

## Conjuntura e governança dos serviços de limpa fossa no Brasil

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### HIGHLIGHTS

A significant gap exists in legislation concerning decentralized systems and septic tank maintenance. The lack of clear procedures for licensing septic tank construction and maintenance, both industrial and residential, poses a major challenge to sanitation quality, particularly in communities far from major urban centers.

**KEYWORDS:** Decentralized systems; septic tank cleaning; legislation.

### INTRODUCTION

In light of the troubling scenario presented by the IBGE News Agency (2022), where Brazilian states like Amapá, Piauí, Rondônia, and Pará have less than 30% of urban households connected to the sewage network, it is crucial to shift focus toward innovative, decentralized sewage treatment approaches. This situation becomes even more concerning when compared to data from other states, underscoring the urgency of reevaluating strategies that address the needs of populations, especially those in economic vulnerability.

Decentralized sewage systems emerge as a promising solution, offering treatment near its source. These systems are widely used in peripheral and rural regions where centralized networks are impractical due to distance. They come in various forms, such as septic tanks, filter trenches, and constructed wetlands. However, it is vital to emphasize that effective implementation of decentralized systems requires a comprehensive approach, covering all stages of their service chain (BOS, 2017; ALBUQUERQUE, 2014; and TILLEY et al., 2014).

In this context, identifying the laws and regulations that ensure access to information on decentralized sewage systems, while developing locally adaptable solutions, is essential. Access to basic sanitation is a human right, recognized by the United Nations since 2010. Yet, Brazil's inadequate situation remains clear, particularly in small municipalities, rural, indigenous, riverside, quilombola, and underprivileged urban areas. Thus, this research prioritizes developing regulatory frameworks and inclusive solutions, acknowledging their necessity for promoting universal access to basic sanitation and safeguarding the dignity and quality of life for all Brazilians.

### METHODOLOGY

A documentary analysis (Gil, 2008) was conducted, covering the State Basic Sanitation Policies of all Brazilian states. Additionally, the analysis included plans and other laws governing basic sanitation to understand the principles and foundations behind events, processes, or phenomena related to the topic

(SITTA et al., 2010). The goal was to clarify the laws supporting and guiding the basic sanitation system at the state level, using extensive readings and auxiliary tables to organize data, with a focus on the presence of decentralized sewage treatment systems. This phase was crucial for identifying existing gaps and the directives needed to enhance sector regulations significantly.

Subsequently, a qualitative-quantitative research was initiated, based on data collected from reference laws and articles. The data was organized numerically, aiming to present the information graphically and in an easily interpretable format. To achieve this, the state plans of each of Brazil's 26 states, plus the Federal District, were reviewed, verifying references to decentralized sewage systems and septic tank treatment. This comparative analysis among states was vital for identifying disparities, trends, and areas for improvement in basic sanitation.

To gain a clearer understanding of the challenges faced by states and municipalities in formulating and implementing decentralized sanitation guidelines, the next research phase focused on contacting regional regulatory bodies. In this context, the Santa Catarina Environmental Institute (IMA) was approached, an entity responsible for implementing environmental preservation policies in the state. Inquiries addressed topics like: what is the procedural framework for regularizing septic tank cleaners; which department oversees the maintenance of existing septic tanks, and more. This engagement ultimately helped clarify the institute's structure and the primary challenges it faces, particularly in the absence of key regularization laws

## RESULTS AND CONCLUSIONS

Upon reviewing state legislation, it becomes evident that official documents are readily available, as they are public records intended for access by the entire population. However, despite this accessibility, a search for keywords like 'decentralized systems' or 'septic tank cleaning' reveals that these topics are not addressed in the legislation. This omission highlights a significant gap regarding the installation and maintenance of decentralized systems, as well as the lack of established metrics for providing cleaning services, for example.

An examination of sanitation plans shows that only 25.9% of states mention septic tank cleaning services (Chart 1), specifically: Minas Gerais, Bahia, Ceará, Maranhão, Paraná, Pernambuco, Roraima, and Sergipe. The remaining 74.1% of states do not address this issue, emphasizing the challenge posed by the absence of legislation and regulations related to decentralized systems and septic tank cleaning, which can lead to the improper use of these systems

Percentage of States that mention septic tanks in their basic sanitation plans

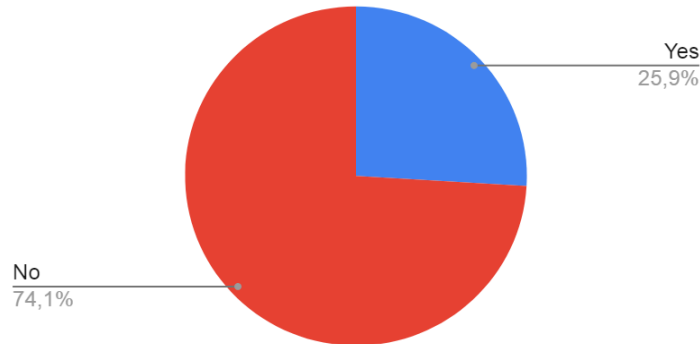


Chart 1 - Authorial source

To gain further insight into the legislative landscape, an interview was conducted with the Santa Catarina Environmental Institute (IMA), revealing initiatives aligned with the current reality. Among IMA's efforts in regularizing septic tank cleaners were initiatives to equip septic tank cleaning trucks, formalize workers, and regularly review their guiding documents to ensure compliance with existing legislation. Despite these positive steps from the regulatory body, it became clear that other regions face significant challenges in developing guidelines for decentralized systems, largely due to the lack of comprehensive national-level information. This gap results in laws frequently being amended and revised to meet environmental agency requirements.

In summary, the primary challenge in regulating these systems to ensure sanitation quality, as envisioned by the United Nations for communities far from major urban centers, lies in the absence of laws that clearly outline the procedures for issuing licenses for the construction and periodic cleaning of septic tanks, whether on an industrial or residential scale



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