

SANEPAR

SUSTAINABILITY REPORT 2018





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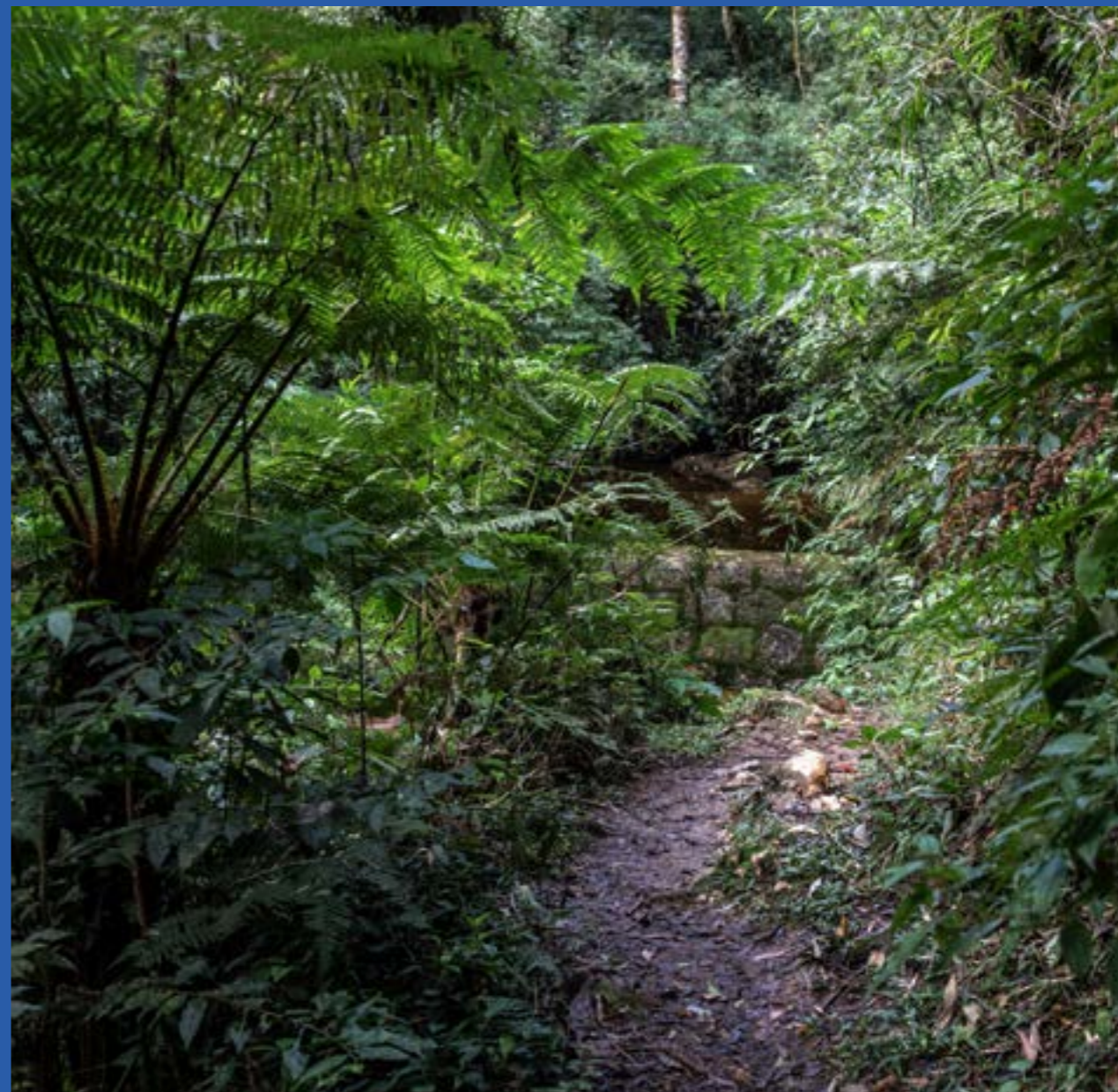
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PRESENTATION

This *Sustainability Report 2018* by Sanepar integrates the Company's earnings release process, committed to the best governance and transparency practices for stakeholders

As an important tool in the management process, the publication details the results of the year, with a broad look at the Company, its achievements and challenges. The themes portrayed consider best reporting practices, such as the guidelines of the *Global Reporting Initiative (GRI)*, the *International Integrated Reporting Council (IIRC)*, the requirements of B3's Level 2 governance model, where Sanepar has shares, and the State Act (No. 13,303/2016), among other regulatory bodies. The financial statements are prepared in

accordance with accounting practices adopted in Brazil pursuant to the *International Financial Reporting Standards (IFRS)*.

Sanepar's results reporting process is the reaffirmation of its commitment to the transparency of information provided to all stakeholders. This process is part of the Sustainability Report, detailing social and environmental and governance performance, to be launched in the first half of 2019.

MESSAGE FROM THE MANAGEMENT GRI 102-14

MANAGEMENT AND EFFICIENCY

We can't run out of water, and quality is a supply condition

We ended another year with excellent economic and financial results and other excellent outcomes as well, such as, such as the expansion of the water distribution and sewage collection network, efficiency gains, among other initiatives. The year of 2018 was marked by a slow recovery in the economy, and our performance only proves the resilience and consistency of our strategic planning.

As a company providing environmental services, our first guideline is that water cannot be lacking and quality is a condition of supply.

Moreover, we are committed to continually advancing basic sanitation in the 346 municipalities we serve. The concession/program contracts with municipalities are the basis of our business.

We seek to increase the value generated through research and innovation for topics such as energy efficiency and better alternatives for effluents and waste disposal. Thus important projects emerged, which already gain scale in the Company and have a double benefit: contributing to environmental conservation and increasing the value generated to our shareholders.

EFFICIENCY

Since 2017, Sanepar has been working under a new regulatory regime, which provides for reasonable tariffs by sharing productivity gains (Factor X). As a result, we reinforced the routine of efficiency indicator controls throughout the Company. The regulation, besides providing the practice of efficient costs, brings legal certainty to shareholders, ensuring that the rates adequately remunerate the invested capital and the economic and financial balance of the Company. This model is in line with what was established by Agepar (Paraná State Delegated Infrastructure Regulatory Agency) and the Sanitation Act (No. 11,445/2007).

PARANÁ IS REFERENCE

Sanepar is the third largest sanitation company in the country and national reference in efficiency. Moreover, Curitiba is the best capital in the country in sanitation since 2011, according to Brazil Institute, a public interest civil organization that operates in the area of sanitation and environmental protection. All collected sewage is treated before disposal in the water bodies.

The high customer satisfaction, with 79% ratio, also proves the quality of the services provided. We work to better serve and evolve, providing facilities and comfort to our customers on an ongoing basis. We expanded the number of own totems or in agreement with other state agencies, providing another service channel. We have also developed a proposal to expand the connection with customers through social networks, in order to facilitate contact and availability of services.

To maintain excellent service, we need a functional, qualified team, up to date with the trends of the corporate world and technological advances, which is why we invest in training and career of our employees.

We were also one of the first companies to complete the process of compliance with the parameters of the State Act, No. 13,303/2016, which was highlighted by Getulio Vargas Foundation (FGV) as one of the three that best met the legal requirements among the state-owned companies of several government levels, reinforcing our history of governance and transparency.



SANEPAR



A SANEPAR

- 01 Investments by region
- 02 Business Model
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FROM RIVER TO RIVER

Sanepar has the goal of achieving universal sanitation

Due to the extent of its operations, Sanepar is one of the largest companies operating in Paraná and, among the sanitation companies in the country, is considered a model and a reference on several fronts.

With 3.1 million water connections and 2.1 million sewage mains, it has performance rates above the national average: 100% for urban water supply and 72.5% for sewage collection. The entire volume of sewage collected receives treatment. In the remaining parts of the country, the collected urban sewage represents, on average, 60.2% of the total, and 73.7% of this volume receives treatment, according to the 2017 National Information System on Sanitation (SNIS).

Even with rates above the national average, Sanepar invests in the expansion of sew-

age service, and its goal is to achieve universal sanitation by completing the "river to river" cycle.

With this insight, Sanepar defines itself as an environmental company that works for nature conservation, because it is from it that the essential raw material for the maintenance of its activities comes from, that is, it values sustainability.

To operate in practically the entire state, on several fronts, the Company has a workforce of more than 7,000 employees and makes continuous investments to expand and improve its services. In the last eight years, more than R\$ 6 billion were contributed. In 2018 alone, R\$ 1.030 billion were invested, a 17% increase over the previous year.

SANEPAR EXPRESSED IN DATA

346
municipalities served

100%
of coverage in the water
supply system

72.5%
of sewage collection
supply system coverage

3.1 million
water activations

2.1 million
sewage activations

54,000 km
in water supply system

35,000 km
in sewage collection
system

More than
R\$ 6 billion
in investments made in the
past 8 years

OPERATING CONTEXT

Sanepar continues its efforts to expand sewage collection and treatment services in pursuit of universalization

With water demand of 51,366 liters per second, Paraná has a situation that can be considered comfortable, since it counts on water availability equivalent to 1,153,170 l/s, according to data from the State Water Resources Plan. Due to the population contingent, the point of greatest attention is in Curitiba and the Metropolitan Region, where Curitiba Integrated Supply System (SAIC) operates. This system has four dams: Piraquara I and II, Iraí and Passaúna, which have a service capacity much higher than the demand.

Even with this water scenario, Sanepar is committed to using these resources rationally and invests in long-term planning aimed at securing supply. An example is the new

Miranguava River dam, under construction in the municipality of São José dos Pinhais, neighboring Curitiba, to reinforce the region's integrated system.

When it comes to sanitation, Sanepar continues its efforts to expand sewage collection and treatment services in pursuit of universalization. The highlight of 2018 was the Paraná Coast, where investments in the last three years allowed an important advance in the expansion of sanitation services, causing some municipalities to go from 25.9% to 72% of collection. This has improved the beaches bathing capability and eliminated unsuitable places for swimming.

