



SANITATION CANNOT WAIT

Panorama
of the private sector's participation in sanitation

2019





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PRESENTATION //////////////////////////////////////



SANTIAGO CRESPO
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ON FEBRUARY 1ST, when starting the Legislative Branch works with numerous new parliamentarians, the National Congress received a message from the President of the Republic, in which the Executive Branch proposes reforms and lists relevant topics which, from reforms in legislation, can provide opportunities for economic and social progress for the Brazilian society.

Among the priorities listed by the Government was, for the first time, sanitation. It was a victory for all those who, like ABCON and SINDCON, have advocated the enhancement of sanitation as a public policy.

However, there is certainly a long way to go from the public recognition to investments that could provide decent sanitary conditions to the Brazilian society, including legal and regulatory issues.

Before the large sanitation deficit and the inequalities of this situation, the partnership with the private sector becomes increasingly necessary – and recognized as such.

Therefore, this edition of the Panorama of the Private Sector's Participation in Sanitation 2019 differs from the previous editions. More than pointing out the assessment of the private operations achievements, we have decided to show, in each Political Subdivision, the real situation of sanitation, the coverage levels of services and the economic and financial situation of the operators, in a retrospective of the last five years.

The expansion of the private enterprise is moving slowly. Today, private companies are present in 325 municipalities, many of which are achieving the universalization of water supply and sewage collection and treatment services.

How these cities of all sizes have been able to achieve that universalization, despite the fiscal crisis affecting the public coffers in recent years? How do the governing authorities of these municipalities have succeeded in providing essential services which prevent disease and impact positively on the economic and social development of their cities? How did they finally bring dignity to the population?

The political will and the courage to perform public-private partnership are at the heart of many of these cases, as we demonstrate in this Panorama.

Good reading!

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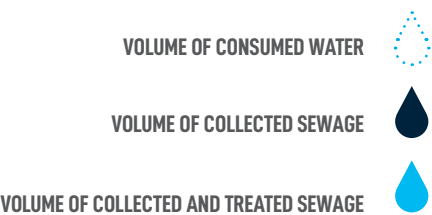
SANITATION IMPACT IN THE LIVES OF BRAZILIANS

INVESTING IN SANITATION: COMMITMENT WITH THE FUTURE OF BRAZIL /////

Among so many priorities, there is an urgency that lasts for years in Brazil: **the need for more investment in sanitation**. Investments were never up to the demands of a Brazil in need of health, social welfare and environment care. Actually, what we invest in sanitation is not even close to enough.

We're about 30 years too late. The country has not improved the coverage of sewage collection and treatment offered to the population as demonstrated in this chapter through the SNIS (National Sanitation Information System) figures about sanitation and the targets of PLANSAB (National Sanitation Plan) released in 2013 with the objective of universalizing services in 2033.

In 2017, as shown in the next chart, the total water consumed in Brazil was 9.9 billion m³, and, of this total only 4.4 billion m³ were treated. A total of 1.2 billion m³ of sewage were disposed, but not treated before released in water bodies, and there is still 4.25 billion m³ of sewage not collected.

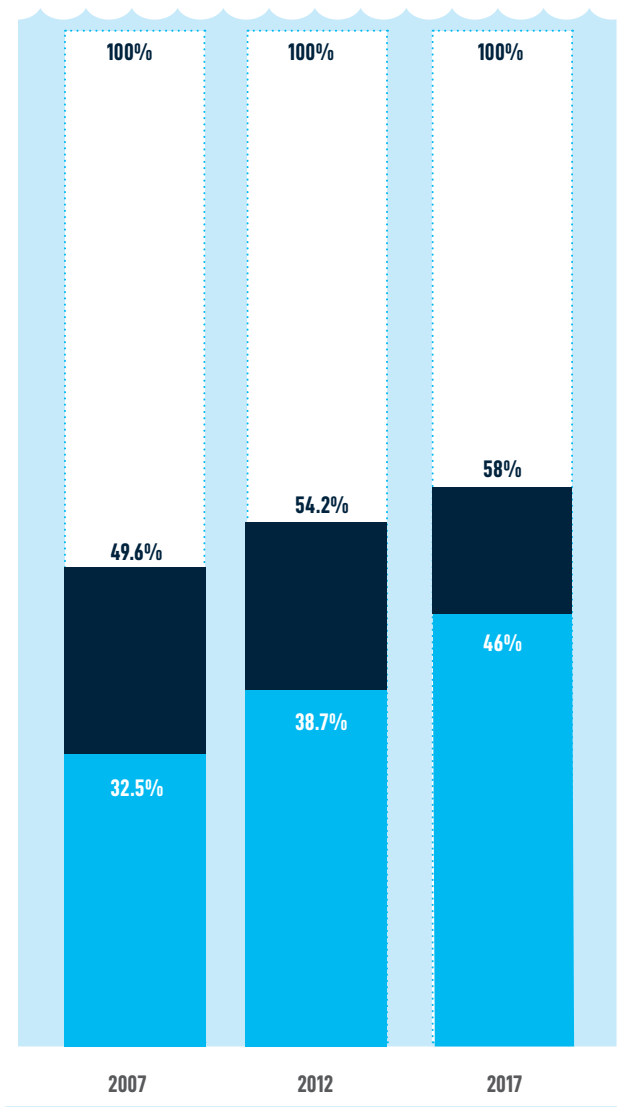


In 2017, the total volume of water consumed in Brazil was of 9.9 billion m³. Only 46% or 4.17 billion m³ of sewage were treated.

There's still 41.9% or 4.15 billion m³ of sewage not even collected.

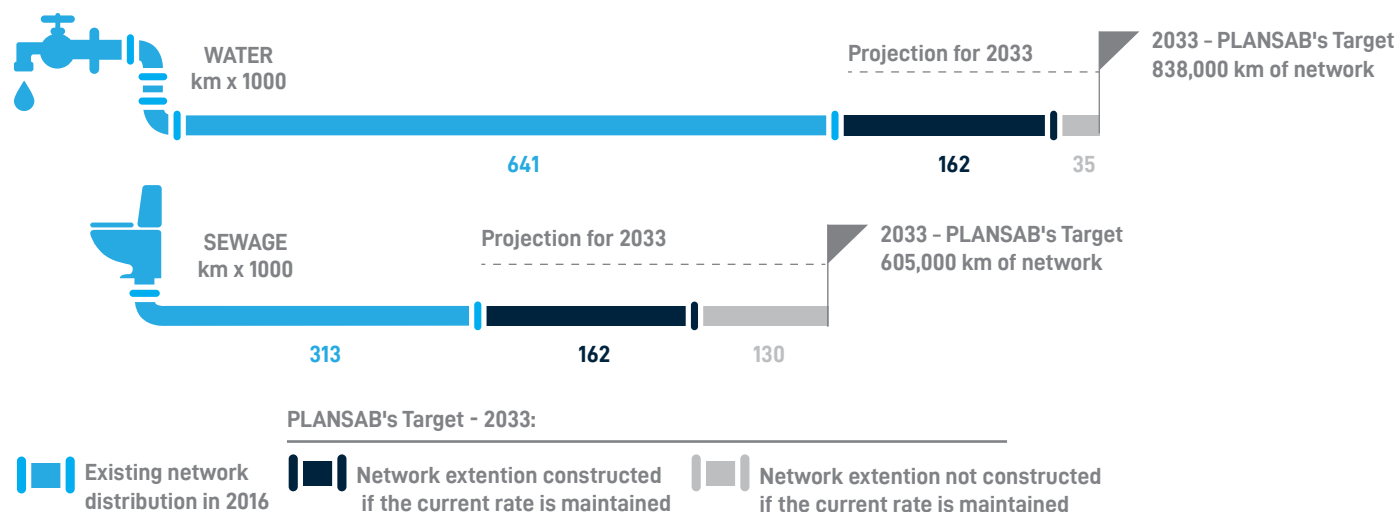
CHALLENGE OF UNIVERSALIZATION - SEWAGE COLLECTION AND TREATMENT (%)

Source: SNIS 2007-2017 (IN015 - Sewage collection rate and IN046 - Treated sewage rate referring to consumed water)



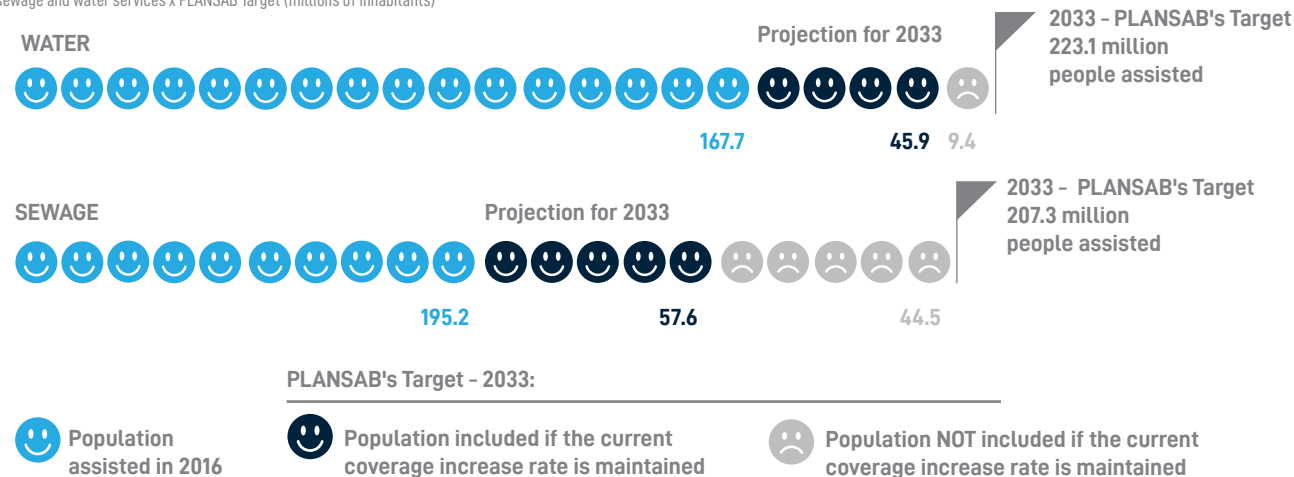
NETWORK EXTENSION

Water distribution and sewage collection x PLANSAB Target (km x 1000)



POPULATION ASSISTED

by sewage and water services x PLANSAB Target (millions of inhabitants)



Source: SNIS 2017. Linear projection based on the increase of the assisted population between 2004 and 2017.

Population to be assisted in 2033, ABCON calculation based on the projection of the total population according to IBGE.

To meet the target, it would be necessary to invest R\$20 billion per year. This level was never reached. In 2016, for example, R\$11.33 billion was invested in sanitation, that is 0.18% of the national GDP. In 2017, investment fell to R\$10.05 billion. (PLANSAB investment target to the sanitation sector is 0.33% of the GDP).

Continuing at this rate, roughly half of the population - 100 million people - will remain suffering without rights that should be guaranteed to every citizen.

In urban regions, 12 million Brazilians are still not supplied with treated water.

To understand the extent of the challenge: an effective plan would have to build 200,000 kilometers of water distribution network. As for the sewage collection network, it would be more than 300,000 kilometers.

Brazil can no longer be exposed to international shame. When we compare the international information base, 105 countries are ahead of Brazil in terms of sanitation access. Our performance is lower than that of our neighbors in South America. (See chart below).

Without sanitation, a considerable part of the Brazilian people - most of them low income people facing other difficulties in access to public health and education - are subject to water-borne epidemic diseases and complications arising from poorly treated water and lack of sewage treatment.

In Brazil, 14.3% of children and teenagers do not have access to treated water, which is a fundamental right. Of these, 7.5% have water at home, but not filtered or from reliable source, being in intermediate deprivation; and 6.8% are not assisted with water system in their homes, being in extreme deprivation. Water deprivation varies according to region, being prevalent in the North, Northeast and in the rural area (UNICEF, 2018).

Over the next 15 years, 255,000 Brazilians could die from waterborne diseases, caused by lack of proper sanitation.

Before these figures, it is critical that the country overcomes all deadlocks in political, legal and economic fields that prevent the sanitation development.

COUNTRY	WATER ACCESS	SEWAGE SERVICE
BRAZIL	83.3%	51.9
JORDAN	96.9%	98.6
IRAQ	88.6%	86.5
MAROCCO	85.4%	76.7
SOUTH AFRICA	93.2%	66.4
CHINA	95.5%	76.5
BOLIVIA	90.0%	50.3
CHILE	99.0%	99.1
MEXICO	96.1%	85.2
PERU	86.7%	76.2

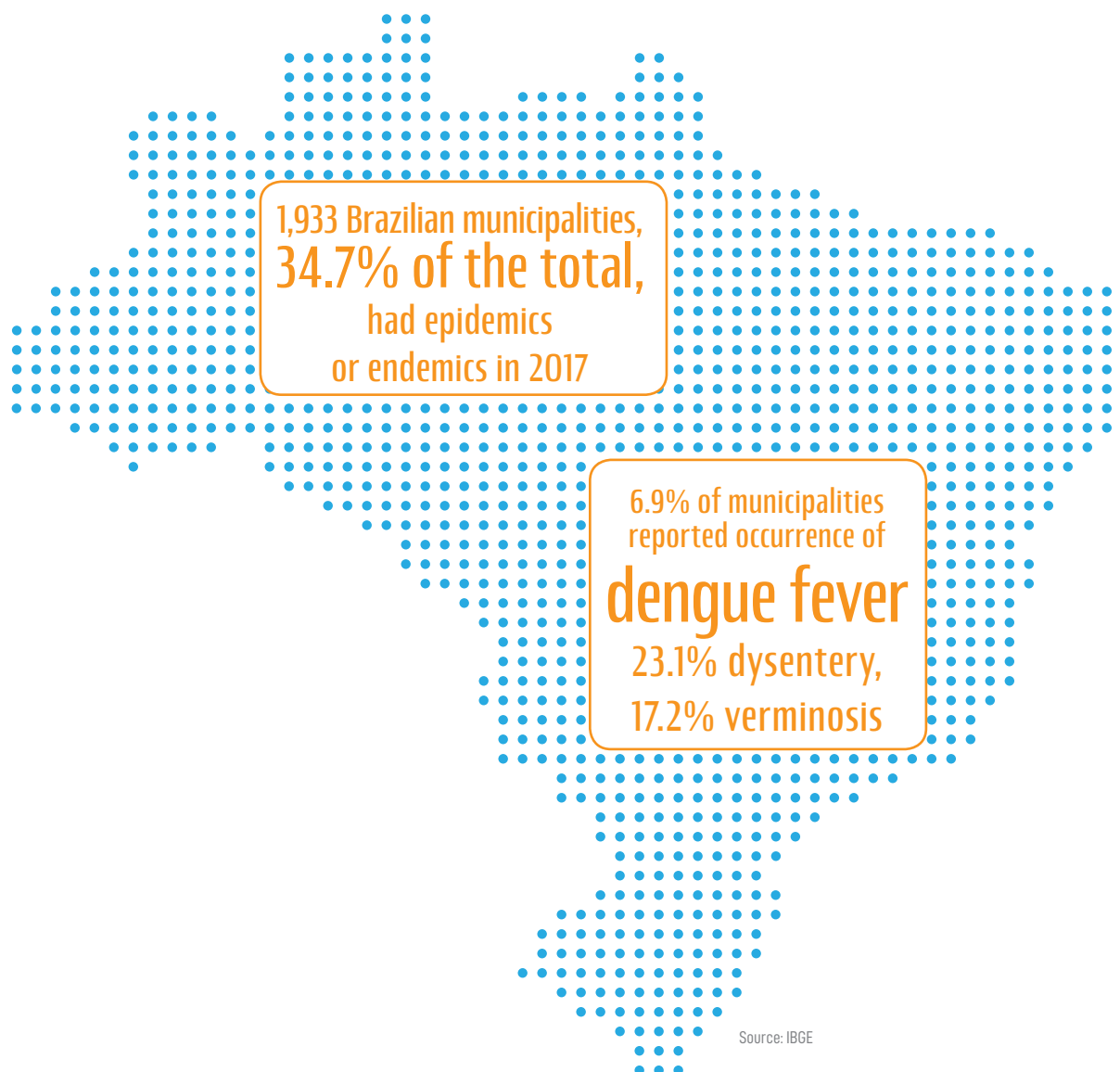
Sanitation is health

RECENT RESEARCH of IBGE (2018) reveals that 1,933 municipalities (34.7% of the total) recorded occurrence of epidemic or endemic diseases caused by lack of sanitation in 2017, considering endemic diseases those which exist, constantly, at any given place, independent of the number of individuals attacked by it.

According to IBGE, the most common disease cited by Municipal governments was Dengue fever. In 2017, 1,501 municipalities

(26.9% of the total) reported the occurrence of endemics or epidemics of Dengue fever. Dengue fever, as well as Zika and Chikungunya, are transmitted by the bite of the *Aedes Aegypti* mosquito, which breeds in stagnant water. Such diseases are therefore strongly linked to sanitation services.

Other diseases with high incidence, caused by lack of sanitation, were dysentery (23.1%) and verminosis (17.2%).



Source: IBGE

Health cost

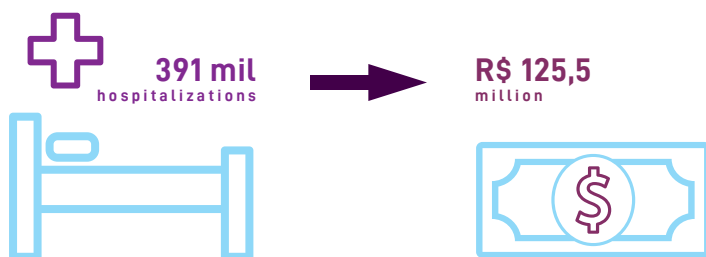
THE IMPACT of waterborne diseases is directly linked to the country's economy.

According to IBGE, in 2013, **the country had 14.9 million cases of sick leave because of dysentery or vomiting** (whereas the same person may have left its activities for more than one occasion over the course of a year).

The official data show that, on average, in each sick leave cycle, people **were away from their activities by 3.3 days**.

The **economy with the improvement of the Brazilians health** planned for the period 2016 to 2036 – based on sick leaves and hospitalizations occurred in 2016 – should be about **R\$297 million**.

In 20 years (2016 to 2036), whereas the gradual improvement of sanitation, the present value of the **economy with public health** – either by sick leave or the cost of hospitalization in the SUS (Brazilian National Health System) – must reach **R\$5.9 billion**.



Considering hospital admission for gastrointestinal infectious diseases, we had 391,000 hospitalizations in 2013. The SUS spent R\$125.5 million with these hospitalizations.

Example of economic savings

THE RELATIONSHIP between sanitation and health is also evidenced in a concrete example, which occurred in the city of Uruguaiana, on the west border of Rio Grande do Sul State.



Since the beginning of its operations, seven years ago, the private concessionaire BRK Ambiental has already invested around R\$145 million, expanding the sewage assistance from 9% to 94%.

The impact of these investments can be seen in health. In 2012, 3,002 occurrences of acute diarrhea were registered in the city. With the development of sanitation over the seven years in Uruguaiana, in 2018, 106 cases were registered, that is 28 times less than in 2012.

Historical data: 28 times less acute diarrhea in 6 years. Never before occurred such an important reduction in rates of diseases caused by water-borne organisms in the municipality of Uruguaiana.



Another example that demonstrates the need for investment and management in sanitation can be seen in the capital of Mato Grosso do Sul State, Campo Grande. The concessionaire Águas Guariroba has already invested approximately R\$1 billion between 2005 and 2017 to expand and improve the water and sewage services.

This investment was directed to programs aiming at the universalization of sewage services to every neighborhood of the city.

Executed in stages, the programs have reduced the hospitalization rate for diarrheal diseases from 157.3 for each 100,000 inhabitants in 2003 to 13.7 for each 100,000 inhabitants in 2015 – a 91% reduction.

Economic and social benefits

THE STUDY “*Economic and Social Benefits of the Sanitation Expansion in Brazil, 2018*”, conducted by the Trata Brasil Institute in partnership with ABCON and Exante consultancy, shows that, whereas the national average cost to bring water and sanitation to houses, the expansion of water and sanitation services in the country can bring more than just better health conditions.

In two decades, discounting the costs of universalization, the economic and social gains brought by the expansion of services in

its various areas would reach R\$1.12 trillion. This means that the universalization of sanitation would bring significant gains for the Brazilian society, much higher than the costs of universalization. This value is the balance between direct benefits and gains from the reduction of poor sanitation externalities about R\$1.52 trillion in one hand, and the costs of universalization in the other hand.

The table below presents the costs and benefits of the sanitation expansion in Brazil between 2016 and 2036:

COSTS AND BENEFITS OF THE SANITATION EXPANSION IN BRAZIL 2016 TO 2036		
Costs and benefits	in R\$ Billion	
	per year	2016-2036
Reduction of health costs	0.297	5.949
Increase in labor productivity	9.519	190.374
Income from real estate appreciation	22.373	447.457
Income from tourism	2.143	42.860
Subtotal externalities (A)	34.332	686.641
Income generated by investments	15.097	301.933
Income generated by the operation increase	24.496	489.920
Taxes linked to production**	2.141	42.825
Income subtotal (B)	41.734	834.679
Total of benefits (C=A+B)	76.066	1,521.319
Investment Cost	-12.063	-241,269
Household Expenditure	-7.716	-154.314
Expenditures (D)	-19.779	-395.582
Balance(E=C+D)	56.287	1,125.737

Sanitation and real estate valuation

THE STUDY of Trata Brasil Institute took as a basis the IBGE 2017 data to reveal a significant impact of sanitation under the value of real estate assets and the income generated by the sector. Considering two properties in similar neighborhoods that differ only by access to sanitation, the one that is connected to water distribution and sewage collection networks could increase the value by 16.4%.

With access to treated water, the value difference is about 9.0%. The absence of toilet could reduce the value by 7.4%. This data indicate that the adequacy of sanitation with water distribution and sewage collection networks would increase the value of the property in almost 33% (which corresponds to the accumulation of the three effects).

Sanitation and tourism

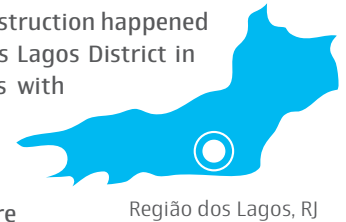
THE TOURISM sector is no different. The tourism industry is an economic activity that fails to develop properly in regions without treated water, sewage collection and treatment. Environmental contamination by sewage compromises, or even negates, the tourism potential of a region.

Comparing Brazil with neighboring countries, those Latin American economies with better sanitation have international tourism flows relatively larger. Cuba, Chile and Argentina have reached 261, 207 and 138 foreign tourists per thousand inhabitants in 2014. In Brazil, that number was only 31 tourists per thousand inhabitants. And this was the year when the country hosted the soccer World Cup. Who does not remember the obvious pollution of Guanabara Bay?

Based on statistical model, it is estimated that the tourism income in Brazil due to the universalization of sanitation reach R\$2.1 billion per year over the period 2016 to 2036, and reach R\$42.8 billion in total.

These total earnings are significant, failing to provide more income for tourism workers, higher profits for businesses and higher taxes for governments, especially for municipalities that receive taxes on services and tourism activities.

A practical example of a tourist center destruction happened in Lagoa de Araruama, in the Região dos Lagos District in Rio de Janeiro, which suffered for years with environmental impacts caused by the lack of sanitation. The actions of two private concessionaires in the municipalities surrounding the Pond were instrumental for this postcard of Rio de Janeiro to be recovered.



In 1998 the company Aegea Saneamento, through its concessionaire Prolagos, took over the concession of water supply and sewage collection and treatment services in five municipalities in the region and has already invested more than R\$1.5 billion.

In addition, another private concessionaire, the Águas de Juturnaíba, of the Águas do Brasil Group, which operates in the cities of Araruama, Saquarema and Silva Jardim, has contributed to the cleaning up of the Pond, investing R\$192 million and reaching a water coverage rate of 98.6% and sewage collection and treatment rate of 72.6% in the region where it operates the services.

The proliferation of algae in some coves scared the population, giving clear signs that the natural purifying capacity of the Pond was running out. With the performance of these two companies, over 70 million liters of sewage in natura that were released directly into the Pond began to be collected and transported into modern treatment plants built by the concessionaires.

The ecosystem of the lagoon was recovered and the Araruama Lagoon now has fish and crystal clear water. Fishing activity returned to normal as well as the practice of nautical sports, promoting the economy of the region.

Nowadays, the tourism has returned to the region and the many subsistence fishermen can enjoy this ecosystem again.



02

WINDOW OF OPPORTUNITY

ABCON/SINDCON has as main purpose to support the society and the public authorities to ensure the access to decent and efficient water supply and sanitation services for all Brazilian citizens

OPPORTUNITY TO DEVELOP SANITATION



IN 2015, an audit report of the Federal Audit Court (TCU) was emphatic: the situation of sanitation in the country is incompatible with the development level and national wealth.

TCU'S REPORT ALSO CONFIRM THAT:

- 1 The release of sewage in natura is the main cause of pollution in water bodies, especially in the cities.

The Sewage Atlas of the National Agency of Water, ANA, reports that more than 110,000 kilometers of rivers are polluted by having direct contact with sewage (ANA, 2017).

- 2 The deficiency of these services leads to undesirable situations and affect the well-being and health of the population, as well as the environment.

- 3 And, especially, a relevant correlation was not identified between the volume of investments of the Ministry of Cities in sewage system construction works with resources of the Federal Government Budget (OGU), and the municipal levels of child mortality, coverage of sewage collection network, human development and water availability of the cities which were part of the clientele of the Ministry.

Since this audit came out, by means of the report TC 017.507/2015-4, little has changed. As already demonstrated in this Panorama, Brazil urgently needs at least **double the investment** in sanitation to universalize water and sewage services and provide better health, housing, education and income conditions as well as other social indicators. The effort to increase the budget is huge and the public sphere will not achieve this alone.

It is a challenge of historic proportions, which, while not being faced, will produce negative and permanent effects for generations to come.

A NEW LEGAL

FRAMEWORK////////////////////

THE LEGAL FRAMEWORK of sanitation has been the subject of discussions in the National Congress since mid-2018, when the Executive Branch, through the then President Michel Temer, forwarded to the Legislative Branch a proposal as a Provisional Measure to update and modernize the guidelines governing the sector.

The reformulation of the sanitation legal framework is necessary to ensure the legal certainty which attracts investors and creates new opportunities for private investment, in addition to promoting regulatory consistency and efficiency in the provision of services. The expectations with the modernization of the sanitation legal framework are:

1

INCREASE THE INVESTMENT CAPACITY in the whole sector from the improvement of the regulatory environment with greater competitive equality, seeking greater opportunities and greater security for investors interested in the sector. The current estimated needs of PLAN SAB/MCidades are of 0.4% of GDP per year, excluding water security actions.

The investments made in recent years were of 0.21% of GDP, i.e.: half the necessary investment (World Bank, 2018).

2

THE STIMULUS TO THE EXPANSION OF INVESTMENT, to foster the competitive environment and business in the sector. There is a significant difference between the quality of water and sewage services provided by private companies and State companies, considering that municipalities with private providers are, on average, 10% better evaluated.

This means that the private sector had positive impact on the improvement of sanitation services provided to municipalities (2017).

3

EFFECTIVENESS OF INVESTMENT:

In 2016, the financial water distribution losses accounted for about R\$10.5 billion, while the sanitation sector had invested R\$11.5 billion in the same year.

Brazil lost 92% of the amount invested by the sanitation sector in the same year.

4

THE REGULATION OF THE SECTOR, from national parameters for the quality of services. In Brazil, until the end of 2017, there were 49 sanitation regulatory agencies, being 22 State agencies, 23 Municipal agencies and three Municipal Consortiums.

These agencies regulate about 2,906 municipalities, in other words, 52.2% of Brazilian cities, according to the Brazilian Association of Regulatory Agencies (ABAR) (2018).

5

CLEAR RULES OF PLANNED investments for contracts, and targets to the expansion of services.

6

STRENGTHENING THE OWNERSHIP of municipalities or consortium of municipalities to decide on more efficient sanitation concessions.

SANITATION

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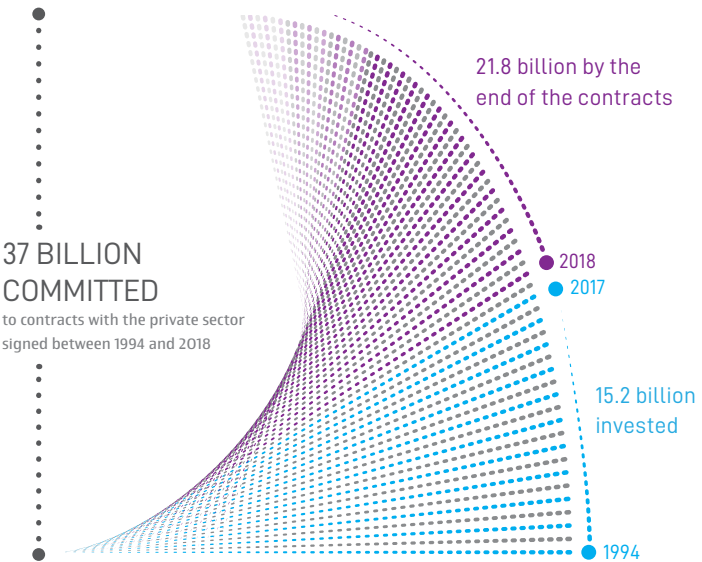
THE CHOICE of partnership with the private sector – held successfully in 325 Municipalities in the country – becomes even more essential for Brazil to obtain necessary resources – not only financial resources, but also planning, technology and management – for the expansion of sanitation.

In the last 20 years, the private concessionaires invested R\$15.2 billion in the sanitation sector, despite more R\$21.8 billion committed to existing contracts.

The values are quite representative, especially when we know that the private sector is present in only 6% of Brazilian municipalities. Even though limited to such participation, the private sector pump into the sanitation sector around 20% of the total amount invested.

INVESTMENTS OF PRIVATE SECTOR IN SANITATION (R\$)

Source: SPRIS 2018



PRIVATE MUNICIPALITIES X PRIVATE INVESTMENT

Source: SPRIS 2018



THE TARIFF ISSUE

RESEARCH CONDUCTED by prominent institutes have concluded that, for the population, no matter who provides the service. The important thing is to have access to a quality service at a fair price.

However, the sustainability of services must ensure that all necessary advances to the population are actually implemented, including the correct management of the systems.

In this sense, a recent survey of Sindcon assessed the financial balance of sanitation companies from a tariff perspective in order to demonstrate if the BILLING VALUE per cubic meter of water supply and sewage system has supported the EXPENDITURE value per cubic meter in the provision of services.

Tariff indicators reveal that, in general, State and Municipal enterprises lack of balance between revenues and expenditures, while private companies have a good financial balance between the billing value and the cost of services per cubic meter of water supply and sewage system, as shown in the table below, based on the Diagnosis of SNIS, Base Year 2017:

FINANCIAL BALANCE OF OPERATORS FROM A TARIFF PERSPECTIVE		
Source: SNIS 2019 - Base Year 2017 Elaboration: SINDCON		
	Relative billing value per cubic meter (R\$)	Relative value of total expenditure per cubic meter (R\$)
STATE COMPANIES	3.86	4.44
PRIVATE COMPANIES	3.40	3.29
MUNICIPAL SERVICES	1.89	2.04
BRAZIL AVERAGE	3.05	3.25

Note: this comparison does not reflect the average rate calculation formula per cubic meter used on SNIS. It represents the statistical treatment result, i.e. the arithmetic average of the billing values per cubic meter compared with the average of the spent values per cubic meter in the provision of services. In the next chapter of this edition, these indicators will be analyzed with greater detail in every Brazilian State.

EFFECTIVENESS OF INVESTMENTS

ANALYZING THE EFFECTIVENESS of investments by private and public concessionaires, it is important to highlight the comparisons by region, population size and whether the cities have similar profile (capitals, for example).

Next, we bring some of these comparisons, according to facts that allow a prospect of development – or not – of the chosen municipalities .

SANTA GERTRUDES X CORDEIRÓPOLIS, SMALL MUNICIPALITIES IN THE INSIDE OF SÃO PAULO.

Santa Gertrudes and Cordeirópolis are neighboring cities in the inside of São Paulo, both with an estimated population of about 25,000 inhabitants. Separated by just nine kilometers way, but by an abyss in relation to sewage treatment rates. While in Santa Gertrudes, assisted by a private company since 2010, the sewage treatment rate is 100%, in Cordeirópolis it is 0%.

The concession contract was signed in 2010 and so far R\$11 million have been invested, enabling 100% of sewage treatment in the municipality. Regarding the water supply system, the company has reduced the loss rate from 50% to 21%, in addition to eliminating the lack of water.

In Cordeirópolis, the company responsible for sanitation is the CONSAB – Intermunicipal Consortium of Environmental Sanitation, which also assists the municipalities Artur Nogueira, Conchal, Cosmópolis, Engenheiro Coelho, Jaguariúna and Santo Antônio de Posse.

For comparison purposes between the cities, the data of the SNIS 2016 and the Brazilian Institute of Geography and Statistics will be considered, as follows:

	POPULATION (IBGE 2017)	SEWAGE TREATMENT (SNIS 2016)	ANNUAL INVESTMENTS (SNIS 2016)
Santa Gertrudes	25.637	99.72%	R\$ 822,829.00
Cordeirópolis	23.793	0%	R\$ 41,823.32

PALMAS (TO) X PORTO VELHO (RO), capitals of the northern region.

Palmas and Porto Velho are located in the northern region.

In 1998, the State of Tocantins sought a partnership with the private sector, making the Saneatins the only State company under private management. In 2012, the concessionaire BRK Ambiental took over the control of Saneatins. Today, the city offers 100% of sewage collection and treatment, the highest rate in the northern region. This is a reflection of investments made by the company in the city.

On the other hand, Porto Velho has its services controlled by the Water and Sewage Company of Rondônia, a mixed-economy society with public management. In 2018, the city was in last place in the ranking drawn up by the Trata Brasil Institute, considering the 100 largest cities in the country.

For comparison purposes between the cities, the data of the SNIS 2016 and the Brazilian Institute of Geography and Statistics will be considered, as follows:

	POPULATION (Inhabitants IBGE 2017)	SEWAGE TREATMENT (SNIS 2016)	ANNUAL INVESTMENTS (SNIS 2016)	CHILD MORTALITY mortality (deaths per thou- sand births IBGE 2016)
Palmas	286,787	100%	R\$ 23,317,263.39	9.48
Porto Velho	519,436	12.18%	R\$ 41,823.32	13.36

The comparison between Palmas and other capitals in the North of the country also shows large differences.

