazil

Érica Pantoja de Araújo
ericaaraujo22031997@gmail.com
FAMETRO University Center – Brazil

Frank Henrique Santos Fontineles
fontineles.fs@gmail.com
Engineering Coordination at FAMETRO University Center – Brazil

Sara dos Santos Santarém
engsara.santarem@gmail.com
Engineering Coordination at FAMETRO University Center – Brazil

David Barbosa de Alencar
david002870@hotmail.com
Galileo Institute of Technology and Education of the Amazon – ITEGAM

Gisele de Freitas Lopes
gikalps@gmail.com
Galileo Institute of Technology and Education of the Amazon – ITEGAM

Abstract

The presente research refers to the analysis of the socioeconomic impacts caused by the stoppage of the University City of the State University of Amazonas in the Community Our Lady of Nazareth Lake Test with the objective of investigating the consequences of not observing the principle of efficiency in execution of the work of the University City by its managers, verifying the curret socioeconomic situation of this local population, and finally propose ways to mitigate problems and losses resulting from the stoppage, which is a matter of common interest as it covers all social classes. The research approach is quantitative because it intends to describe a phenomenon of a particular group or Society, its research instrument was the interview. To be eficiente during the execution of a work, it is necessary to have management during the process, so the Executive Branch has instituted laws fo the public Works to be managed efficiently, namely: the Growth Acceleration Program (PAC), instituted by the Decree n° 6.025/2007; the

DifferentialContracting Regime (RDC), launched by Law nº 12.462/2011; and the Bidding Law, introduced by Law n° 8.666/1993. These measures sought to reduce delas and stoppages in public Works and the social and economic impacts that might be generated.

Keywords: Socioeconomic impacts, Public Works, Principle of efficiency;

1. Introduction

Public administration has had problems caused by paralyzed works for years, so it is a recurring theme of interest to society. Several efforts have been made to mitigate the adversities arising from work stoppages, as the inherent losses are difficult to measure. The difficulty of public agencies and federative entities in efficiently completing a work, whether small, medium or large in complexity, is explicit.

According to [1] the public works sector has always been prominent and many investments made by the Public Administration, considering the material and social importance that the completed project brings to the community. The money invested in what has already been executed and in the maintenance of the paralyzed work causes damage to public coffers. In addition to depriving the population of the benefits that the venture would generate, causing social and economic impacts.

To understand the problems arising from the mismanagement of public resources that should be allocated to the infrastructure, it is necessary to analyze each case separately, considering the particularity of each standstill.

The stoppage of the University City was a decision that significantly damaged the population of the communities that were in the area where the venture would be implemented. The Nossa Senhora de Nazaré community of Lago do Teste was the one that suffered the most socioeconomic impacts of this stoppage, due to the fact that a large part of the local properties were expropriated.

Construction management comes as a tool to achieve efficiency in the provision of public services, aiming at the collective interest. With this there is the optimization of resources, increased productivity, all to ensure the delivery of the project on time, and within budget. Proper management is able to identify problems and spot solutions in advance.

Deficiencies in the planning and management phase of public works can result in serious consequences for the project, where negligence in one phase can lead to delays and increased costs, leading to uncertainty regarding the success of the work [2].

2. Theoretical Reference

2.1 Public works management as a tool against administrative leniency

The delivery of a public enterprise depends on several steps, started even before the bidding process so that you can be assured of the success of the projected work. Thus the management of the work enables an orderly execution of the steps resulting in obtaining secure information that is useful to have lower risks to the Public Administration.

According to [3] in order to carry out a work, prior studies must be done to verify the technical and financial viability of the project, as well as the source of funds and the deadlines for the execution of the project.

2.2 Efficiency Principle

The principle of efficiency came to combat managers' neglect of public funds, so Constitutional Amendment 19/1998 modified Article 37 of the 1988 Federal Constitution, including efficiency as an expressed principle, along with legality, impersonality, morality and advertising. According to [4] this "modifies the regime and provides for principles and rules of public administration".

According to [5], it also established permanent mechanisms for performance and results evaluation of civil servants and public agencies, with the aim of improving the quality of public services.

The principle of efficiency, for [6], has two aspects: the first is related to the performance of the public agent, from which the search for superior results is expected; and the second is related to the way of structuring and disciplining the Public Administration, aiming to provide better and better quality public services.