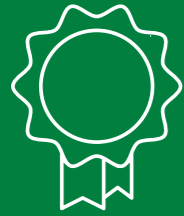


HISTORY

Created by State Act No. 4,684/1963 and initially named Paraná Water and Sewage Company (Agepar), Sanepar (Paraná Sanitation Company) is a publicly-held mixed-capital company. Controlled by the Paraná government, which holds 60.1% of the voting capital, it provides basic sanitation services through water supply, sewage collection and treatment and solid waste management.

It operates in 345 municipalities of Paraná and 297 smaller locations, as well as serving the city of Porto União, in Santa Catarina. [102-1](#), [102-2](#), [102-3](#), [102-4](#), [102-5](#)

To meet this contingent, Sanepar operates a 54,000-kilometer water supply system and additional 35,000 kilometers of sewage collection system. In seven municipalities of Paraná, Sanepar also manages solid waste.



AWARDS AND HIGHLIGHTS

GREENHOUSE GAS INVENTORY

Nine years of GHG Protocol Greenhouse Gas Inventory reporting in the Public Registry, being recognized with the Gold Seal in 2010, 2016 and 2017

TRANSPARENCY TROPHY 2018

Sanepar stood out with the Best Accounting Statement in the category that brings together companies with net revenues of up to R\$ 5 billion. The award has been granted for 22 years by the National Association of Finance, Administration and Accounting Executives (Anefac) and the judgment is made by students of Masters and PhD in Controlling and Accounting at USP, based on press releases, relative to the previous year. Approximately 2,000 companies were evaluated, and the trophy delivered to Sanepar attests the quality of the information contained in the financial statements and explanatory notes, the clarity and consistency of data in the Management Report, adherence to accounting standards and compliance with the report of the financial statements by independent auditors, with no emphasis or exceptions.

NATIONAL SANITATION QUALITY AWARD (PNQS)

Promoted by the Brazilian Association of Sanitary and Environmental Engineering (ABES), the PNQS annually delivers the Quíron trophy. In 2018, Sanepar was awarded three times in the “Best in Environmental Sanitation Management” category, at the Silver Level II, with awards for Cornélio Procópio Regional Management, Southeast Regional Management and Londrina Industrial Management. The Northwest General Management was awarded in the “Towards Excellence” category.

In the “Sanitation Innovation” category, Sanepar received three plaques as finalist, and in the “Sanitation Operational Efficiency” category, a case was also a finalist.

The PNQS is considered the most important prize in the country’s sanitation sector and to encourage good practices, having as reference the Excellence in Environmental Sanitation Management Model (MEGSA). With the three Quíron won in 2018, the Company completed 45 ABES trophies.





INVESTMENTS BY REGION

102-6, 102-7

NORTHEAST REGION

92
municipalities served
R\$ 86.7 million
in water
R\$ 67.8 million
in sanitary sewage
Total: R\$ 154.5 million

SOUTHWEST REGION

85
municipalities served
R\$ 91.7 million
in water
R\$ 61.2 million
in sanitary sewage
Total: R\$ 152.9 million

SOUTHEAST REGION

60
municipalities served
R\$ 85.9 million
in water
R\$ 44.2 million
in sanitary sewage
Total: R\$ 130.1 million

NORTHEAST REGION

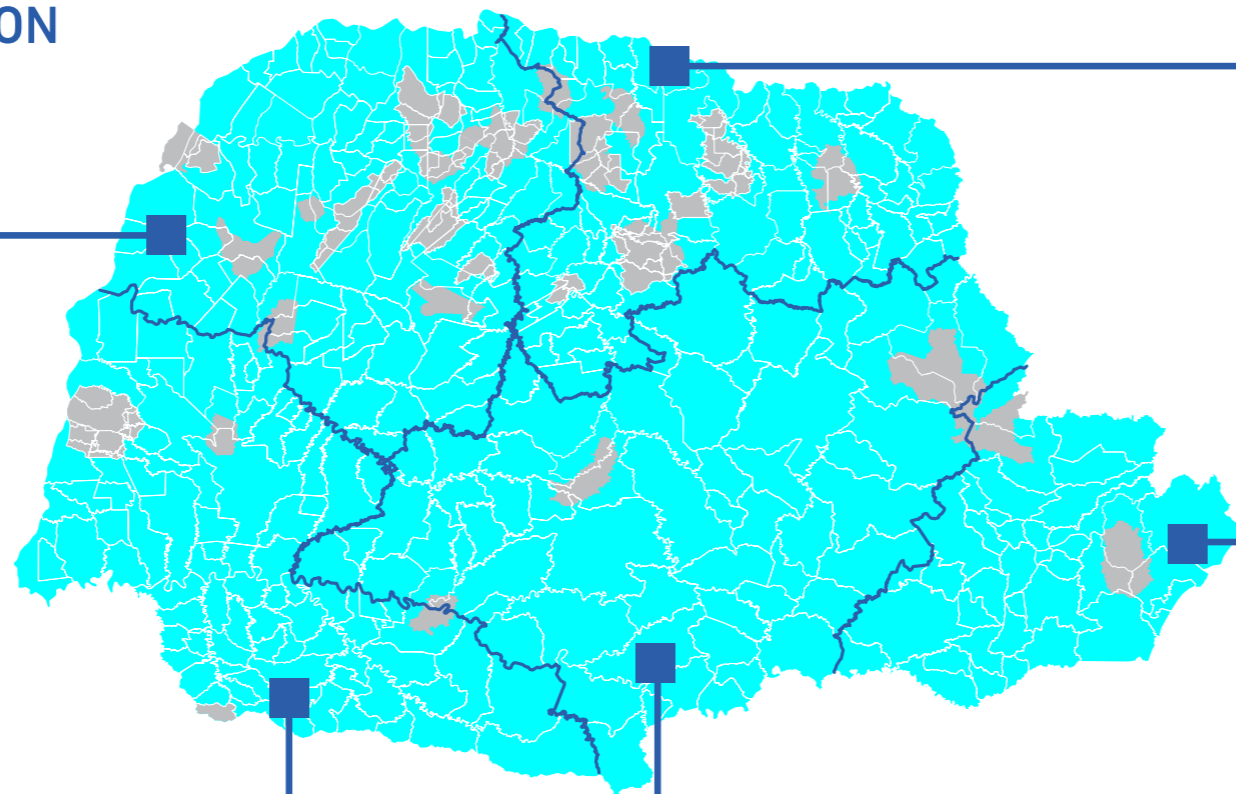
76
municipalities served
R\$ 67.2 million
in water
R\$ 41.5 million
in sanitary sewage
Total: R\$ 108.7 million

METROPOLITAN REGION + COAST

33
municipalities served
R\$ 117.6 million
in water
R\$ 203.5 million
in sanitary sewage
Total: R\$ 321.1 million

MUNICIPALITIES SERVED

MUNICIPALITIES NOT SERVED



INVESTMENTS (R\$ MILLION)

	2011	2012	2013	2014	2015	2016	2017	2018	FROM 2011 TO 2018
Water	123.7	208.6	348.4	408.6	300.4	261.9	351.6	449.1	2,452.3
Sewage	207.1	240.6	361.5	468.0	446.8	431.3	432.0	418.2	3,005.5
Other	23.4	27.1	77.1	77.4	47.8	49.2	96.9	162.7	561.6
Total	354.2	476.3	787.0	954.0	795.0	742.4	880.5	1,030.0	6,019.4

BUSINESS MODEL

A CYCLICAL PROCESS

Sanepar is a publicly traded, mixed-capital company committed to generating results for shareholders, customers and the entire society. Considering the river-to-river cycle,

Sanepar ensures quality water catchment and supply, as well as Sanepar ensures the capture and supply of quality water, as well as collection and treatment of sewage. It also

manages three sanitary landfills. This value creation process generates and benefits to financial results for shareholders, benefits to society and the environment.

RESOURCE AND CAPITAL ALLOCATION	COMPETITIVE ADVANTAGES	BUSINESSES	(MANUFACTURED CAPITAL) ASSETS	CONSUMER DELIVERIES (OUTPUTS)	VALUE GENERATION (OUTCOMES)	
FINANCIAL CAPITAL <ul style="list-style-type: none"> Net worth of R\$ 5,717.2 million and cash generation of R\$ 1,362.0 million Investments of R\$ 1,030.0 million Indebtedness Level: 1.5 times Ebitda (bank debt versus Ebitda) 	<ul style="list-style-type: none"> Water resources wealthiness Predictable and resilient business, with a diverse customer base and market credibility Financial performance above industry peers Operational excellence, with actions to increase efficiency Management excellence 	Water supply FOCUS: We can't run out of water and quality is a supply condition	<ul style="list-style-type: none"> 168 WTPs (Water Treatment Plant) 1,103 wells 4 dams 3,137,760 water connections 54,103 km of distribution systems 	<ul style="list-style-type: none"> 100% coverage in the water supply system 3,923,428 active savings* Quality <ul style="list-style-type: none"> 99.8% compliance of distributed water 	Quality and healthcare High water service quality index (99.8% compliance) and above-average sewage collection service, with beneficial impacts on the health and quality of life of the population in the municipalities served.	
NATURAL CAPITAL <ul style="list-style-type: none"> Water availability around 1.2 million l/s Energy Resources estimated at 2.6 million GJ 		Sanitary sewage FOCUS: Universalization, service quality monitoring and environmental impact reduction	<ul style="list-style-type: none"> 246 STPs (Sewage Treatment Plant) 2,141,050 sewage activations 35,982 km of collecting systems 	<ul style="list-style-type: none"> 72.5% sewage system coverage 100% collected sewage treatment 2,896,583 active savings* Quality <ul style="list-style-type: none"> plus 87,967 tons of organic load removed per year in in STPs 		
HUMAN CAPITAL <ul style="list-style-type: none"> 7,022 own employees 		Urban solid waste FOCUS: Growth and diversification	<ul style="list-style-type: none"> 3 sanitary landfills 	<ul style="list-style-type: none"> 100% treatment of the waste collected 64 thousand tons of waste treated per year 		
INTELLECTUAL CAPITAL <ul style="list-style-type: none"> 548,000 hours in training R\$ 10.7 million invested in research and development 						
SOCIAL CAPITAL <ul style="list-style-type: none"> 79% approval from consumers regarding Sanepar's services 83% wish Sanepar to continue operating in their municipalities Relationship with consumers Relations with the Granting Authority 						

+
Financial return
Payment of dividends and cash generation.