Investment (2010 – 2016)

Palmas was the capital which invested most in sanitation. The Capital of Tocantins has invested R\$183,181,827.00. Boa Vista

(RR) R\$31,245,566.68; Macapá (AP) R\$8,341.96; Porto Velho (RO) R\$0.00; Rio Branco (AC)-R\$202.80 [The data may have been entered incorrectly in the SNIS].

Palmas is also ahead of other capitals in water treatment investment. While BRK Ambiental has invested R\$71,758,622.84 in the municipality, the other companies have had poor performance: Macapá (AP) R\$2,900,271.53; Boa Vista (RR) R\$17,050,542.89; Porto Velho (RO) R\$1,762,950.53; and Rio Branco (AC) R\$2,167,881.18.

Assistance rate - WATER

Palmas, in comparison with the other four capitals, is the only one with all residences equipped with water meters. That means the control of water use and supply service as a whole is much better (Macapá (AP) 29.17%; Boa Vista (RR) 68.28%; Porto Velho (RO) 82.67% and Rio Branco (AC) 63.31%).

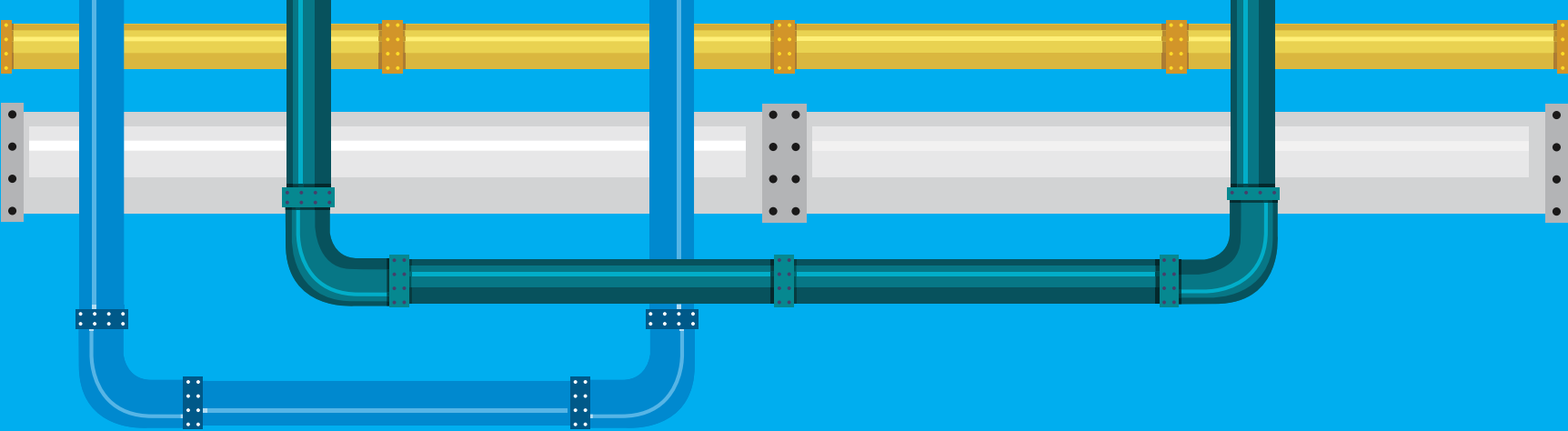
The water service in Palmas is one of the two best among the five capitals (Boa Vista (RR) 100%; Palmas (TO) 99.90%; Macapá (AP) 39.44%; Porto Velho (RO) 36.25% and Rio Branco (AC) 59.50%).

The loss rate of Palmas is also the best one: Palmas (TO) 38.62%; Rio Branco (AC) 58.19%; Macapá (AP) 66.25%; Boa Vista (RR) 65.99% and Porto Velho (RO) 70.88%.

Assistance rate - SEWAGE

Comparing the period from 2010 to 2016, only Palmas (TO), had 100% of sewage collection and treatment: Boa Vista (RR) 97.76% (average 2010 – 2016); Macapá (PA) 96.81% (average 2010 – 2016); Porto Velho (RO) 1.74% (average 2010-2016 * Treatment = 0 between 2010 and 2015, only 12.18% in 2016); Rio Branco (AC) 97.14%.

SANITATION CANNOT WAIT!



03

ECONOMIC AND FINANCIAL SITUATION OF THE OPERATORS

LEVEL OF SERVICES COVERAGE

HIGHLIGHTS OF THE PRIVATE ENTERPRISE

Sources:

SNIS – National Sanitation Information System

SPRIS – Private Sector Information System of Sanitation

Note:

The cases reported in this
chapter present indicators updated in 2019

The fiscal crisis has deepened the serious financial situation of States that do not have resources to invest in priority areas. Once the States, through State sanitation companies, assist more than 70% of municipalities in Brazil, the sector's situation becomes even more precarious.

The information provided by indicators of water supply and sewage collection and treatment in the States demonstrate an unequal Brazil, which is far from achieving the targets of services universalization.

Next, we present these data in each of the States, as well as a brief analysis of the consequences of lack of investment, management and innovation in sanitation.

The survey brings successful investment experiences with the private sector participation showing that sanitation is no longer an obstacle to health and development in some municipalities that have chosen to partner with private companies.

POPULATION: 3.322.820* | MUNICIPALITIES: 102

ASSISTED MUNICIPALITIES:

• BY STATE COMPANY: 76

• BY: 12 • BY: 64

• BY MUNICIPAL SERVICES: 15

• BY: 8 • BY: 5 • BY: 2

• BY PRIVATE COMPANIES: 11

• BY: 1 (capital) • BY: 10 (Agreste region)

DID NOT RESPOND TO THE SNIS 2017 DATA COLLECTION: 15

*IBGE 2018 – estimated
note.: Not cumulative numbers

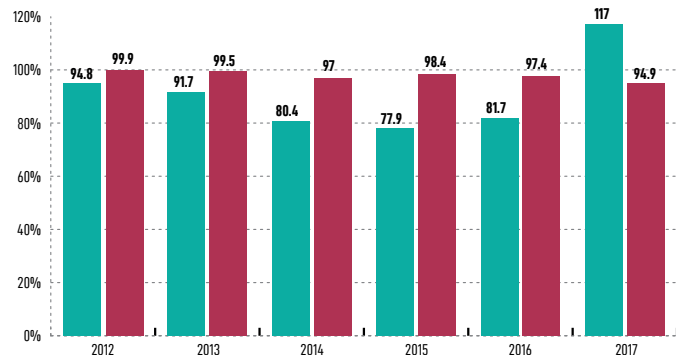
• Water supply • Water production
• Sewage system

ECONOMIC AND FINANCIAL SITUATION OF THE OPERATORS

Cash Sufficiency

Source: SNIS - SPRIS - IN101

Municipal services

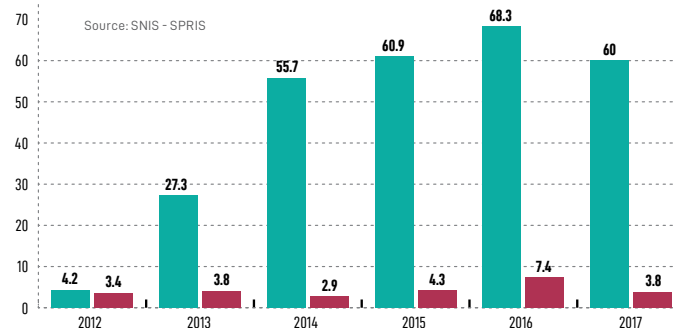


There is, among public operators, an imbalance between revenues and total expenditures with services in the analysis period, with some improvement of the State company in 2017.

Average of Investments per Water and Sewage Connection [R\$/connection]

Source: SNIS - SPRIS

Private companies



The private companies have invested a total of R\$191.93 million in water production systems in the analysis period, and another R\$168.5 million will be invested on sewage systems, of which R\$23.6 million has already been invested until 2018. The sanitary sewage system in the capital comes into operation in 2019..

SERVICES COVERAGE LEVEL

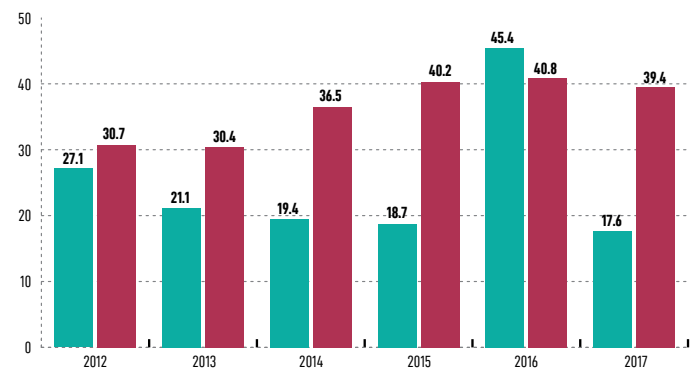
Urban Water Assistance Rate [%]

Source: SNIS - SPRIS - IN023



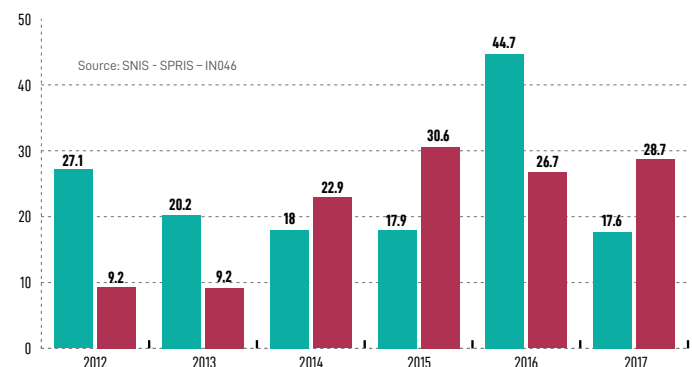
Sewage Collection Rate [%]

Source: SNIS - SPRIS - IN015



Treated Sewage Rate Related to Consumed Water [%]

Source: SNIS - SPRIS - IN046



SNIS 2017 data demonstrate that: 88.71% of the population of Alagoas State relies on water supply services; 22.35% of the population relies on sewage collection services; for the sewage, 20.04% is properly treated before released in water bodies. Sanitary sewage services by private company come into operation in the capital of the State in the first half of 2019.

Maceió, standing out in the Northeast

THE SEWAGE SYSTEM in the upper part of Maceió, the capital of Alagoas State, where 33% of the population lives, is being implemented thanks to the PPP (Public-Private Partnership) between the Casal, State sanitation company, and the GS Inima Brasil Group.

The concessionaire Sanama – Saneamento Alta Maceió has already invested R\$23.5 million only in the initial phase of the project, which includes the construction of sewage networks and the beginning of the sewage treatment plant construction works. The investment planned for 2019 is approximately R\$100 million with the completion and operation of the STP.

Signed in 2014 for a 30 years' period, the PPP contract provides for the planning and implementation of sewage system (which includes the construction of sewage treatment plant and collection network) which will benefit about 300,000 people. The total investment planned is R\$168.5 million.

Investment since the beginning of the contract until December 2018:

R\$ 23.5 million

Total investment:

R\$ 168.5 million



POPULATION: 4.080.611* | **MUNICIPALITIES: 62**
- there are 61 municipalities which can only be accessed by river assisted municipalities

ASSISTED MUNICIPALITIES:

• **BY STATE COMPANY COSAMA: 12**

💧: 12

• **BY MUNICIPAL SERVICES: 17**

💧: 3 💧: 13 🔥: 1

• **BY PRIVATE COMPANIES: 1**

💧: 1

DID NOT RESPOND TO THE SNIS 2017 DATA COLLECTION: 32

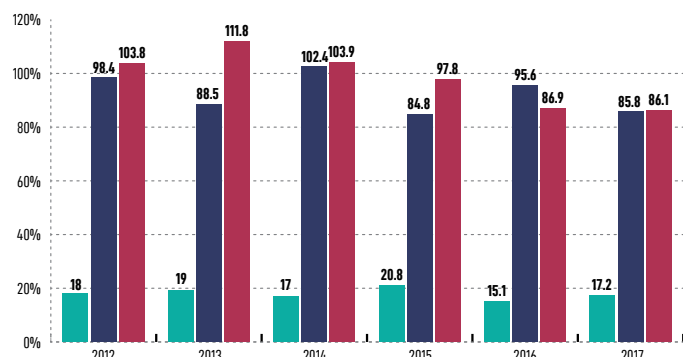
*IBGE 2018 – estimated
note.: Not cumulative numbers

💧 Water supply
🔥 Sewage system

ECONOMIC AND FINANCIAL SITUATION OF THE OPERATORS

Cash Sufficiency

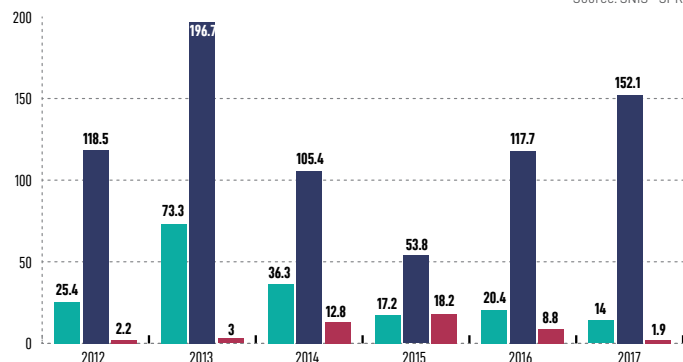
Source: SNIS - SPRIS - IN101



In general, the operators face difficulties to maintain the balance between total revenues and expenditures.

Average of Investments per Water and Sewage Connection [R\$/connection]

Source: SNIS - SPRIS

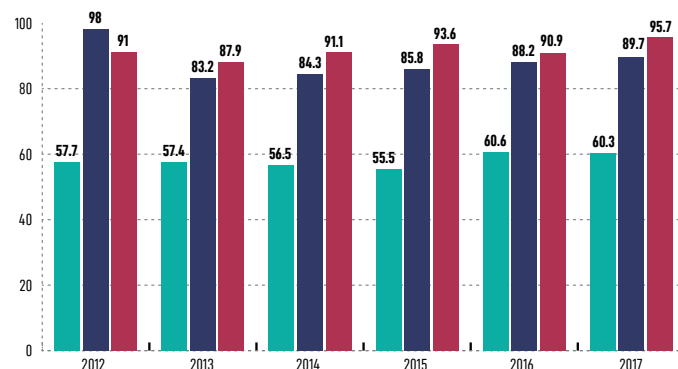


During the analysis period, it was found that most of the investments were made by the private company.

SERVICES COVERAGE LEVEL

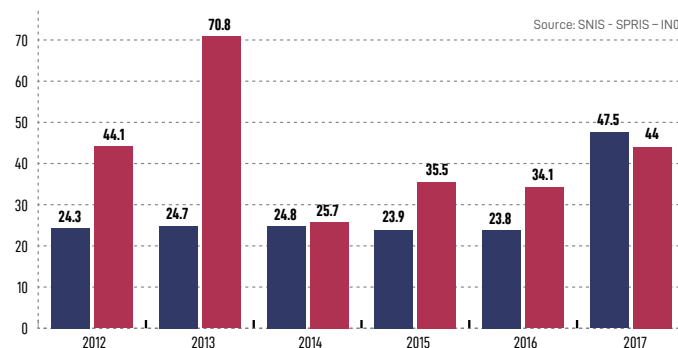
Urban Water Assistance Rate [%]

Source: SNIS - SPRIS - IN023



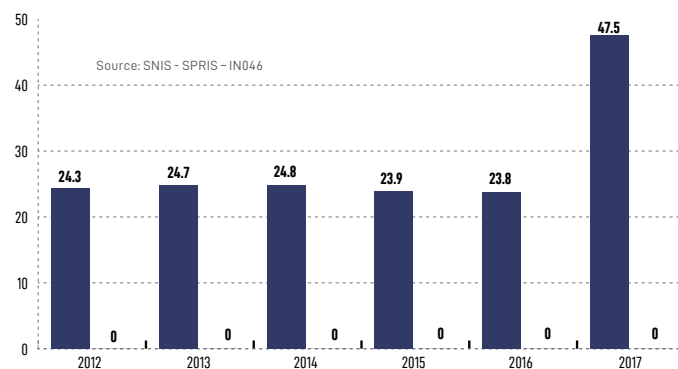
Sewage Collection Rate [%]

Source: SNIS - SPRIS - IN015



Treated Sewage Rate Related to Consumed Water [%]

Source: SNIS - SPRIS - IN046



SNIS 2017 data demonstrate that: 88.37% of the Amazonas State population relies on water supply; 47.28% of the population relies on sewage collection services. For the sewage, 43.59% are properly treated before released in water bodies. The State company does not provide sewage system services. According to PLANAB, the northern region has the highest percentage of wells or headwaters for water supply, being 29.3% internal plumbing and 11.5% without plumbing.

Manaus

moves forward with more investments

BORDERED by the world's largest river basin, the Amazonian capital has great challenges to ensure that its population of more than 2 million people has full access to water and sewage services.

The private concessionaire Águas de Manaus, of the Aegea group, which took over the operation in November, 2018, is planning to invest R\$880 million in the expansion of water supply and sewage treatment services in the city. The prediction is that, only in 2019, R\$160 million are invested.

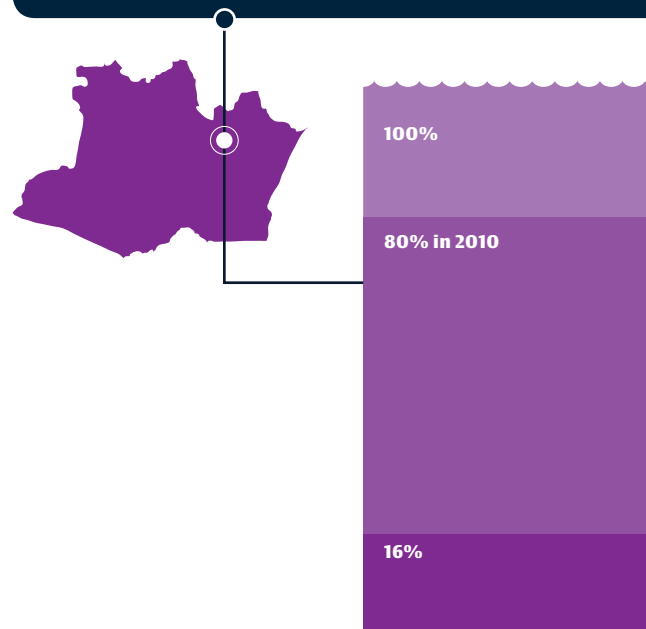
Manaus will have, until 2030, 80% of sewage collection and treatment. This means to expand five times the current capacity, in addition to being an important commitment of the private sector for the preservation of the environment in Amazon. Still in 2019, 40,000 m of sewage networks will be deployed or replaced, and nine sanitary sewage systems that already exist in the city will undergo renovation and expansion.

The concessionaire also plans to continue the expansion of water services – regularization and expansion of water supply – in the North and East areas of the city, as a matter of priority. In this way, 18,000 meters of new water networks will be built in areas still not assisted. Other 19,000 meters of existing distribution networks will be replaced. Some pipelines of the city are being duplicated, as the section coming out of the Production Complex of Ponta do Ismael and running through the reservation center Alvorada, in the Midwest part of the city.

The people from Manaus will have five more water reservoirs in the first half of next year. Together, the reservoirs will benefit approximately 450,000 people.

The Concessionaire Águas de Manaus intends to consolidate the implementation of the Social Tariff, through their relationship programs. The program gives 50% discount on sewage and water bills for low-income users.

Until 2030, the city will have
5 times
the current capacity of sewage
collection and treatment



New reservoirs will increase the water
reserve capacity in about
30 million liters

POPULATION: 14.812.617* | MUNICIPALITIES: 417

ASSISTED MUNICIPALITIES:

• BY STATE COMPANY EMBASA: 366

🔵: 103 🔴: 263

• BY MUNICIPAL SERVICES: 62

🔵: 20 🔴: 16 🔴: 26

• BY PRIVATE COMPANIES: 2

🔴: 2 (PPP)

DID NOT RESPOND TO THE SNIS 2017 DATA COLLECTION: 21

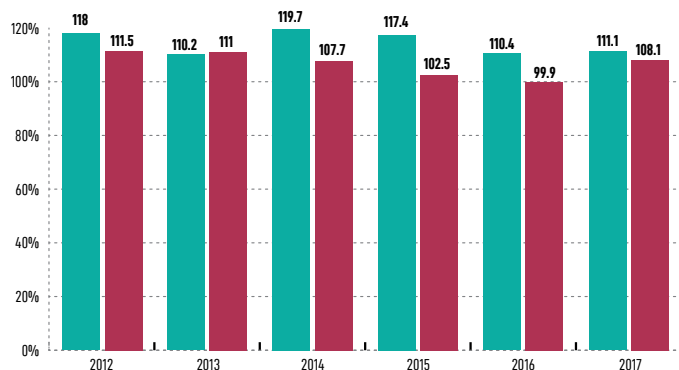
*IBGE 2018 – estimated
note.: Not cumulative numbers

🔵 Water supply
🔴 Sewage system

ECONOMIC AND FINANCIAL SITUATION OF THE OPERATORS

Cash Sufficiency

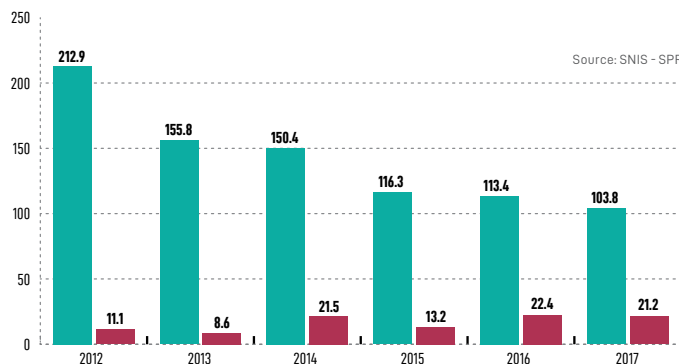
Source: SNIS - SPRIS - IN101



In general, the operators presented reasonable balance between total income and expenditure with services in the analysis period.

Average of Investments per Water and Sewage Connection [R\$/connection]

Source: SNIS - SPRIS

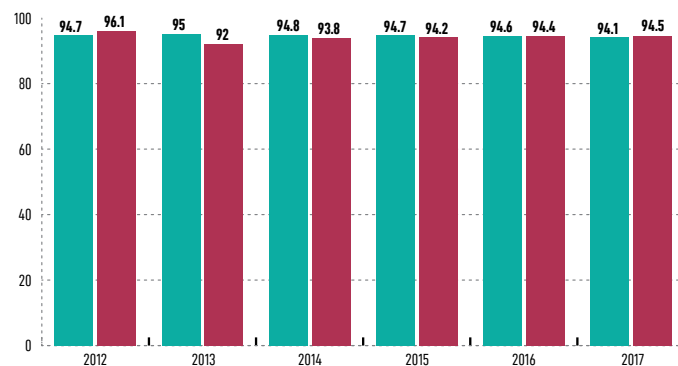


The State company has maintained ongoing investments. The values invested by municipal services are minimal. The private company's investments in sanitation have been completed in 2011, totaling R\$259.33 million.

SERVICES COVERAGE LEVEL

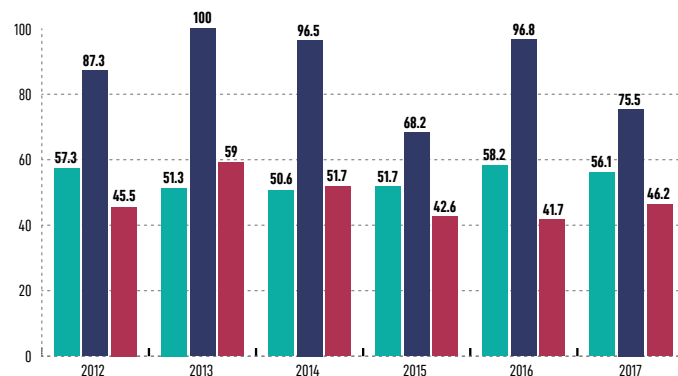
Urban Water Assistance Rate [%]

Source: SNIS - SPRIS - IN023



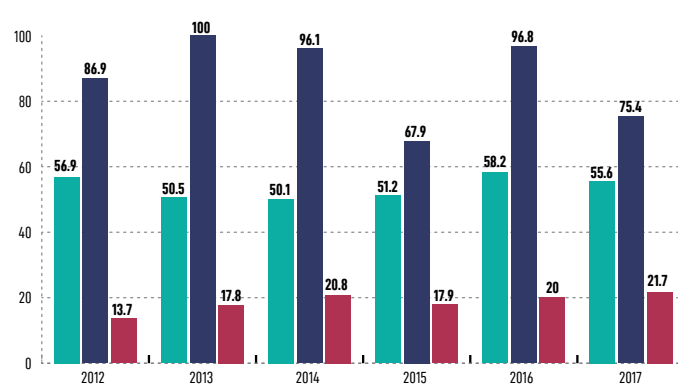
Sewage Collection Rate [%]

Source: SNIS - SPRIS - IN015



Treated Sewage Rate Related to Consumed Water [%]

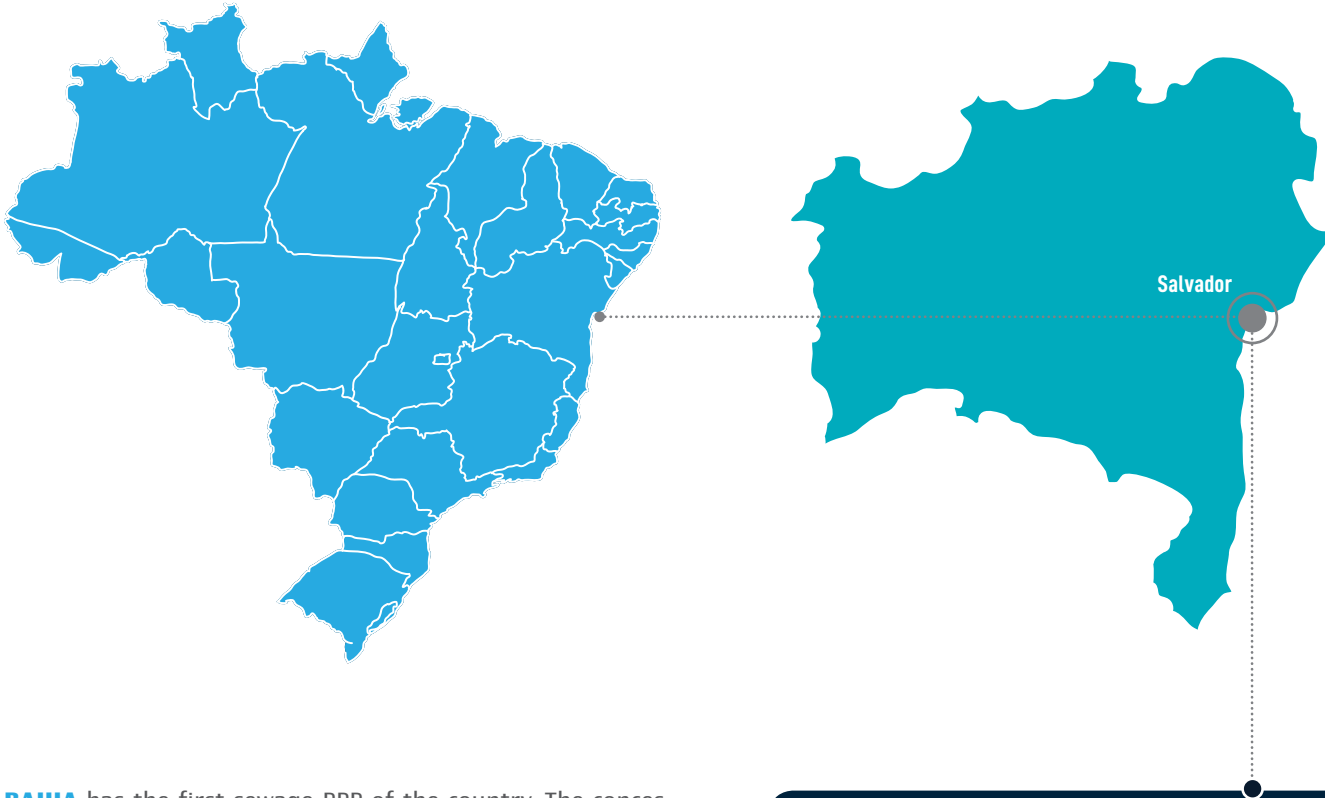
Source: SNIS - SPRIS - IN046



SNIS 2017 data demonstrate that: 94.13% of the Bahia State population relies on water supply; 55.71% of the population relies on sewage collection services. For the sewage, 52.38% are properly treated before released in water bodies. Highlighting the sewage system rates in two municipalities of the Metropolitan Area operated by the private company, towards universalization.

Bahia

Reaps the benefits of the first sewage PPP



BAHIA has the first sewage PPP of the country. The concessionaire BRK Ambiental is responsible for the operation of the first Ocean Outfall System of Jaguaribe City (SDOJ), which benefits more than 1 million people in the metropolitan region of Salvador, and helps preserve an important section of the Bahian coast.

The contract, in force since 2006, includes the implementation of an Ocean disposal system consisting of a pump station with a capacity of 2.27 m³/s, discharge line with diameter Ø1,200 mm and 1,000 meters long, pre-treatment plant with capacity of 3 m³/s, land and undersea outfall with a capacity of 5.9 m³/s, diameter Ø1,600 mm and, 1,368 and 3,670 meters long, respectively.

All the construction works have been completed, at an investment of
R\$ 261 million.

POPULATION: 3.972.888* | MUNICIPALITIES: 78

ASSISTED MUNICIPALITIES:

• BY STATE COMPANY CESAN: 52

🔵: 28 🔴: 24

• BY MUNICIPAL SERVICES: 35

🔵: 24 🔴: 11

• BY PRIVATE COMPANIES: 3

🔵: 1 (Full Concession) 🔴: 2 (PPP)

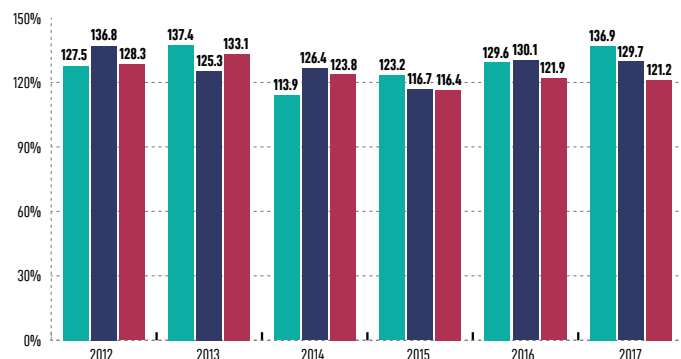
*IBGE 2018 – estimated
note.: Not cumulative numbers

🔵 Water supply
🔴 Sewage system

ECONOMIC AND FINANCIAL SITUATION OF THE OPERATORS

Cash Sufficiency

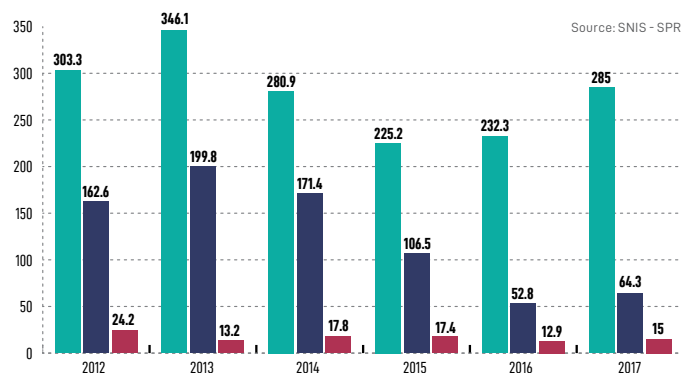
Source: SNIS - SPRIS - IN101



In general, the operators present reasonable balance between total income and expenditure with services.

Average of Investments per Water and Sewage Connection [R\$/connection]

Source: SNIS - SPRIS

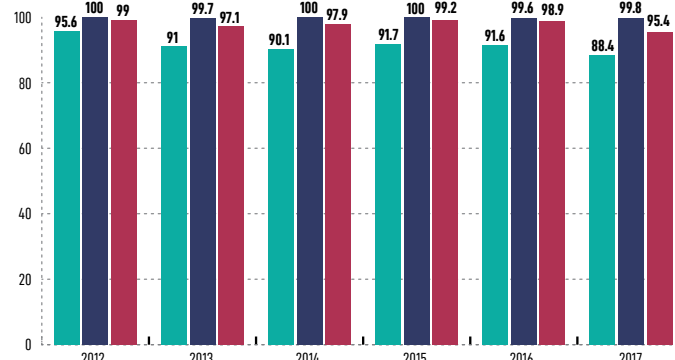


Most of the investments were made by the State company. Two PPP contracts of sanitation are recent (2014 and 2017) and foresee R\$1.10 billion investment in the contract period.

SERVICES COVERAGE LEVEL

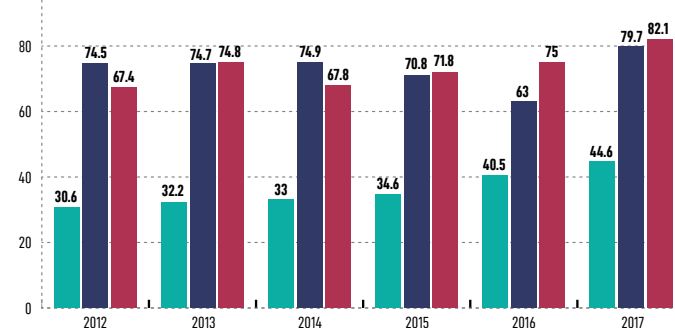
Urban Water Assistance Rate [%]

Source: SNIS - SPRIS - IN023



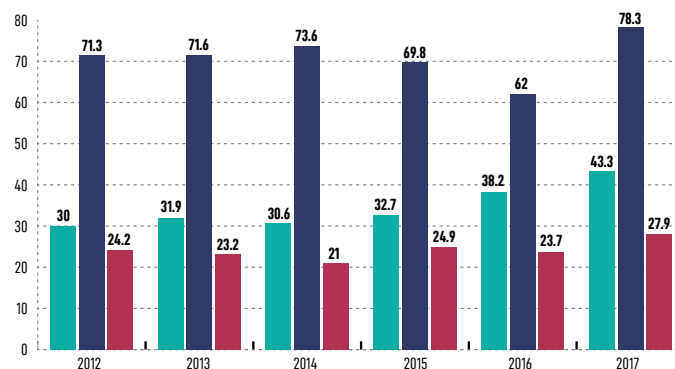
Sewage Collection Rate [%]

Source: SNIS - SPRIS - IN015



Treated Sewage Rate Related to Consumed Water [%]

Source: SNIS - SPRIS - IN046



SNIS 2017 data demonstrate that: 90.59% of the Espírito Santo State population relies on water supply; 54.39% of the population relies on sewage collection services. For the sewage, 41.77% are properly treated before released in water bodies. Highlighting the sewage collection rates of municipal services; and sewage collection and treatment rates of private companies. In relation to the water supply, the only municipality assisted by private company has reached the universalization of this service.