Thus, it needs to be considered in a comprehensive sense, that is, it must be present both in the services provided and in all acts performed by the Public Administration servers. Thus, the control of public money, especially in the construction sector, was strengthened, as administrators were required to apply management tools in order to optimize available resources, so that services could be performed promptly, quality, on a regular basis, economically and within the legal and moral norms.

3. Methodology

This research aims to analyze the socioeconomic impact caused by the stoppage of the work of the University City in the community of Our Lady of Nazareth Lake Test. Research being characterized as a case study, which according to [7] is appropriate to investigate new concepts and to examine how the components of a theory are employed in practice.

In this research we used the quantitative approach, which is directly linked to the measurement and control of data. According to [8], it is a research modality that operates on a human or social problem, based on variables quantified in numbers, which will eventually be analyzed statistically.

To analyze the problem, the interview was applied as a research instrument. 10 questions were prepared for each interviewee in the Nossa Senhora de Nazaré community of Lago do Teste. With this technique it is possible to make an analysis through the data obtained from the subjects involved in the research, with the acquired answers could be made a survey of the socioeconomic impact of the work stoppage of the University City in this community, were interviewed 364 residents. The questionnaire is presented in Table 1.

Table 1: Interview Questionnaire

INTERVIEW QUESTIONNAIRE
1. Level of education: ☐ Child education ☐ Complete primary education ☐ Elementary school incomplete ☐ Complete high school ☐ Incomplete high school

☐ Higher Education ☐ Incomplete higher education
2. Does the family benefit from any social program? ☐ Yes ☐ No
3. How old are you?
4. What's your profession?
5. What is your household income? ☐ Up to 1 minimum wage ☐ 1 to 2 minimum wages ☐ over 3 minimum wages
6. Did you suffer expropriation because of the University City? ☐ Yes → *received compensation* ? ☐ Yes; ☐ No ☐ No
7. Did the construction of the university town hurt your family income? ☐ Yes ☐ No
8. Mark the negative social impacts suffered due to the work stoppage of the University City: ☐ Difficulty accessing public transportation ☐ Difficulty of access to education ☐ Difficulty of access to health ☐ Increased crime
9. In your opinion, was the construction of the University City a good investment of public money? ☐ Yes ☐ No
10. Gostaria que as obras da Cidade Universitária fossem retomadas? ☐ Yes ☐ No

Source: Own Authorship (2019)

The planning and execution of a scientific research must be part of a systematized process, so the research was divided into phases as presented in Table 2.

Table 2: Research Phasing

Phase 1	**Survey of bibliographic data; Research of the University City project for analysis; Preparation of the interview;**
Phase 2	Interview with the residents of the Nossa Senhora de Nazaré community of Lago do Teste;
Phase 3	Union of all materials collected, interviews and official documents of the work;
Phase 4	Analyze, argue and interpret the data collected during the research in order to reach the conclusion of the problem;

Source: Own Authorship (2019)

4. Results and Discussion

4.1 Current situation of the population affected by the works of the University City, in Iranduba.

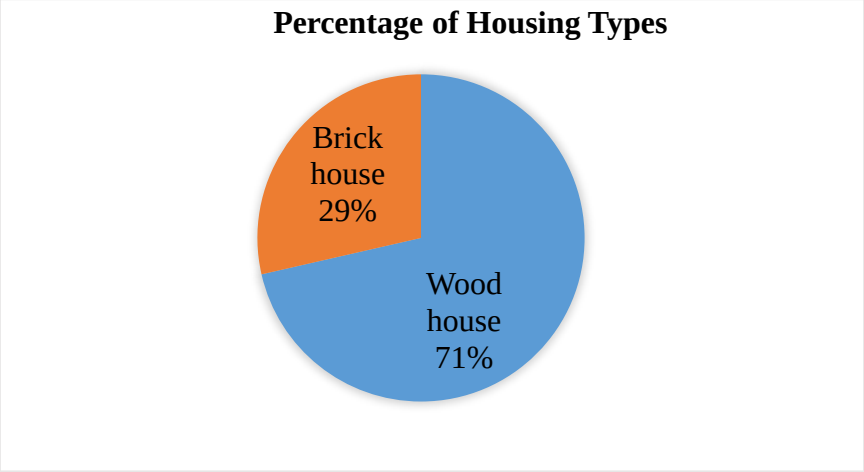
Our Lady of Nazareth Lake Test Community had much of its area expropriated because of the construction of the University City, so residents were removed from their homes and founded a new community located at a branch of the road that leads to the Campus da UEA, which received the name of New Test Community Bela Vista Community in honor of the previously inhabited place. For the founding of this new community, in 2013, 48 families were joined, who with the help of indemnities re-raised their homes.