+
Contribution to the environment
Impact management and conservation of water bodies

	MOST RELEVANT THEMES	Operational efficiency and quality in the provision of own and third party services	Governance, transparency and ethics	Sustainability and economic-financial balance	Universalization of access to water and sewage	Water resources management	Environmental Sustainability	Work organization and quality of life
	SDGS SUSTAINABLE DEVELOPMENT GOALS	3 - Health and well-being 6 - Drinking water and sanitation 9 - Industry, Innovation and Infrastructure 11 - Sustainable Cities and Communities 12 - Responsible consumption and production	16 - Peace, justice and effective institutions 17 - Partnerships and means of implementation	8 - Decent work and economic growth	6 - Drinking water and sanitation	6 - Drinking water and sanitation 12 - Responsible consumption and production	4 - Quality education 7 - Clean and accessible energy	4 - Quality Education 5 - Gender equality 8 - Decent work and economic growth

* The term active savings is used to refer to any property or subdivision of a property that has a private or common use of water and/or sewage services registered and invoiced by Sanepar

CORPORATE GOVERNANCE

Governance policy focuses on results, but never losing track of Sanepar's social function

As a publicly traded, mixed capital company operating in the sanitation area, Sanepar is subject to several regulations. Act No. 6,404/1976 (Brazilian Corporate Act) and, more recently, Act No. 13,303/2016 (State Act), in addition to Act No. 11,445/2007 (Sanitation Act), are part of the legal framework to which the Company is subject for the development of its activities.

In addition, as a publicly traded company, included in Brazil's Governance Level 2 at Brasil, Bolsa, Balcão - B3, Sanepar is subject to the rules and supervision of the authori-

ties that regulate the capital markets. At the state level, the Company must comply with the guidelines of Paraná State Infrastructure Delegated Public Services Regulatory Agency (Agepar).

To operate in this regulated environment, Sanepar has a corporate governance policy that operates in all instances and aims to achieve an excellent standard of management, focusing on results, but never losing track of its social function.

CONSOLIDATION

Corporate governance, implemented in 2016, gained its own area in the company's organization chart and in 2018 took important steps towards its consolidation, by aggregating the processes of risks, internal controls and compliance (Governance, Risks and Compliance). These measures reinforced Sanepar's compliance processes with the State Act and B3 Level 2, namely:

- Revision of Bylaws, in line with the assumptions of Act No. 13,303/2016, including determinations such as the increase from 25% to 30% of the percentage of independent shareholders' representatives on the Administration Council; inclusion of representatives of minority shareholders in the Technical and Statutory Audit Committees; establishment of two years for the term of office of members of the Fiscal Council, with the possibility of two consecutive renewals;
- Deployment of Related Party Transaction Policy;
- Donation and Sponsorship Policy Review;
- Deployment of Investment Policy;
- Training of professionals in the company's

decision-making areas (directors and managers) to work in a regulated environment, with emphasis on risk management;

- Creation and development of a system of internal control and risk management, using the COSO methodology, used internationally to detect gaps in business processes and make management more effective. At Sanepar, strategic risk management achieves the six risks identified as priorities for mitigating and improving the organization's operating standard.

X FACTOR

In 2017, in compliance with Sanitation Act (No. 11,445/2007), which regulates the provision of sanitation services, Agepar established a new regulatory regime for Sanepar, with the purpose of stimulating the Company's economic and financial balance and promoting tariff moderation, based on the sharing of productivity gains (X Factor).

That year, the Regulatory Agency authorized 25.63% tariff repositioning to be applied over eight years. The first installment (8.53%) focused on 2017 tariffs and, as of May 2018, the second year of the tariff cycle, the 5.12% adjustment took effect.

The X Factor, set at 0.77% for the 2017-2020 Cycle, works as a portion B reducer in the years of tariff readjustments until the next Periodic Tariff Review (RTP), when a new limit price and X Factor will be determined.

Due to the relevance of X Factor in production costs, tariffs and results, the Company monitors the evolution of the variables that compose the index, defines strategies and implements action plans to ensure that productivity gains are at least equal to those defined in RTP.

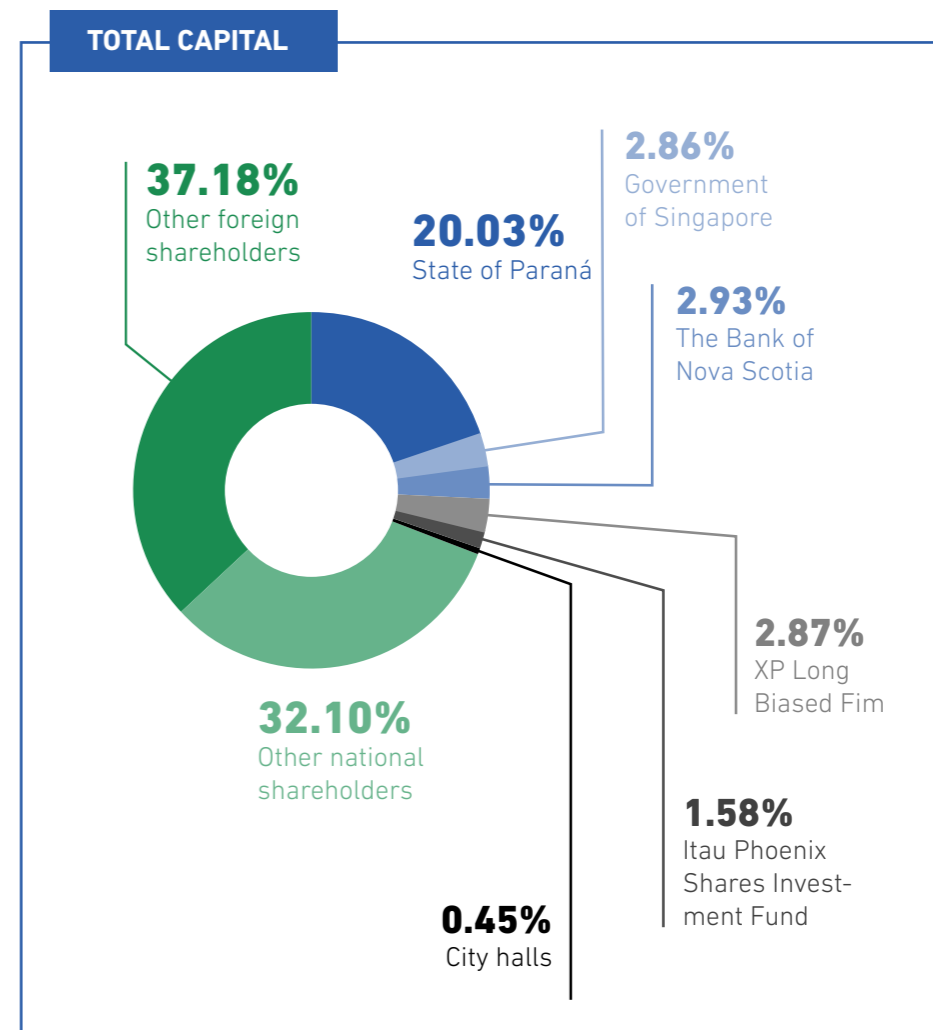
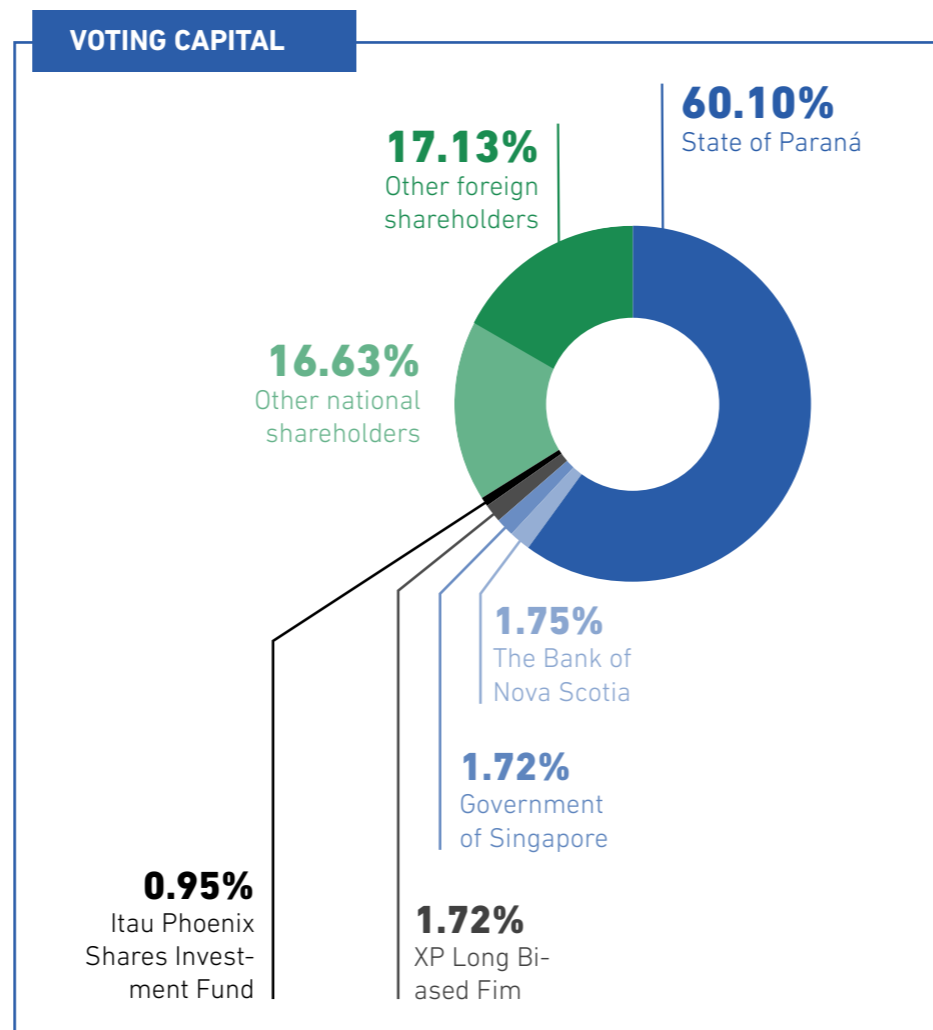
STATE LAW

Sanepar completed in 2018 the process of compliance with the State Law and was highlighted in a study by Getulio Vargas Foundation (FGV) among the three companies that best met the legal requirements. FGV's analysis considered that legal determinations were incorporated into state-owned companies at various levels of government.