Cachoeira de Itapemirim, one of the pioneers

THE CITY is one of the first in Brazil to grant the concession for the operation of water supply and sewage treatment services to a private company, in 1998. Today, with the concessionaire BRK Ambiental, the Municipality is a reference in sanitation and became one of the cities with highest percentage of assistance.

Currently, 98.4% of houses have sewage collection and 98.15% of the sewage is treated. To achieve this assistance rate, more than 218 kilometers of collecting networks were built, as well as trunk sewers and interceptors, in addition to 11 Sewage Treatment Plants

As a result of the investment in the sewage system, the Itapemirim River had back its fauna of natural waters.

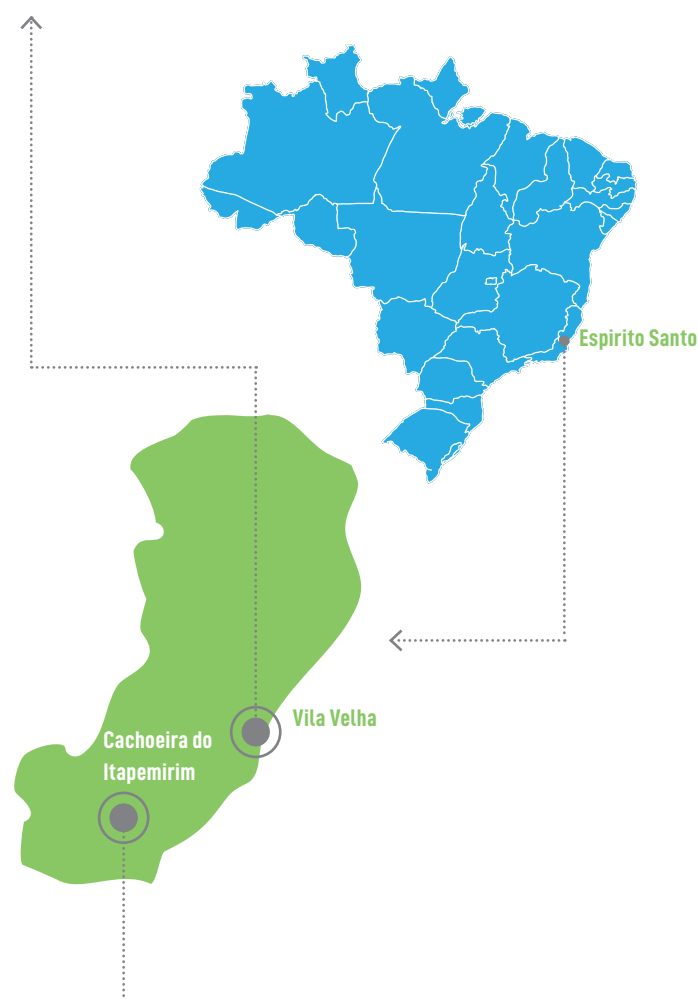
Chart: 98.4% of sewage is collected and
98.15% of sewage is treated



Vila Velha with new sanitation system

THE SEWAGE PPP which operates in the city since 2017, through the concessionaire Vila Velha Ambiental, of the Aegea Group, aims to universalize the services and benefit about 470,000 people of up to nine years. Today, only 56% of the city has sewage system services. In less than two years, the company replaced more than 50,000 water meters, with positive impact on the public partner's revenues, and has activated more than 8,000 household connections. The expansion construction works are scheduled as of 2020, after the expansion of the sewage treatment plant by the public partner.

Vila Velha Ambiental aims to universalize the service within 9 years.



POPULATION: 6.921.161* | MUNICIPALITIES: 246

ASSISTED MUNICIPALITIES:

• BY STATE COMPANY SANEAGO: 225

🔵: 73 🔵: 152

• BY MUNICIPAL SERVICES: 17

🔵: 7 🔵: 7 🔴: 3

• BY PRIVATE COMPANIES: 4

🔴: 4 (subdelegation)

DID NOT RESPOND TO THE SNIS 2017 DATA COLLECTION: 7

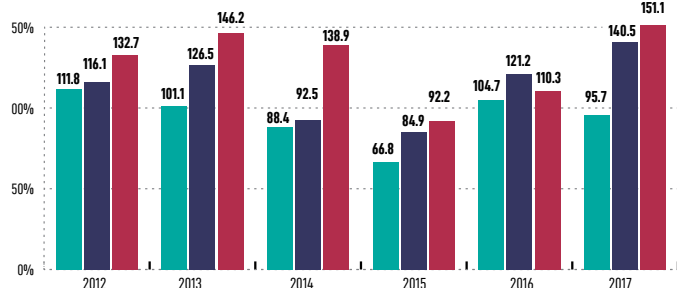
*IBGE 2018 – estimated
note.: Not cumulative numbers

🔵 Water supply
🔴 Sewage system

ECONOMIC AND FINANCIAL SITUATION OF THE OPERATORS

Cash Sufficiency

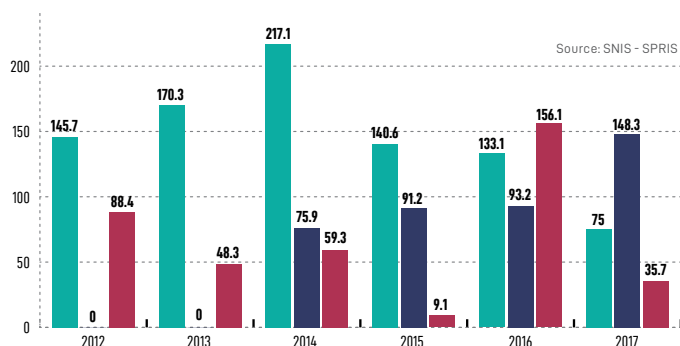
Source: SNIS - SPRIS - IN101



In general, public operators demonstrate balance between revenues and expenditures. Except the financial years of 2014 and 2015 of the State company and the private companies.

Average of Investments per Water and Sewage Connection [R\$/connection]

Source: SNIS - SPRIS

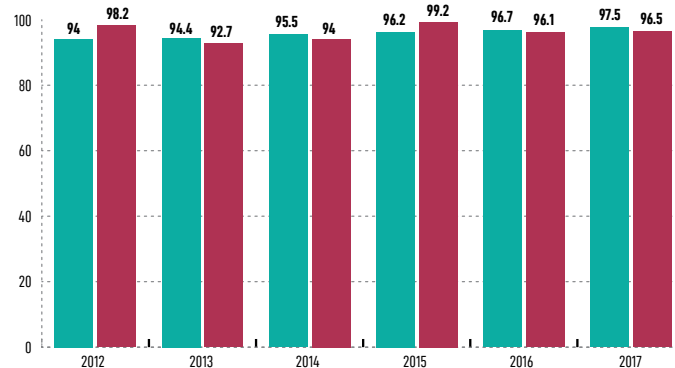


Private companies began to invest in 2015 and the results were observed in 2017. Highlighting the investments in municipal services in 2017.

SERVICES COVERAGE LEVEL

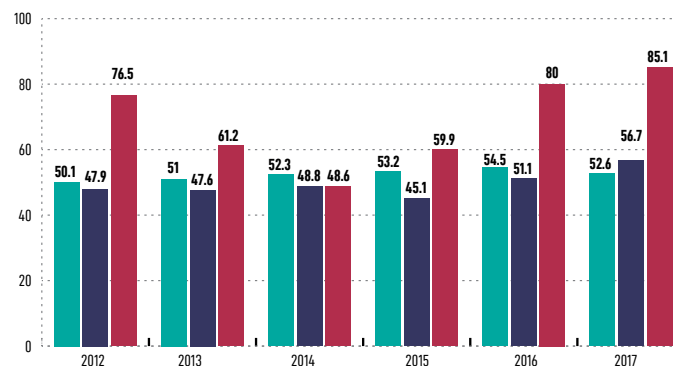
Urban Water Assistance Rate [%]

Source: SNIS - SPRIS - IN023



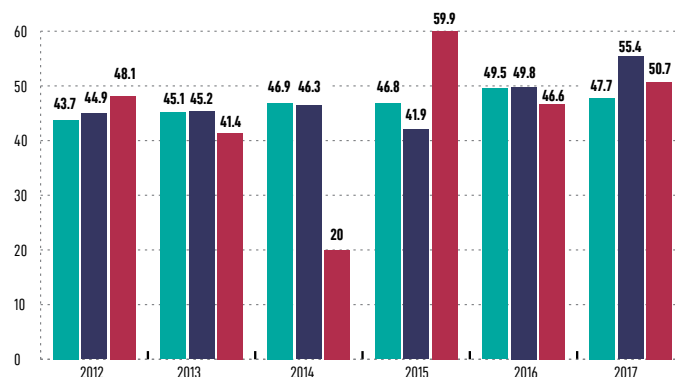
Sewage Collection Rate [%]

Source: SNIS - SPRIS - IN015



Treated Sewage Rate Related to Consumed Water [%]

Source: SNIS - SPRIS - IN046



SNIS 2017 data demonstrate that: 97.52% of the Goiás State population relies on water supply; 54.62% of the population relies on sewage collection services. For the sewage, 47.95% are properly treated before released in water bodies. Highlighting the improvement of sewage collection rates of municipal services.

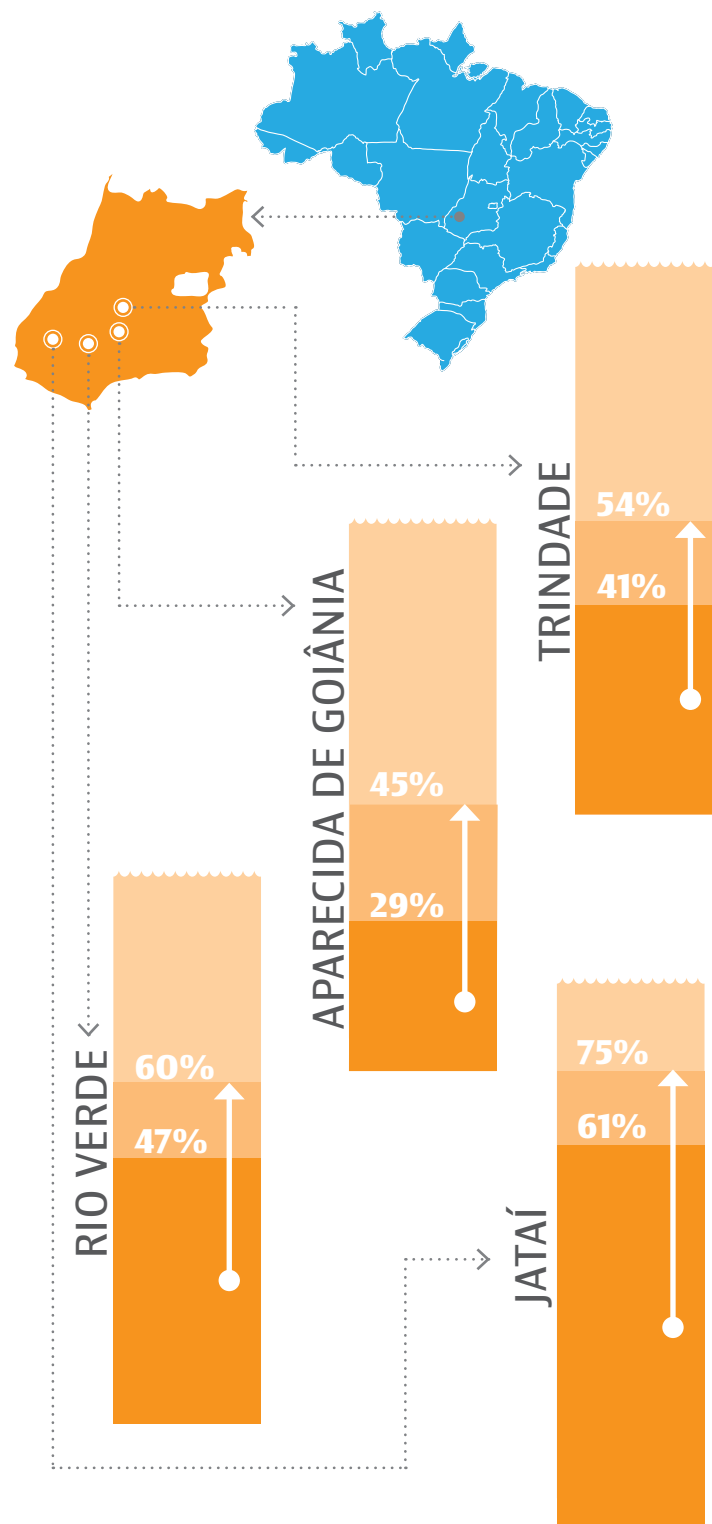
Goiás: solutions for sewage system

SINCE 2013, the private concessionaire BRK Ambiental is sub-delegated to the State company for operation and maintenance of sewage system services in the cities of Aparecida de Goiânia, Jataí, Rio Verde and Trindade. The purpose of the contract is to universalize the sewage system in these municipalities and reach 90% of water collection and treatment, which will benefit 1 million people, ensuring more health and life quality for the population.

The concessionaire is investing approximately R\$1 billion in the construction of new networks, pumping stations and sewage treatment plants, beyond the expansion of existing structures. Until 2018, over R\$437 million was invested in the expansion of sewage collection and treatment systems. In 2018, 380 kilometers of networks were built, in addition to the second stage construction works of the STP Santo Antônio – Aparecida de Goiânia; Modernization of the STP Rio Claro - Jataí; Implementation of the STP Chapadinha – Rio Verde; and modernization of the STP Barro Preto – Trindade. In 2019, 158 million are planned to be invested.

The four cities have been benefited since the sewage coverage increased by 32% with private investments.

Benefited cities: In Trindade, sewage collection has increased from 41% to 54%; Aparecida de Goiânia, from 29% to 45%; Rio Verde, 47% to 60%; Jataí, 61% to 75%.



POPULATION: 7.035.055* | MUNICIPALITIES: 217

ASSISTED MUNICIPALITIES:

• BY STATE COMPANY CAEMA: 141

• BY: 3 •: 138

• BY MUNICIPAL SERVICES: 28

• BY: 8 •: 19 •: 1

• BY PRIVATE COMPANIES: 3

• BY: 3 (concessions de 2015)

DID NOT RESPOND TO THE SNIS 2017 DATA COLLECTION: 45

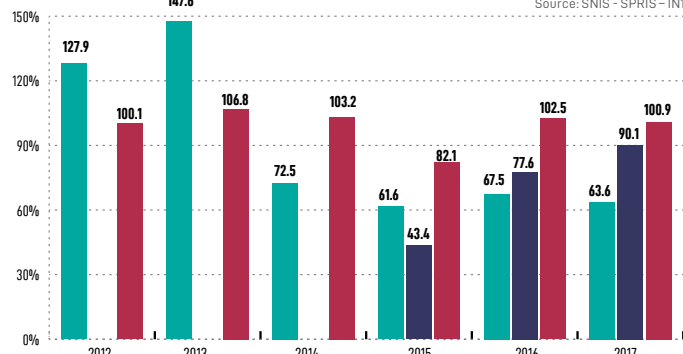
*IBGE 2018 - estimated
note: Not cumulative numbers

• Water supply
• Sewage system

ECONOMIC AND FINANCIAL SITUATION OF THE OPERATORS

Cash Sufficiency

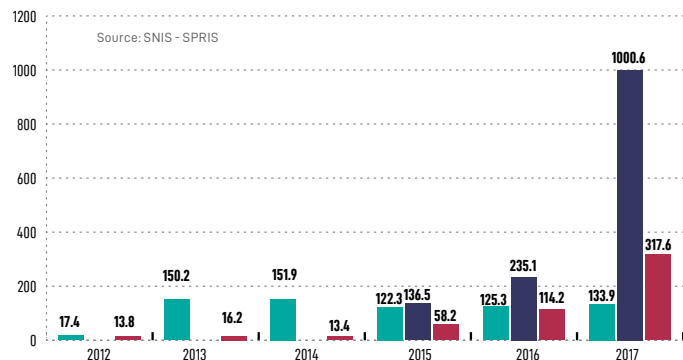
Source: SNIS - SPRIS - IN101



In the analyzed period, only the municipal services have demonstrated balance between revenues and total expenditures. Contracts are recent, so information from private companies reflects the operating results of the concession of services which the operations were granted.

Average of Investments per Water and Sewage Connection [R\$/connection]

Source: SNIS - SPRIS

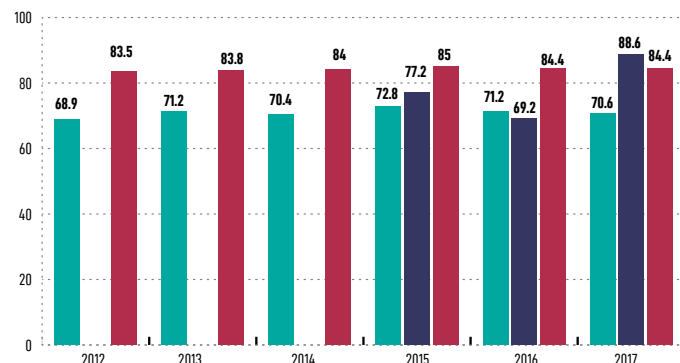


The State company made constant investments during the analyzed period. Private companies began to invest in 2015 and 2016. Highlighting the investments in municipal services in 2017.

SERVICES COVERAGE LEVEL

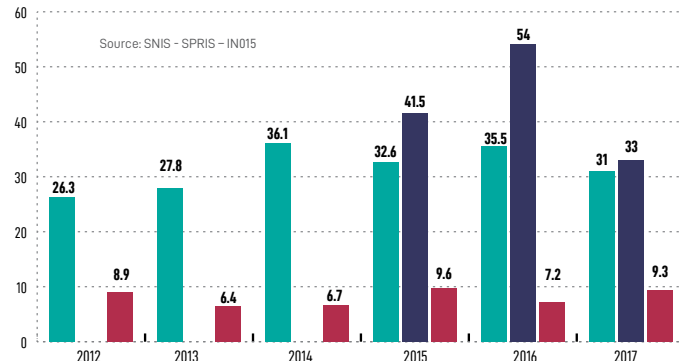
Urban Water Assistance Rate [%]

Source: SNIS - SPRIS - IN023



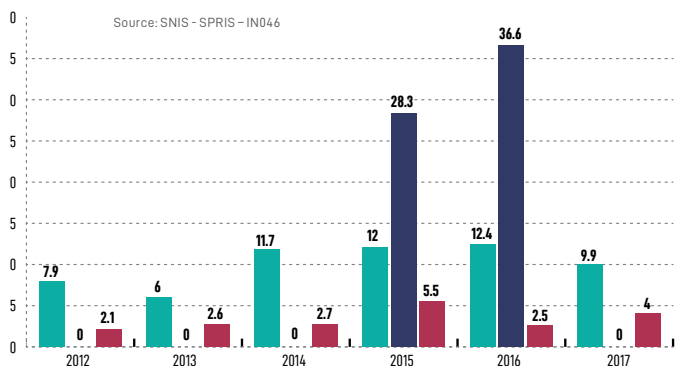
Sewage Collection Rate [%]

Source: SNIS - SPRIS - IN015



Treated Sewage Rate Related to Consumed Water [%]

Source: SNIS - SPRIS - IN046



SNIS 2017 data demonstrate that: 73.83% of the Maranhão State population relies on water supply; 28.13% of the population relies on sewage collection services. For the sewage, 9.18% are properly treated before released in water bodies. Indicators of private companies present some improvement, both in sewage collection and sewage treatment.

São José de Ribamar and Paço de Lumiar: revolution in sanitation access

IN 2015, the municipalities of São José de Ribamar and Paço de Lumiar decided, together, to improve sanitation conditions. Since then, both municipalities have granted the concession for operation of water and sewage services to the concessionaire BRK Ambiental.

In a few years, there has been a revolution in access to treated water and sewage system in both cities. Until 2014, only 18.9% and 40.9% of the population of São José de Ribamar and Paço de Lumiar, respectively, had regular access to drinking water in their homes. Today these values are 60% and 80%. Only in 2019, the concessionaire will invest R\$21 million to expand the provision of water in two municipalities of Maranhão State.

With regard to sanitation, only 8% of both cities' inhabitants had sewage collection and treatment in 2015. Currently, 38% of São José de Ribamar and 25% of Paço de Lumiar inhabitants have access to collecting networks. In the next eight years, the goal is to reach 80%.

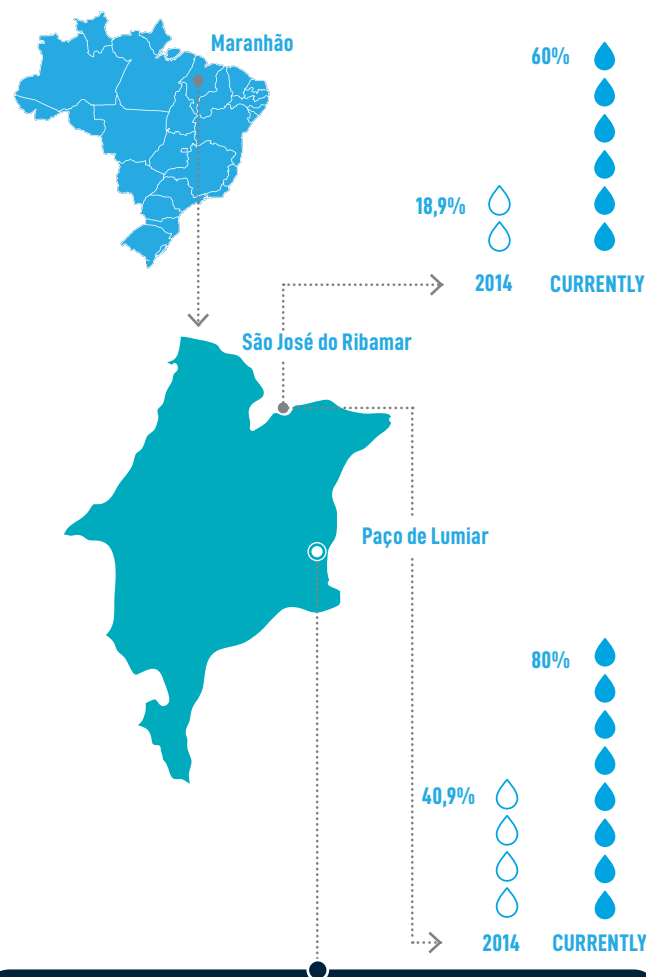
Timon develops

RESPONSIBLE for water supply and wastewater treatment in the urban area of Timon (MA), the concessionaire Águas de Timon has already invested over R\$40 million in supply improvements from 2015, directly benefiting 160,000 people, in addition to promoting the universalization of water in the first year of operation.

The concessionaire has installed 66,000 m of new networks; built the Water Treatment Plant - WTP Parnaíba and refurbished 41 treatment systems. Communities that did not have access to treated water now have regular supply.

In addition, Águas de Timon is preparing new sewage construction works. In the urban area of the city, 100% of the sewage will be treated by 2026. Over the 30 year period of the concession contract, the investments will be approximately R\$207 million.

"In little more than three years of private concession, the water supply has tripled in São Jose do Ribamar, and increased by 50% in Paço do Lumiar"



"Timon became the first city in the State of Maranhão to universalize water supply"

POPULATION: 3.441.998* | MUNICIPALITIES: 141

ASSISTED MUNICIPALITIES:

• BY MUNICIPAL SERVICES: 75

🔵: 15 🔴: 60

• BY PRIVATE COMPANIES: 37

🔵: 21 🔴: 16

DID NOT RESPOND TO THE SNIS 2017 DATA COLLECTION: 29

The State company SANEMAT ceased activities in 2000.

*IBGE 2018 – estimated
note.: Not cumulative numbers

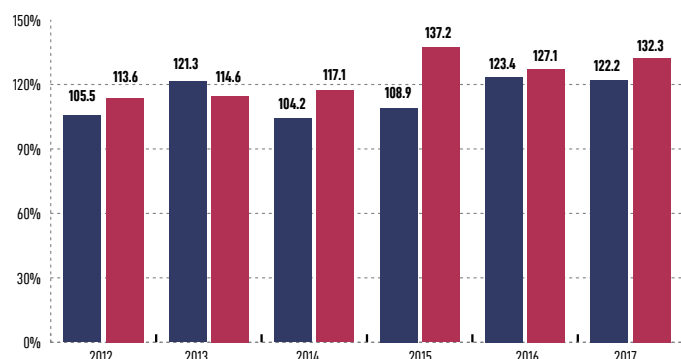
🔵 Water supply
🔴 Sewage system

ECONOMIC AND FINANCIAL SITUATION OF THE OPERATORS

Cash Sufficiency

Source: SNIS – SPRIS – IN101

Municipal Services

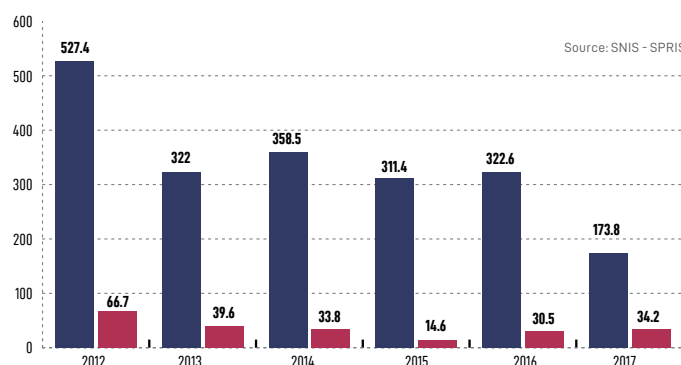


In general, the operators presented good balance between total income and expenditure with services in the analysis period.

Average of Investments per Water and Sewage Connection [R\$/connection]

Source: SNIS – SPRIS

Private Companies

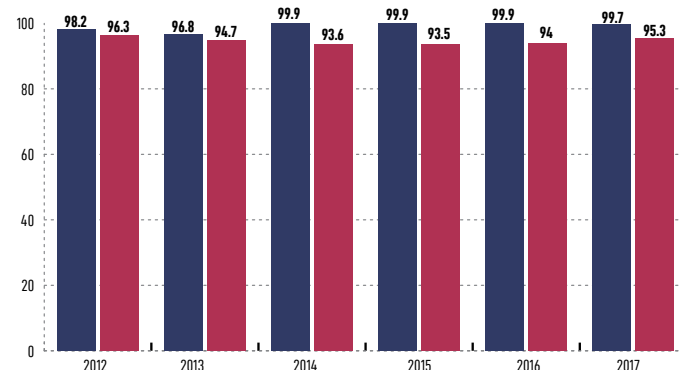


The predominance of private investment is relevant in the State during the analysis period.

SERVICES COVERAGE LEVEL

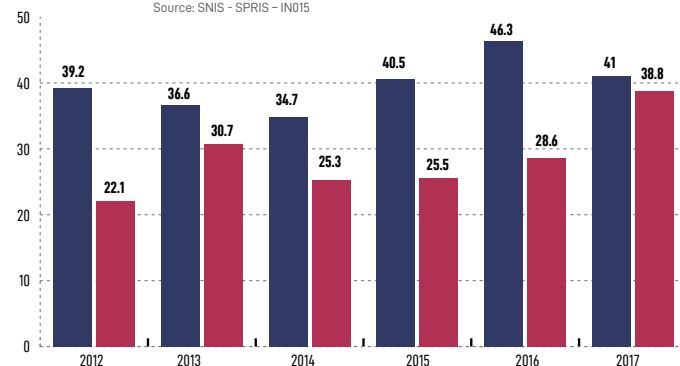
Urban Water Assistance Rate [%]

Source: SNIS – SPRIS – IN023



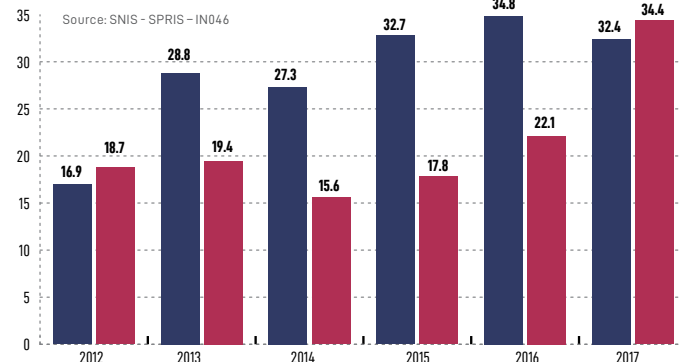
Sewage Collection Rate [%]

Source: SNIS – SPRIS – IN015



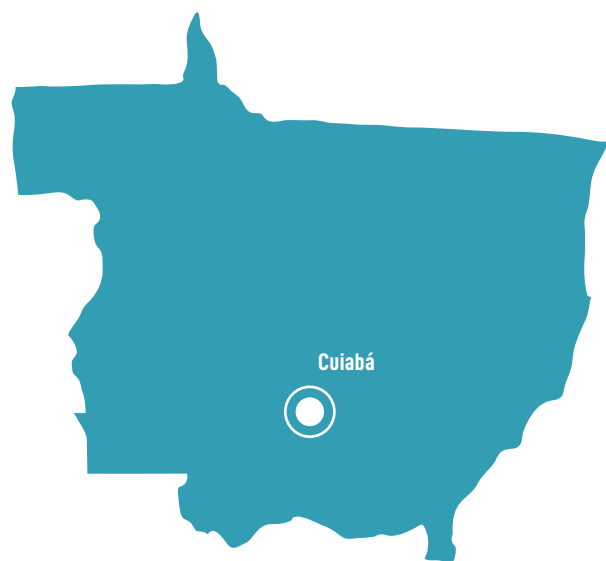
Treated Sewage Rate Related to Consumed Water [%]

Source: SNIS – SPRIS – IN046



SNIS 2017 data demonstrate that: 97.65% of the Mato Grosso State population relies on water supply; 40.1% of the population relies on sewage collection services. For the sewage, 33.23% are properly treated before released in water bodies. The sewage collection and treatment indicator of private companies has increased slightly in the analysis period.

Cuiabá celebrates new stage of investments

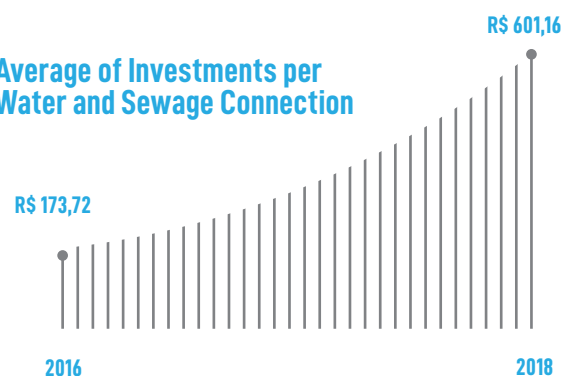


THE COMPANY Águas de Cuiabá, of the company Igua Saneamento, took over the sanitation services from the capital of Mato Grosso State only two years ago, in August, 2017, aiming to invest R\$674.5 million until 2023.

To celebrate the tercentenary of the city, in 2019, the Águas de Cuiabá will develop the Águas de Cuiabá 300 Years Investment Program, which defines the sanitation actions to be undertaken in the Municipality. With a contribution of R\$228 million, investments provide actions on water and sewage treatment to benefit the population, improving the life quality and dignity of the families.

So, since the company began operating in the city, the investment level in sanitation has risen significantly. In 2016, before the full concession period, the average investment per water and sewage connection was only R\$173.72. As to 2018, the average investment rose to R\$601.16.

Average of Investments per
Water and Sewage Connection



Besides benefiting the population, investments also benefit the Cuiabá and Coxipó rivers, improving the environmental sustainability of the region

POPULATION: 2.748.023* | MUNICIPALITIES: 79

ASSISTED MUNICIPALITIES:

• BY STATE COMPANY SANESUL: 68

Water supply: 47 Sewage system: 21

• BY MUNICIPAL SERVICES: 8

Water supply: 5 Sewage system: 3

• BY PRIVATE COMPANIES: 1

Water supply: 1 Sewage system: 1

DID NOT RESPOND TO THE SNIS 2017 DATA COLLECTION: 2

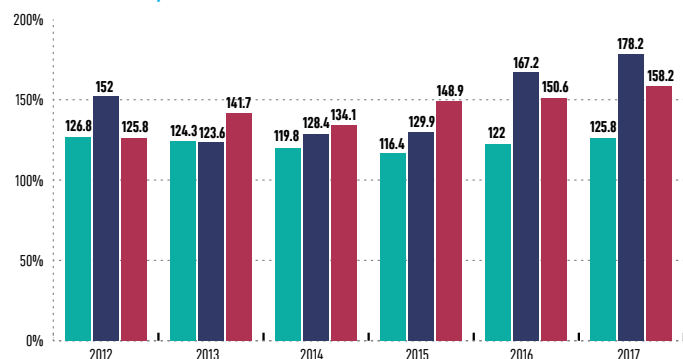
*IBGE 2018 – estimated
note.: Not cumulative numbers

Water supply
Sewage system

ECONOMIC AND FINANCIAL SITUATION OF THE OPERATORS

Cash Sufficiency

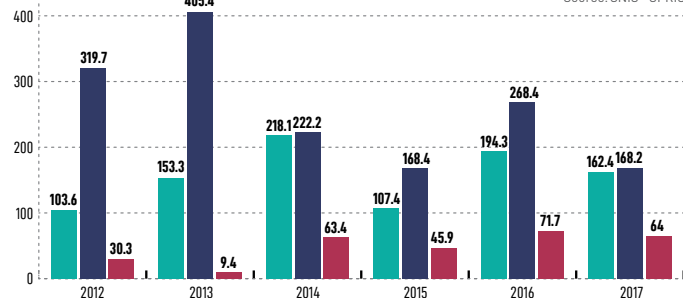
Source: SNIS - SPRIS - IN101



In general, the operators present balance between total income and expenses with services.