The new area in which the community is located was purchased in 2012 at the initiative of the residents, who divided the site into 81 lots, which measures 20 meters wide by 50 meters long each, sold for R $ 4,000, currently these lots. were subdivided to meet the needs of families. The total area of the community is 120,000 square meters.

The expropriation was a painful process for the community, as there was no adequate project for the removal of residents from the site that was affected by the construction of the University Campus. For the construction of the new community the residents did not have the support of the government nor for the construction of basic health, education or urban infrastructure units.

The public administration only after six months of negotiations paid compensation that was stipulated by an agreement between the residents and the state government brokered by the state prosecutor. The indemnities amounted to R $ 50,000 passed on to 48 families and R $ 70,000 passed on to 18 families. However, there were 31 families who had their land expropriated and received no compensation for not having documents proving ownership of the land.

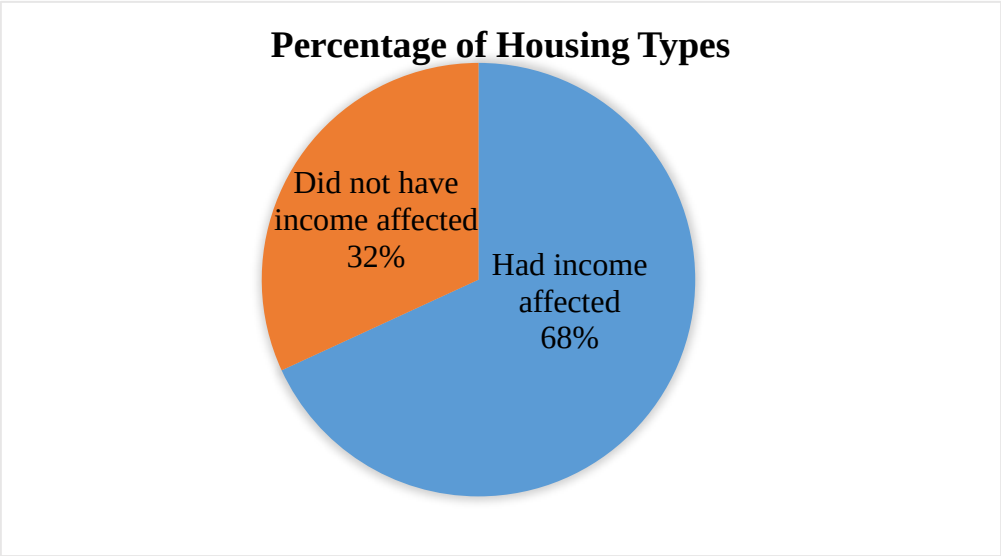
The community was divided into 8 streets, namely: Marias Street, Eva Street, Francisco Elaime Street, Graça Feitosa Street, Itysu Street, Mariana Street, Teresinha Street, São João Street and a main avenue called José Lima. Containing a total of 91 families, 65 wooden houses and 26 brick houses.



Graph 1: Percentage of housing types
Source: Own Author

4.2 Socioeconomic impacts suffered by the Lago do Teste community caused by the work stoppage of Cidade Universitária - UEA / Iranduba.

Due to the fact that the residents of the Lago do Teste community were moved to a location farther from the river, there was a loss of family income for most of the interviewees, as shown in Graph 2, 68% of the residents were farmers and depended directly on the water in the area. river to grow crops and to raise small animals such as poultry and pigs. Without the old income and the benefits that the University City would bring to this community, there was damage to the incomes of many families.



Graph 2: Percentage of residents who had their family income damaged due to the expropriation of their lands and the subsequent stoppage of the work.
Source: Own Author

As shown in Graph 3, all respondents pointed out the difficulty of access to public transport, since the community is not served by this service, so the only way out of the community is by own transportation or requesting transportation. private. The only means of transport provided by the public service is the movement of students with the aid of a school bus.

With regard to access to education, the community has a school that caters for students in kindergarten, elementary school, high school, high school technology, and the EJA (Youth and Adult Education) who live in the community and at Residential Maria Zeneide, totaling 260 students. There are 14 teachers and 12 assistants working in this teaching center.