SHAREHOLDING COMPOSITION

The Government of Paraná owns 20.03% of Sanepar's total capital and holds 60.10% of

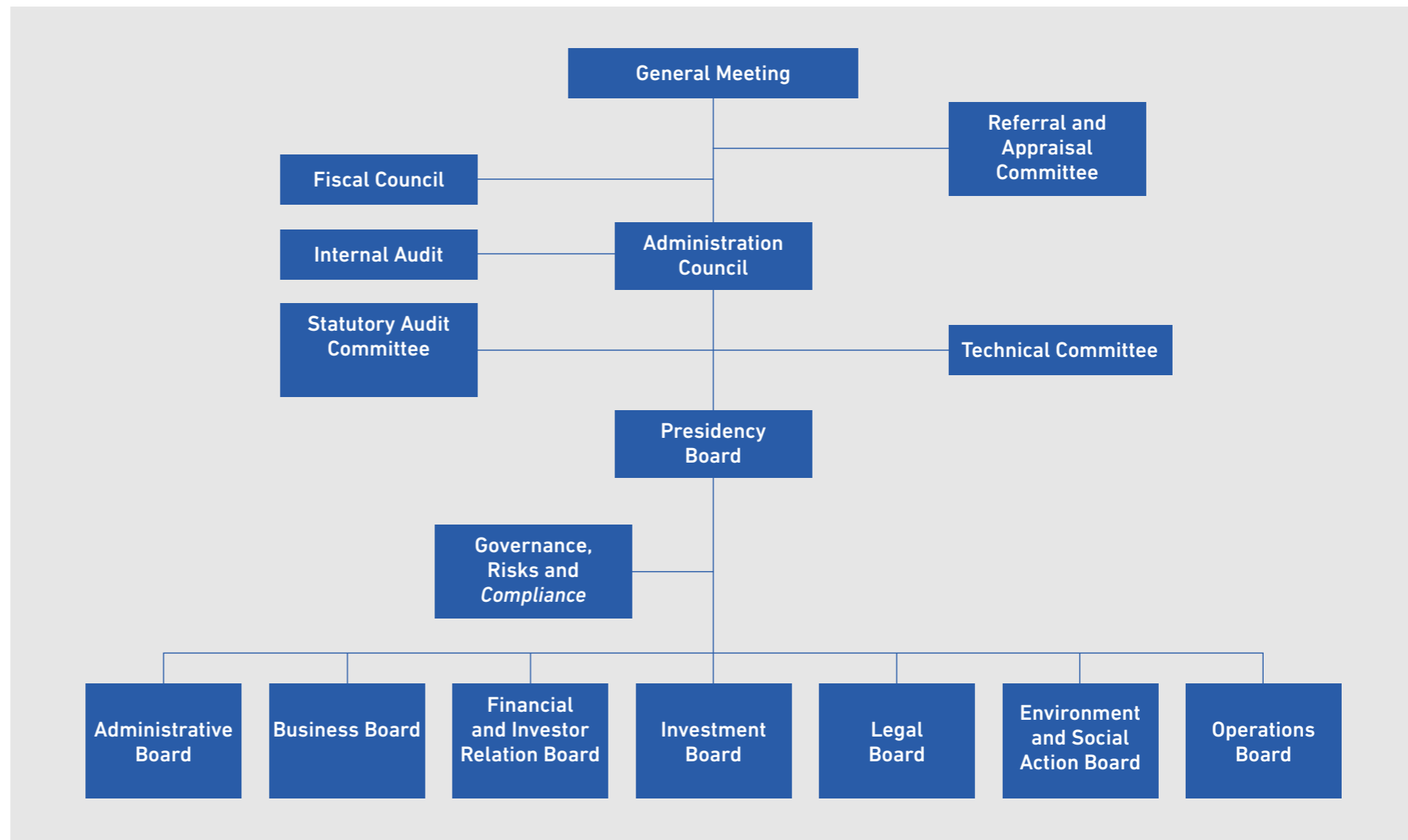
the voting capital. The remaining shares are divided between foreign (20.60%) and domestic (19.30%) shareholders. The free float (shares traded freely in the capital markets) is 79.97%.



DECISION-MAKING STRUCTURE 102-18

Sanepar's organization chart establishes the Shareholders' General Meeting as a sovereign body, and the Administration Council as accountable for conducting strategic businesses. As advisory bodies, there are three committees: Technical Committee, Statutory Audit Committee and Nominating and Evaluation Committee, with compositions ranging from three to six members, which assist the Administration Council in decision-making, except for the Nominating and Evaluation Committee, which advises shareholders. There is also a Fiscal Council, which is responsible for supervising the acts of the administrators, ensuring that the business management meets the objectives defined in the Bylaws, as well as the current legislation.

The execution of the business strategies and the deployment of the guidelines established by the Administration Council are made by the Executive Board, composed of eight members, all with unblemished reputation and a specific graduation to which they were assigned.



PERIODICAL MEETINGS

The General Meeting is held on an ordinary basis, as provided for in the Brazilian Corporate Act, once a year, or extraordinarily if necessary. The Administration Council, made up of nine members (including one employee representative and three independent members), holds monthly regular meetings, or, when necessary, meets on an extraordinary basis. The Council's assignments are to define the general direction of the business, perform risk management, supervise the Executive Board, select independent auditors and approve bidding processes and public procurement.

The Fiscal Council has five effective members and an equal number of alternates, elected by the Shareholders General Meeting, one of them being appointed by the minority shareholder and the other by the preferred shareholder. The term of office is two years and two consecutive renewals are permitted. The Council meets on a monthly basis and is in charge of evaluating accounting practices and, at the end of each year, annual accountability.

INVESTOR RELATIONS

Actions taken by Sanepar to stay close to investors:

- Deployment of distance voting at the Shareholders General Meeting;
- Sanepar Day: Investors spend a day in Curitiba getting to know the Company. They visit the administrative and operational areas (water treatment and sewage treatment plants). In 2018, the meeting was held for the second time, with the participation of domestic and foreign investors;
- Application of investor satisfaction survey, conducted by a contractor, which assessed the perception of this public regarding the conduct of the company's business and pointed out opportunities for improvement in the performance of actions, relationships and communication;
- Second annual investor meeting held at Apimec (Association of Capital Market Analysts and Investment Professionals);
- Website creation, with information directed to investors and shareholders, in two ver-

sions – Portuguese and English. The website <http://ri.sanepar.com.br> was launched in November and meets the demand of this public segment to facilitate access to Company information.

Learn more: <http://ri.sanepar.com.br>

COMPLIANCE, ETHICS AND TRANSPARENCY

In 2018, Sanepar took important steps to consolidate its control structure to ensure ethical standards and transparency in the conduct of the company's business. In order to promote adjustments to the guidelines of the State Act, in the Company's organizational restructuring, the areas of internal control and risk management, previously linked to Internal Audit, were disaggregated and were subordinated to the Governance, Risk and

Compliance Management – GRMC, as well as the deployment of the Compliance area.

Under the coordination of the Compliance area, the Company established the Employee Ethics Committee, with the purpose of disseminating and consolidating the principles of professional ethical conduct, promoting the revision of the Code of Conduct and Integrity and investigating reports of practices that violate the code.

INTERNAL AUDIT

Auditing is now linked directly to the Administration Council, thereby ensuring more independence and agility. And its work is aligned with the Company's strategic planning and risk matrix.

In 2018, in addition to routine assignments, eight audits were conducted to evaluate pro-

The Company installed the Ethics Committee, made up of employees, with the purpose of disseminating and consolidating the principles of professional ethical conduct and investigating occurrences.

cesses, to adapt the following items to the State Law: a) financial statements; b) performance of independent auditors; c) related party transactions; d) special purpose entity (SPE), such as CS Bioenergia S.A; e) employee social security; f) human resources; g) travel accountability; and h) sponsorship funds.

The conduction of Internal Audit follows internal rules and aims to ensure compliance with institutional principles, policies, plans and goals, with independence, impartiality and objectivity, observing legal, normative, ethical and organizational aspects.

The Statutory Audit Committee is made up of three independent members and acts as an advisory body to the Administration Council. It has an advisory and permanent nature, being responsible for supervising accounting and financial reporting processes, risk management and internal control processes and performance of internal and independent audit work.

INTEGRITY PROGRAM

Regarding the fight against corruption, Sanepar maintains the Integrity Program, which follows parameters set forth in the manuals of the Office of the Comptroller Gen-



eral and the Brazilian Institute of Corporate Governance (IBGC) and incorporates determinations established in the Anti-Corruption Act (No. 12,846/2013).

In the so-called investigative audits, to detect nonconformities in the proceedings, or to investigate allegations of fraud, corruption and crimes against the public administration, 63 cases were completed during 2018. There was no evidence of any of the investigated complaints.

The Ombudsman, created in the 1990s, is an important communication channel with customers and also supports the Audit performance. It receives reports through the company's website (www.sanepar.com.br) or through the Transparency Portal of the State Government, ensuring the confidentiality of the source. All information received is checked and forwarded to the responsible areas, so that proper measures are taken. In 2018, 10,442 manifestations were received by the channel, two corruption reports and 136 general reports in the Ombudsman.

FIGHT AGAINST CORRUPTION

GRI 103-2, 103-3

At the end of 2018, the Internal Audit department approved the bylaws (available at the company's website), which establishes, among other things, anti-corruption guidelines. A team specialized in combating fraud and corruption was also established, with trained auditors on this topic, and the Ethics Committee was created.

The management of the fight against corruption is carried out by the Audit manager, with monthly reports to the Audit Committee and the Administration Council on the progress of the investigations and the conclusion of the work, with its recommendations. Furthermore, in the Governance, Risks and

Compliance area, linked to the CEO, there is a statutory provision for direct reporting to the Administration Council in cases of involvement of the Executive Board.