Average of Investments per Water and Sewage Connection [R\$/connection]

Source: SNIS - SPRIS

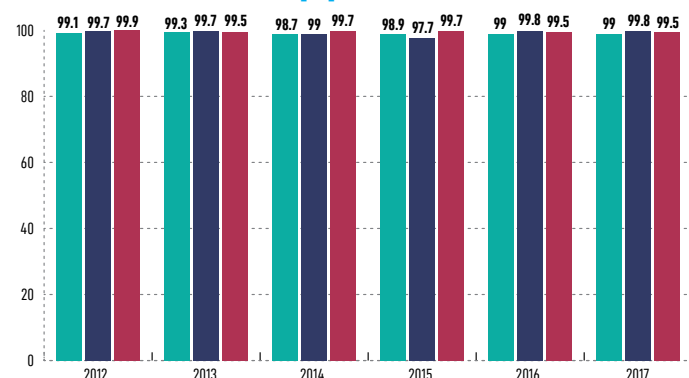


Highlighting the private sector that has invested 1.6 times more than the State company.

SERVICES COVERAGE LEVEL

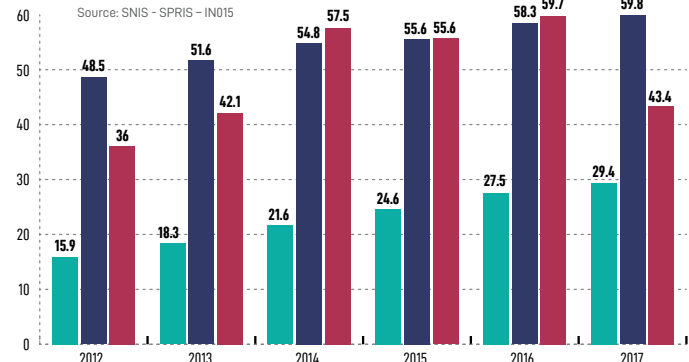
Urban Water Assistance Rate [%]

Source: SNIS - SPRIS - IN023



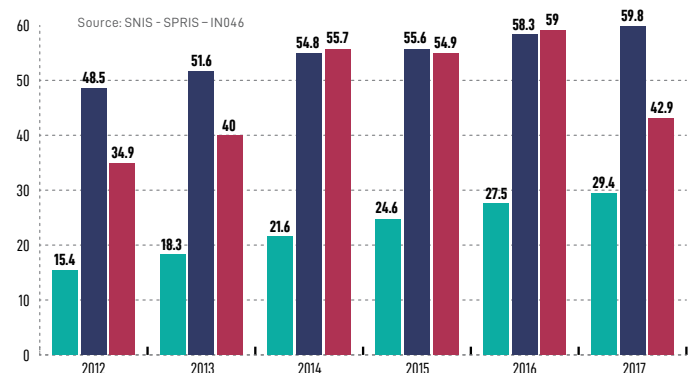
Sewage Collection Rate [%]

Source: SNIS - SPRIS - IN015



Treated Sewage Rate Related to Consumed Water [%]

Source: SNIS - SPRIS - IN046



SNIS 2017 data demonstrate that: 99.34% of the Mato Grosso do Sul State population relies on water supply; 42.49% of the population relies on sewage collection services. For the sewage, 42.46% are properly treated before released in water bodies. Highlighting the improvement of the sanitation indicators of the private enterprise and the municipal services.

Campo Grande

is a good example among the capitals

COUNTING ON the private concessionaire Águas de Guariroba, of the Angea Group, Campo Grande should be one of the first Brazilian capitals to achieve the universalization of sewage treatment.

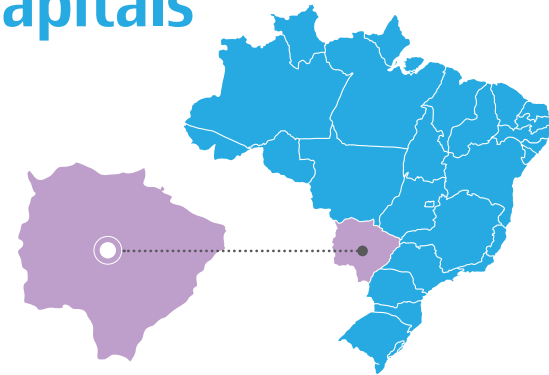
At the beginning of the concession period, in 2000, the sanitary sewage services - available for only 18.7% of the inhabitants - was one of the greatest challenges facing the capital of Mato Grosso do Sul.

The concessionaire has instituted a program whereby, in just three years, construction works were carried out to double the sewage network of Campo Grande, raising the sewage collection and treatment rate to 60% in 2008.

From 2010, Águas Guariroba began the second stage of the program, continuing the expansion of the system in the city. With the completion of this second phase in 2013, 73% of the population had sewage collection and treatment.

Currently, the service is available to over 80% of the city. In partnership with the Municipal Administration, the company expands the sewage network in neighborhoods with paving and drainage construction works through the PAC (Growth Acceleration Program), facilitating investment and ensuring development to the city in a planned and sustainable way.

As to water treatment, great advances were also made. The treated water supply reached 96% and, today, is universalized, reaching 100% of the 853,000 inhabitants. The concessionaire has invested in efficient water supply systems and reduced losses from 56% to 19% - making Campo Grande one of the capitals with the lowest loss rate in Brazil.



3ª STAGE 2025

The target is to universalize sanitation services throughout the city.

2ª STAGE 2010 a 2013

73% of the population has sewage collection and treatment.

1ª STAGE 2000

Sewage system available for only 18.7% of the inhabitants

“Without the investments of the private concession - which will reach R\$1.6 billion over the contract - the city would still be far from the universalization of sanitation”

POPULATION: 21.040.662* | MUNICIPALITIES: 853

ASSISTED MUNICIPALITIES:

• BY STATE COMPANY COPASA: 579

🔥: 215 💧: 364

• BY STATE COMPANY COPANOR: 47

🔥: 36 💧: 11

• BY MUNICIPAL SERVICES: 360

🔥: 172 💧: 13 🔥: 175

• BY PRIVATE COMPANIES: 18

🔥: 4 (full concessions) 💧: 14 (PPP contract)

NDID NOT RESPOND TO THE SNIS 2017 DATA COLLECTION: 45

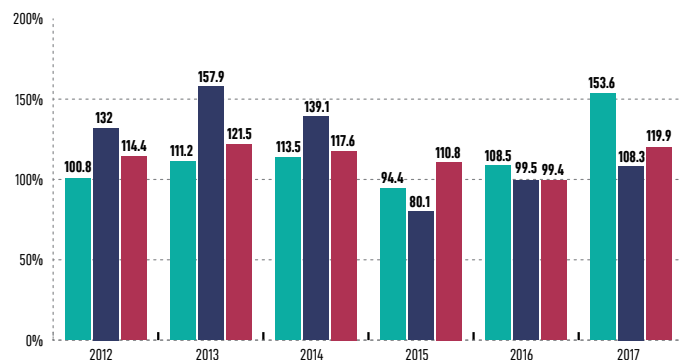
obs.: Números não cumulativos e de complexa identificação dos operadores públicos em inúmeras municipalidades.

💧 water production
*BGE 2018 – estimadmet
💧 water supply
🔥 Sewage system

ECONOMIC AND FINANCIAL SITUATION OF THE OPERATORS

Cash Sufficiency

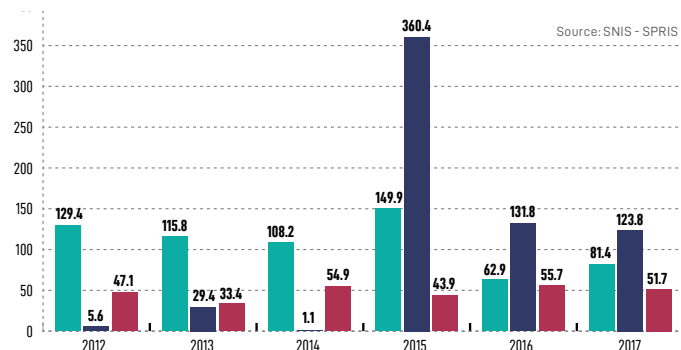
Source: SNIS - SPRIS - IN101



In general, the operators present good balance between total income and expenditure with services.

Average of Investments per Water and Sewage Connection [R\$/connection]

Source: SNIS - SPRIS



State enterprises have maintained a stable pattern of investments up to 2015, with a significant decrease in 2016 and 2017. Highlighting the private investments started in 2015.

SERVICES COVERAGE LEVEL

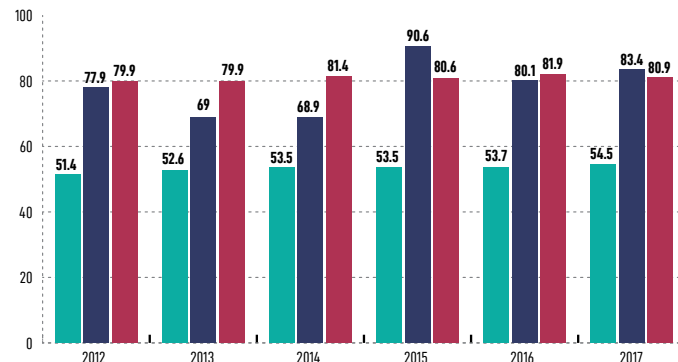
Urban Water Assistance Rate [%]

Source: SNIS - SPRIS - IN023



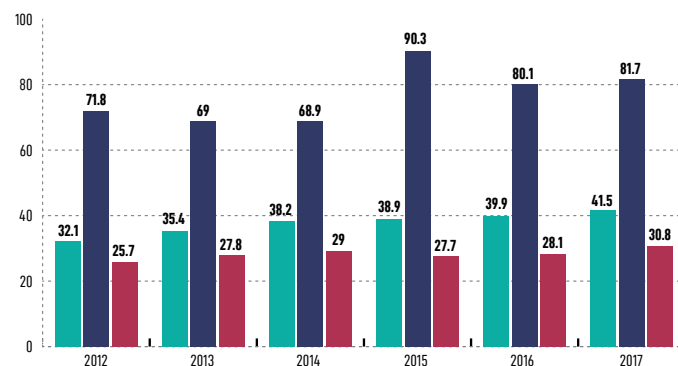
Sewage Collection Rate [%]

Source: SNIS - SPRIS - IN015



Treated Sewage Rate Related to Consumed Water [%]

Source: SNIS - SPRIS - IN046



SNIS 2017 data demonstrate that: 92.59% of the Minas Gerais State population relies on water supply; 64.47% of the population relies on sewage collection services. For the sewage, 37.88% are properly treated before released in water bodies. Highlighting the sewage collection indicators of municipal services and sewage collection and treatment levels of private companies towards the universalization.

Manso River System ensures water security

THE CONSTRUCTION and operation of some structures of the Manso River system, in the metropolitan region of Belo Horizonte, was made possible through a PPP, established in 2013 between the private concessionaire and the State company.

The objectives of the partnership are to expand and modernize water and sewage treatment processes, and improve the ability of the adduction system. The contract benefits more than 5 million people.

BRK Ambiental is responsible for duplicate the collection, adduction and treatment system. The company also built the new water intake structure of the Paraopeba river, also justified by the great water crisis that struck the southeast of the country between 2014 and 2015. The work allowed the State company to go through that period without water shortages in the region.

The Manso river is responsible for over 30% of the water that supplies 21 cities belonging to the integrated supply system of COPASA. With the expansion of treated water production and supply capacity, the water supply went from 4.2 m³/s to 5.8 m³/s in a 32 km section. The PPP operates part of the structures for a 13 years' period. The planned investment is R\$625 million.

Pará de Minas ensures water supply

WHEN the private concessionaire Águas de Pará de Minas, of the Águas do Brasil Group, took over the sanitation services of the municipality in 2015, it has found neighborhoods that had up to 20 days of water shortage. There were non-supply moments, and the supply schedules needed to be advertised on radio and local media.

At the height of the crisis, in 2013 and 2014, there were no investments in sanitation for about 30 years. The municipality has declared state of public emergency.

The Rio Manso PPP was instrumental for Minas Gerais State face the water crisis of 2014/2015 with water supply.



The system – that solve the chronic water shortage problems – was delivered in record time by the private concessionaire: only 5 months

With the change of management and investments of about R\$40 million in the construction of the pipeline to capture water in the Paraopeba River, the company solved the lack of water problem, including during the period of drought.

Thanks to the actions carried out by the concessionaire, the sewage and water service rates of the city are well above the national average (99.4% of water supply and 98.4% of sewage collection and treatment).

POPULATION: 8.513.497* | MUNICIPALITIES: 144

ASSISTED MUNICIPALITIES:

• BY STATE COMPANY COSANPA: 53

• BY STATE: 4

• BY MUNICIPAL: 49

• BY MUNICIPAL SERVICES: 27

• BY STATE: 7

• BY MUNICIPAL: 19

• BY PRIVATE: 1

• BY PRIVATE COMPANIES: 12

• BY STATE: 12 (full concessions)

DID NOT RESPOND TO THE SNIS 2017 DATA COLLECTION: 54

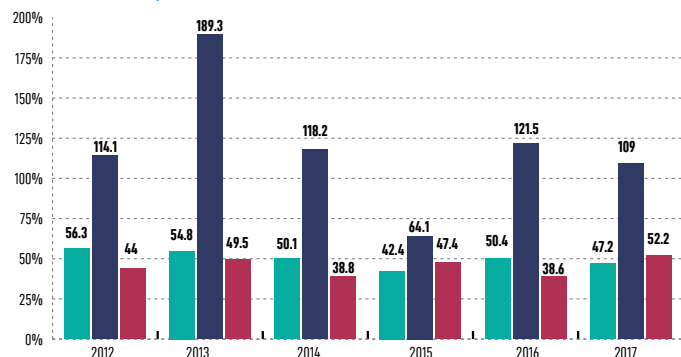
*IBGE 2018 – estimated
note.: Not cumulative numbers

Water supply
Sewage system

ECONOMIC AND FINANCIAL SITUATION OF THE OPERATORS

Cash Sufficiency

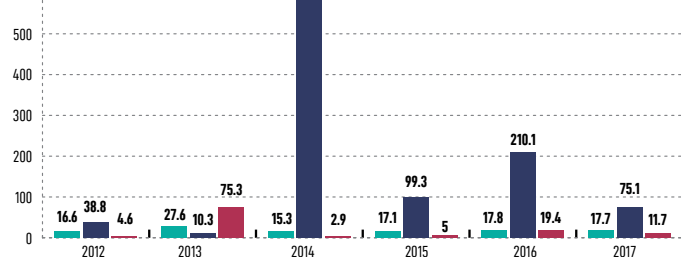
Source: SNIS - SPRIS - IN101



Public operators presented financial deficit during the analysis period. Private companies demonstrate balance between revenues and total expenditures with services, except in 2015.

Average of Investments per Water and Sewage Connection [R\$/connection]

Source: SNIS - SPRIS

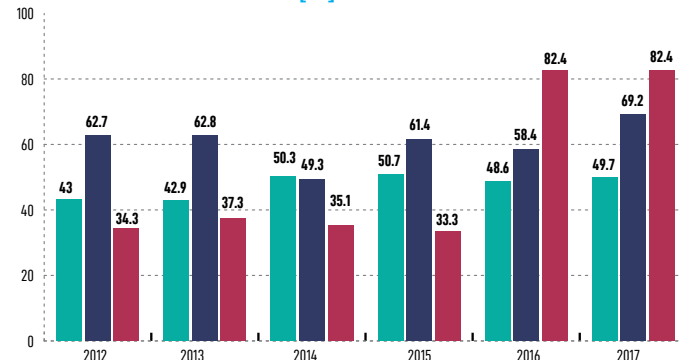


Most of the investments were made by private companies from 2014.

SERVICES COVERAGE LEVEL

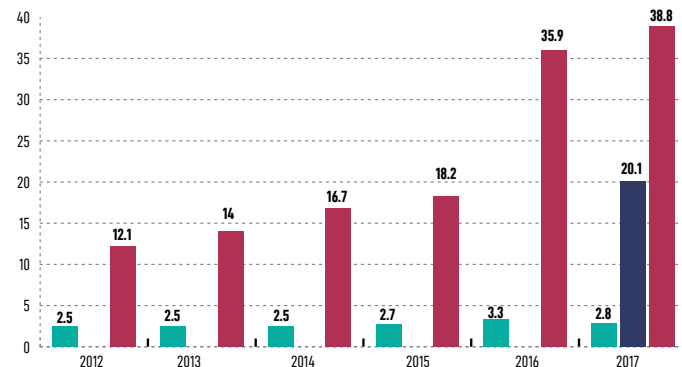
Urban Water Assistance Rate [%]

Source: SNIS - SPRIS - IN023



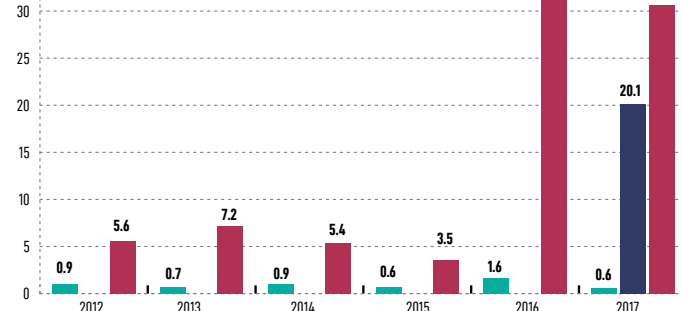
Sewage Collection Rate [%]

Source: SNIS - SPRIS - IN015



Treated Sewage Rate Related to Consumed Water [%]

Source: SNIS - SPRIS - IN046



SNIS 2017 data demonstrate that: 57.02% of the Pará State population relies on water supply; 9.65% of the population relies on sewage collection services. For the sewage, 6.27% are properly treated before released in water bodies. The role of private companies in the analysis period was restricted to covering the deficit of water supply.

Novo Progresso



IN A STATE with very low coverage rates, 12 municipalities rely on the operation of private concessionaires to reverse the water coverage and sewage collection and treatment deficit. With investment and management, there are already successful experiences with the population of Pará.

According to the map “The Reality of Sanitation in Brazil”, organized by the CNI News Agency, in the municipality of Novo Progresso, the private concessionaire Águas de Novo Progresso invests four times more than the average – per inhabitant – in sanitation.

Between 2017 and 2021, the private sector provides for investments of R\$113 million in the State.

SANITATION SERVICES (PER INHABITANT).



Average of sanitation services per inhabitant



Novo Progresso



In some cases, the private sector invests
4 times more
than the average per inhabitant

POPULATION: 11.348.937* | MUNICIPALITIES: 399

ASSISTED MUNICIPALITIES:

• BY STATE COMPANY SANEPAR: 345

🔥: 185 💧: 160

• BY MUNICIPAL SERVICES: 45

🔥: 20 💧: 25

• BY PRIVATE COMPANIES: 1

🔥: 1

DID NOT RESPOND TO THE SNIS 2017 DATA COLLECTION: 8

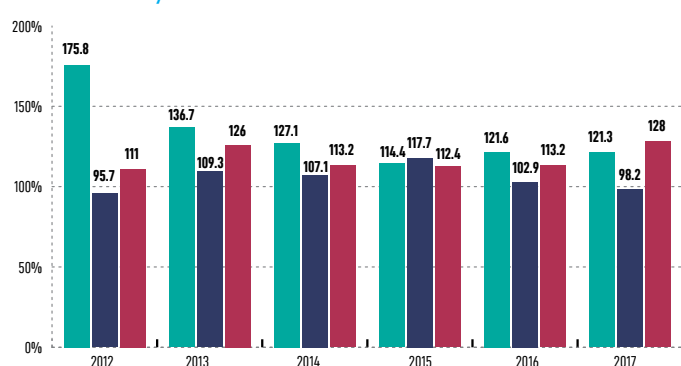
*IBGE 2018 – estimated
note.: Not cumulative numbers

💧 Water supply
🔥 Sewage system

ECONOMIC AND FINANCIAL SITUATION OF THE OPERATORS

Cash Sufficiency

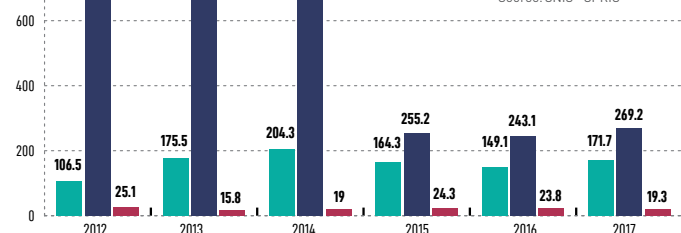
Source: SNIS - SPRIS - IN101



In general, operators present reasonable balance between total income and expenses with services.

Average of Investments per Water and Sewage Connection [R\$/connection]

Source: SNIS - SPRIS

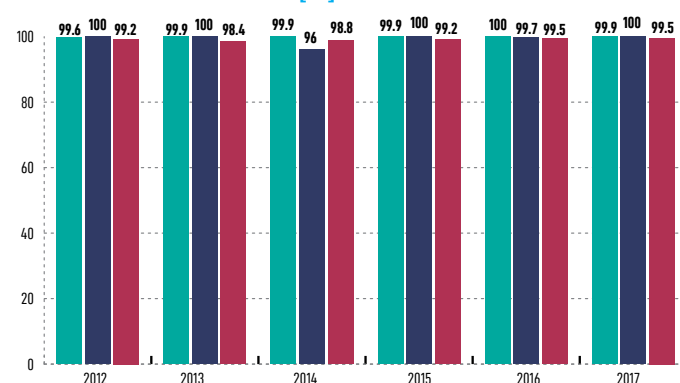


Most of investments were made by private companies, especially in 2012, 2013 and 2014.

SERVICES COVERAGE LEVEL

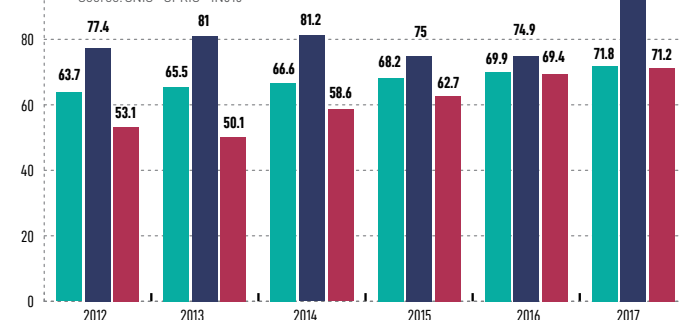
Urban Water Assistance Rate [%]

Source: SNIS - SPRIS - IN023



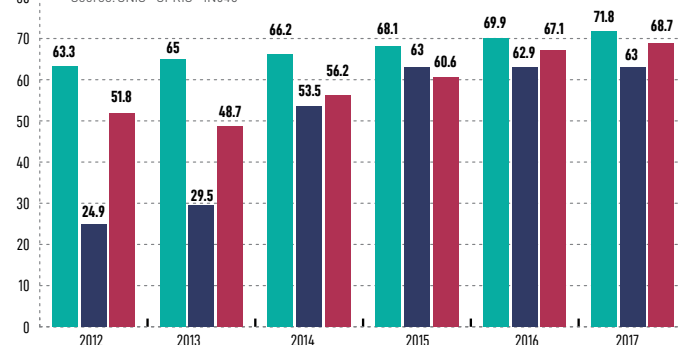
Sewage Collection Rate [%]

Source: SNIS - SPRIS - IN015



Treated Sewage Rate Related to Consumed Water [%]

Source: SNIS - SPRIS - IN046



SNIS 2017 data demonstrate that: 99.97% of the Paraná State population relies on water supply; 72% of the population relies on sewage collection services. For the sewage, 71.58% are properly treated before released in water bodies. Highlighting the private company's sewage collection indicators and the sewage treatment indicators of the State company. Municipal services also present positive rates in sanitation.

Paranaguá: technology to benefit the population

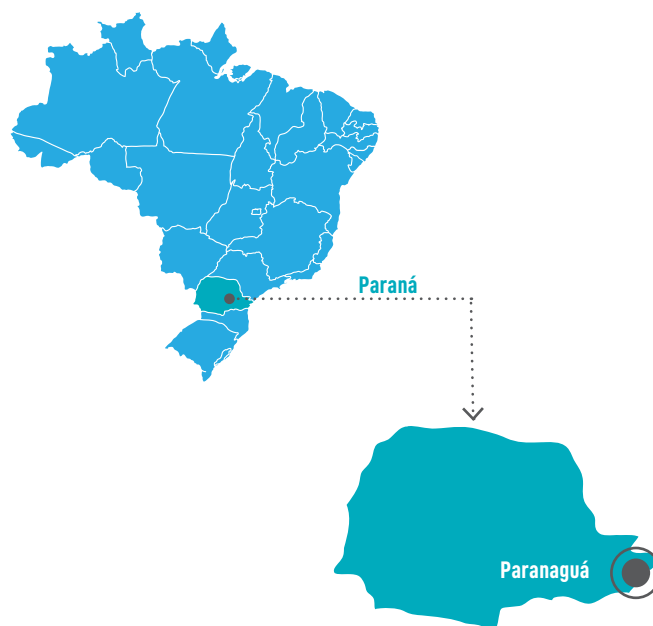
THE CONCESSIONAIRE Paranaguá Saneamento, of the Iguá Saneamento group, took over the sewage system operation in August, 2017. Before long, the company proved to be extremely efficient and modern.

Only in 2018, the company invested R\$47 million to benefit the 150,000 residents of the municipality. One of its greatest achievements was the inauguration of the first stage of the Cominese System, transforming the lives of 40,000 people in 18 districts. With this, the sewage collection and treatment services in the city rose from 72% to 90%.

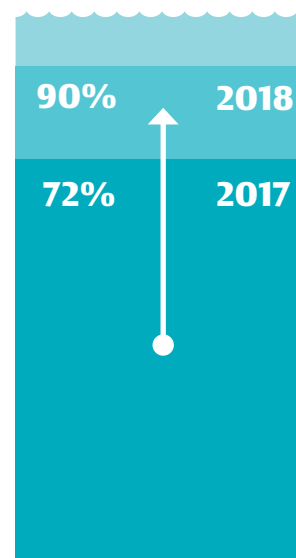
The project, consisting of a Sewage Treatment Plant (STP) and 22 Pumping Stations, began in June of the same year and, thanks to a modular construction method, was delivered 18 months before the deadline. The technology used in the construction increased the energy efficiency of the STP, providing 80% less energy consumption than conventional systems. In addition, the station has the most modern technological solutions, such as a European technology of biological filter, which is capable to reduce the load of organic wastes five times faster than traditional treatment systems.

The company has also implemented an Operational Control Center, which monitors the reservoirs, pumps, water and sewage treatment plants in real time, ensuring better management and speeding up the response time of lack of water demands, pressure drop on the network, leaks, among others. This data ensure agility in the provision of services, having reduced the average assistance time to leaks repair, water shortages and other, from 20 hours to 4 hours.

Thus, with advanced technology, the company was able to improve the lives of the population in record time and with environmental responsibility.



**Sewage
collection and
treatment rate**



The sewage collection rate rose
from 72% to 90%

POPULATION: 9.496.294* | MUNICIPALITIES: 185

ASSISTED MUNICIPALITIES:

• BY STATE COMPANY COMPESA: 173

• BY: 28 • 145

• BY MUNICIPAL SERVICES: 41

• 6 • 35

• BY PRIVATE COMPANIES: 15

• 15 (PPP)

DID NOT RESPOND TO THE SNIS 2017 DATA COLLECTION: 5

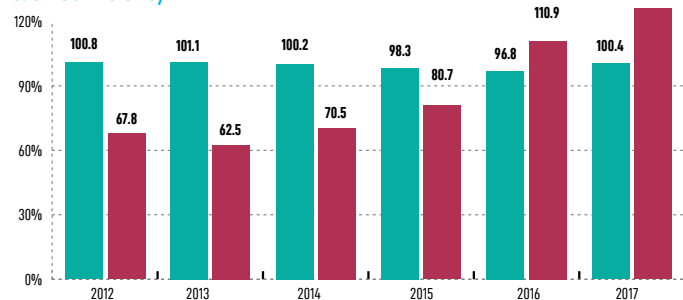
*IBGE 2018 – estimated
note: Not cumulative numbers

• Water supply
• Sewage system

ECONOMIC AND FINANCIAL SITUATION OF THE OPERATORS

Cash Sufficiency

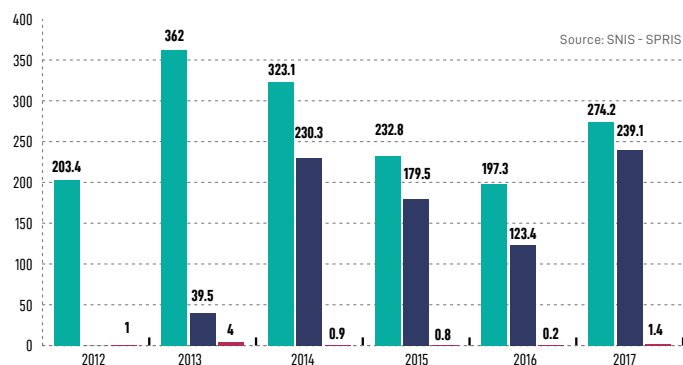
Source: SNIS - SPRIS - IN101



There is financial imbalance between total income and expenditure with services, both with in the State company and municipal services, with little recovery observed in 2016 and 2017.

Average of Investments per Water and Sewage Connection [R\$/connection]

Source: SNIS - SPRIS

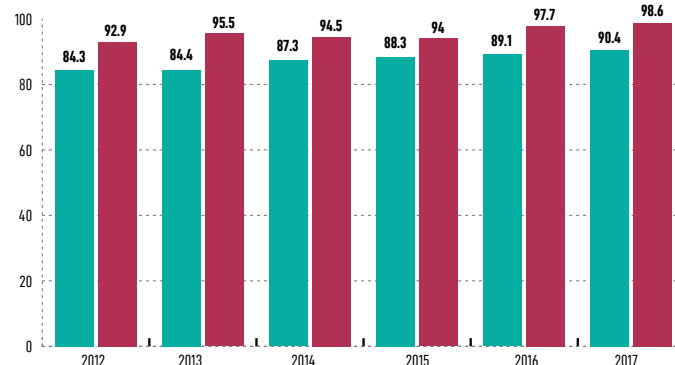


The State company maintained ongoing investments in the analysis period. In partnership with the State company in the sewage system project for the 15 cities in the Metropolitan Region of Recife, the PPP contract foresees private investments of R\$2.95 billion, of which R\$682.37 million were materialized up to December, 2017.

SERVICES COVERAGE LEVEL

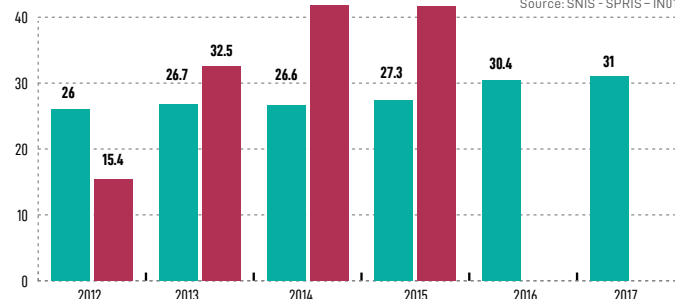
Urban Water Assistance Rate [%]

Source: SNIS - SPRIS - IN023



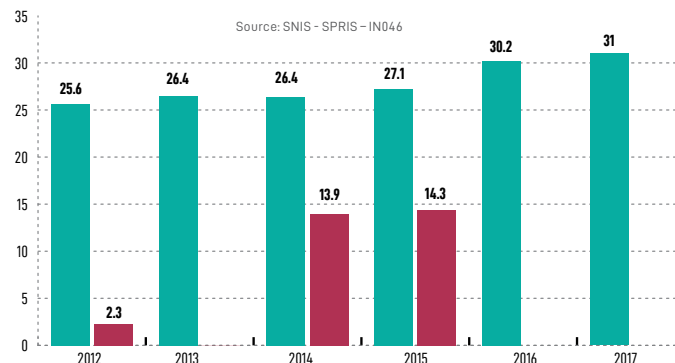
Sewage Collection Rate [%]

Source: SNIS - SPRIS - IN015



Treated Sewage Rate Related to Consumed Water [%]

Source: SNIS - SPRIS - IN046

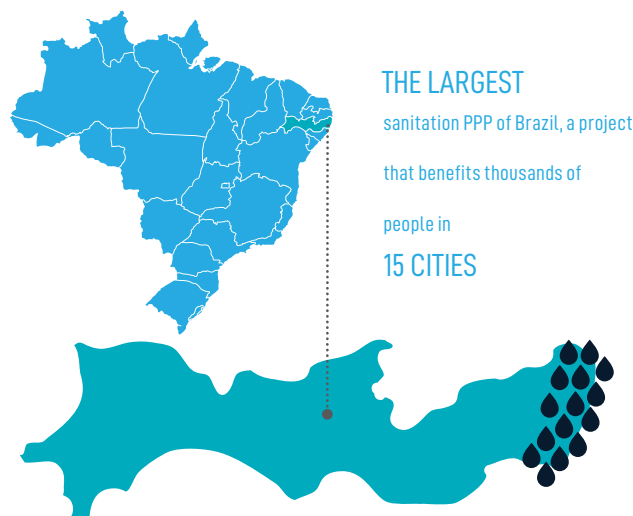


SNIS 2017 data demonstrate that: 90.56% of the Pernambuco State population relies on water supply; 31.06% of the population relies on sewage collection services. For the sewage, 31.01% are properly treated before released in water bodies. The sewage system construction works in the 15 municipalities of the Metropolitan Region of Recife are underway since 2013.

In Pernambuco, Brazil's largest PPP

The PPP between the private company BRK Ambiental and the sanitation State company benefits 4 million people. The partnership started in 2013 in order to operate and deploy new sewage systems in the metropolitan region of Recife for a 35 years' period. This is the largest sanitation PPP of Brazil, a successful partnership project between the public sector and private enterprise which benefits thousands of people in 15 cities.

