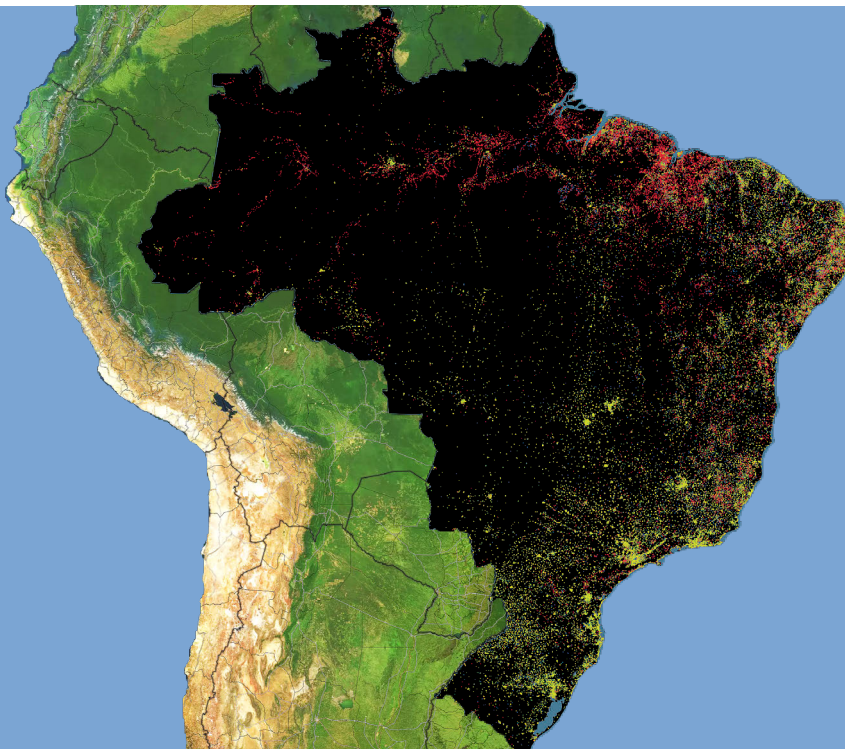


February 2023

Finding Sustainable Solutions for School Connectivity in Brazil

UTILIZING THE UNIVERSAL SERVICE FUND TO ACHIEVE SUSTAINABLE INTERNET ACCESS



BRAZIL

Connectivity map, January 2023

Every dot is a school.
Colour is school connectivity.

- Good
- Moderate
- No connectivity

Overview

In many countries, the universal service fund (USF) is a tool used by the government to fund projects that increase access to telecommunication services in remote and underprivileged areas. These funds are often collected annually from contributions by telecommunications providers, which are typically computed based on their annual revenue (for example, 0.5-1% of their annual customer sales). In August 2000, under Law No. 9.998, Brazil established its own USF named *Fundo de Universalização do Serviço de Telecomunicações (FUST)*, which is administered by the *Agência Nacional de Telecomunicações (ANATEL)*.

However, after nearly twenty years, the FUST had never disbursed any of the collected funds to support connectivity projects. The key hindrance was a restrictive law in which the funds could only be allocated to fixed telephony or landlines - a technology that has since become almost obsolete. The COVID-19 pandemic brought additional scrutiny to the FUST and, as a result, numerous stakeholders, including UNICEF Brazil, advocated for its restructuring.

The advocacy was successful, and in November 2020, the Senate approved Bill 172/2020, which reformed the FUST to help ensure the collected funds are more effectively allocated and are appropriately used to expand telecommunications services in the country. The Bill also required 18% of the FUST's annual collections to be set aside specifically for connecting public schools to the Internet, creating a sustainable solution for school connectivity.

With the reform, Brazil has established itself as a regional and global leader in school connectivity. Through innovation and collaboration between government offices, Brazil has solved the two major challenges of universal connectivity: (1) the large capital expenditures

(capex) costs, resolved through a successful 5G auction (refer to the Giga case study [here](#)), and (2) the large operating (opex) costs (i.e. monthly internet fees), resolved through reforming the FUST to provide funding for school connectivity.

CASE STUDY

Brazil's USF Reform and Commitment to School Connectivity

Background

In 2000, Brazil established its Universal Service Fund, the **Fundo de Universalização dos Serviços de Telecomunicações (FUST)**, through Law No. 9,998/2000. The FUST is primarily funded by the 1% contribution of Gross Operational Revenue (ROB) from telecommunications companies, which is calculated from the sales of telecommunications services in the public and private sectors of the country. The transfer of funds falls under the Inspection of Telecommunications entity (FISTEL), according to the terms of Law No. 5070/1996. FISTEL also provides the FUST with additional funds from its collections of fines and concession fees.



UNICEF Brazil connected school in Heliópolis, Brazil

Despite having collected over BRL 24 billion since its inception, the FUST has not allocated much funding to digital inclusion projects, as the original legislation was too narrowly focused on landlines. The collected funds were limited to public telecom services and those under a concession regime, which only covered fixed landline telephony, an almost outdated technology. For decades, operators and civil society pushed for change to “unlock” the accumulated funds, which was finally achieved in 2020 with the approval of [Law No. 14,109/2020](#).

UNIVERSAL SCHOOL CONNECTIVITY

Strong calls for FUST reform came during the COVID-19 pandemic when Internet access and funding availability were priority areas for the government. Following decades of concern, the COVID-19 pandemic brought the issue of the misalignment between collections and disbursements of FUST to a head.