To evaluate risks of corruption, the annual audit plan for 2019 provides for action to detect and address weaknesses in macro processes. The Internal Audit conducts a survey of the main processes subject to corruption risks to define its scope. Nevertheless, there is no information about the operations submitted to the evaluations. This survey is made at the time of planning and takes into account contract values, deficiencies in internal controls, complaints received, among other aspects. Among the mapped strategic risks, the ones specifically related to corruption are not mentioned. In 2019, the risks

already identified will be re-evaluated and the risk of corruption will be categorized.

GRI 205-1

In the last three years, there have been no cases of corruption confirmed at Sanepar.

GRI 205-3

RISK MANAGEMENT AND INTERNAL CONTROLS

GRI 103-2, 103-3, 102-11

In line with its strategic objectives, in 2017 Sanepar began the implementation of risk management and its management as of 2018. Sanepar's Strategic Risk portfolio consists of 25 Risks and 113 Risk Factors. Of these, six had their treatment and monitoring priori-

tized by the management and are considered inherent business risks (see below).

- > Revenue Reduction;
- > Non-renewal or Loss of Contracts With Municipalities;
- > Company's Economic/Financial Imbalance;
- > Non-Compliance with Environmental Laws and Responsibilities;
- > Failures in the conception and non-execution of the Multi-annual Investment Plan;
- > Positioning Failure In Sanepar's Purpose Company.

In 2018, the Permanent Risk Committee was established to advise, evaluate, monitor and recommend the appropriate treatment of the six prioritized strategic risks. The committee advises the Executive Board, Statutory Audit Committee and Administration Council in order to ensure efficiency in the management of resources and protection of assets based on the Company's strategic guidelines and risk profile.

The Permanent Risk Commission acts in an advisory capacity to evaluate, monitor and recommend the appropriate treatment of the six strategic risks.

Risk management is conducted by the Governance, Risk and *Compliance* and the systematic occurs through mechanisms that incorporate this management in all decision-making instances of the Company: councils, committees, management and management, also providing for the training of internal agents and the alignment of internal control and audit routines.

For each prioritized strategic risk, people have been appointed to be in charge of carrying out the treatment actions, monitoring of risk indicators and the submission of their results, as well as the development and transferring of the required data to compose a periodic report to the governance agents.

TREATMENT PLAN – MITIGATING ACTIONS

To address the treatment of the six prioritized strategic risks, 16 indicators are being monitored. Results are submitted on a monthly basis to measure compliance with established tolerance limits. The plans for course corrections consider 129 mitigating actions, of which 75 are already inserted in the impacted processes and are routinely executed. The remaining 54 are being managed within their action plans.

The management report is submitted on a monthly basis to the Permanent Risk Committee and on a quarterly basis to the Executive Board, Statutory Audit Committee and Administration Council, with information regarding the variations of risk indicators, the update of the status of mitigating actions, the level of risk exposure (*dashboard* for financial impacts), among other topics that are deemed relevant.

Also in 2018, a mapping pilot of Internal Controls associated with Prioritized Strategic Risks was initiated, with the objective of integrating and strengthening risk mitigation, as an example of good governance practice to achieve the company's objectives.

For 2019, the administration's plans include, in addition to the strategic risk reassessment and its prioritization, the process risk mapping and its associated internal controls, aligned with the strategic management.





SUSTENTABILIDADE

01 Economic and financial performance

02 Strategy and management



Sustainability, more than a concept, is in Sanepar's daily activities affecting economic-financial, social and environmental aspects, since the combination of these variables ensures the company's continuity. In this regard, it is one of the perspectives of the Company's Strategic Map and directs its efforts to create value for all its stakeholders, becoming inherent in the business.

Thus, Sustainability, Customers, Processes and People are part of the Company's Strategic Map with a broader view of the effects of Sanepar on society.

Sanepar recognizes that the preservation and conservation of the environment and interaction with people are essential for their sustainable growth, and that these actions contribute to the improvement of the population's quality of life. Today, Sanepar defines itself as an "environmental company" that must operate sustainably, contributing to the conservation of springs and guaranteeing water for future supply.

In 2016, Sanepar defined nine themes that guide sustainable management practices. The themes drive the Company's commit-

ment to generating shared value with stakeholders (governance bodies, clients, granting authority, society, researchers, suppliers, employees, among others). In 2018, in a new inquiry with its stakeholders, the materiality matrix was updated to seven more relevant topics, which should guide management priorities in the coming years.

To define these themes, Company's executives were interviewed, who helped shape the corporate vision on sustainability, representatives of market analysts, suppliers, customers and entities. An online questionnaire was also applied to employees, customers, suppliers, investors, among others, which had almost 1,400 participants. These two views, internal and external, were crossed to define the most relevant themes, that is, those with high relevance to the company and to its stakeholders. *(see the side chart)*. **GRI 102-40, 102-42, 102-46**

MATERIALITY RESEARCH - PRIORITIZED THEMES	CORRELATION WITH THE SUSTAINABLE DEVELOPMENT GOALS (SDGS)
Operational efficiency and quality in the provision of own services and third parties	3 – Good health 6 – Clean water and sanitation 9 – Industry, Innovation and Infrastructure 11 – Sustainable Cities and Communities 12 – Responsible consumption
Governance, transparency and ethics	16 – Peace and justice 17 – Partnerships for the goals
Sustainability and economic-financial balance	8 – Good jobs and economic growth
Universalization of access to water and sewage	6 – Clean water and sanitation
Water resources management	6 – Clean water and sanitation 12 – Responsible consumption
Environmental Sustainability	4 – Quality Education 7 – Renewable energy
Work organization and quality of life	4 – Quality Education 5 – Gender equality 8 – Good jobs and economic growth



ECONOMIC-FINANCIAL PERFORMANCE

GRI 103-2, 103-3

The company maintained cost and expense control efforts, positively impacting the results

Sanepar achieved significant results and achieved a balanced and sustainable performance even in a year marked in Brazil by the slow recovery of the economy after a period of recession. Net operating revenue increased 7.6% compared to 2017, while net profit grew 30.1% and EBITDA margin stood out, having reached 39.5%.

A significant achievement in 2018 was the renewal of the contract with the city of Curitiba for a period of 30 years. This is a relevant

achievement, as the municipality alone accounts for 24.4% of Sanepar's revenue. Curitiba and its Metropolitan Region make up the largest population nucleus of the state and, therefore, concentrate much of the demand for environmental sanitation services.

Three other municipalities in the region renewed their contracts for the same 30-year period: Campo Largo, Piraquara and Colombo. The three plus Curitiba represent 28.2% of Sanepar's revenue and are part of an integrated supply system.

During the fiscal year of 2018, the Company maintained its efforts to control costs and expenses, positively impacting the economic results achieved, adopting as an X Factor, a parameter that measures the company's efficiency. The period was important to consolidate the control methodology and enrich Sanepar's experience in the regulated environment.

The Company's continued expansion was marked by the growth in investments that reached R\$ 1,030.0 million, 17.0% growth compared to 2017, when R\$ 880.5 million was invested.

DEBENTURES

To complement its investment program, in 2018 Sanepar raised funds through the 8th issuance of debentures, in two series, totaling R\$ 250 million. Intended for professional investors, non-convertible debentures mature in three years (for the first series) and five years (for the second series).

The operation had as its credit risk "Rating" by one of the world's leading rating agencies, Moody's Investors Services, with an Aa2.br (national scale) credit rating.

RATING

Fitch maintained the AA (bra) credit risk rating, but changed the outlook from stable to positive. According to the agency, "Sanepar's credit profile benefits from the greater resilience and predictability of its demand and results, which are tested in different economic scenarios compared to other sectors of the economy. In operational terms, Sanepar also has better indicators than those of its major industry peers."

Moody's, on the other hand, has rated it as Ba2, on a global scale, and Aa2.br on the Brazilian scale, with a stable outlook. The agency's report states that the Company "has shown a continued growth in recent quarters, driven mainly by tariff adjustments and increased water and sewage services. Moody's considers Sanepar's liquidity as adequate."

REVENUES

Net operating revenue grew 7.6% compared to 2017, mainly influenced by the 5.12% tariff adjustment applied from May 2018 and the expansion of water and sewage services.

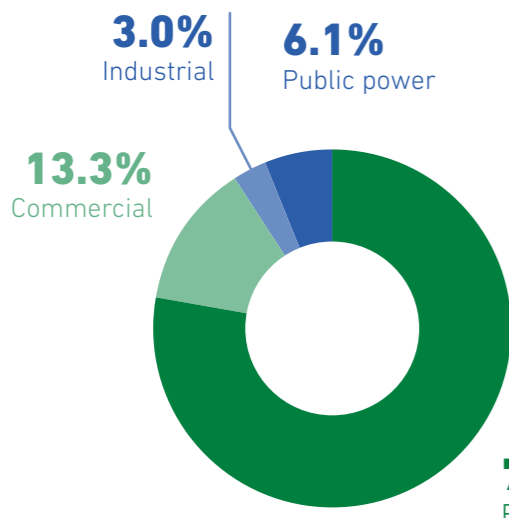
The re-adjustment was authorized by the Regulatory Agency (Agepar), and it was the second year of the Company's first Tariff Cycle. The correction includes the second installment of 2.11% of the eight-year split deferral plus the difference between the re-

quired revenue and the verified revenue, adjusted by Selic rate, as determined by the regulator.

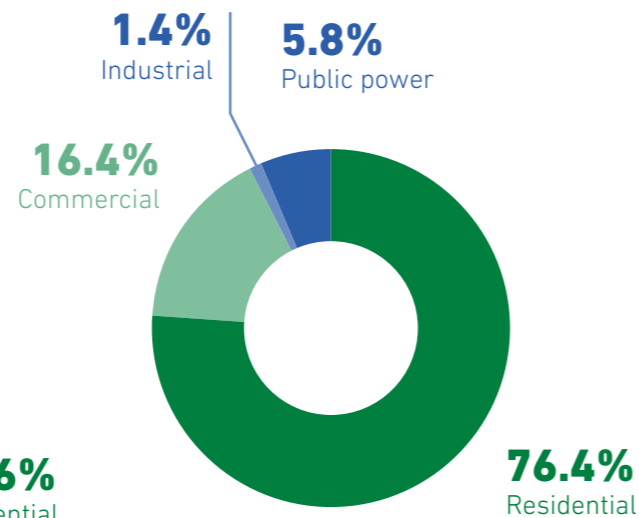
The expansion of water services was marked by an increase of 2.3% in the extension of the supply system and an increase of 1.6% in the number of activations. Sewage services grew by 2% in the collection supply system extension and by 4.9% in the number of activations.