The project advances with a large amount of resources. In January, 2018, the private concessionaire signed an R\$578 million funding agreement with the Bank of Nordeste (BNB), through the on-lending of the Constitutional Funds for Financing the Northeast (FNE) to invest in the region. The value will be for the second cycle of investments from 2019 to 2023, which provides for the expansion and improvement of the sanitation services infrastructure in 15 cities of the Recife's Metropolitan Region. The concessionaire's plan foresees investments of R\$900 million for sanitation improvements in five years.

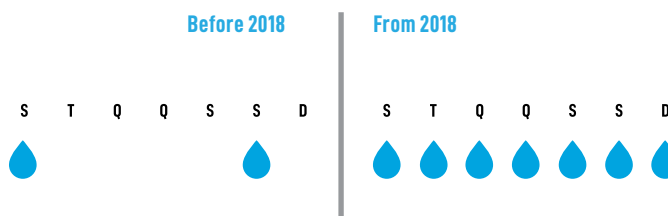


Since the beginning of the PPP (2013), R\$800 million has been invested and 2,000 jobs generated. Among the improvements to be carried out are the deployment of 450 km of new sewage networks, 5 new Sewage Treatment Plants and 25 Sewage Pump Stations. This demonstrates that the public-private partnership can greatly improve the sanitation in the country.

Olinda, achieving the water supply

Since 2016, SUEZ, leader of the Nova Olinda Consortium, contributes to improve the lives of more than 250,000 inhabitants in Olinda (PE), fighting the waste of treated water. The partnership with the State company and the investment of over R\$150 million are providing significant changes to the municipality with the water supply regularization.

Before January 2018, when Nova Olinda began to operate the system, the population had no water for five days to one day with water. Today, 44% of the population has water supply seven days a week, while the water supply cycle has been improved to 3 days with water to 3 days without. Until 2021, 15 districts of Olinda will benefit from enhanced technologies and infrastructure renovation, improvement and regular supply (water on tap 24 hours a day).



Today, 44% of Nova Olinda's population has water supply seven days a week.

POPULATION: 3.264.531* | MUNICIPALITIES: 224

ASSISTED MUNICIPALITIES:

• BY STATE COMPANY AGESPISA: 156

• BY: 11 •: 145

• BY MUNICIPAL SERVICES: 23

• BY: 2 •: 17 •: 4

• BY PRIVATE COMPANIES: 1

• BY: 1 (concession of 2017)

DID NOT RESPOND TO THE SNIS 2017 DATA COLLECTION: 44

*IBGE 2018 – estimated
note: Not cumulative numbers

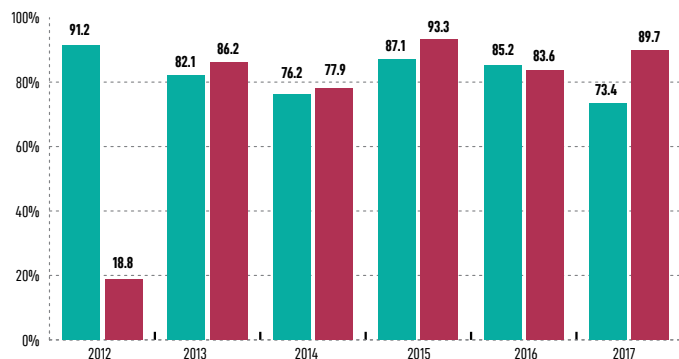
• Water supply
• Sewage system

ECONOMIC AND FINANCIAL SITUATION OF THE OPERATORS

Cash Sufficiency

Source: SNIS - SPRIS - IN101

Municipal Services

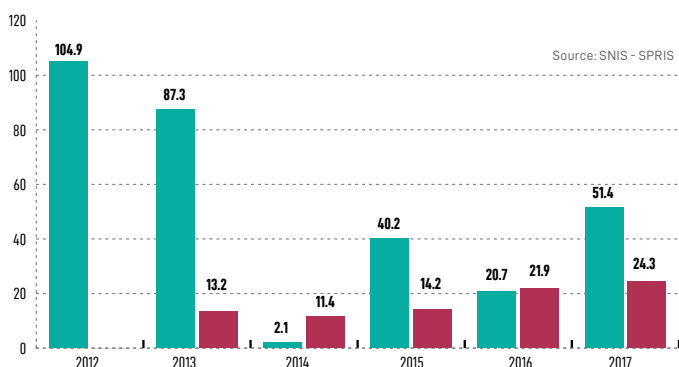


During the analysis period, there was no balance between revenues and total expenditures with services.

Average of Investments per Water and Sewage Connection [R\$/connection]

Source: SNIS - SPRIS

State Company



Except in 2012 and 2013, the investment values are low. Investments of R\$1.70 billion are planned for the capital of Piauí, by the private company, throughout the period of the concession contract.

SERVICES COVERAGE LEVEL

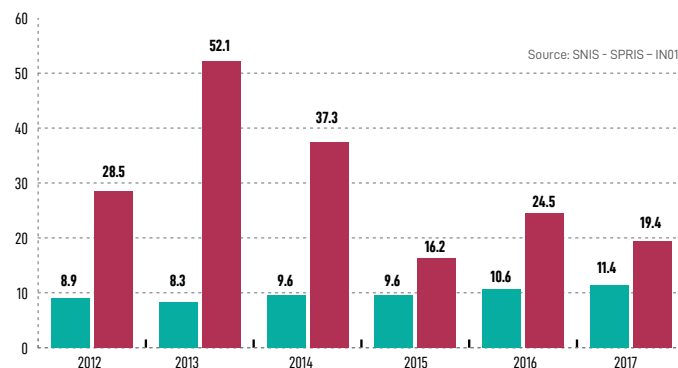
Urban Water Assistance Rate [%]

Source: SNIS - SPRIS - IN023



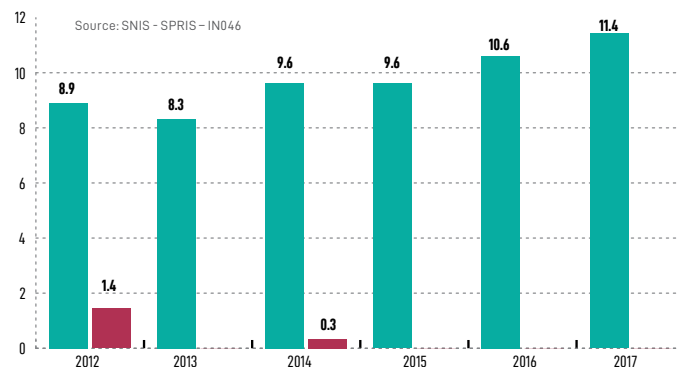
Sewage Collection Rate [%]

Source: SNIS - SPRIS - IN015



Treated Sewage Rate Related to Consumed Water [%]

Source: SNIS - SPRIS - IN046



SNIS 2017 data demonstrate that: 96.40% of the Piauí State population relies on water supply; 11.46% of the population relies on sewage collection services. For the sewage, 11.37% are properly treated before released in water bodies.

Teresina, accelerates to be a sanitized city

THE CONCESSIONAIRE Águas de Teresina, of the Aegea Group, is responsible for the water supply and sewage treatment services in the urban area of the capital. Between September and December, the temperatures reach 40° C, when the water demand increases in the period popularly known as B-E-R (in allusion to the months ending in “ber”). When the company took over the services, in July 2017, populous areas had chronic and historical records of water shortages, particularly in the Southeast and North areas.

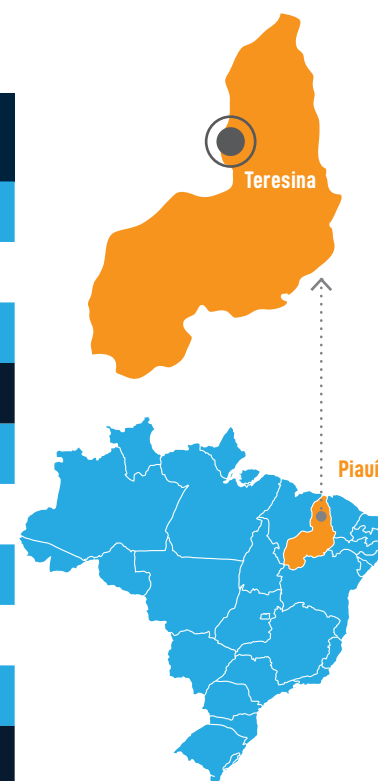
Water production increased 15% in 2018, with 17 million liters per day, benefiting more than 219,000 inhabitants. Last year, the B-E-R period was better for the people of Teresina. Compared to 2017, water shortages have reduced by half. The first commitment made by the subconcessionaire was to regularize the water supply to the population, a goal that integrates the main objective: to make Teresina a reference in sanitation in the Northeast.

Requalification of the South Water Treatment Plant Complex (WTS - South), completion of the North Water Treatment Plant (WTP - North), booster installation; drilling of deep tubular wells and deployment of new networks and interconnections were investments made to expand and modernize the water production and distribution in the city.

To improve the access to sewage collection and treatment services, the subconcessionaire created the Sanitized Teresina program, which provides for the construction of seven pumping stations and deployment of 400 km of sewage network. In the coming years, the sewage system coverage will rise to 40%, twice the rate of Assunção city, which was 19%.

The actions are foreseen in the Water Investment Program and Sewage Investment Program, documents that establish guidelines for projects, construction works and actions. The planned investment is R\$1.7 billion over 30 years of the subconcession contract.

PPPS IN METROPOLITAN REGIONS X PEOPLE ASSISTED	
Greater São Paulo (São Lourenço System, Alto Tietê System, Mauá)	6,900,000
Greater Belo Horizonte (Rio Manso)	5,000,000
Greater Recife	4,000,000
TERESINA	1,700,000
Greater Rio de Janeiro (AP-5, São João de Meriti)	1,600,000
Greater Salvador	1,100,000
Serra e Vila Velha (Greater Vitória)	530,000
Maceió (north region)	270,000
Aparecida de Goiânia	150,000
Total:	21,250,000



POPULATION: 17.159.960* | MUNICIPALITIES: 92

ASSISTED MUNICIPALITIES:

• BY STATE COMPANY CEDAE: 64

• 23 41

• BY MUNICIPAL SERVICES: 29

• 10 1 18

• BY PRIVATE COMPANIES (CONCESSIONS): 20

• 14 full 2 partial 4 partial and ppp

DID NOT RESPOND TO THE SNIS 2017 DATA COLLECTION: 6

*IBGE 2018 – estimated
note.: Not cumulative numbers

Water supply
Sewage system

Municipal Services

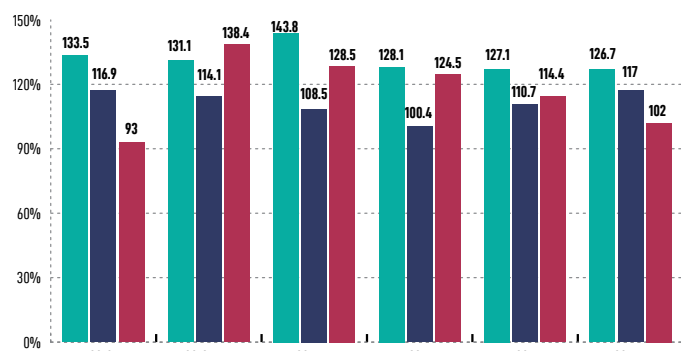
Private Companies

State Company

ECONOMIC AND FINANCIAL SITUATION OF THE OPERATORS

Cash Sufficiency

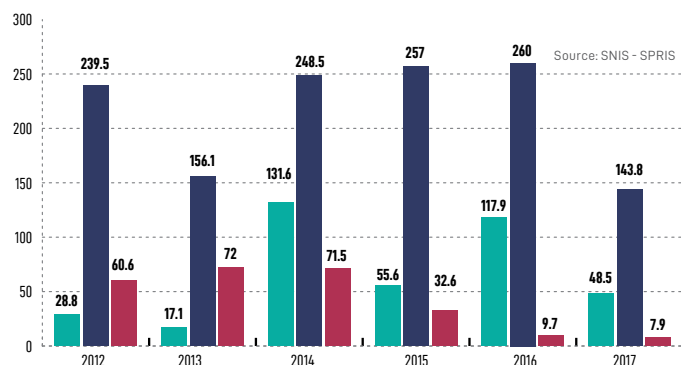
Source: SNIS - SPRIS - IN101



In general, the operators present good balance between total income and expenses with services.

Average of Investments per Water and Sewage Connection [R\$/connection]

Source: SNIS - SPRIS

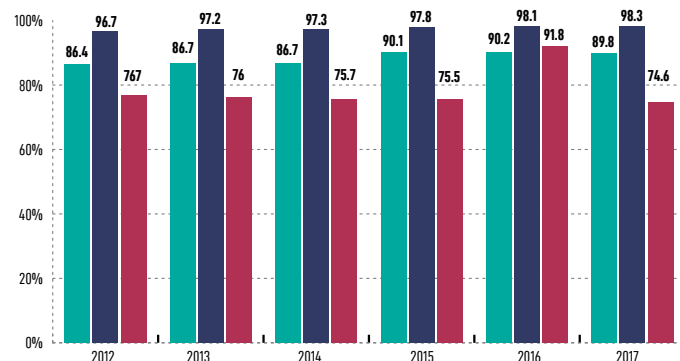


Highlighting the investments made by private companies in the analyzed period.

SERVICES COVERAGE LEVEL

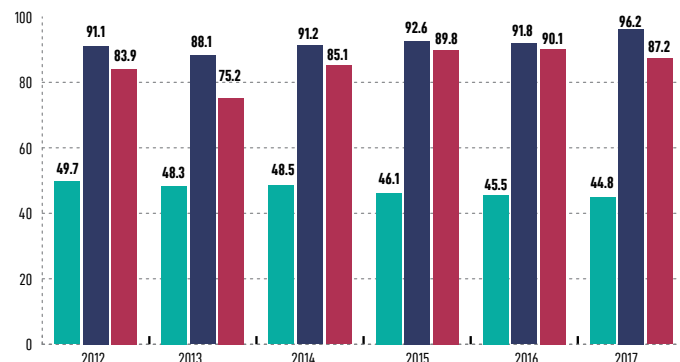
Urban Water Assistance Rate [%]

Source: SNIS - SPRIS - IN023



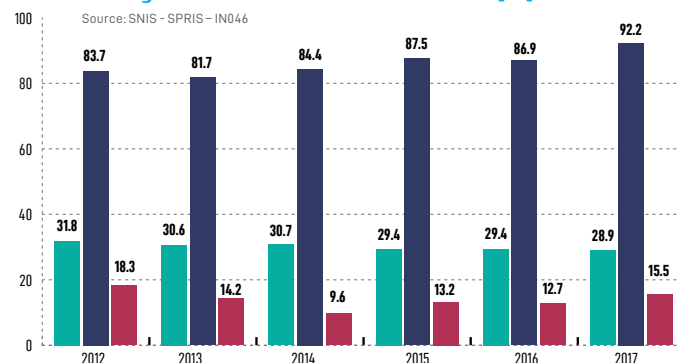
Sewage Collection Rate [%]

Source: SNIS - SPRIS - IN015



Treated Sewage Rate Related to Consumed Water [%]

Source: SNIS - SPRIS - IN046



SNIS 2017 data demonstrate that: 93.71% of the Rio de Janeiro State population relies on water supply; 50.8% of the population relies on sewage collection services. For the sewage, 33.64% are properly treated before released in water bodies. Highlighting good municipal services indicator in sewage collection. Highlighting good indicators of private companies in water supply and sewage collection and treatment services, which are almost universalized.

Niterói, national reference

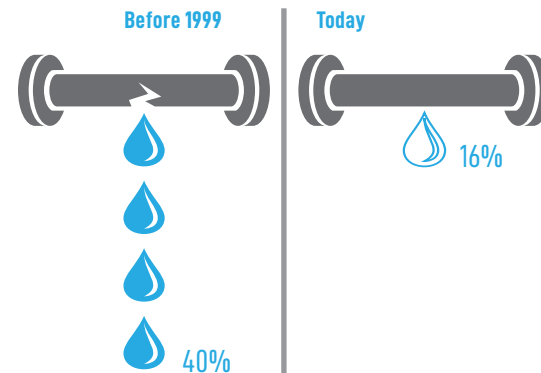
THE CITY of Niterói is a national reference in life quality and has one of the best sanitation services in the country. Sanitation is an important part of that privileged position.

When the private concessionaire Águas de Niterói, of the Águas do Brasil Group, took over the sanitation services in the municipality, in 1999, 72% of the population had water access. Today, 100% of the population, about 511,000 people, relies on water supply.

The water loss rate, which was 40% at the beginning of the concession, reached 16%, which is considered an excellent rate by international standards. With that, the concessionaire was able to supply 150,000 more people with the same amount of water.

In 1999 the sewage collection rate was only 35%. Today, 95% of the population relies on sewage collection and treatment.

Water loss volume



Sustainability and preservation in the Região dos Lagos

IN 1998, Prolagos began the concession of water supply and sewage system services in five municipalities of the Região dos Lagos District, in Rio de Janeiro State, with the commitment to greatly improve life quality in Arraial do Cabo, Armação dos Búzios, Cabo Frio, São Pedro da Aldeia and Iguaba Grande, cities facing chronic water shortage and lack of sewage treatment.

Prolagos has already invested R\$1.4 billion, one of the largest investments in sanitation per inhabitant in Brazil, reaching

98% of water coverage and 80% of sewage coverage. So, more and more users have treated water in their homes and all the collected sewage is treated before released into water bodies. Prolagos's performance reduced 93% of hospital admissions caused by water-borne diseases, reducing 62% of SUS expenditures, besides recovering the Araruama Lagoon, which is the largest mass of hypersaline water in a permanent state in the world, and bathes four municipalities assisted by the concessionaire

POPULATION: 11.329.605* | MUNICIPALITIES: 497

ASSISTED MUNICIPALITIES:

• BY STATE COMPANY CORSAN: 315

🔵 52 🔴 263

• BY MUNICIPAL SERVICES: 167

🔵 34 🔴 106 🔴 27

• BY PRIVATE COMPANIES: 2

🔵 2

DID NOT RESPOND TO THE SNIS 2017 DATA COLLECTION: 42

*IBGE 2018 – estimated
note.: Not cumulative numbers

🔵 Water supply
🔴 Sewage system

Municipal Services

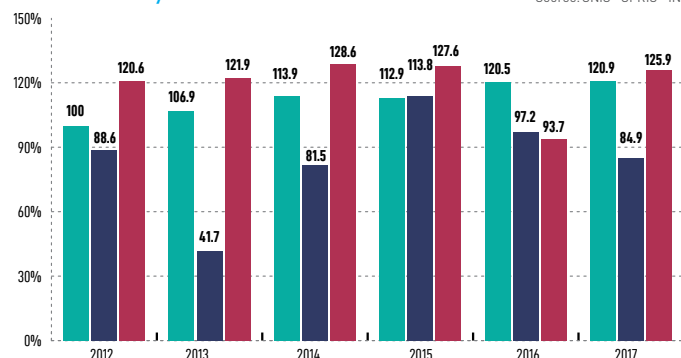
Private Companies

State Company

ECONOMIC AND FINANCIAL SITUATION OF THE OPERATORS

Cash Sufficiency

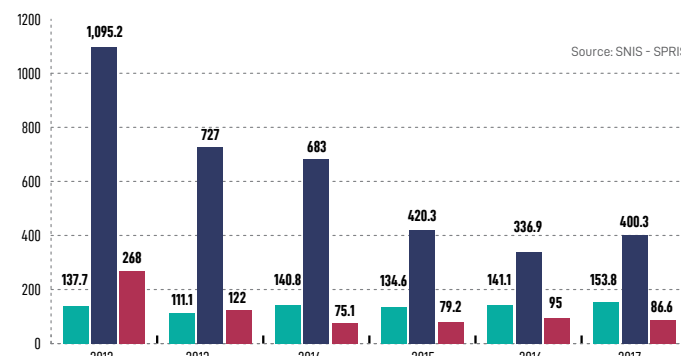
Source: SNIS – SPRIS – IN101



Municipal public operators have, on average, better operating results. Highlighting the low cash sufficiency rate of private companies in 2013, due to the payment of the debt service with funds calculated in the total services expense.

Average of Investments per Water and Sewage Connection [R\$/connection]

Source: SNIS – SPRIS

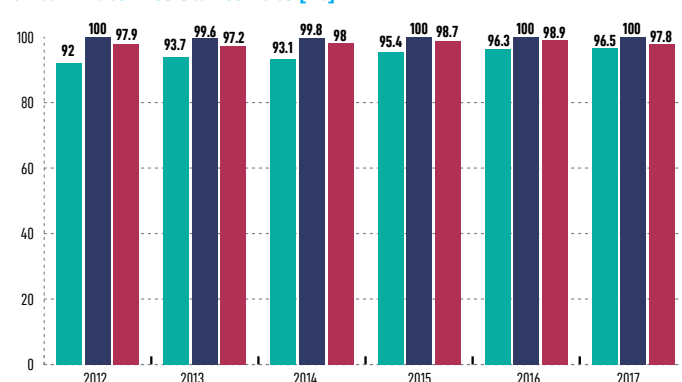


There is a significant and constant predominance of private investments in the State; R\$610.47 per connection on average.

SERVICES COVERAGE LEVEL

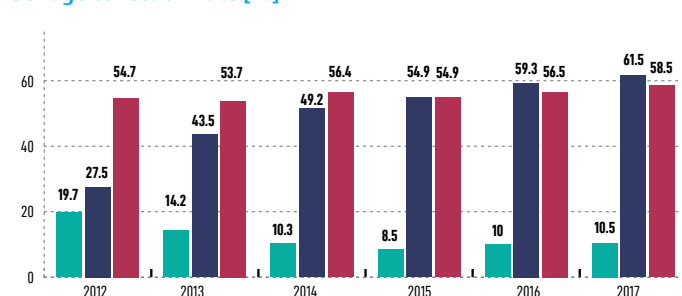
Urban Water Assistance Rate [%]

Source: SNIS – SPRIS – IN023



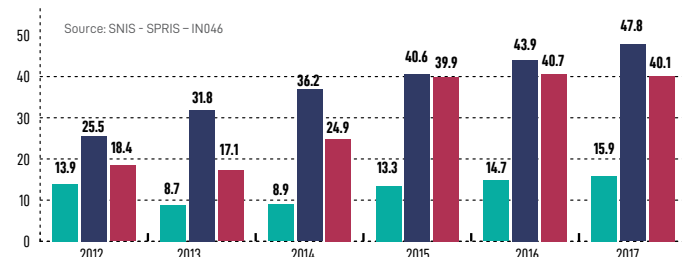
Sewage Collection Rate [%]

Source: SNIS – SPRIS – IN015



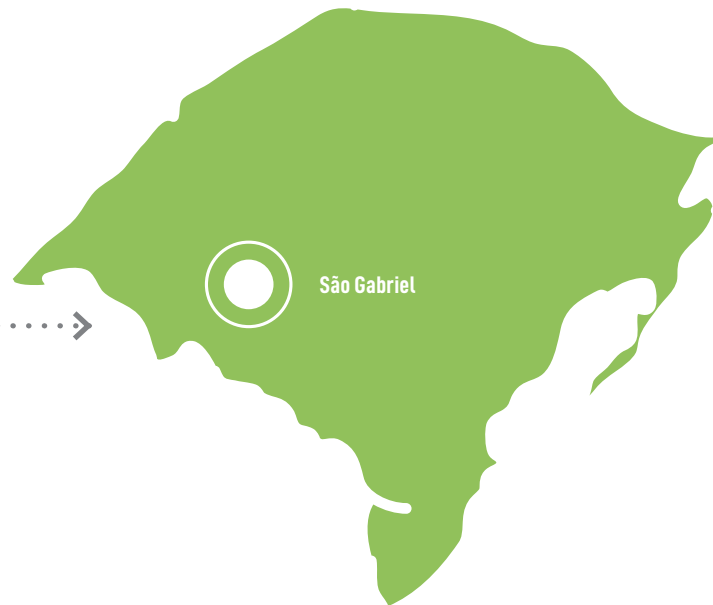
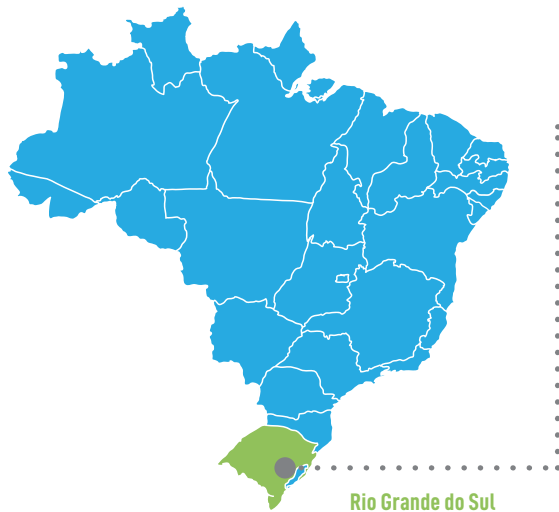
Treated Sewage Rate Related to Consumed Water [%]

Source: SNIS – SPRIS – IN046



SNIS 2017 data demonstrate that: 97.38% of the Rio Grande do Sul State population relies on water supply; 30.02% of the population relies on sewage collection services. For the sewage, 25.82% are properly treated before released in water bodies. Highlighting the good sewage collection rates of municipal services as well as sewage collection and treatment rates of private companies.

In São Gabriel, tariff is reduced



BATHED by the Vacacaí River, São Gabriel city was contemplated with the goal of universalizing the sewage system services up to 2020. To achieve this goal, the concessionaire São Gabriel Saneamento will install 211,000 meters of pipes, 11 sewage pumping stations and one sewage treatment plant with a 13 million liters/day capacity. All this reducing the tariffs by 8% to 15%.

Investments planned by
Solvi reach more than
R\$ 100 million.

The length of the pipes to be installed is
greater than the distance between
Gabriel and Porto Alegre.

INVESTMENTS BETWEEN MEDIUM-SIZED MUNICIPALITIES: URUGUAIANA X SAPUCAIA DO SUL

Uruguaiiana and Sapucaia do Sul are located in Rio Grande do Sul State. Uruguaiiana, assisted by BRK Ambiental, was the first city to grant the concession for the operation of services to a private company in Rio Grande do Sul.

Sapucaia do Sul is currently assisted by the State sanitation company in Rio Grande do Sul.

Population (IBGE 2017):

Uruguaiiana – 129,784 inhabitants
Sapucaia do Sul – 139,476 inhabitants

Sewage treatment (SNIS 2016): *IN024

Uruguaiiana – 83.75%
Sapucaia do Sul – 7.37%

Annual investments in sewage system (SNIS 2016)

Uruguaiiana – R\$ 6,266,268.53 / year
Sapucaia do Sul – R\$ 4,637,842.71 / year

POPULATION: 1.757.589 | MUNICIPALITIES: 52

ASSISTED MUNICIPALITIES:

• BY STATE COMPANY CAERD: 38

• BY: 2 •: 36

• BY MUNICIPAL SERVICES: 8

• BY: 2 •: 6

• BY PRIVATE COMPANIES: 4 (2016 contracts)

• BY: 4

DID NOT RESPOND TO THE SNIS 2017 DATA COLLECTION: 3

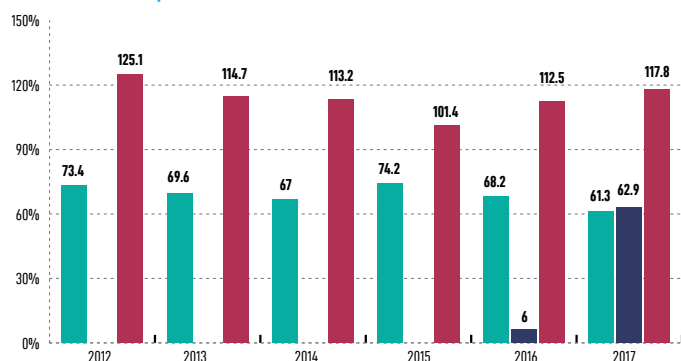
*IBGE 2018 – estimated
note.: Not cumulative numbers

• Water supply
• Sewage system

ECONOMIC AND FINANCIAL SITUATION OF THE OPERATORS

Cash Sufficiency

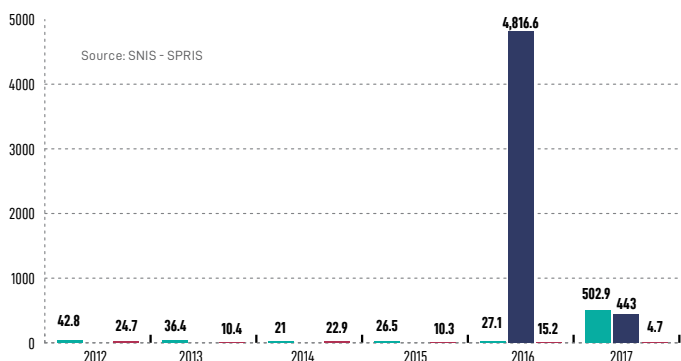
Source: SNIS - SPRIS - IN101



Municipal services have a healthy balance between revenues and total expenditures with services. The state company records recurring financial deficits. Private companies took over the services from 2016.

Average of Investments per Water and Sewage Connection [R\$/connection]

Source: SNIS - SPRIS

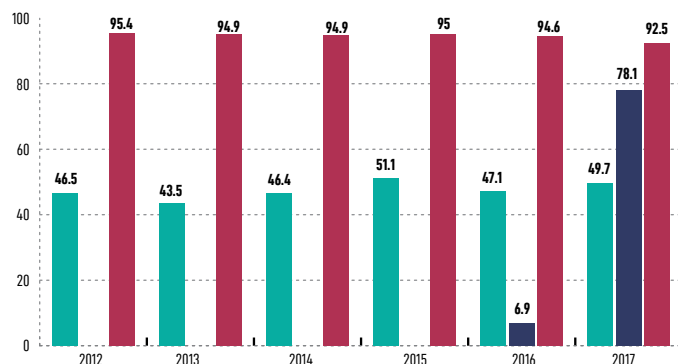


There is significant investment made by private companies in 2016.

SERVICES COVERAGE LEVEL

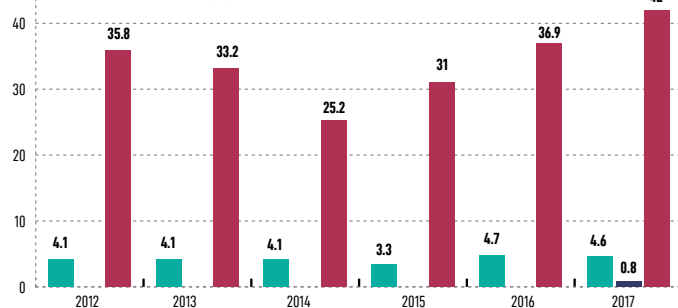
Urban Water Assistance Rate [%]

Source: SNIS - SPRIS - IN023



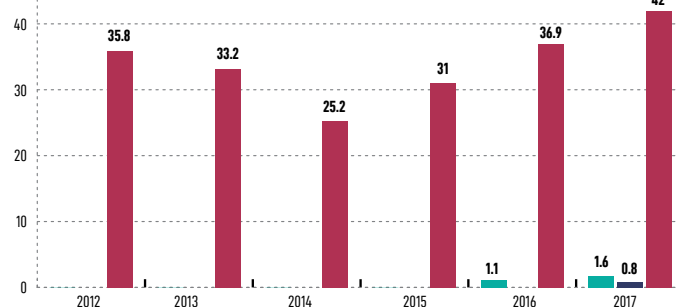
Sewage Collection Rate [%]

Source: SNIS - SPRIS - IN015



Treated Sewage Rate Related to Consumed Water [%]

Source: SNIS - SPRIS - IN046



SNIS 2017 data demonstrate that: 62.13% of the Rondônia State population relies on water supply; 10.12% of the population relies on sewage collection services. For the sewage, 7.97% are properly treated before released in water bodies; Municipal services have good performance in the coverage of water supply; municipal sewage services present better rates than the State company. The performance of private companies in the state started in 2016, therefore, without calculated indicators.

Ariquemes celebrates a new reality

SINCE it took over the water treatment and distribution and the sewage system services in November 2016, the investments made by the private concessionaire Águas de Ariquemes, of the Aegea Group, have improved the sanitation in the municipality. The population, who has lived without treated water and sewage network, today can celebrate and watch the sanitation development.