Throughout 2020, UNICEF Brazil was part of a strong group of stakeholders who advocated to connect all Brazilian children and adolescents to the Internet, providing them more equitable access to learning opportunities and resources. The group urged leaders to allocate and deploy more public funds towards connectivity for education.

Finally in November 2020, after 12 years of legislative discussions, the Senate approved Bill 172/2020 - [Law 14.109/2020](#), which reformed the FUST. Following the reform, the FUST is now geared towards (1) stimulating the expansion and use of telecommunications networks and services, while continually improving its quality (2) reducing regional inequalities, and (3) fostering the use and development of new connectivity technologies to promote economic and social development. Not only did the government agree on a mechanism to properly disburse the funds, but it also ensured that education was a central component of the FUST.

SUSTAINABLY CONNECTING SCHOOLS

One of the primary challenges with school connectivity is the requirement to pay ongoing monthly Internet subscription fees. The FUST, which is funded by a portion of the annual revenues of telecom companies, offers a reliable funding source for schools. Complementing other resources already available for this purpose, the FUST ensures that schools' monthly internet costs are sustainably covered in the long-term.

The legislation governing the FUST requires that a minimum amount of 18% of the available annual resources is guaranteed to public education establishments, reinforcing the goal of universal school connectivity by 2024. Some stakeholders were even calling for upwards of 28% of the annual inflow, however, the percentage was maintained at 18%. The use of the fund was regulated in 2022 by [Decree No.11,004/2022](#), and its Management Council was established by [Ordinance No. 82/2022](#) to provide additional oversight.

It is vital to ensure that FUST resources are effectively applied and allocated into education. To this end, ANATEL recently published a proposed [five-year strategic plan](#), which indicates how funds should be invested, with school connectivity as a priority. The proposals were forwarded to the Ministry of Communications, which, in July 2022, published an [Ordinance](#) confirming these priorities.

For 2022, the budget approved for use of the FUST was approximately BRL 750 million, of which BRL 700 million was for refundable projects and BRL 50 million was for non-refundable projects¹. For 2023, approximately BRL 651 million was approved, with BRL 603 million allocated for refundable projects. Of the remaining amount, BRL 38 million is allotted to non-refundable projects, and BRL 10 million has already been allocated to projects that expand broadband Internet in public schools.

Both modalities support school connectivity projects. The refundable modality focuses on expanding infrastructure to connect underserved and disconnected schools, and guarantees the activation of services for at least one year. In contrast, the non-refundable modality provides for both infrastructure expansion projects with a three-year guarantee of service activation, as well as projects for the maintenance of internal networks and the payment for monthly subscription services.

For Internet Service Providers (ISPs), accessing refundable resources offers significant financial advantages compared to the general market in Brazil, where interest rates are admittedly high. According to simulations presented by the FUST's financial operator, the proposed interest rate is between 1% and 2% per annum, which is significantly lower than the up to 15% per annum interest rates typically charged by commercial banks in Brazil.

Until most schools are connected, it is expected that the funding from FUST will be primarily used for infrastructure projects that guarantee service activation for a limited time. Eventually, it is expected that the funds will be allocated in a more targeted manner in to cover the ongoing maintenance of connectivity services. For 2023, there is still the possibility of a revenue waiver in the amount of BRL 154 million, which incentivizes telcos to propose projects in areas without adequate infrastructure, where there is a higher negative net present value.

¹ Refundable projects are those in which the investments made by the fund must be returned to the financial operator. In practice, these are loans on favorable terms, with interest rates below market rates and longer payment terms. Non-refundable projects do not need to return the investments to the financial operator (mostly intended, in theory, for negative net present value locations).

The FUST's Managing Council has also approved a Resolution with the [rules for the use of FUST funds](#) in programs and projects compatible with its objectives and purposes. These rules include selection and tie-breaker criteria for identifying investment projects, giving preference, for example, to investments in areas with less social development based on the Human Development Index. The Resolution also establishes sanction mechanisms for non-compliance if the funding is allocated and the initiative is not carried out.

In December 2022, contracts were signed between the Ministry of Communications and the National Bank for Economic and Social Development (BNDES), FUST's financial operator, guaranteeing the transfer of funds for 2022, which must be spent in projects throughout 2023. The first batch of projects will be received and evaluated in the first half of 2023, and their effective execution is scheduled for the second half. Based on historical averages, the average FUST collection is expected to exceed BRL 1 billion per year, offering stability and certainty of funds to cover school's ongoing monthly Internet fees in the future. The 18% FUST allocation helps to overcome one of the main challenges of school connectivity: sustainability.

NEXT STEPS

The recent legislative advances and the inclusion of FUST in the federal budgets for 2022 and 2023 have made it a central element in Brazil's telecommunications ecosystem, particularly for achieving the country's goal of achieving universal school connectivity by 2024. The next key step for the FUST is to determine how to effectively use funds to support school connectivity targets. One possible approach is the short-term deployment of resources towards both infrastructure expansion and the maintenance of connectivity services for schools.

Overall, the FUST reform will be completed in tandem with the proceeds from the 5G auction, as discussed in this [Giga case study](#). These two initiatives will make it possible to connect all schools and children in Brazil to quality education and future opportunities. Currently, Giga is in discussions with the government in several key capacities as Brazil seeks to allocate and deploy FUST proceeds, alongside the 5G spectrum auction funds, to achieve universal school connectivity.