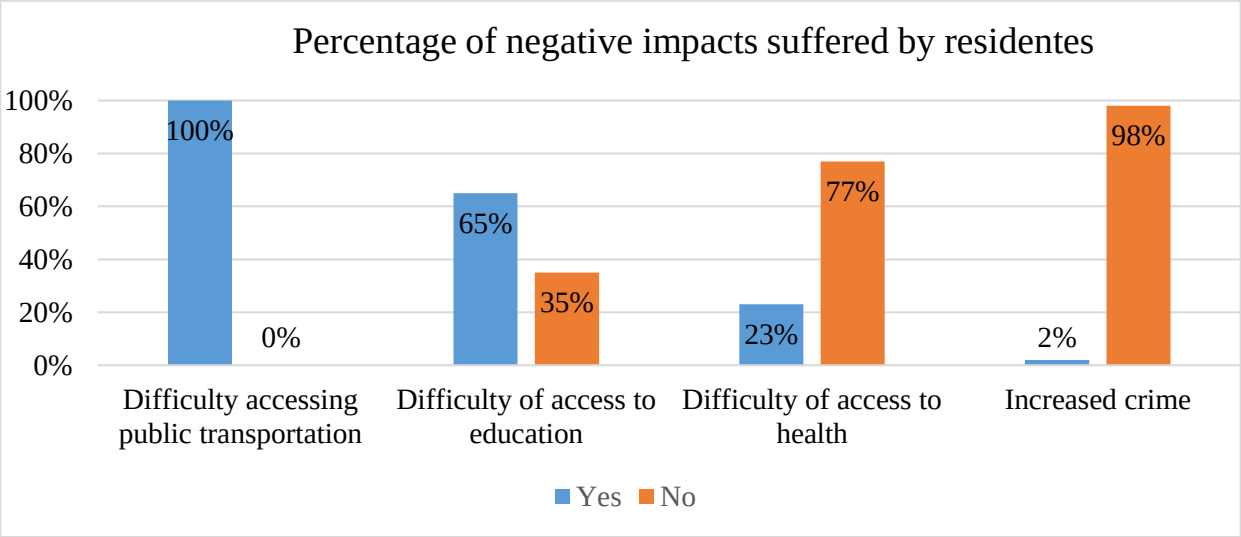
The headquarters of the only community school was installed at the community leader's house in 2013, as the public administration did not provide a suitable headquarters. Thus, currently the municipality of Iranduba passes the amount of rent to the owner so that school activities are carried out on site. The school has 7 classrooms, but not all benefit from central air-conditioning. As shown in Graph 3, 35% of respondents reported not suffering from access to education because, despite being a makeshift school, there was the benefit for many families living in the community that was formed.

In the community it is necessary to make a sewage treatment plant, install an accessibility system at school and design a leisure space for students, in addition to the finishes that the building did not receive. Today students have only one makeshift table to use during breaks to play table tennis, which is the only leisure

activity.

Regarding access to health, despite the difficulties and the community does not have a Basic Health Unit (UBS), currently, the care that residents receive is considered better, because before the expropriation the community had a UBS, but not If there were doctors in the new locality, doctors go once a month to provide various types of care that are performed at the school headquarters. Thus, 77% of respondents reported not having difficulty accessing health.

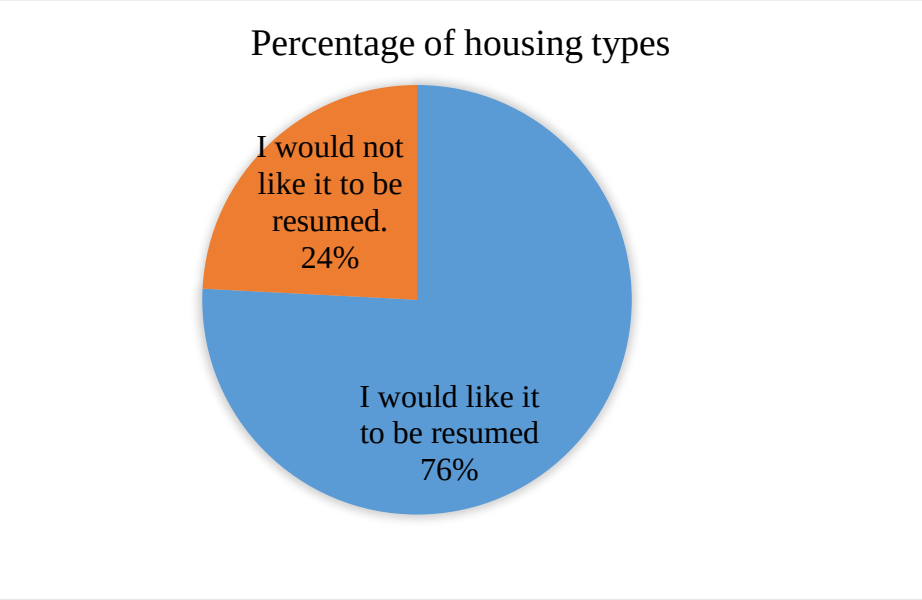
Regarding the crime rate, shortly after the stoppage of the University City work, residents had complaints about the spawning of bodies in the region, because it is an isolated and distant place, however, nowadays, these complaints have decreased. 98% of respondents reported that crime in the area is low.



