

Sanitation

Drainage and water management: The final frontier of basic sanitation

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When discussing sanitation services, water and sewage are typically the first to come to mind. Solid waste collection, treatment, and final disposal also hold some relevance. However, there is a fourth service that often remains on the sidelines of investment and project discussions in the sector: urban stormwater drainage and management (also as known as *DMAPU*, which stands for *drenagem e manejo de águas pluviais urbanas* in Portuguese).

Despite its essential nature — especially for the proper prevention and mitigation of natural disaster impacts — DMAPU is still overlooked in structured infrastructure projects, even within the sanitation domain.

The consequences of this neglect are clear. A recent study by the Brazilian Alliance for Ocean Culture, coordinated by the Federal University of São Paulo (UNIFESP), presents alarming data: a 222.8% increase in climate disasters caused by rainfall in Brazil over the past decade; 83% of Brazilian municipalities have been affected by rain-related disasters; 91 million people impacted; rainfall accounts for 86% of deaths from climate disasters and 94% of displaced individuals, totaling 8.7 million people; between 2020 and 2023, rain-related damages amounted to R\$ 43 billion.

This paradox of not investing in a priority area is partly explained by the lack of robust regulation. Specifically, the DMAPU sector lacks rules that define tariff individualization, which would unlock the potential for concessions.

Indeed, until early 2025, DMAPU lacked a reference standard. This gap was addressed with the issuance of Reference Rule (*Norma de Referência* or NR in Portuguese) No. 12/2025, approved by [Resolution No. 245/2025](#) from the Brazilian National Water and Basic Sanitation Agency (ANA). NR 12 is undoubtedly a milestone, as it provides a general framework for regulating DMAPU services for the first time.

The text of Reference Rule No. 12/2025 establishes key concepts and parameters, starting with the definition of DMAPU services to outline the scope of future contracts and investments. It identifies three types of infrastructure related to DMAPU: “blue,” “gray,” and “green,” clarifying investment strategies. This classification includes natural structures and emphasizes the necessary integration between natural and built systems.

Reference Rule No. 12 also advances the definition of activities, infrastructure, and operational facilities that constitute DMAPU services. These provisions are crucial for distinguishing DMAPU within the broader sanitation services group, helping to avoid misunderstandings when defining specific projects.

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Regulatory roles are also provided for Reference Rule No. 12, reaffirming ANA's primacy as the regulatory entity and outlining the responsibilities of subnational regulators, service providers, and service owners. This represents a significant step forward in governance and competency division, enhancing institutional strength and legal certainty in DMAPU service delivery.

The edition of Reference Rule No. 12 was a major first step toward enabling drainage and water management projects. The next challenge is to establish tariff rules, particularly how tariffs can be individualized. This would allow projects to rely on tariff revenue for financial viability.

In the meantime, governments can pursue administrative concessions supported by public payments without charging tariffs. While the economic-financial viability of this model is more challenging, the investment is worthwhile given the costs and damages caused by the lack of drainage and stormwater management structures and policies.

It is worth noting that initiatives are already underway. For example, the state of São Paulo has included the desilting of the Pinheiros and Tietê rivers in its partnership program, with investments projected at R\$ 10 billion.

Regulatory improvements are likely to scale up such projects, significantly increasing social benefits and presenting a promising investment opportunity for the private sector.