2018 REVENUE COMPOSITION (%)

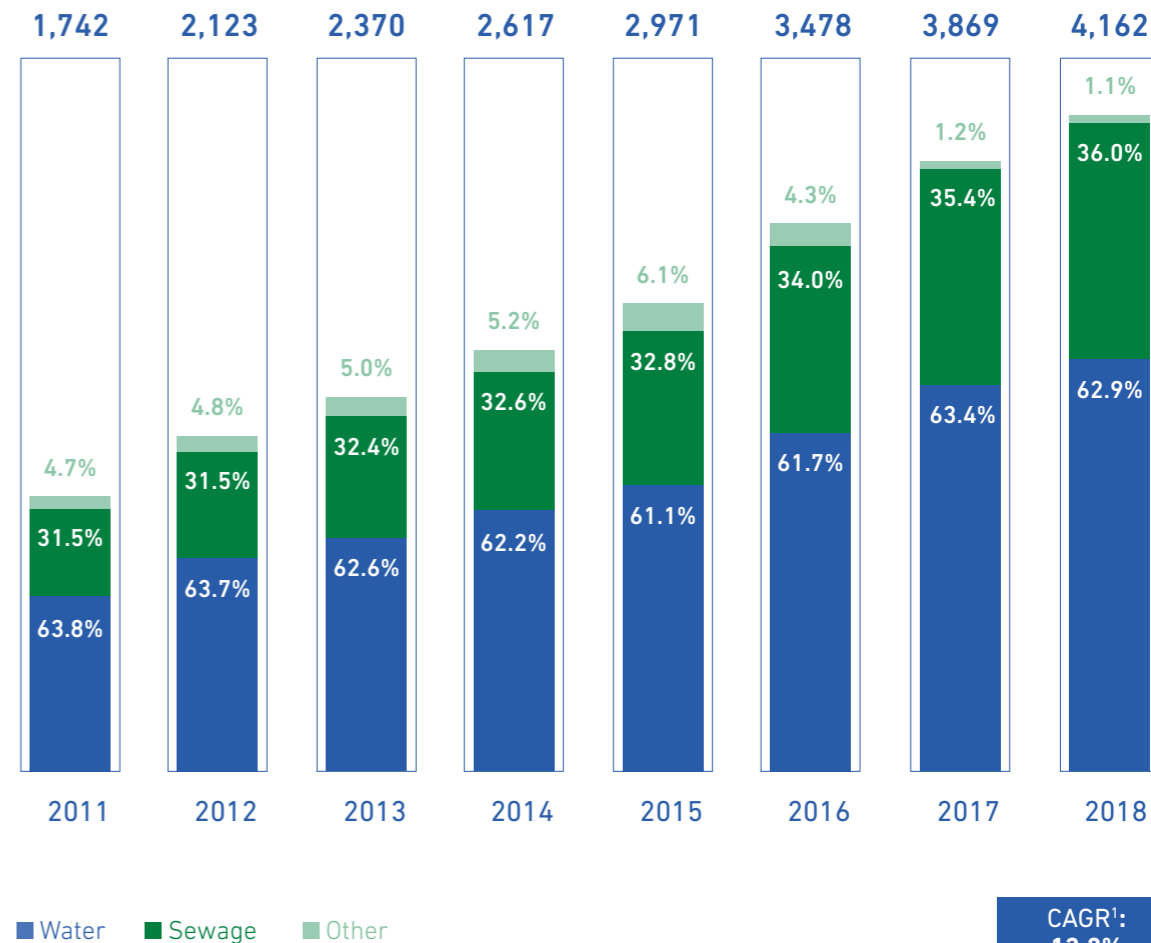
WATER



SEWAGE



NET REVENUE (IN R\$/MM)



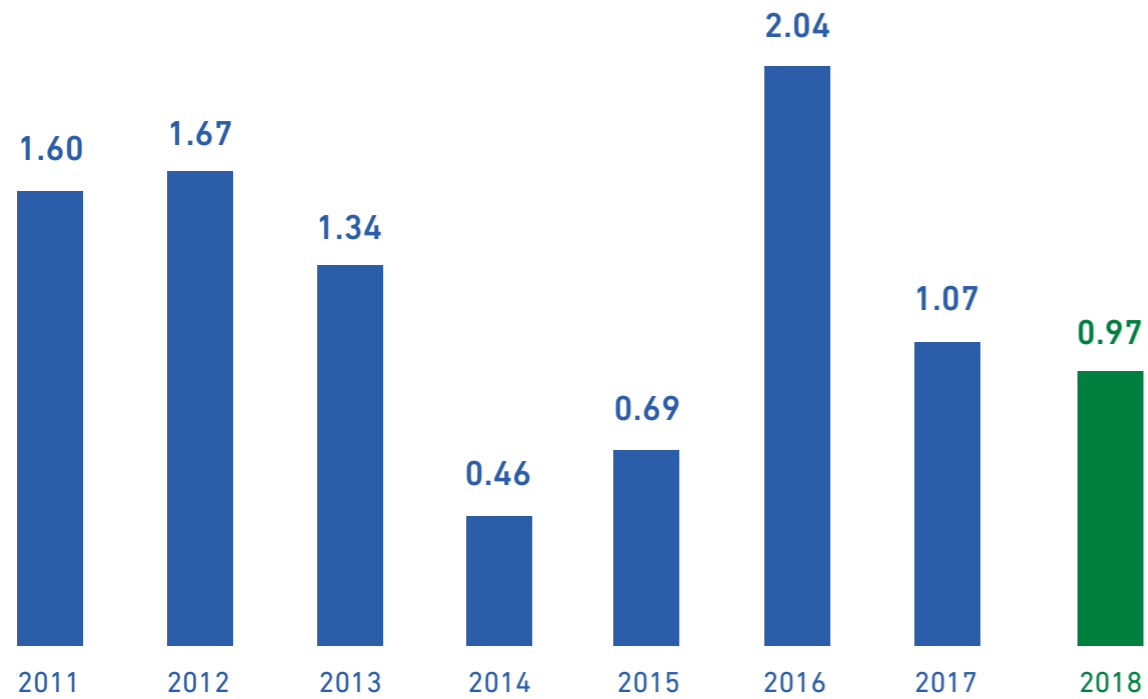
¹ CAGR: Average percentage growth in net revenue between 2011 and 2018.

DEFAULT

With the intensification of commercial and customer relationship actions, delinquency dropped for the second consecutive year, re-

ording in 2018 the index of 0.97%. Positive results were also achieved with the Credit Recovery Program, which Sanepar instituted for public debt negotiation.

DEFAULT RATIO (%)



EBITDA

The EBITDA of R\$ 1,642.0 million in 2018, higher than the 2017 result of R\$ 1,383.5 million, reflects the continuous improvement of the Company's operating efficiency, which achieved a net operating revenue increase of 7.6%, higher than the 1.4% increase in operating costs.

In 2016, with the implementation of the Retirement Incentive Plan (RIP) and Voluntary Dismissal Program (VDP) and the adherence of 585 employees, 50 of them in 2018, the Company was able to reduce its highest operating cost: the personnel cost, by 2.9% compared to 2017. In addition to the reduction, the 3.8% decrease in material costs compared to 2017 positively influenced EBITDA.

Labor provisions also contributed to the better EBITDA result due to the legal advisors' review of estimates and probabilities of loss.

The favorable result was partially mitigated mainly by the increase in electricity, the main input and the second highest operating cost of the Company, which increased 12.1% compared to 2017, due to the electricity tariff re-adjustment.

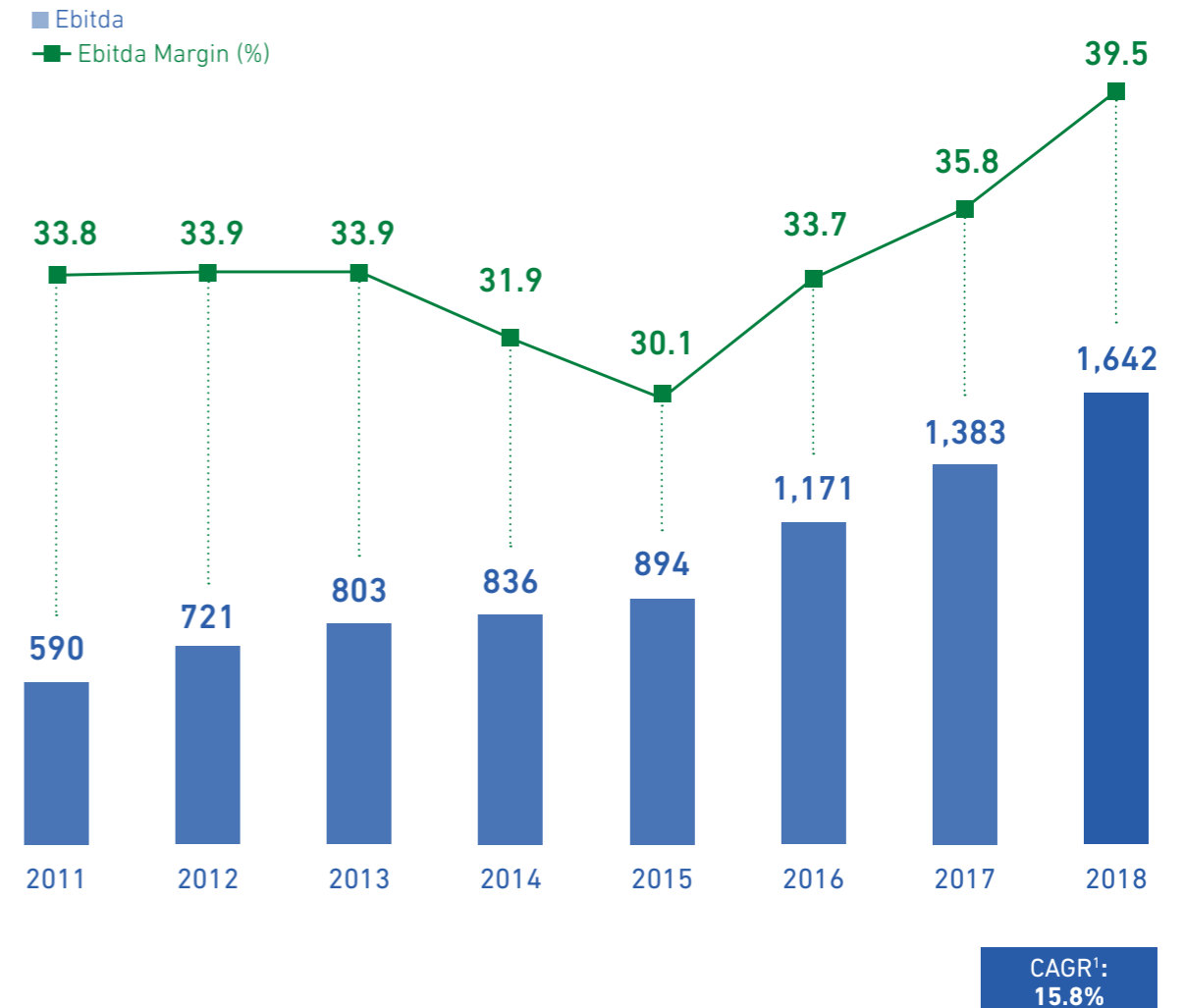
As a result, EBITDA margin increased 3.7 p.p., from 35.8% in 2017 to 39.5% in 2018.