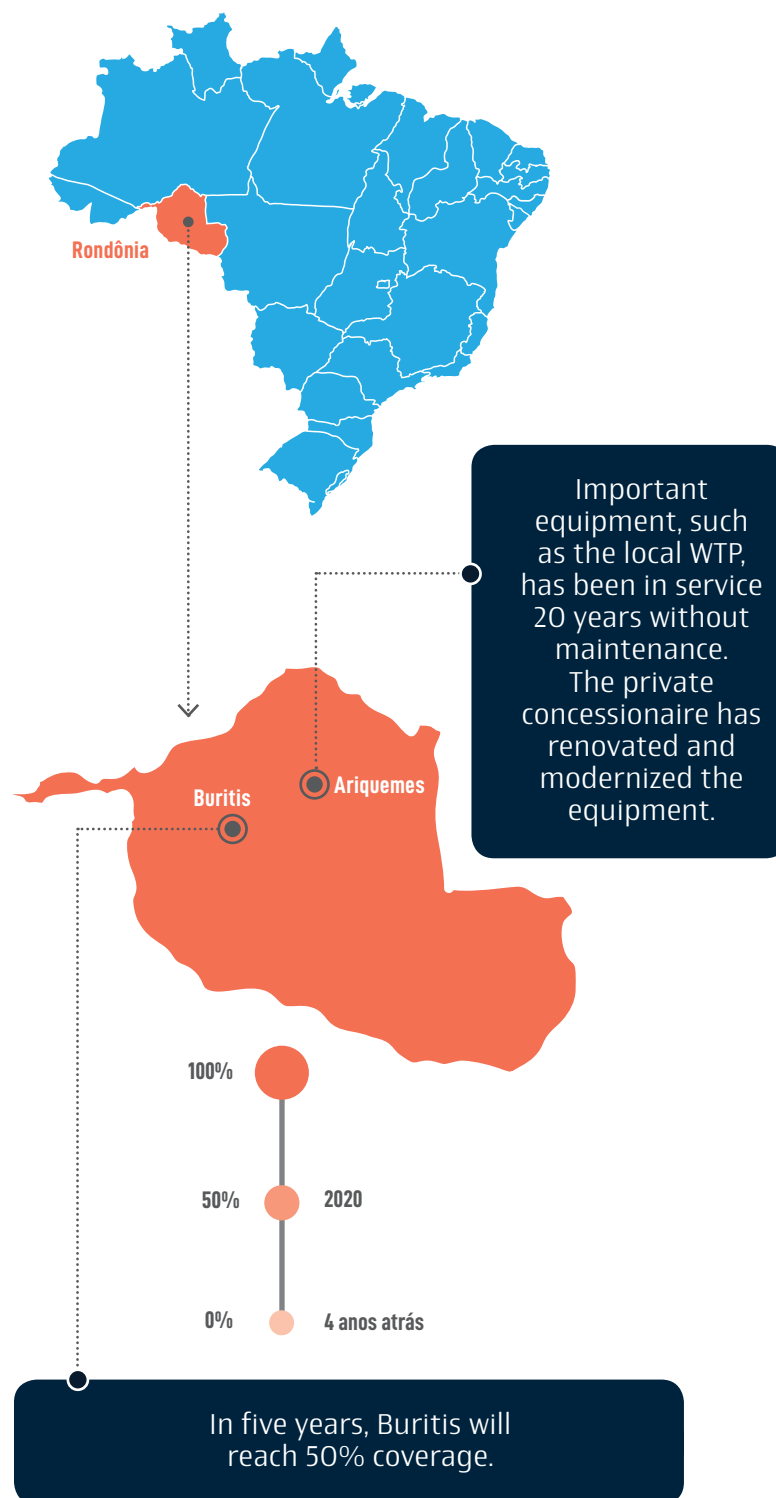
With a program of construction works and improvements to expand the sewage and water supply systems, the concessionaire has ensured services such as remodeling the Water Treatment Plant WTP – Rio Jamari, which was 20 years without repairs or replacement of equipment. The concessionaire has installed modern and efficient WTP and has improved the production of treated water from 16 million to 21 million liters per day. The construction works have benefited the entire municipality, increasing the water pressure, especially in the neighborhoods Jardim Jorge Teixeira, Jardim Paraná, União III, sectors 8, 9 and 11, where there is currently no water shortage.

An investment of approximately R\$3.5 million in equipment, urbanization and infrastructure will enable the modernization of the water supply system, which was not designed to meet the continuous growth of the city. In total, the investment will be about R\$10 million in construction, expansion and improvements to the sanitary sewage system, benefiting, in an initial phase, 11,500 families.

Buritis celebrates the arrival of water

THE CITY is a good example of improvements in life quality and health from investments made by private concessionaire in Rondônia State.

Four years ago, Buritis had no sanitation – neither treated water nor sewage collection and treatment. Today, the private concessionaire Águas de Buritis, of the Aegea Group, attends 33% of the population and aims to achieve, in 2020, a 50% water coverage rate, as well as sewage collection and treatment.



POPULATION: 7.075.494 | MUNICIPALITIES: 295

ASSISTED MUNICIPALITIES:

• BY STATE COMPANY CASAN: 196

🔵: 15 🔴: 181

• BY MUNICIPAL SERVICES: 93

🔵: 27 🔴: 51 🔴: 15

• BY PRIVATE COMPANIES: 11

🔵: 10 🔴: 1

DID NOT RESPOND TO THE SNIS 2017 DATA COLLECTION: 11

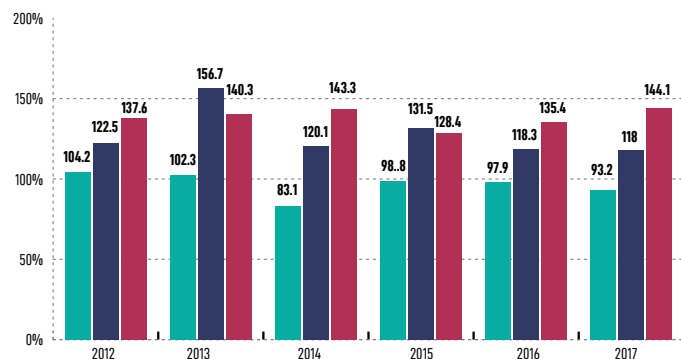
*IBGE 2018 – estimated
note: Not cumulative numbers

🔵 Water supply
🔴 Sewage system

ECONOMIC AND FINANCIAL SITUATION OF THE OPERATORS

Cash Sufficiency

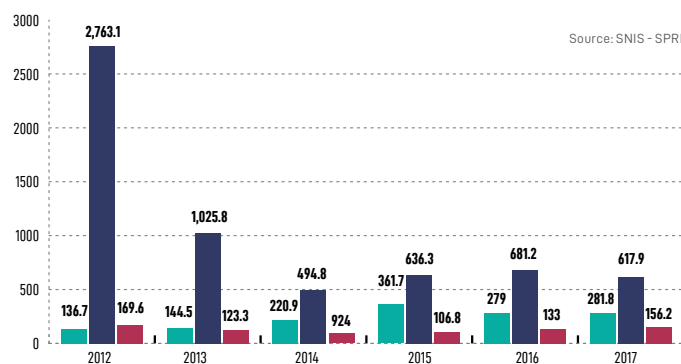
Source: SNIS – SPRIS – IN101



In general, the private operators and municipal services present reasonable balance between total incomes and expenditures with services. The same does not occur with the State company, which records deficits from 2014.

Average of Investments per Water and Sewage Connection [R\$/connection]

Source: SNIS – SPRIS

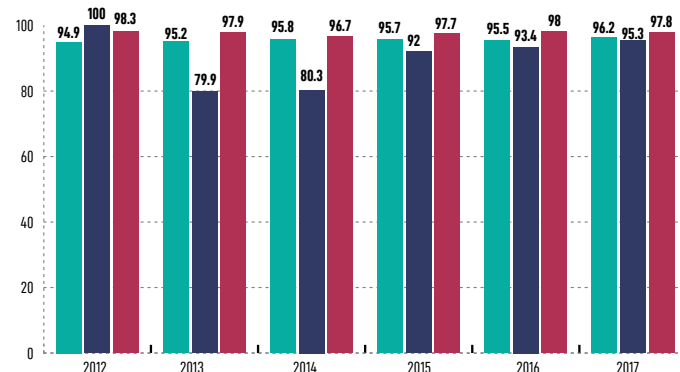


Most of the investments were made by private companies.

SERVICES COVERAGE LEVEL

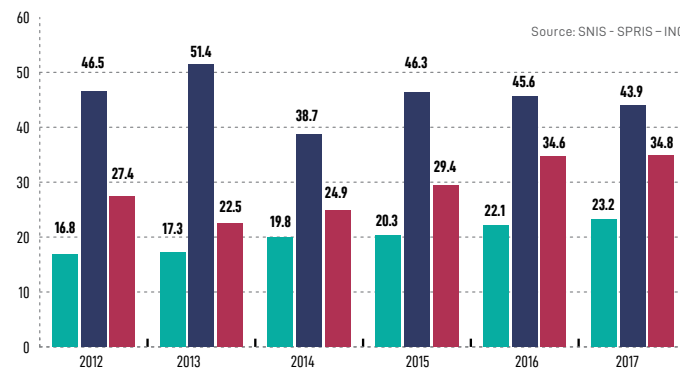
Urban Water Assistance Rate [%]

Source: SNIS – SPRIS – IN023



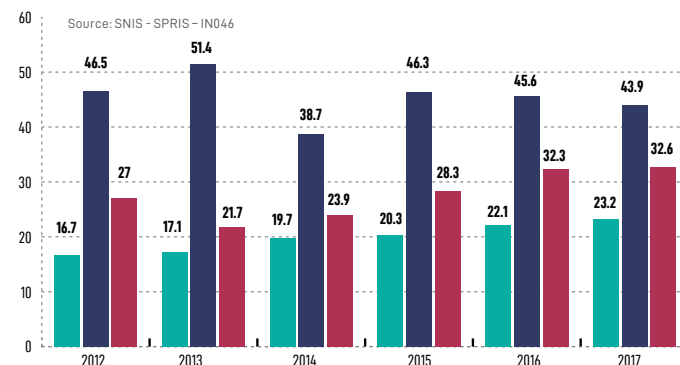
Sewage Collection Rate [%]

Source: SNIS – SPRIS – IN015



Treated Sewage Rate Related to Consumed Water [%]

Source: SNIS – SPRIS – IN046



SNIS 2017 data demonstrate that: 97.19% of the Santa Catarina State population relies on water supply; 28.0% of the population relies on sewage collection services. For the sewage, 28.01% are properly treated before released in water bodies. Highlighting the best sewage collection and treatment indicators of private companies throughout the analysis period.

Bombinhas is present

THE CONCESSIONAIRE Águas de Bombinhas, of the Angea Group, began its operations in the city of Bombinhas a few years ago and has already changed the city's history. Thanks to the investment of R\$ 55 million, today the city is self-reliant in water resources, increasing in five times its water production capacity comparing to the last years.

This was possible thanks to the construction of a modern water treatment plant, expected to be completed in the fifth year of the contract, but delivered in advance after only two years.

From now on, the water intake in the Tijucas River supplies Bombinhas, and the water runs through 27 kilometers of pipelines. During the construction process, the company has worked together with the community, changing its path to accept requests from the population. With this commitment, Bombinhas will have water production for the whole year, for both the winter and the high season, contributing to its tourist and economic development.

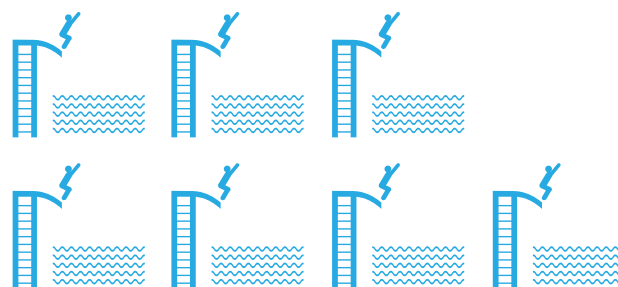


Blumenau, major breakthrough

NINE YEARS AGO the concession of sewage collection and treatment services operations of the municipality were granted to the private initiative, through the concessionaire BRK Ambiental Blumenau. The city can be considered the most advanced in terms of sanitation in the Santa Catarina State.

Since the work began, the coverage rates rose from 4.8% to 43%, attending 153,000 people and 19 of the 35 neighborhoods of the city. So far, R\$242 million have been invested and the forecast is \$505 million by 2055, when the concession contract terminates.

Every day, 19 million liters of sewage are treated before released into water bodies, with analyzed quality.



A daily sewage volume equivalent to seven Olympic swimming pools is no longer polluting the Itajaí-Açu River and the small streams of the region.

POPULATION: 45.538.936* | MUNICIPALITIES: 645

ASSISTED MUNICIPALITIES:

• BY STATE COMPANY SABESP: 367

🔵: 366 🔵: 1

• BY MUNICIPAL SERVICES: 288

🔵: 225 🔵: 2 🔴: 1

• BY PRIVATE COMPANIES: 51

🔵: 21 🔴: 20 🔴: 10

DID NOT RESPOND TO THE SNIS 2017 DATA COLLECTION: 29

*IBGE 2018 – estimated

note.: Not cumulative numbers

🔵 Water supply

🔴 Sewage system

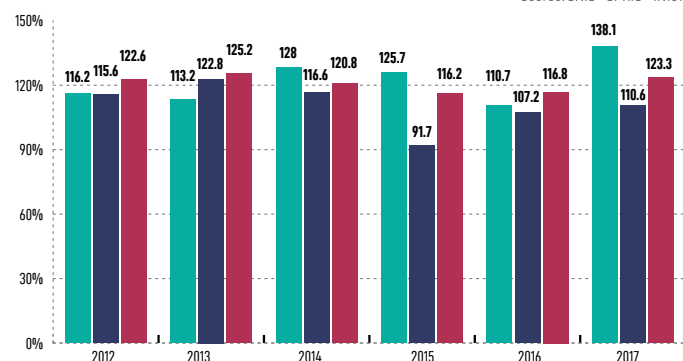
🔴 Water production

🔴 Sewage collection

ECONOMIC AND FINANCIAL SITUATION OF THE OPERATORS

Cash Sufficiency

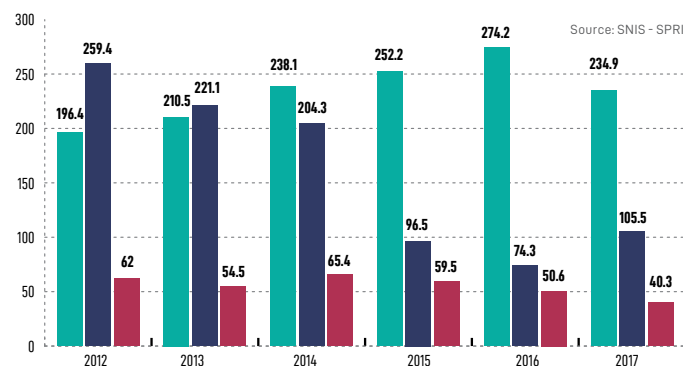
Source: SNIS – SPRIS – IN101



All the operators – public and private – present reasonable balance between total incomes and expenditures with services.

Average of Investments per Water and Sewage Connection [R\$/connection]

Source: SNIS – SPRIS

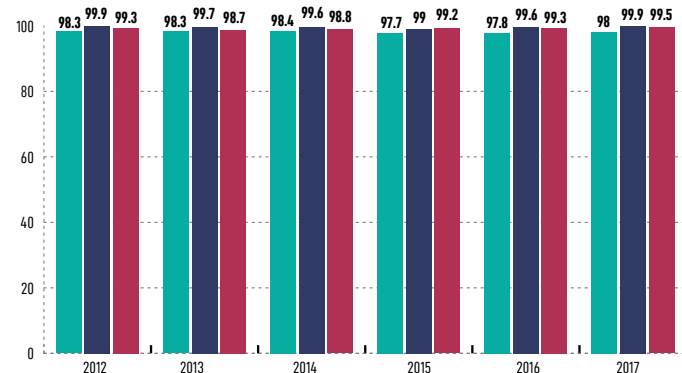


Most investments were made by the State company from 2014, and by private companies from 2012 to 2014.

SERVICES COVERAGE LEVEL

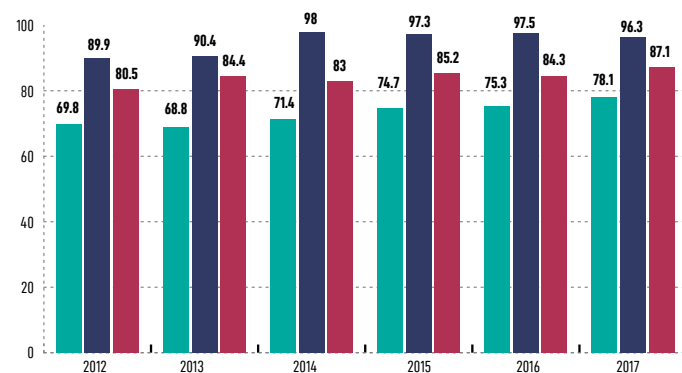
Urban Water Assistance Rate [%]

Source: SNIS – SPRIS – IN023



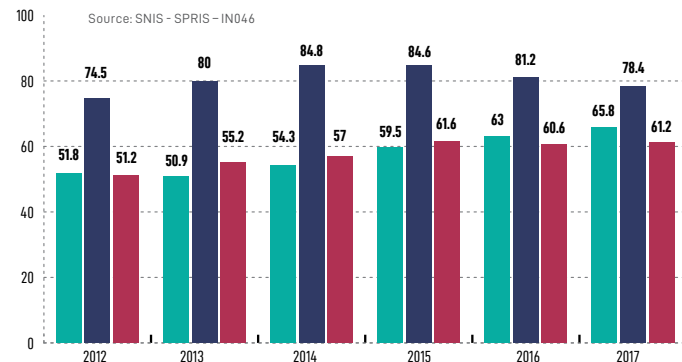
Sewage Collection Rate [%]

Source: SNIS – SPRIS – IN015



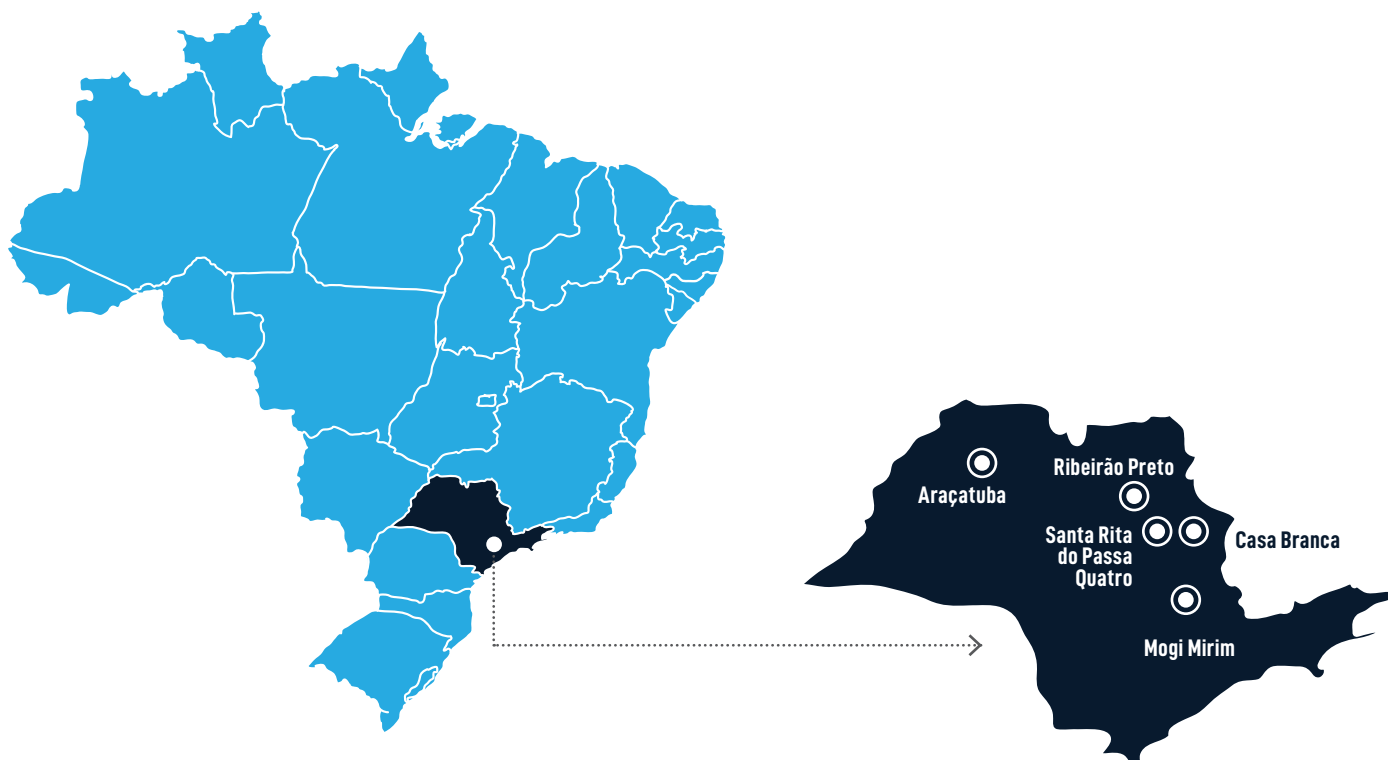
Treated Sewage Rate Related to Consumed Water [%]

Source: SNIS – SPRIS – IN046



SNIS 2017 data demonstrate that: 98.6% of the São Paulo State population relies on water supply; 82.18% of the population relies on sewage collection services. For the sewage, 64.56% are properly treated before released in water bodies. It is highlighted that nine municipalities, with private participation just in sewage collection and treatment, have reached treatment rates close to the universalization.

SÃO PAULO, one step ahead



ARAÇATUBA

THE COMPANY SAMAR - Soluções Ambientais de Araçatuba, has completed and delivered four large construction works in 2018, ensuring the universalization of water supply and sewage system services in Araçatuba City, with total investment of R\$28 million.

At the beginning of November, 2018, after completing six years of concession, SAMAR concluded one of the largest sanitation investments ever made in the city: the flow reversal of the sewage basin of the treatment lagoons Maria Isabel, responsible to treat 15% of the collected sewage in the municipality. The sewage collected in this region is now directed to the Sewage Treatment Plant STP Baguaçu, which was renovated and modernized. The construction work enabled the installation of new industries in the industrial parks of the northern zone, generating jobs and heating up the local economy.

Among the benefits generated by the works are the guarantee of sewage treatment and installation of new industries in the industrial parks of the Northern Zone; The economy heating up and the appropriate treatment for the installation of new industries have generated new direct and indirect jobs; in addition to recovering the old treatment ponds and consequent improvement of the environment.

It was also concluded the relocation and installation construction works of 2.5 kilometers of outflow sewage systems on the banks of the Baguaçu Stream, the main watershed for water supply in Araçatuba. SAMAR has also built 30 new man holes. Problems that required constant maintenance were finally resolved.

Sectorization

SAMAR has concluded the first of three stages of the sectorization construction work for water distribution in Araçatuba. The works began in April, 2018, and 40 kilometers of new water networks will be installed, as well as sluice valves. The sectorization will be completed in 2020, dividing the city into 42 microsectors, which will provide an efficient supply management, in addition to reducing the losses in the system.

Expansion of the Tietê River supply

With the expansion of the Tietê supply system (WTP Tietê), 3,000 residents of the rural district Engenheiro Taveira were connected to the drinking water supply network. The installation of more than six kilometers of pipeline networks allowed the municipality to develop real estate projects, which provides for the construction of 3.5 thousand new real states in the coming years.

Investments

In 2019, SAMAR will invest in the modernization of water supply and sewage collection and treatment systems. A new Water Treatment Plant (WTP Baguaçu 4) will be built, with capacity to produce 1,000 m³ of drinking water and supply 60% of the city. The thermal drying system of sewage sludge generated by the STP Baguaçu is been installed. The system uses unique technology to drastically reduce the volume of waste generated in the sewage treatment process. In April, SAMAR began operating the GS Water, a technology developed in South Korea, which will assist the management of the Araçatuba's supply system in real-time. The GS Water use will reduce the water loss rate from 37% to 25% (up to 2042). The completion of the water distribution system sectorization in the municipality will also allow more efficient management of services. The total investment will be R\$40 million.

THE SANITATION FIGURES IN ARAÇATUBA



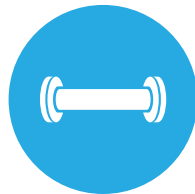
100%
WATER
TREATMENT



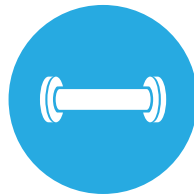
99%
SEWAGE
COLLECTION



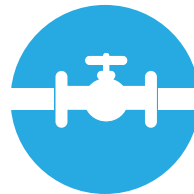
100% SEWAGE
TREATMENT AND
COLLECTION



716 KM
OF WATER
NETWORK



675 KM OF
SEWAGE NET-
WORK

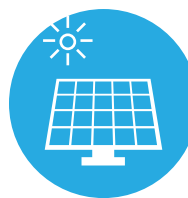


79,000
ACTIVE
CONNECTIONS



MIRASSOL

With the inauguration of a new sewage treatment plant, completed in 2018, the concessionaire Sanessol, of the holdings Aviva Ambiental and Iguá, reached the universalization of sewage treatment services in Mirassol, a municipality with 60,000 inhabitants, in the inside of São Paulo. The city is one of the best in the ABES Universalization of Sanitation Ranking.



MOGI MIRIM

SESAMM – Sanitation Services in Mogi Mirim, of the GS Inima Brasil Group, is the first Brazilian sanitation company to invest in solar energy, through photovoltaic panels, and thus complement the energy consumption of its Sewage Treatment Plant (STP). The power plant consists of 1,066 modules, with a power of 402.375 kWp to provide clean energy. The investment was R\$1.7 million. The solar power plant will produce 30% of the energy needed for the STP operation.



SANTA RITA DO PASSA QUATRO

One of the biggest challenges of the company COMASA, of the GS Inima Brasil Group, was to reduce the electricity consumption in the operations. In just over two years of operation, many actions were carried out. Automation, repair and improvement actions in the use of water pumps to water intake, as well as in the Water Treatment Station, which reduced from 34% to 25% the total cost of the operation. When COMASA began operate, the water loss rate (physical and commercial) was 61%. After several technical measures (pressure control and 73% of geophone control in the network, reactivation of reservoirs, renewal of 60% of the hydrometers park, among others), the rate fell to 26%. This case obtained national recognition in 2017 and won the second place in the technical category of the Sustainability Award of Sindcon.



CASA BRANCA

The concessionaires overcome various obstacles, often anticipating the contracted goals. A recent example has occurred in Casa Branca, in the inside of São Paulo State. In February 2018, the concessionaire Águas de Casa Branca (Perenge/Terracom) began the operation in the city, recovering immediately the Water Treatment Plant “1”, replacing the filter materials and removing leaks of raw water pipeline that connects the Sítio das Covas Farm to the station. In the first year of the concession, the company performed the maintenance of the Sewage Treatment Plant (São Francisco Farm) with agility and commitment to CETESB/GAEMA. Also, the company surpassed itself and aims to finish the construction of the STP in the Venda Branca district - which was planned for 2029 - anticipating in ten years the contractual forecast. With all the actions in progress, the municipality headquarter already has water and sewage services universalized.

POPULATION: 1.555,229* | MUNICIPALITIES: 139

ASSISTED MUNICIPALITIES:

• BY STATE COMPANY: 77

💧: 77

• BY MUNICIPAL SERVICES: 3

💧: 1

💧: 2

• BY PRIVATE COMPANIES: 53

💧: 14

💧: 39

DID NOT RESPOND TO THE SNIS 2017 DATA COLLECTION: 6

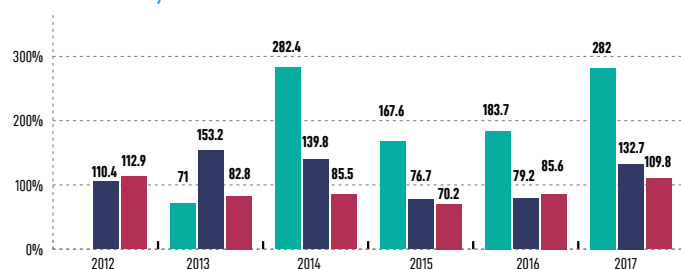
IBGE 2018 – estimated
note.: Not cumulative numbers

💧 Water supply
🔥 Sewage system

ECONOMIC AND FINANCIAL SITUATION OF THE OPERATORS

Cash Sufficiency

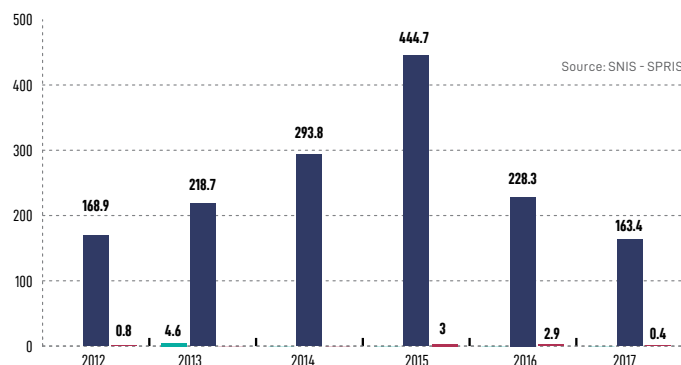
Source: SNIS - SPRIS - IN101



From 2014, the State company presented excellent balance between total revenues and expenditures with services. The private company presented decline in 2015 and 2016, recovering the balance between total revenues and expenditures with services in 2017. The municipal services presented financial deficit between 2013 and 2016.

Average of Investments per Water and Sewage Connection [R\$/connection]

Source: SNIS - SPRIS

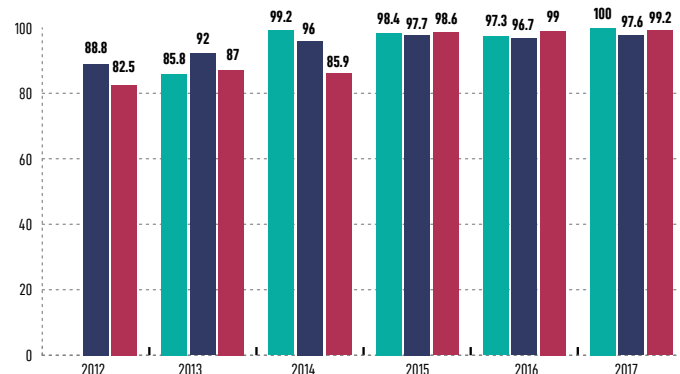


Most of the investments were made by the private company throughout the analysis period..

SERVICES COVERAGE LEVEL

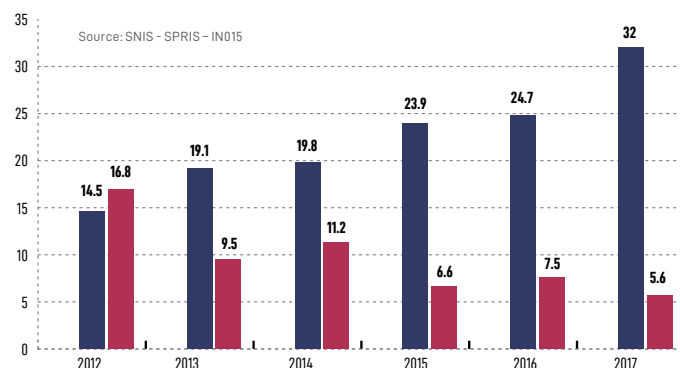
Urban Water Assistance Rate [%]

Source: SNIS - SPRIS - IN023



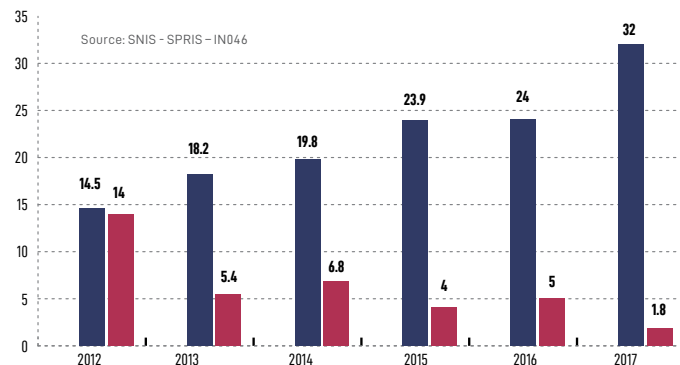
Sewage Collection Rate [%]

Source: SNIS - SPRIS - IN015



Treated Sewage Rate Related to Consumed Water [%]

Source: SNIS - SPRIS - IN046



SNIS 2017 data demonstrate that: 98.03% of the Tocantins State population relies on water supply; 30.97% of the population relies on sewage collection services. For the sewage, 30.81% are properly treated before released in water bodies. There is no record of the State company's sanitation indicators.

Tocantins

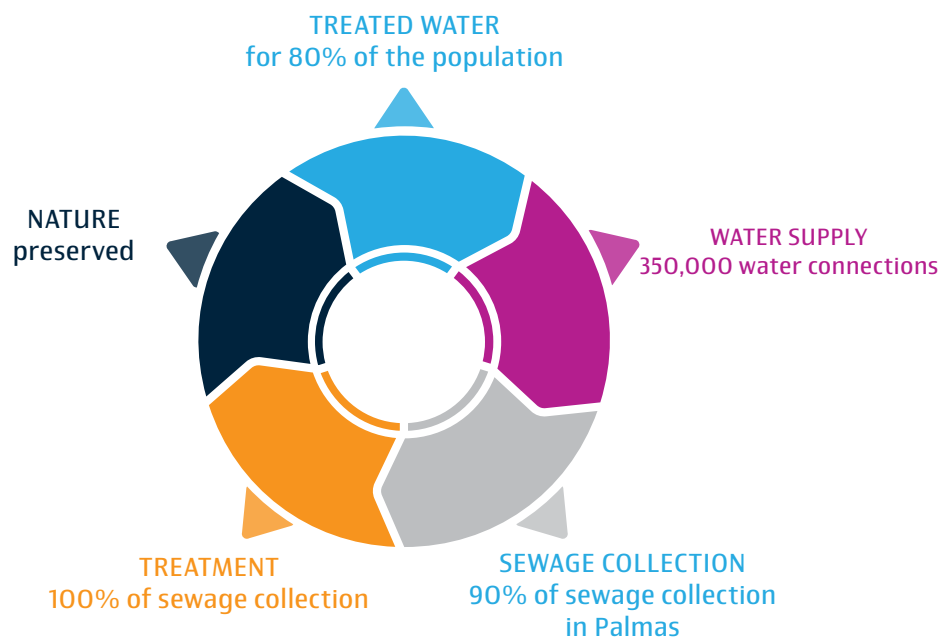
with life quality

MORE THAN investing in the improvement of management and technologies for treatment and distribution of water to the people of Tocantins, the BRK Ambiental promotes life quality, bringing health and environmental education to its clients. Thus, 47 municipalities are assisted by the concessionaire with water supply and sewage services, being 7,000 kilometers of network only to ensure quality water supply.

Currently, 100% of the municipalities assisted by BRK Ambiental have treated water – equivalent to 80% of the population of Tocantins. The system has 350,000 water connections. Today, 90% of the inhabitants of Palmas, the capital of Tocantins, have sewage services, which mean the services universalization.

There are 210 water intake points throughout the State, divided into 29 Water Treatment Plants (WTP) and 181 Deep Tube Wells (DTW) which together produce 7.2 million m³ of water per month, in more than 7,000 kilometers of network. In addition, reservoirs and pumping stations remain under operational control throughout the year. These factors guarantee the water supply for the population.

In Palmas, 100% of the collected sewage is treated before being released to water bodies, being the first capital of northern Brazil to universalize the sewage services.