Graph 3: Percentage of negative impacts suffered by residentes

Source: Own Author

All respondents stated that they considered that the construction of the University City was not a good investment of public money. As soon as the project was presented to residents, the hope of a promising future arose, but after the work came to a halt this hope was dashed, and investments could not return to the population. However, as Figure 3 shows, most believe that the resumption of the work would benefit the community in some way, and that perhaps the population could in the future enjoy this public good.



Graph 4: Percentage of respondents who would or would not like the University City works to be resumed. Source: Own Authorship (2019)

4.3 Provisions to optimize public works management

The Executive Branch has adopted effective ways to improve management in public works. There are innovative measures, namely: the Growth Acceleration Program (PAC), instituted by Decree nº 6.025 of January 2007; the Differential Public Procurement Regime (RDC) launched by Law nº. 12.462 / 2011; and the Public Procurement and Procurement Law, introduced by Law n° 8.666 of June 21, 1993.

The Growth Acceleration Program (PAC) was instituted by Decree n° 6.025, on January 22, 2007, having as one of its objectives to optimize the way public expenditure is managed. PAC has become one of the main forms of encouraging economic development and improving the quality of life of the Brazilian population. Thus, it was conceived in order to establish the accelerated and sustainable development of the country, encouraging the resumption of major infrastructure works, aiming at social progress.

Decree nº 6.025 establishes five axes of measures: investment in infrastructure; institutional and economic measures to encourage credit and financing; tax administration; more attractive investment environment; long-term fiscal measures [9].

Another innovative measure that aims to improve management in public works was the Differentiated Public Procurement Regime established by Law n° 12.462, of August 4, 2011. According to Brazil (2011) [10], in art. 1 of Law nº 12.462 / 2011 the Differential Public Procurement Scheme (DRC) would apply exclusively to the bids and contracts required to undertake the undertakings for the 2016 Olympic and Paralympic Games, the 2013 FIFA Confederations Cup and the FIFA World Cup 2014, in addition to infrastructure works and hiring of services for airports in the distant capitals up to 350 km from the 2014 World Cup host cities, being restricted, in the case of public works included in the matrix of responsibility celebrated between the Union , the States, the Federal District and the Municipalities.

However, approximately one year after its publication, the Law dealing with the DRC has undergone substantial changes in its scope, as it now encompasses “the actions that are part of the Growth Acceleration Program (PAC)” [11], “the bids and contracts required to carry out engineering works and services within

the public education systems" [12], as well as "engineering works and services within the Single Education System". Health-SUS [13]. Thus, "the RDC has, at least normatively, the nature of perennial bidding rules" [14].

Law nº 8.666 / 1993 is also a measure to improve management in public works, with the purpose of repressing illegality at each stage of a work designed by the Public Administration, providing guarantees regarding delivery, quality and efficiency. of the project, stipulating for this the rules that must be followed by the administrative contracts pertinent to works, services (including advertising), purchase leases and disposals within the Union, the States, the Federal District and the Municipalities [15].

The public administration has the bidding as a formal administrative process in which it calls, through the requirements defined in the public notice, companies that are interested in submitting proposals to perform the rendering of services to the public agency [16].

The purpose of a bid is to find an advantageous proposal for the Public Administration, so that there is state development, always ensuring equal opportunities for interested parties and allowing participation during the event [17].