EBITDA¹ (R\$ k)

DESCRIPTION	2015	2016	2017	2018	VAR. %
Net profit	438,444	626,847	686,172	892,487	30.01
(+) Taxes on profit	101,870	162,738	227,901	272,515	19.6
(+) Financial income	159,474	164,281	222,167	205,639	-7.4
(+) Depreciations and amortizations	194,194	217,111	247,282	271,387	9.7
(=) EBITDA	893,982	1,170,977	1,383,522	1,642,028	18.7
EBITDA Margin	30.1%	33.7%	35.8%	39.5%	3,7 p.p.

1. The Company calculates EBITDA in accordance with CVM Instruction No. 527.

EBITDA AND EBITDA MARGIN



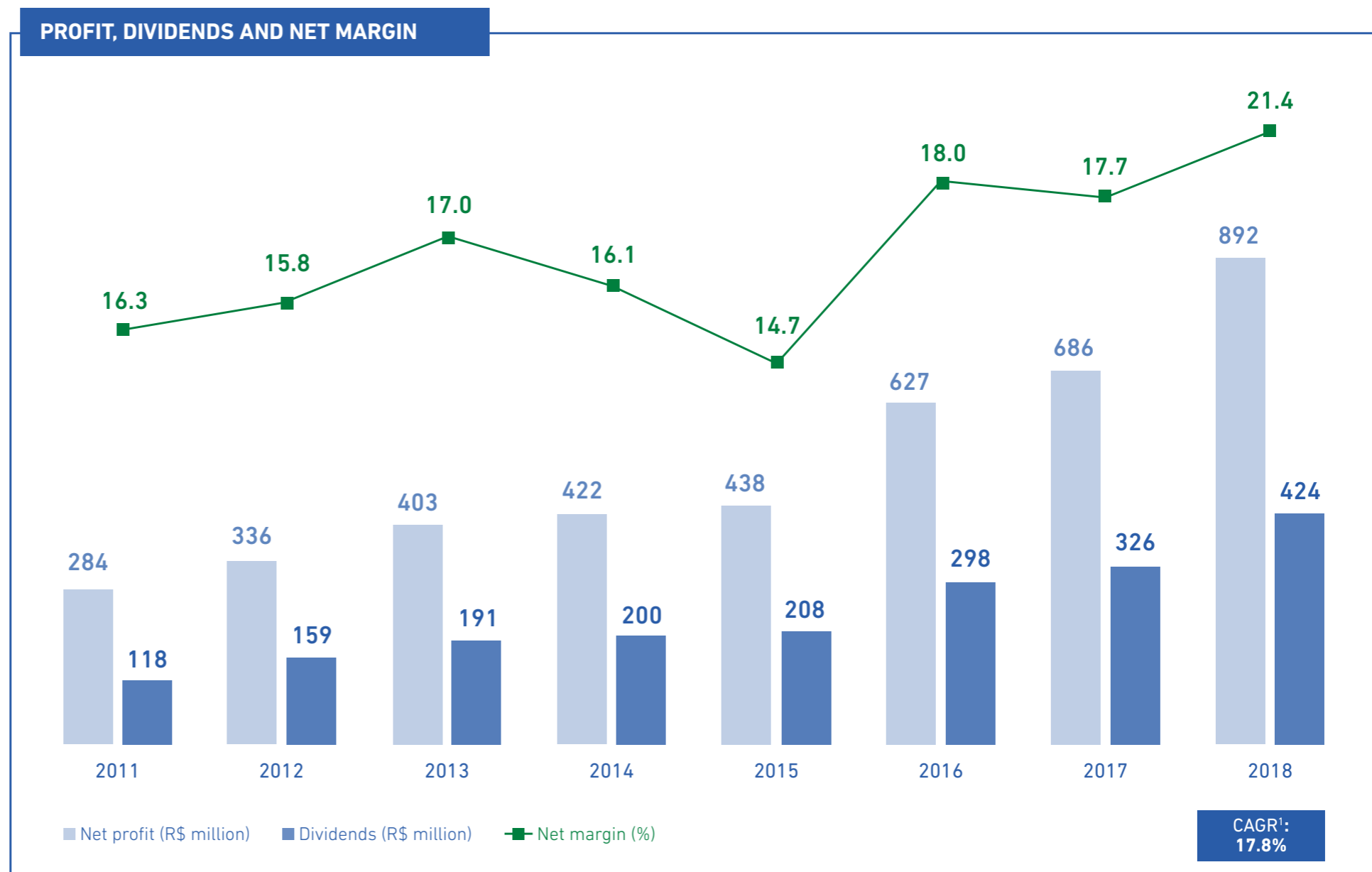
1 CAGR: Average EBITDA growth percentage between 2011 and 2018.

NET PROFIT AND COMPENSATION TO SHARE- HOLDERS

Sanepar's net profit was R\$ 892.5 million, 30.1% higher than the previous year, which was R\$ 686.2 million, while the net margin between one year and another went from 17.7% to 21.4%, with an increase of 3.7 p.p. in 2018.

Positively contributing to the improvement of profitability were the increase in net revenues, the efficiency in cost and expense management and the tax savings resulting from the credit to shareholders of interest on own capital in place of dividends.

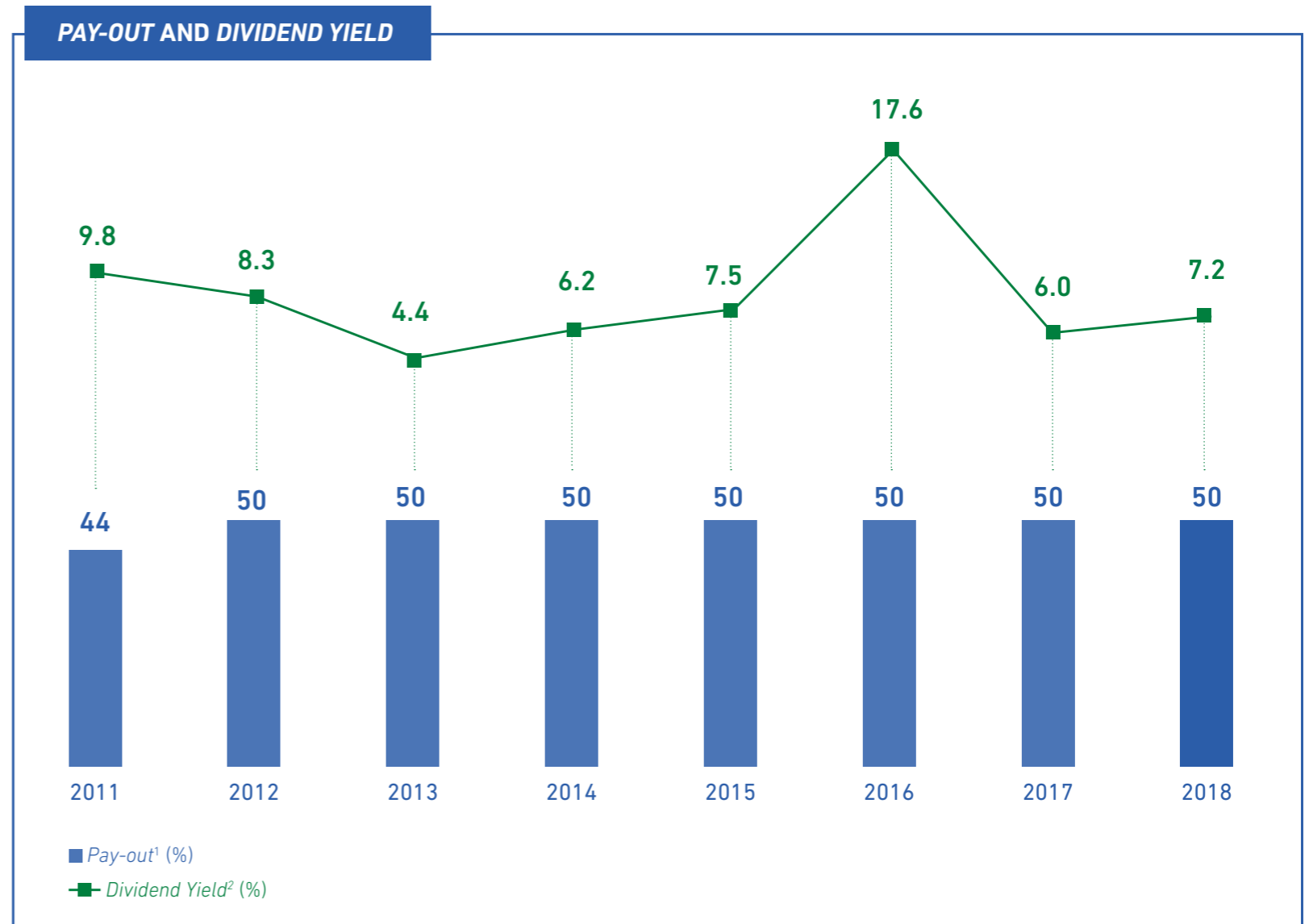
The legal determination entitles shareholders to the minimum mandatory dividend of 25% of the adjusted net income. Nonetheless, the Company's dividend policy provides that the management may, in addition to the mandatory annual dividend, subject to the financial health and public interest that motivated the Company's incorporation, approve the distribution as an additional dividend and/or interest on equity of up to plus 25% of net profit. The Company's Management is pro-



¹ CAGR: Average percentage growth in net income between 2011 and 2018.

posing the distribution of 50% of the adjusted net profit as interest on capital and dividends, in the amount of R\$ 423.8 million, related to the 2018 income. The payment will be made within 60 days of the Annual General Meeting, which will approve the 2018 fiscal year accounts. The *Dividend Yield* was 7.2% in 2018.