**STATES WITHOUT PRIVATE
SECTOR INVESTMENT
IN SANITATION**

POPULATION: 869.265* | MUNICIPALITIES: 22

ASSISTED MUNICIPALITIES:
• BY STATE COMPANY DEPASA: 22
●: 1 ●: 21

THERE IS NO PARTICIPATION OF MUNICIPAL SERVICES IN THE STATE

THERE IS NO PARTICIPATION OF THE PRIVATE SECTOR IN THE STATE

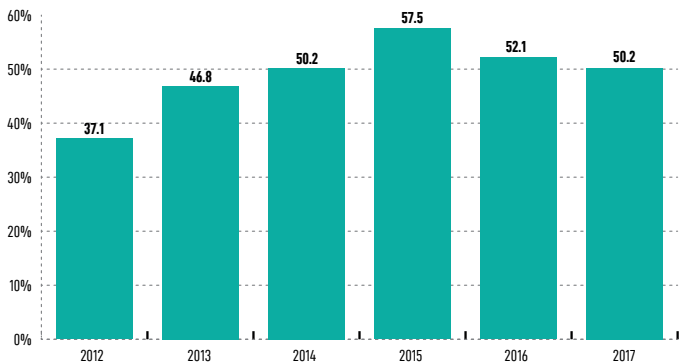
IBGE 2018 – estimated
note.: N^ot cumulative numbers

● Water supply
● Sewage system

ECONOMIC AND FINANCIAL SITUATION OF THE OPERATORS

Cash Sufficiency

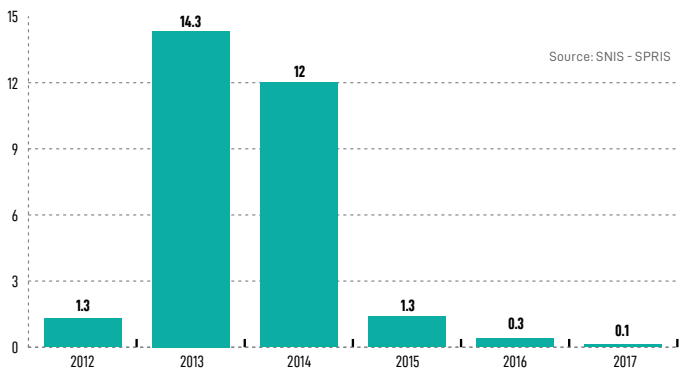
Source: SNIS - SPRIS - IN101



The State company presented permanent operational deficits through the analysis period.

Average of Investments per Water and Sewage Connection [R\$/connection]

Source: SNIS - SPRIS

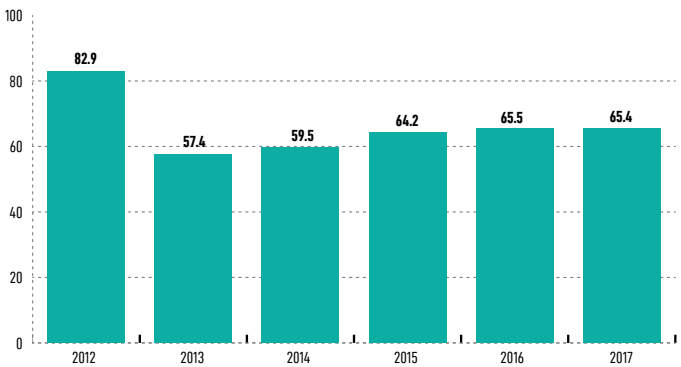


Absolute lack of investment was observed through the analysis period.

SERVICES COVERAGE LEVEL

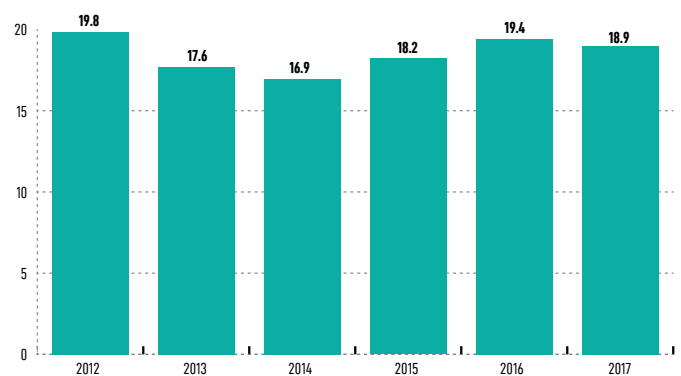
Urban Water Assistance Rate [%]

Source: SNIS - SPRIS - IN023



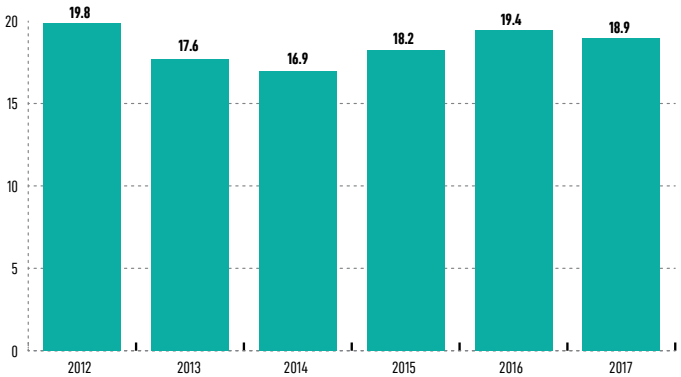
Sewage Collection Rate [%]

Source: SNIS - SPRIS - IN015



Treated Sewage Rate Related to Consumed Water [%]

Source: SNIS - SPRIS - IN046



SNIS 2017 data demonstrate that: 65.41% of the Acre State population relies on water supply; 18.98% of the population relies on sewage collection services; For the sewage, 18.98% are properly treated before released in water bodies; In the analysis period, both rates remained virtually unchanged.

POPULATION: 829.494* | MUNICIPALITIES: 16

ASSISTED MUNICIPALITIES:

• BY STATE COMPANY CAESA: 16

Water supply: 6

Sewage system: 10

THERE IS NO PARTICIPATION OF MUNICIPAL SERVICES IN THE STATE

THERE IS NO PARTICIPATION OF THE PRIVATE SECTOR IN THE STATE

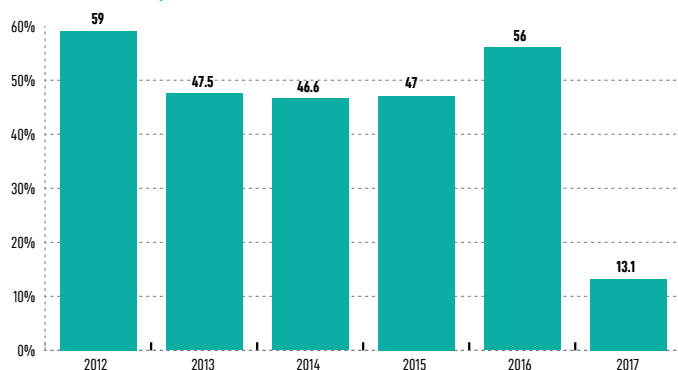
IBGE 2018 – estimated
note.: N^o cumulative numbers

Water supply
Sewage system

ECONOMIC AND FINANCIAL SITUATION OF THE OPERATORS

Cash Sufficiency

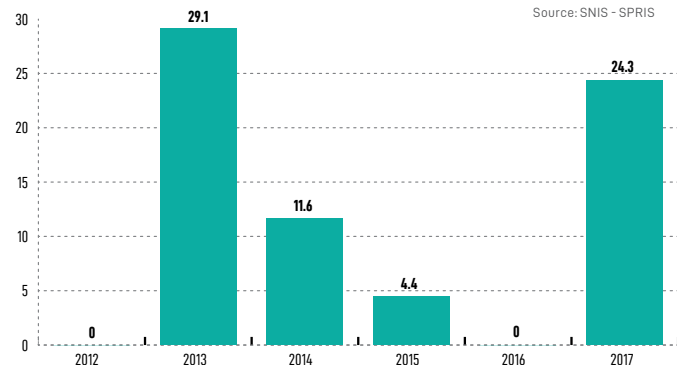
Source: SNIS - SPRIS - IN101



The State company presented deficits between revenues and total expenditures with services, getting worse in 2017.

Average of Investments per Water and Sewage Connection [R\$/connection]

Source: SNIS - SPRIS

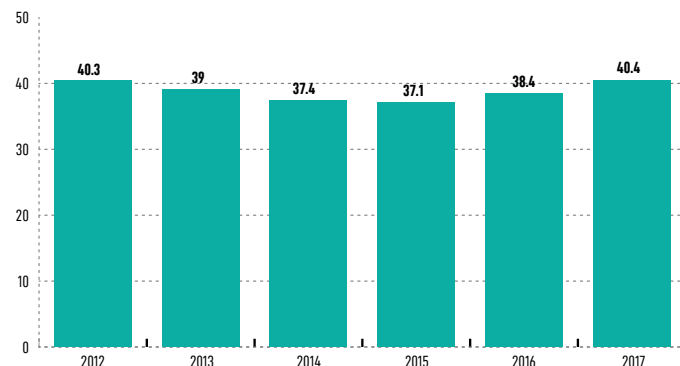


The State Company presents unimpressive investments.

SERVICES COVERAGE LEVEL

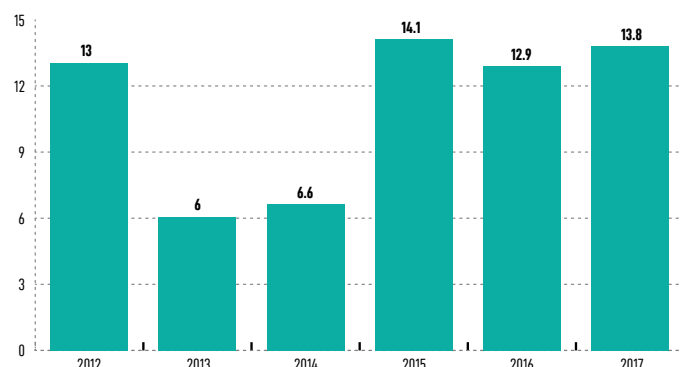
Urban Water Assistance Rate [%]

Source: SNIS - SPRIS - IN023



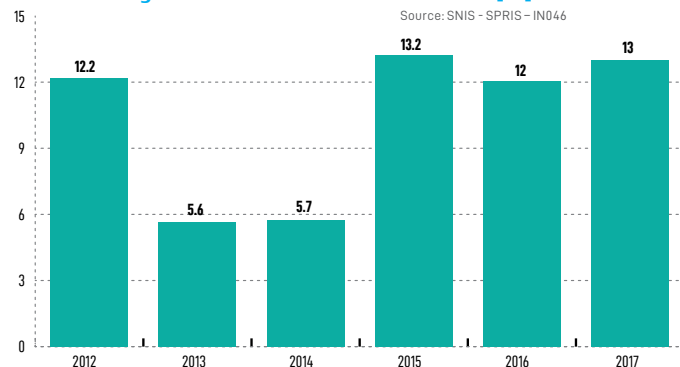
Sewage Collection Rate [%]

Source: SNIS - SPRIS - IN015



Treated Sewage Rate Related to Consumed Water [%]

Source: SNIS - SPRIS - IN046



State company

SNIS 2017 data demonstrate that: 38.46% of the Amapá State population relies on water supply; 12.91% of the population relies on sewage collection services. For the sewage, 12.04% are properly treated before released in water bodies.

POPULATION: 9.075.649* | MUNICIPALITIES: 184

ASSISTED MUNICIPALITIES:

• BY STATE COMPANY CAGECE: 152

💧: 74 💧: 78

• BY MUNICIPAL SERVICES: 34

💧: 12 💧: 14 💧: 8

THERE IS NO PARTICIPATION OF THE PRIVATE SECTOR IN THE STATE.

DID NOT RESPOND TO THE SNIS 2017 DATA COLLECTION: 8

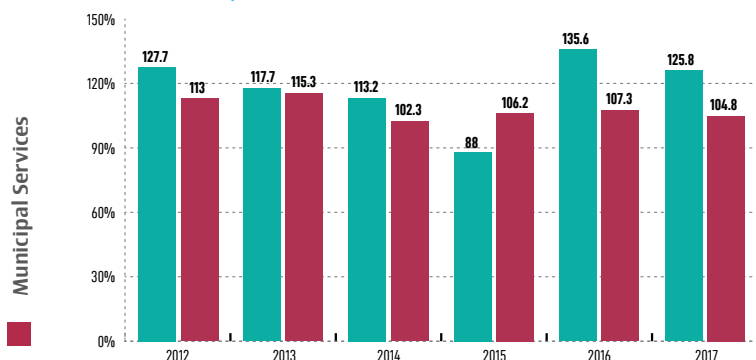
IBGE 2018 – estimated
note: N° cumulative numbers

💧 Water supply
💧 Sewage system 💧 Sewage collection

ECONOMIC AND FINANCIAL SITUATION OF THE OPERATORS

Cash Sufficiency

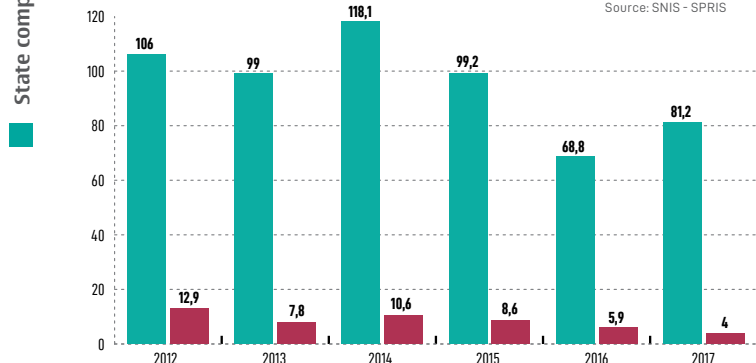
Source: SNIS - SPRIS - IN101



Total lack of municipal services investment. Highlighting the State company investments, although little expressive.

Average of Investments per Water and Sewage Connection [R\$/connection]

Source: SNIS - SPRIS

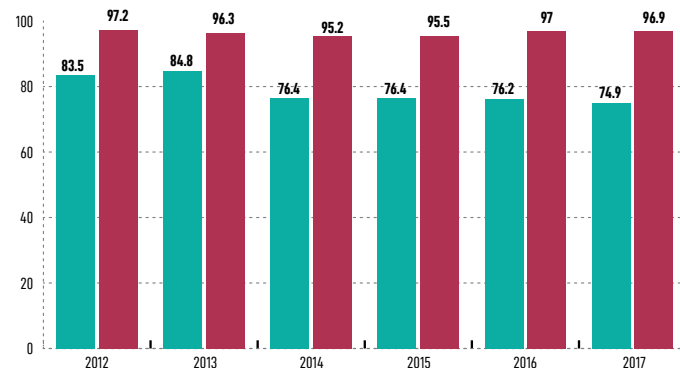


The operators present reasonable balance between total income and expenditure with services.

SERVICES COVERAGE LEVEL

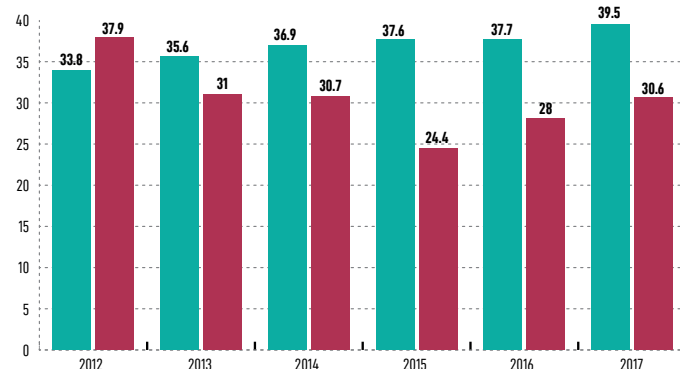
Urban Water Assistance Rate [%]

Source: SNIS - SPRIS - IN023



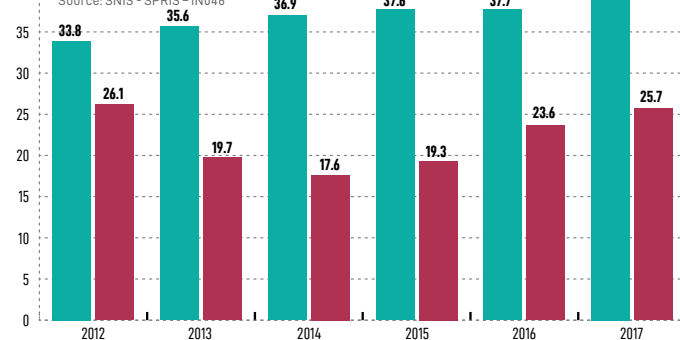
Sewage Collection Rate [%]

Source: SNIS - SPRIS - IN015



Treated Sewage Rate Related to Consumed Water [%]

Source: SNIS - SPRIS - IN046



SNIS 2017 data demonstrate that: 79.83% of the Ceará State population relies on water supply; 38.16% of the population relies on sewage collection services. For the sewage, 37.26% are properly treated before released in water bodies.

POPULATION: 2.974.703* | MUNICIPALITIES: 1

ASSISTED MUNICIPALITIES:

• BY STATE COMPANY CAESB: 1

Water supply: 1
Sewage system: 1

THERE IS NO PARTICIPATION OF THE PRIVATE SECTOR IN DF.

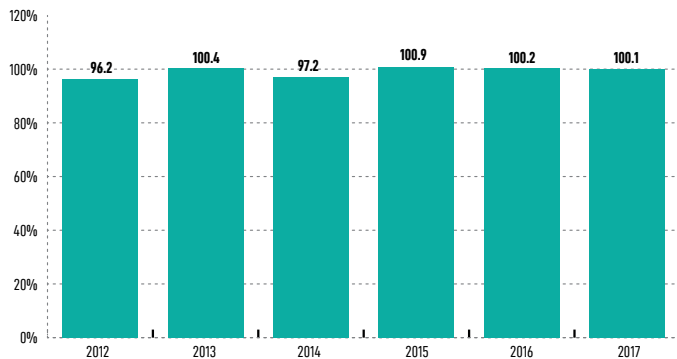
IBGE 2018 – estimated
note: N° cumulative numbers

Water supply
Sewage system

ECONOMIC AND FINANCIAL SITUATION OF THE OPERATORS

Cash Sufficiency

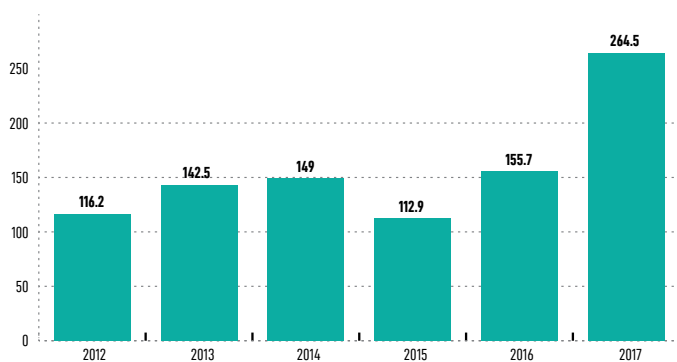
Source: SNIS - SPRIS - IN101



Low operating result during the analysis period, presenting deficit in 2012 and 2014.

Average of Investments per Water and Sewage Connection [R\$/connection]

Source: SNIS - SPRIS

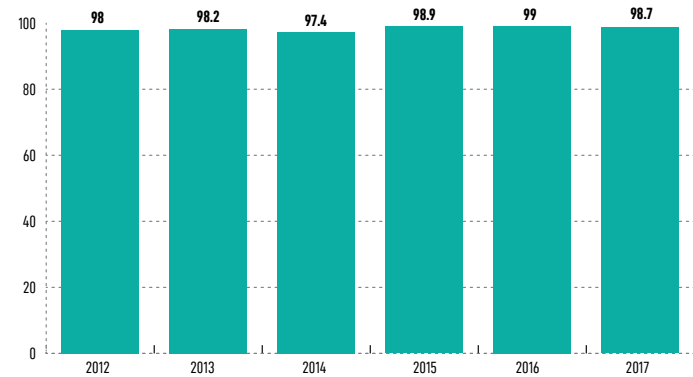


The numbers reveal ongoing investments, despite the low operating results of the company.

SERVICES COVERAGE LEVEL

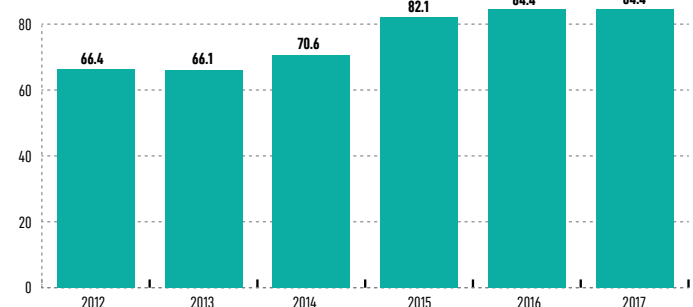
Urban Water Assistance Rate [%]

Source: SNIS - SPRIS - IN023



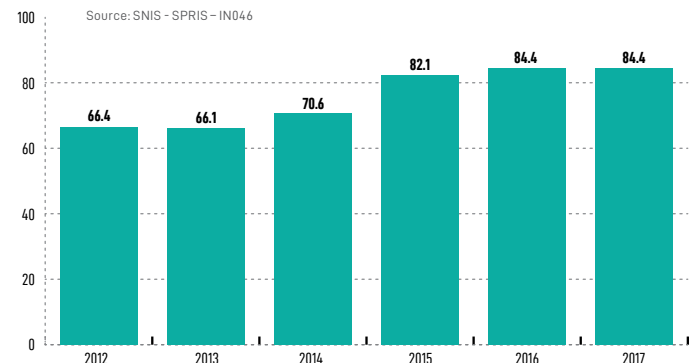
Sewage Collection Rate [%]

Source: SNIS - SPRIS - IN015



Treated Sewage Rate Related to Consumed Water [%]

Source: SNIS - SPRIS - IN046



State company

SNIS 2017 data demonstrate that: 98.71% of the Distrito Federal State population relies on water supply; 84.42% of the population relies on sewage collection services. For the sewage, 84.42% are properly treated before released in water bodies. Distrito Federal has reached the water supply universalization, and heads towards the universalization of sanitation.

POPULATION: 3.996.496* | MUNICIPALITIES: 223

ASSISTED MUNICIPALITIES:

• BY STATE COMPANY CAGEPA: 195

• BY STATE: 22 • BY MUNICIPAL: 173

• BY MUNICIPAL SERVICES: 54

• BY STATE: 6 • BY MUNICIPAL: 7 • BY SEWAGE COLLECTION: 41

THERE IS NO PARTICIPATION OF THE PRIVATE SECTOR IN THE STATE

DID NOT RESPOND TO THE SNIS 2017 DATA COLLECTION: 16

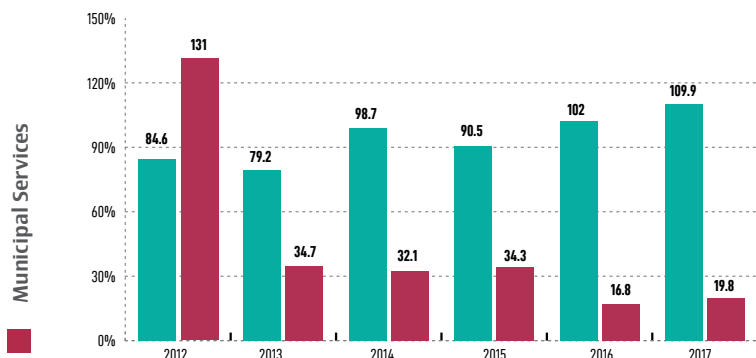
IBGE 2018 – estimated
note.: Not cumulative numbers

• Water supply
• Sewage system • Sewage collection

ECONOMIC AND FINANCIAL SITUATION OF THE OPERATORS

Cash Sufficiency

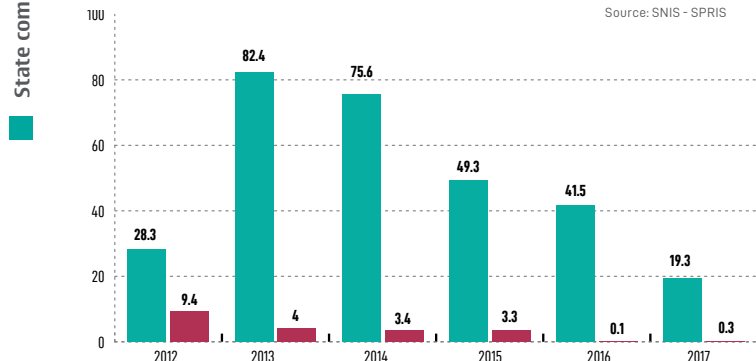
Source: SNIS - SPRIS - IN101



There is no evidence of good operational results of the State company, while the municipal services present recurring deficits.

Average of Investments per Water and Sewage Connection [R\$/connection]

Source: SNIS - SPRIS

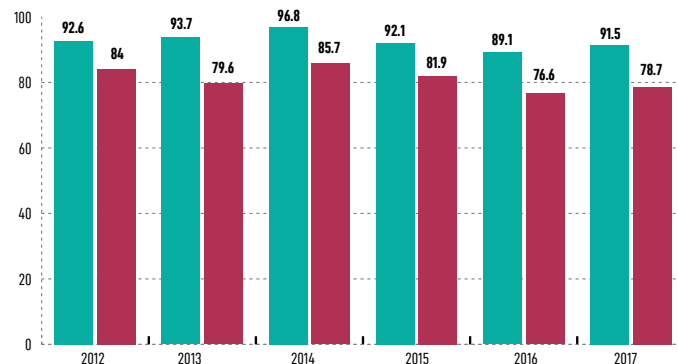


Very low investment observed in the analysis period

SERVICES COVERAGE LEVEL

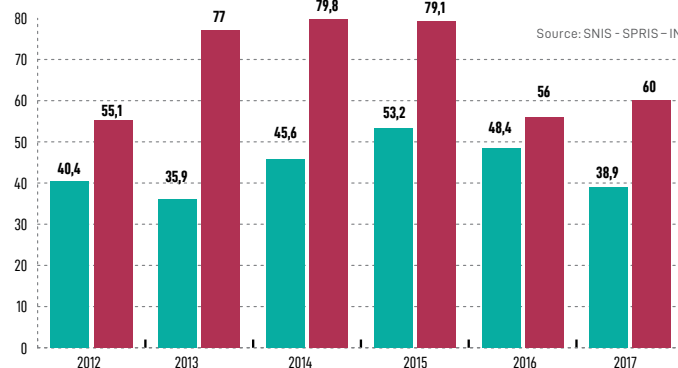
Urban Water Assistance Rate [%]

Source: SNIS - SPRIS - IN023



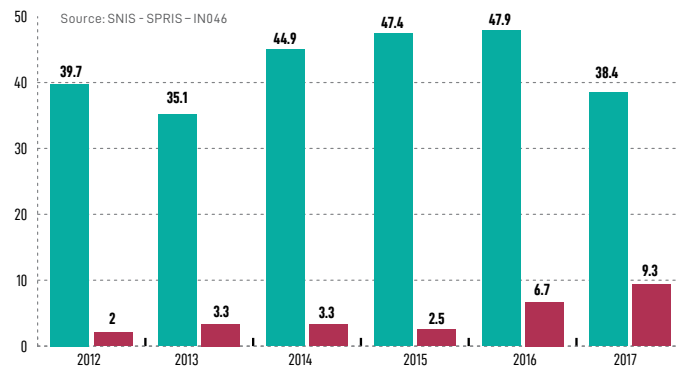
Sewage Collection Rate [%]

Source: SNIS - SPRIS - IN015



Treated Sewage Rate Related to Consumed Water [%]

Source: SNIS - SPRIS - IN046



SNIS 2017 data demonstrate that: 91.78% of the Paraíba State population relies on water supply; 39.21% of the population relies on sewage collection services. For the sewage, 38.10% are properly treated before released in water bodies. Highlighting better sewage collection rates, but low rates of sewage treatment in municipal services.

POPULATION: 3.479.010* | MUNICIPALITIES: 167

ASSISTED MUNICIPALITIES:

• BY STATE COMPANY CAERN: 157

🔵: 43 🔵: 114

• BY MUNICIPAL SERVICES: 18

🔵: 5 🔵: 2 🔴: 11

DID NOT RESPOND TO THE SNIS 2017 DATA COLLECTION: 4

THERE IS NO PARTICIPATION OF THE PRIVATE SECTOR IN THE STATE

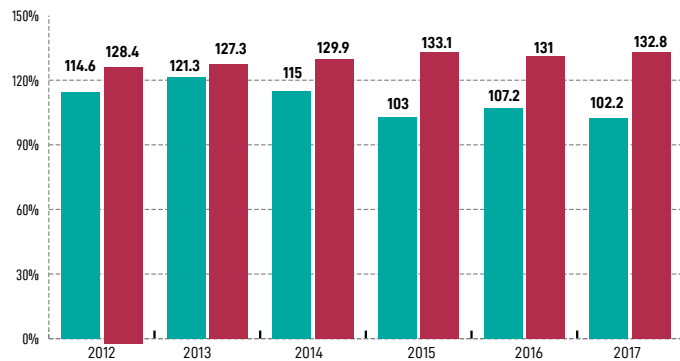
IBGE 2018 – estimated
note: N^o cumulative numbers

🔵 Water supply
🔴 Sewage system

ECONOMIC AND FINANCIAL SITUATION OF THE OPERATORS

Cash Sufficiency

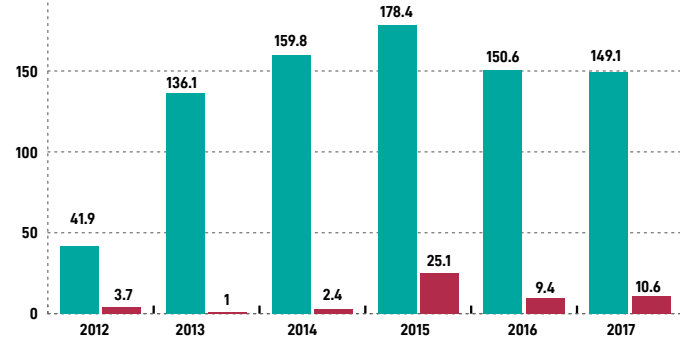
Source: SNIS - SPRIS - IN101



The municipal services have presented best operating results when compared with the State company in the analysis period.

Average of Investments per Water and Sewage Connection [R\$/connection]

Source: SNIS - SPRIS

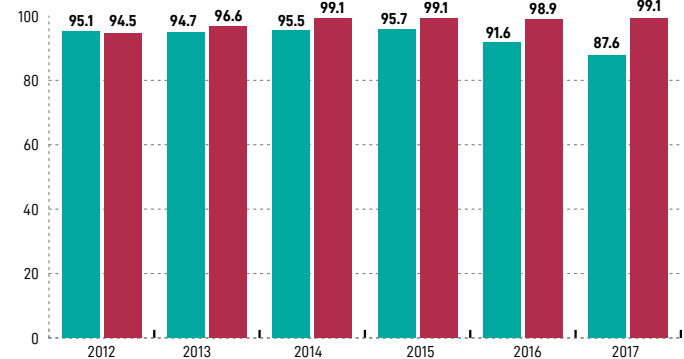


Despite the negligible operating results, the figures reveal ongoing investments by the State company.

SERVICES COVERAGE LEVEL

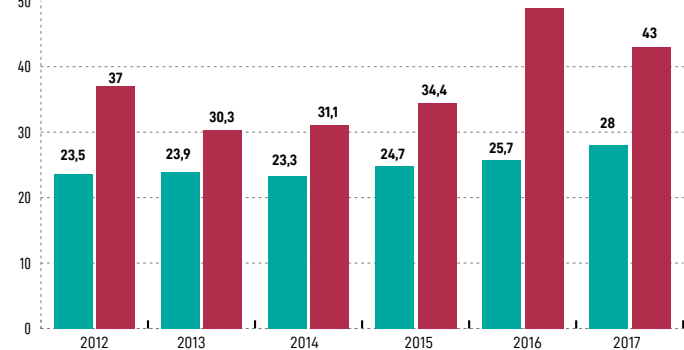
Urban Water Assistance Rate [%]

Source: SNIS - SPRIS - IN023



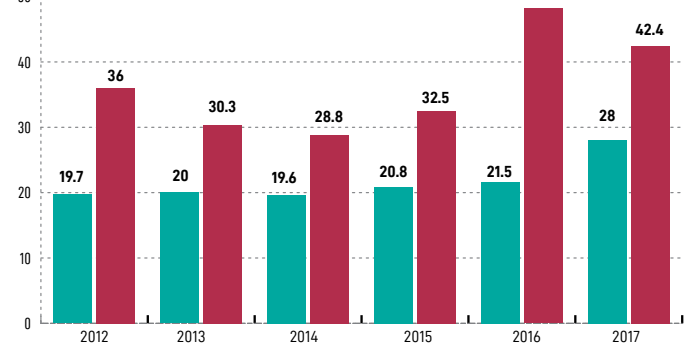
Sewage Collection Rate [%]

Source: SNIS - SPRIS - IN015



Treated Sewage Rate Related to Consumed Water [%]

Source: SNIS - SPRIS - IN046



SNIS 2017 data demonstrate that: 91.13% of the Rio Grande do Norte State population relies on water supply; 29.78% of the population relies on sewage collection services. For the sewage, 29.71% are properly treated before released in water bodies. The municipal services present better indicators both in water supply and sewage system.

State company

Municipal Services

POPULATION: 576.568* | MUNICIPALITIES: 15

ASSISTED MUNICIPALITIES:
• BY STATE COMPANY CAER: 27
• BY STATE COMPANY CAER: 14

THERE IS NO PARTICIPATION OF MUNICIPAL SERVICES IN THE STATE
THERE IS NO PARTICIPATION OF THE PRIVATE SECTOR IN THE STATE

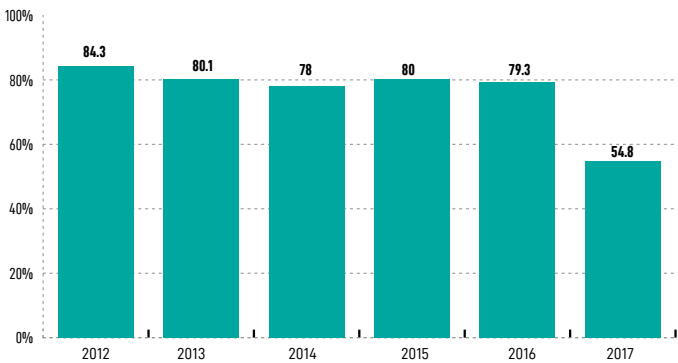
IBGE 2018 – estimated
note.: N° cumulative numbers

Water supply
Sewage system

ECONOMIC AND FINANCIAL SITUATION OF THE OPERATORS

Cash Sufficiency

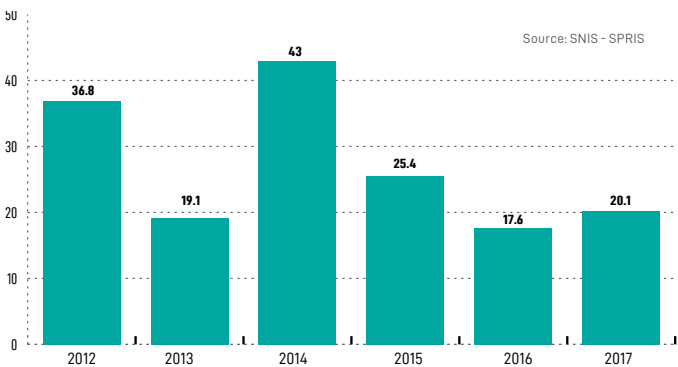
Source: SNIS - SPRIS - IN101



The State company presented permanent operating deficit during the analysis period.