4.4 Compact Effluent Treatment Station (ECTEs) as an alternative to mitigate the socioeconomic impact that affects the Lago do Teste community.

It is a complex matter to select the type of effluent treatment that is most appropriate for a region, because the lack of this service encompasses several problems. Thus, in locations devoid of an Effluent Treatment Station (ETE) designed by the Executive Power, the population is obliged to build individualized systems, such as tanks or septic tanks, which in many cases are inefficient in providing a quality final effluent for disposal in nature [18].

Compact Wastewater Treatment Plants (ECTEs) are presented as an alternative for the implementation of a system that serves small communities, such as the Novo Teste Bela Vista Community.

The main advantages of this system are: compactness (strength); low cost of construction, operation and maintenance; simplicity of operation beyond low construction cost; does not consume much energy; and finally, it has no significant negative impact on the environment in which it will be [19]. Figure 1 shows in a schematic way the steps of an ECTE.

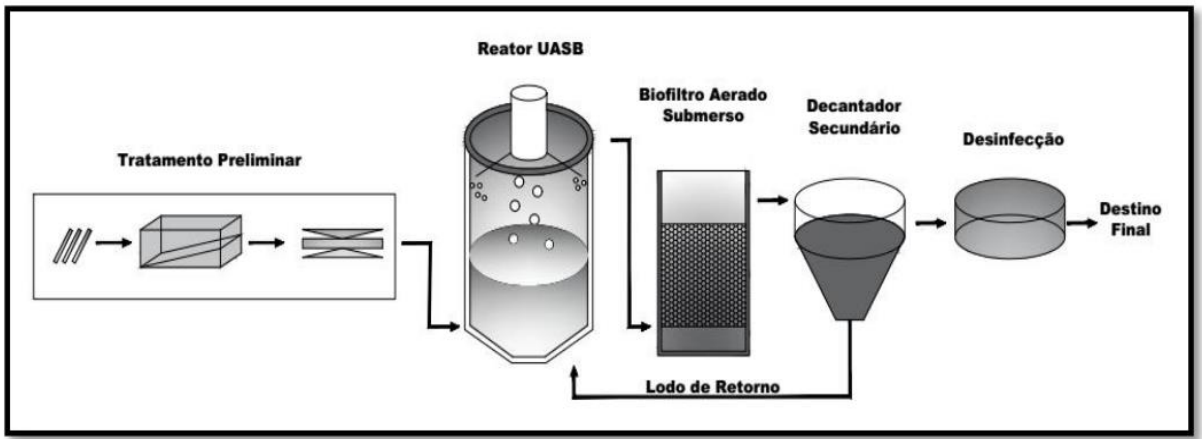


Figure 1: Graphic scheme of an ECTE

Source: [20]

In the initial phase there is a preliminary treatment, where the larger solids will be removed by grating and the sand that will be removed in the desarenator through the sedimentation of the grains. In the second phase, the removal of the organic matter that is smaller scale occurs by the UASB (Upflow Anaerobic Sludge Blanket) reactor and BAS (Submerged Aerated Biofilter). Then the effluent goes to the secondary decanter so that suspended solids that still remain in the liquid settle to the bottom [21].

The final process is disinfection to remove pathogenic organisms from the effluent. It can be done with the use of calcium hydroxide (hydrated lime) that raises the pH of the material and reduces odors and degrades part of the organic matter [22].

5. Final Considerations

The development of the present study allowed an analysis of the socioeconomic impacts caused by the work stoppage of the University City of Amazonas State University focusing on the Nossa Senhora de Nazaré Community of Lago do Teste, meeting the suggested objectives.

Much of their area was expropriated because of the construction, shortly after the strike, residents reported increased crime in the region, but these complaints diminished as police became more present. The need to install a sewage treatment plant that will serve the entire community, as well as the installation of an accessibility system and a leisure space for the students of the only school that serves the site, was investigated. There is also difficulty in accessing public transportation, as the community is not served by bus lines. Regarding health, the monthly care to residents has a good rating compared to what they had in the old community.

Compliance with legal standards such as the principle of efficiency, Decree No. 6,025 establishing the PAC, Law No. 12,462 / 2011 dealing with the DRC, and Law 8,666 / 1993 providing for public procurement and procurement, can prevent a work from being paralyzed.

Finally, it was observed that a Compact Effluent Treatment Station would be a way to mitigate one of the socioeconomic impacts that affect the residents of the Lago do Teste community.

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