Average of Investments per Water and Sewage Connection [R\$/connection]

Source: SNIS - SPRIS

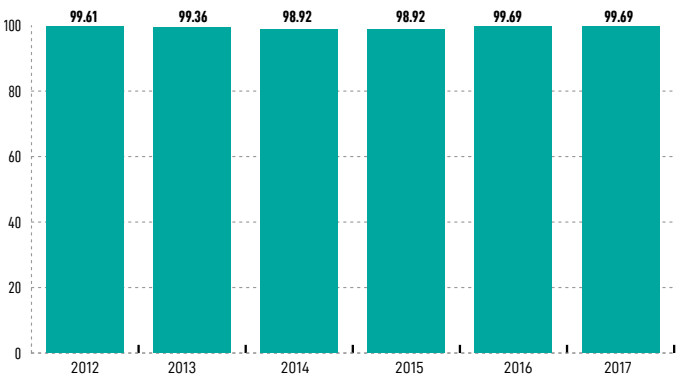


Despite the negligible operating results, the figures reveal ongoing investments by the State company..

SERVICES COVERAGE LEVEL

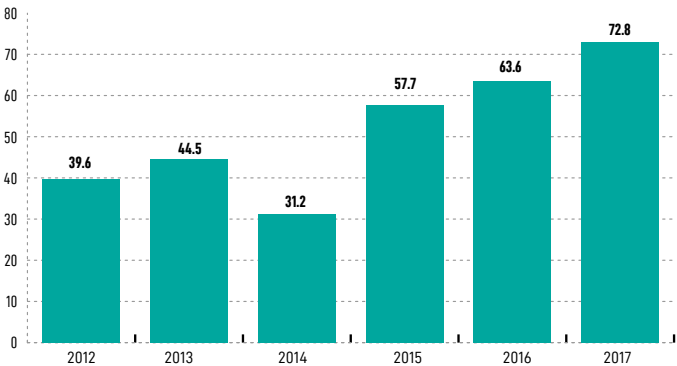
Urban Water Assistance Rate [%]

Source: SNIS - SPRIS - IN023



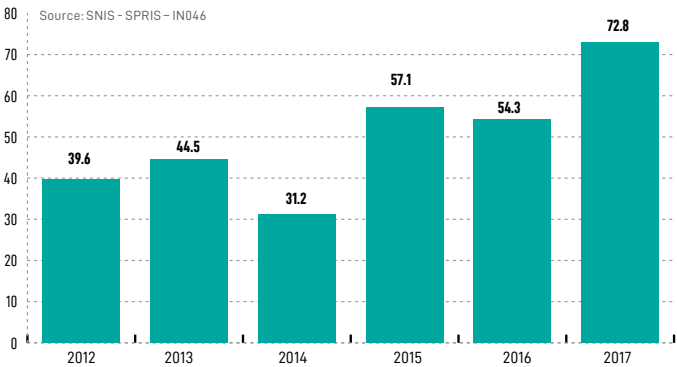
Sewage Collection Rate [%]

Source: SNIS - SPRIS - IN015



Treated Sewage Rate Related to Consumed Water [%]

Source: SNIS - SPRIS - IN046



SNIS 2017 data demonstrate that: 99.69% of the Roraima State population relies on water supply; 72.88% of the population (majority in the capital of the State) relies on sewage collection services. For the sewage, 72.88% are properly treated before released in water bodies.

POPULATION: 2.278.308* | MUNICIPALITIES: 75

ASSISTED MUNICIPALITIES:

• BY STATE COMPANY DESO: 73

• BY: 6 •: 67

• BY MUNICIPAL SERVICES: 10

•: 1 •: 3 •: 6

THERE IS NO PARTICIPATION OF THE PRIVATE SECTOR IN THE STATE

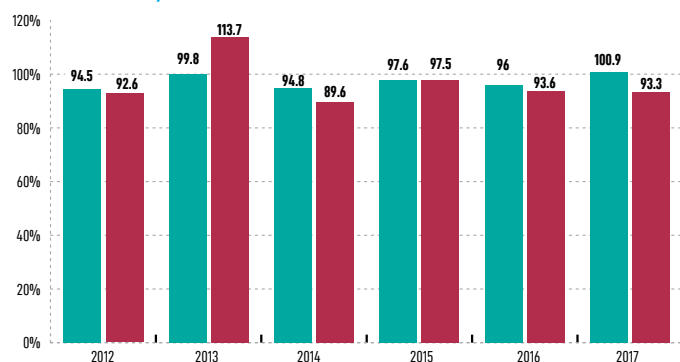
IBGE 2018 – estimated
note.: N^o cumulative numbers

Water supply
Sewage system

ECONOMIC AND FINANCIAL SITUATION OF THE OPERATORS

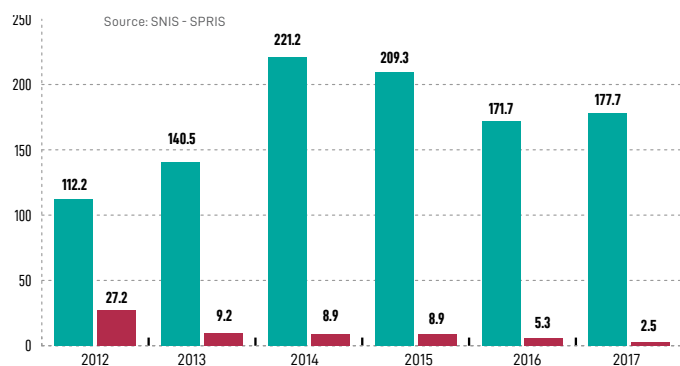
Cash Sufficiency

Source: SNIS - SPRIS - IN101



The State company presented operational deficits throughout the analysis period.

Average of Investments per Water and Sewage Connection [R\$/connection]

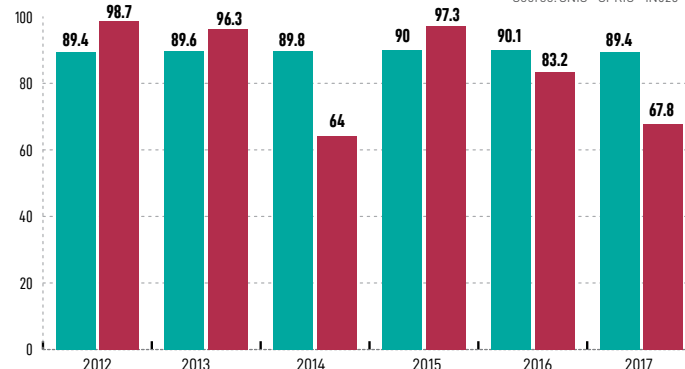


Despite the low financial balance, the figures reveal investments by the State company in the analysis period.

SERVICES COVERAGE LEVEL

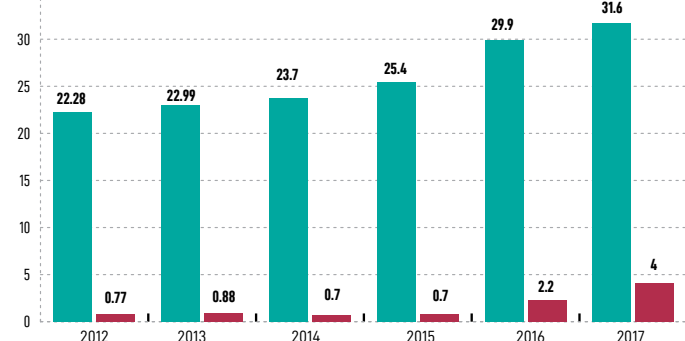
Urban Water Assistance Rate [%]

Source: SNIS - SPRIS - IN023



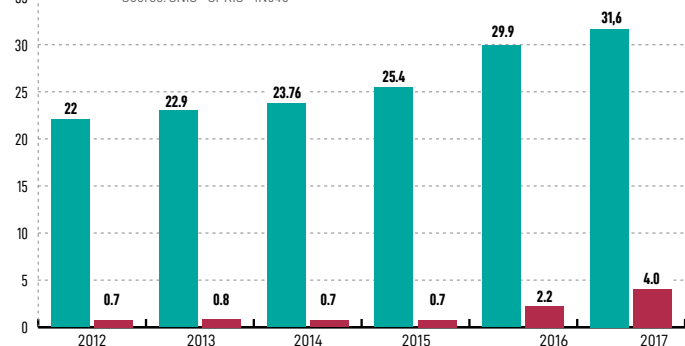
Sewage Collection Rate [%]

Source: SNIS - SPRIS - IN015



Treated Sewage Rate Related to Consumed Water [%]

Source: SNIS - SPRIS - IN046



SNIS 2017 data demonstrate that: 96.57% of the Sergipe State population relies on water supply; 29.08% of the population relies on sewage collection services. For the sewage, 29.08% are properly treated before released in water bodies.

State company

Municipal Services



04

PRIVATE CONCESSIONS FRAMEWORK

Assisted Municipalities	Concessionaire	Majority Shareholder	Contract Model	Contract Date	Term (Years)	Total Benefited Population	Investment (R\$ Million)	
							Total Contract Commitment	Materialized in 2017
Alagoas								
Arapiraca Campo Grande Coité do Noia Craíbas do Nunes Feira Grande Girau do Ponciano Igaci Lagoa da Canoa Olho D'água Grande São Brás	Agreste Saneamento	Iguá Saneamento	PPP Water	2012	30	279,026	261.79	Completed investments
Maceió	SANAMA – Saneamento Alta Maceió	GS Inima Brasil	PPP Sewage	2014	30	270,000	168.50	0.83
11	2					549,026	430.29	0.83
Amazonas								
Manaus	Águas de Manaus	Aegea Saneamento e Participações	Full Concession	2000	45	2,207,525	2.976,68	72.95
1	1					2,207,525	2.976,68	72.95
Bahia								
Lauro de Freitas Salvador	BRK Ambiental Jaguaribe	BRK Ambiental	PPP Sewage	2006	15	1,100,000	261.13	Completed investments
2	1					1,100,000	261.13	-
Espírito Santo								
Cachoeiro de Itapemirim	BRK Ambiental Cachoeiro de Itapemirim	BRK Ambiental	Full Concession	1998	50	207,396	326.03	6.91
Serra	Serra Ambiental	Aegea Saneamento e Participações	PPP Sewage	2014	30	326,156	576.70	42.70
Vila Velha	Águas de Vila Velha	Aegea Saneamento e Participações	PPP Sewage	2017	30	174,250	684.00	0.89
3	3					707,802	1,586.73	50.49

ASSISTED MUNICIPALITIES	CONCESSIONAIRE	MAJORITY SHAREHOLDER	CONTRACT MODEL	CONTRACT DATE	TERM (YEARS)	TOTAL BENEFITED POPULATION	INVESTMENT (R\$ MILLION)	
							Total Contract Commitment	Materialized in 2017
GOIÁS								
Aparecida de Goiânia	BRK Ambiental Goiás	BRK Ambiental	Sewage Subdelegation	2013	30	923,904	951.01	109.38
Jataí								
Rio Verde								
Trindade								
4	1					923,904	951.01	109.38

MARANHÃO								
Timon	Águas de Timon	Aegea Saneamento e Participações	Full Concession	2015	30	145,702	207.00	70.23
São José de Ribamar	BRK Ambiental Maranhão	BRK Ambiental	Full Concession	2015	35	175,107	450.00	33.60
Paço do Lumiar								
3	2					320,809	657.00	103.83

MATO GROSSO								
Alta Floresta	Águas Alta Floresta	Iguá Saneamento	Full Concession	2002	30	43,693	47.28	0.97
Arenápolis	Águas de Arenápolis	Nascimento Engenharia	Partial Concession Water	2001	30	9,455	n.d.	0.07
Barra do Garças	Águas de Barra do Garças	Aegea Saneamento e Participações	Full Concession	2003	30	60,661	59.24	4.66
Campo Verde	Águas de Campo Verde	Aegea Saneamento e Participações	Full Concession	2001	30	36,561	33.96	7.15
Canarana	Águas Canarana	Iguá Saneamento	Partial Concession Water	2000	40	17,770	34.43	1.23
Carlinda	Águas de Carlinda	Aegea Saneamento e Participações	Partial Concession Water	2004	30	5,970	7.37	0.02
Cláudia	Águas de Cláudia	Aegea Saneamento e Participações	Full Concession	2004	30	8,848	14.36	0.41
Colider	Águas Colider	Iguá Saneamento	Full Concession	2002	30	26.484	38.15	0.92
Comodoro	Águas Comodoro	Iguá Saneamento	Partial Concession Water	2007	30	13.868	7.21	0.48
Confresa	Águas de Confresa	Aegea Saneamento e Participações	Full Concession	2014	30	12,897	105.74	2.19

ASSISTED MUNICIPALITIES	CONCESSIONAIRE	MAJORITY SHAREHOLDER	CONTRACT MODEL	CONTRACT DATE	TERM (YEARS)	TOTAL BENEFITED POPULATION	INVESTMENT (R\$ MILLION)	
							Total Contract Commitment	Materialized in 2017
Cuiabá	Águas Cuiabá	Iguá Saneamento	Full Concession	2012	30	620,832	1,564.55	42.29
Diamantino	Águas de Diamantino	Aegea Saneamento e Participações	Full Concession	2014	30	18,701	49.12	2.25
Guarantã do Norte	Águas de Guarantã Ltda.	Aegea Saneamento e Participações	Full Concession	2001	30	25,739	40.64	0.54
Jangada	Águas de Jangada	Aegea Saneamento e Participações	Full Concession	2004	30	4,846	5.85	0.07
Jauru	Águas de Jauru	Aegea Saneamento e Participações	Full Concession	2012	30	6,924	21.60	0.48
Juara	Concessionaire Águas de Juara	Pereira Campanha	Full Concession	2001	30	28.840	8.00	1.02
Marcelândia	Águas de Marcelândia	Aegea Saneamento e Participações	Full Concession	2003	30	9.485	31.20	0.13
Matupá	Águas de Matupá	Aegea Saneamento e Participações	Full Concession	2001	30	14,902	29.29	0.42
Nobres	Empresa de Saneamento de Nobres	Encomind Engenharia	Full Concession	1999	30	12,600	2.60	n.d.
Nortelândia	Águas de Nortelândia	Aegea Saneamento e Participações	Partial Concession Water	2002	50	5,809	2.39	0.03
Nova Canaã do Norte	Águas de Canaã	Construtora Premier	Partial Concession Water	1905	30	12,388	15.88	0.48
Nova Xavantina	Setae - Serviço de Tratamento de Água e Esgoto - Nova Xavantina	Setae - Serviço de Tratamento de Água e Esgoto	Full Concession	2001	30	16,544	n.d.	0.59
Novo São Joaquim	Setae - Serviço de Tratamento de Água e Esgoto - Novo São Joaquim	Setae - Serviço de Tratamento de Água e Esgoto	Partial Concession Water	2001	30	3,117	n.d.	Completed investments
Paranatinga	Águas de Paranatinga	Aegea Saneamento e Participações	Full Concession	2015	30	17,034	46.89	0.60
Pedra Preta	Águas de Pedra Preta	Aegea Saneamento e Participações	Full Concession	2003	29	16,397	52.55	2.02
Peixoto de Azevedo	Águas de Peixoto de Azevedo	Aegea Saneamento e Participações	Full Concession	2000	30	20,530	36.00	3.56
Poconé	Águas de Poconé	Aegea Saneamento e Participações	Partial Concession Water	2008	16	21,144	45.10	0.20
Pontes e Lacerda	Águas Pontes e Lacerda	Iguá Saneamento	Full Concession	2000	30	37,000	30.15	1.32
Porto Esmeraldas	Águas de Porto Esmeraldas	Aegea Saneamento e Participações	Full Concession	2012	30	5,755	12.32	0.06

ASSISTED MUNICIPALITIES	CONCESSIONAIRE	MAJORITY SHAREHOLDER	CONTRACT MODEL	CONTRACT DATE	TERM (YEARS)	TOTAL BENEFITED POPULATION	INVESTMENT (R\$ MILLION)	
							Total Contract Commitment	Materialized in 2017
Primavera do Leste	Águas de Primavera	Aegea Saneamento e Participações	Full Concession	2000	30	61,038	48.22	3.27
Santa Carmen	Águas de Santa Carmen	Aegea Saneamento e Participações	Partial Concession Water	2001	30	4,195	7.10	0.08
São José do Rio Claro	Águas de São José Ltda	Aegea Saneamento e Participações	Full Concession	2008	30	14,767	17.93	0.05
Sapezal	Naturagua	Naturagua	Partial Concession Water	2000	30	21,259	n.d.	0.61
Sinop	Águas de Sinop	Aegea Saneamento e Participações	Full Concession	2014	30	139,935	543.45	12.18
Sorriso	Águas de Sorriso	Aegea Saneamento e Participações	Full Concession	2000	30	87,815	64.00	12.36
União do Sul	Águas de União do Sul	Aegea Saneamento e Participações	Full Concession	2000	30	2,563	8.62	0,05
Vera	Águas de Vera Ltda.	Aegea Saneamento e Participações	Full Concession	2004	37	8,026	36.89	0.33
37	37					1,474,392	3,068.07	103.11

MATO GROSSO DO SUL

Campo Grande	Águas Guariroba	Aegea Saneamento e Participações	Full Concession	2000	60	860,943	1,615.51	75.57
1	1					860,943	1,615.51	75.57

MINAS GERAIS

Araújos	Sanarj Concessionaria de Saneamento Básico	Global Engenharia. Planex Consultoria	Full Concession	2002	30	7,697	1.19	0.61
Bom Sucesso	Águas de Bom Sucesso	Global Engenharia. Planex Consultoria	Full Concession	2002	25	17,320	3.09	0.16
Pará de Minas	Águas de Pará de Minas	Saneamento Ambiental Águas do Brasil	Full Concession	2015	35	91,530	229.83	11.24
Paraguasu	Coságua	Global Engenharia. Planex Consultoria	Full Concession	2000	30	19,819	5.28	0.08

Assisted Municipalities	Concessionaire	Majority Shareholder	Contract Model	Contract Date	Term (Years)	Total Benefited Population	Investment (R\$ Million)																									
							Total Contract Commitment	Materialized in 2017																								
Belo Horizonte Betim Contagem Ibirité Igarapé Lagoa Santa Mário Campos Pedro Leopoldo Ribeirão das Neves Santa Luzia São Joaquim de Bicas São José da Lapa Sarzedo Vespasiano	Sistema Rio Manso	BRK Ambiental	PPP Water	2013	15	1,325,800	625.00	Completed investments																								
18									5				1,462,166	864.39	12.09																	
PARÁ																																
Barcarena									Águas de São Francisco	Aegea Saneamento e Participações	Full Concession	2014	30	32,085	188.64	2.23																
Bom Jesus do Tocantins Santana do Araguaia São Domingos do Araguaia São João do Araguaia									BRK Ambiental Araguaia Saneamento	BRK Ambiental	Full Concession	2015	30	46,888	80.88	0.20																
Curionópolis Eldorado dos Carajás São Geraldo do Araguaia Tucumã Xinguara																	Saneatins	BRK Ambiental	Full Concession	2007	30	106,395	240.80	3.05								
Novo Progresso																									Águas de Novo Progresso	Aegea Saneamento e Participações	Full Concession	2003	30	17.802	15.04	0.86
Redenção																									BRK Ambiental Redenção	BRK Ambiental	Full Concession	2012	30	36.931	n.d.	0.67
12									5					240,101	525.36	7.02																

ASSISTED MUNICIPALITIES	CONCESSIONAIRE	MAJORITY SHAREHOLDER	CONTRACT MODEL	CONTRACT DATE	TERM (YEARS)	TOTAL BENEFITED POPULATION	INVESTMENT (R\$ MILLION)	
							Total Contract Commitment	Materialized in 2017
PARANÁ								
Paranaguá	Paranaguá Saneamento	Iguá Saneamento	Full Concession	1997	45	149,683	464.08	15.21
1	1					149,683	464.08	15.21
PERNAMBUCO								
Abreu e Lima	BRK Ambiental Atlântico	BRK Ambiental	PPP Sewage	2013	35	3,965,548	2,954.94	304.21
Araçoiaba								
Cabo de Sto. Agostinho								
Camaragibe								
Goiana								
Igarassu								
Ipojuca								
Itamaracá								
Itapissuma								
Jaboatão dos Guararapes								
Moreno								
Olinda								
Paulista								
Recife								
São Lourenço da Mata								
15	1					3,965,548	2,954.94	304.21
PIAUI								
Teresina	Águas de Teresina	Agea Saneamento e Participações	Full Concession	2017	30	825,015	1,700.00	26.94
1	1					825,015	1,700.00	26.94

ASSISTED MUNICIPALITIES	CONCESSIONAIRE	MAJORITY SHAREHOLDER	CONTRACT MODEL	CONTRACT DATE	TERM (YEARS)	TOTAL BENEFITED POPULATION	INVESTMENT (R\$ MILLION)	
							Total Contract Commitment	Materialized in 2017
RIO DE JANEIRO								
Araruama Saquarema Silva Jardim	Águas de Juturnaíba	Saneamento Ambiental Águas do Brasil	Full Concession	1997	50	217,735	241.90	9.48
Armação de Búzios Arraial do Cabo Cabo Frio Iguaba Grande São Pedro da Aldeia	Prolagos	Aegea Saneamento e Participações	Full Concession	1998	43	336,897	1,394.26	46.78
Campos dos Goytacazes	Águas do Paraíba	Saneamento Ambiental Águas do Brasil	Full Concession	1996	45	465,773	696.57	27.32
Guapimirim	Sources da Serra	Emissão Engenharia	Partial Concession Water	2000	30	42,180	14.07	0
Macaé	BRK Ambiental Macaé	BRK Ambiental	PPP Sewage	2012	30	46,643	643.37	22.97
Niterói	Águas de Niterói	Saneamento Ambiental Águas do Brasil	Full Concession	1997	50	499,028	516.30	20.77
Nova Friburgo	Águas de Nova Friburgo	Saneamento Ambiental Águas do Brasil	Full Concession	1999	40	162,260	133.00	8.55
Paraty	Águas de Paraty	Saneamento Ambiental Águas do Brasil	Full Concession	2014	30	30,000	146.17	0.13
Petrópolis	Águas do Imperador	Saneamento Ambiental Águas do Brasil	Full Concession	1997	45	290,980	158.20	6.94
Resende	Águas de Agulhas Negras	Saneamento Ambiental Águas do Brasil	Full Concession	2007	30	121,637	136.33	7.35
Rio das Ostras	BRK Ambiental Rio das Ostras	BRK Ambiental	PPP Sewage	2007	15	127,171	385.00	0
Rio de Janeiro	Zona Oeste Mais	BRK Ambiental. Saneamento Ambiental Águas do Brasil	Partial Concession Sewage	2012	30	1,751.631	2.552.00	47.31
Santo Antônio de Pádua	Águas de Santo Antônio	CONASA	Partial Concession Water	2004	30	41,312	9.03	0
São João de Meriti	Águas de Meriti	Aegea Saneamento e Participações	Partial Concession Sewage	2013	30	285,535	337.00	0.38
20	14					4,418,782	7,363.19	197.99

ASSISTED MUNICIPALITIES	CONCESSIONAIRE	MAJORITY SHAREHOLDER	CONTRACT MODEL	CONTRACT DATE	TERM (YEARS)	TOTAL BENEFITED POPULATION	INVESTMENT (R\$ MILLION)	
							Total Contract Commitment	Materialized in 2017
RIO GRANDE DO SUL								
São Gabriel	São Gabriel Saneamento	Solvi	Full Concession	2012	30	62,367	100.79	2.14
Uruguaiana	BRK Ambiental Uruguaiana	BRK Ambiental	Full Concession	2011	30	126,976	169.83	21.23
2	2					189,343	270.62	23.37

RONDÔNIA								
Ariquemes	Águas de Ariquemes	Aegea Saneamento e Participações	Full Concession	2016	30	38,874	212.17	10.47
Buritis	Águas de Buritis	Aegea Saneamento e Participações	Full Concession	2015	30	21,850	95.35	0.65
Pimenta Bueno	Águas de Pimenta Bueno	Aegea Saneamento e Participações	Full Concession	2015	30	30,855	63.41	4.84
Rolim de Moura	Águas de Rolim de Moura	Aegea Saneamento e Participações	Full Concession	2016	30	43,197	107.10	3.83
4	4					134,776	478.02	19.79

SANTA CATARINA								
Balneário Gaivota	Gaivota Saneamento	Atlantis Saneamento	Full Concession	2018	35	10,444	163.54	0
Blumenau	BRK Ambiental Blumenau	BRK Ambiental	Partial Concession Sewage	2010	35	139,631	302.80	16.43
Bombinhas	Águas de Bombinhas	Aegea Saneamento e Participações	Full Concession	2016	35	18,623	142.70	35.43
Camboriú	Águas de Camboriú	Aegea Saneamento e Participações	Full Concession	2015	35	79,289	131.12	10.95
Gravatal	Gravatal Saneamento	Atlantis Saneamento	Full Concession	2018	30	10,966	38.31	0
Itapema	Águas de Itapema	Conasa Infraestrutura	Full Concession	2004	40	59,667	n.d.	12.35
Itapoá	Itapoá Saneamento	Iguá Saneamento	Full Concession	2012	30	18,943	189.03	7.39
Jaguaruna	Águas de Jaguaruna	Atlantis Saneamento	Partial Concession Water	2007	35	22,000	n.d.	0.09
Jaguaruna	Jaguaruna Saneamento	Atlantis Saneamento	Partial Concession Water	2016	40	20,000	44.64	2.00

ASSISTED MUNICIPALITIES	CONCESSIONAIRE	MAJORITY SHAREHOLDER	CONTRACT MODEL	CONTRACT DATE	TERM (YEARS)	TOTAL BENEFITED POPULATION	INVESTMENT (R\$ MILLION)	
							Total Contract Commitment	Materialized in 2017
Penha	Águas de Penha	Aegea Saneamento e Participações	Full Concession	2015	35	29,223	171.02	4.05
São Francisco do Sul	Águas de São Francisco do Sul	Aegea Saneamento e Participações	Full Concession	2014	35	48,060	63.02	6.09
Tubarão	Tubarão Saneamento	Iguá Saneamento	Full Concession	2012	30	104.822	419,36	4.14
12	12					561,668	1,665,55	98.91

SÃO PAULO								
Álvares Florence	Datema Ambiental Saneamento Básico	Dqt - Saneamento Basico E Meio Ambiente	Full Concession	2012	30	2,579	n.d.	0,19
Andradina	Águas de Andradina	Iguá Saneamento	Full Concession	2010	30	53,531	86.54	6.12
Araçatuba	Samar - Soluções Ambientais de Araçatuba	GS Inima Brasil	Full Concession	2012	30	192,096	368.47	13.94
Araçoiaba da Serra	Águas de Araçoiaba	Saneamento Ambiental Águas do Brasil	Full Concession	2009	30	31,662	30.06	1.56
Arujá	Águas Spat Saneamento	Iguá Saneamento	PPP Water	2008		5,000,000	383.00	1.32
Ferraz de Vasconcelos								
Guarulhos								
Itaquaquecetuba								
Mauá								
Mogi das Cruzes								
Poá								
Santo André								
São Paulo (Zona Leste)								
Suzano								
Atibaia	Atibaia Saneamento	Iguá Saneamento	PPP Sewage	2012	30	95,855	236.46	18.46
Barueri	Sistema de São Lourenço da Serra	CGGC				1.500.000	2.214.00	500.00
Carapicuíba								
Cotia								
Itapevi								
Jandira								
Santana de Parnaíba								
Vargem Gde. Paulista								
Birigui	Aqua Pérola	Latam Water Participações	Partial Concession Water	1994	15	45,406	2.25	Completed investments

ASSISTED MUNICIPALITIES	CONCESSIONAIRE	MAJORITY SHAREHOLDER	CONTRACT MODEL	CONTRACT DATE	TERM (YEARS)	TOTAL BENEFITED POPULATION	INVESTMENT (R\$ MILLION)	
							Total Contract Commitment	Materialized in 2017
Campinas	BRK Ambiental Capivari	BRK Ambiental	Lease of assets Sewage	2007	20	52,559	153.00	n.a.
Campos de Jordão	Araucária Saneamento	GS Inima Brasil	Lease of assets Sewage	2010	23	76,000	116.61	Completed investments
Casa Branca	Águas de Casa Branca	Perenge Engenharia	Full Concession	2018	30	30,000	62.42	0
Castilho	Águas de Castilho	Iguá Saneamento	Full Concession	2010	30	15,366	23.50	0.98
Guará	Águas de Guará	Latam Water Participações	Full Concession	2000	25	21,129	3.72	0.13
Guarulhos	Sagua - Soluções Ambientais de Guarulhos	OAS Soluções Ambientais	PPP Sewage	2014	30	1,198,019	1.116.00	0
Guaratinguetá	Guaratinguetá Saneamento	Iguá Saneamento	PPP Sewage	2008	30	103,690	140.87	7.34
Holambra	Águas de Holambra	Aegea Saneamento e Participações	Full Concession	2013	30	14,012	78.88	8.44
Jaú	Águas de Jahu	Saneamento Ambiental Águas do Brasil	Full Concession	2014	35	141,786	165.00	5.99
Jaú	Águas de Mandaguahy	SGA - Sistema de Gestão Ambiental	Partial Concession Water	1998	30	57,560	33.70	Completed investments
Jundiaí	Companhia de Saneamento de Jundiaí	Trail Infraestrutura	Partial Concession Sewage	1996	35	414,810	250.00	0.58
Limeira	BRK Ambiental Limeira	BRK Ambiental	Full Concession	1995	44	291,931	135.47	18.26
Mairinque	Saneaqua Mairinque	BRK Ambiental	Full Concession	2010	30	46,894	82.44	3.54
Matão	Águas de Matão	Aegea Saneamento e Participações	Full Concession	2013	30	82,307	75.02	5.56
Mauá	BRK Ambiental Mauá	BRK Ambiental	Partial Concession Sewage	2003	30	422,783	233.00	1.76
Mineiros do Tietê	Águas de Mineiros	Latam Water Participações	Full Concession	1996	30	12,239	6.30	0.19
Mirassol	Sanessol	Aviva Ambiental. Iguá Saneamento	Full Concession	2007	30	56,338	92.49	3.25
Mogi Mirim	Sesamm - Serviços de Saneamento de Mogi Mirim	GS Inima Brasil	Partial Concession Sewage	2008	30	60,500	91.68	0.28
Palestina	Empresa de Saneamento de Palestina - ESAP	Aviva Ambiental. Iguá Saneamento	Full Concession	2007	30	10,450	24.48	2.55
Paraibuna	CAEPA - Cia de Água e Esgoto de Paraibuna	GS Inima Brasil	Full Concession	2015	30	18,125	15.81	0.47
Piquete	Águas Piquete	Iguá Saneamento	Full Concession	2010	30	14,107	26.15	0.23
Piracicaba	Águas do Mirante	Aegea Saneamento e Participação	PPP Sewage	2012	30	400,949	332.63	13.58

ASSISTED MUNICIPALITIES	CONCESSIONAIRE	MAJORITY SHAREHOLDER	CONTRACT MODEL	CONTRACT DATE	TERM (YEARS)	TOTAL BENEFITED POPULATION	INVESTMENT (R\$ MILLION)	
							Total Contract Commitment	Materialized in 2017
Porto Ferreira	BRK Ambiental - Porto Ferreira S.A.	BRK Ambiental	Full Concession	2011	30	54,438	72.84	5.49
Ribeirão Preto	Ambient	GS Inima Brasil	Partial Concession Sewage	1995	38	682.302	362.42	49.19
Rio Claro	BRK Ambiental Rio Claro	BRK Ambiental	PPP Sewage	2007	30	198.413	146.35	n.d.
Salto	Sanesalto Saneamento	CONASA	Partial Concession Sewage	1996	25	115,210	36.00	0.06
Santa Gertrudes	BRK Ambiental - Santa Gertrudes S.A.	BRK Ambiental	Full Concession	2010	30	25,364	29.40	0.35
Santa Rita do Passa Quatro	COMASA - Companhia Águas de Santa Rita	GS Inima Brasil	Full Concession	2016	30	27,546	27.48	0.54
São José dos Campos	Sanevap - Saneamento do Vale do Paraíba	GS Inima Brasil	Lease of assets Sewage	2012	23	209,826	88.37	Completed investments
São Sebastião da Gramma	Águas de São Sebastião da Gramma	Perenge Engenharia	Full Concession	2016	30	13,000	16.20	2.49
Sumaré	BRK Ambiental Sumaré	BRK Ambiental	Full Concession	2014	30	269,793	345.30	5.21
Votorantim	Águas de Votorantim	Saneamento Ambiental Águas do BR, SGA - Sistema de Gestão Ambiental	Full Concession	2012	30	114,979	91.30	6.61
53	40					12,173,554	7,795.61	684.65

TOCANTINS								
Palmas	Saneatins	BRK Ambiental	Full Concession	1999	30	1,209,635	1,529.02	81.63
46 municipalities								
78 municipalities	ATS	BRK Ambiental	Technical assistance	1999	25			
125	2					1,209,635	1,529.02	81.63

TOTAL MUNICIPALITIES	TOTAL CONTRACTS					TOTAL POPULATION	TOTAL COMMITTED INVESTMENT	TOTAL INVESTMENT materialized in 2017
325	135					33,474,672	37,157.20	1,987.98

PANORAMA OF THE PRIVATE SECTOR'S PARTICIPATION IN BRAZIL 2019
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