On 07/31/2018, released by GuialInvest, the “TOP10 Dividend Ranking” named Sanepar as the 6th place in the Best Dividend Shares, among the companies listed in B3.



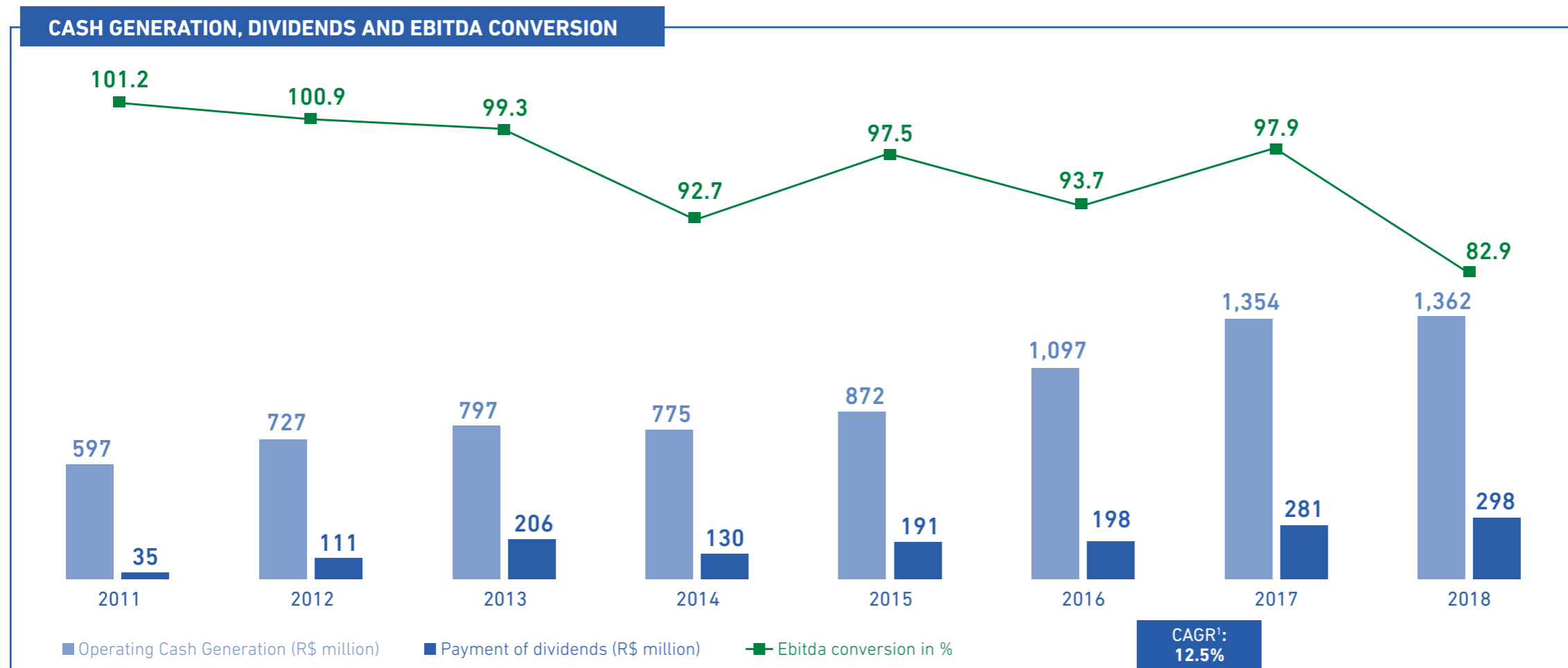
1 Pay-out: profit distribution percentage.

2 Dividend yield: development of the distributed profit over the previous year.

GENERATING OPERATING CASH

The company's operation generated cash of R\$ 1,362.0 million in 2018. In the same period, the amount of R\$ 298.4 million in divi-

dends and interest on equity was paid, 6.1% higher than that of the previous year.



¹ CAGR: Average percentage growth in operating cash generation between 2011 and 2018.

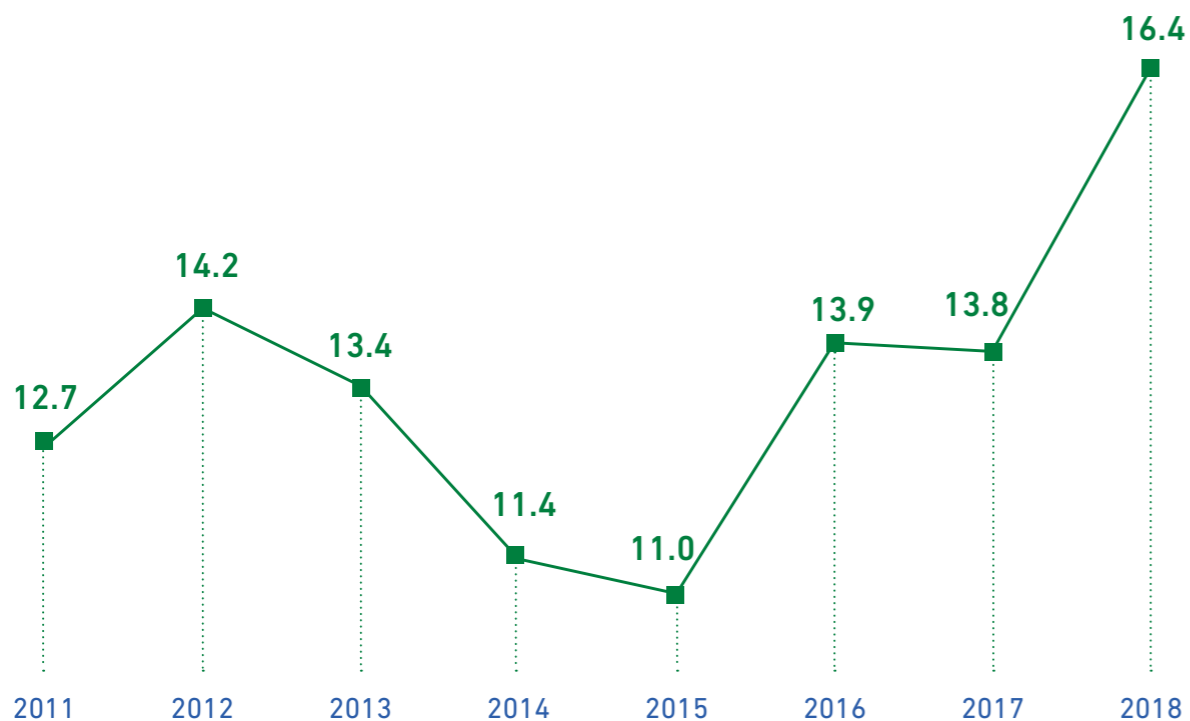
INDEBTEDNESS AND PROFITABILITY

With the favorable economic performance achieved by the Company, the profitability on equity reached 16.4% in 2018, thus growing

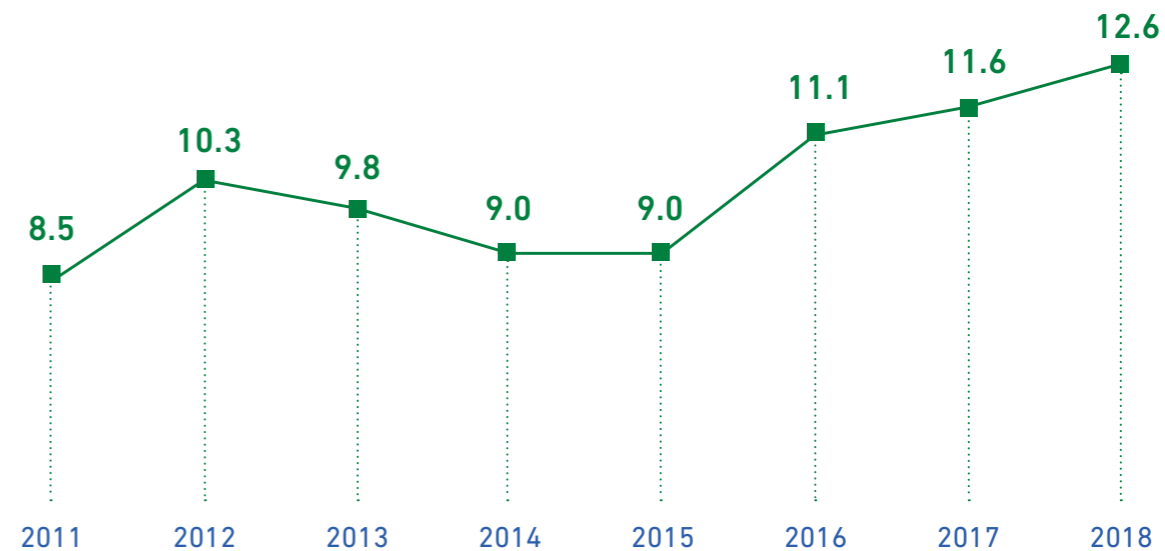
compared to the previous year, when this ratio was 13.8%. Return on invested capital also performed well, from 11.6% in 2017 to 12.6% in 2018.

The Company ended the year with assets of R\$ 10.8 billion and a total debt of R\$ 5.1 billion. The Indebtedness Ratio was 47.0%, while Net Worth corresponded to R\$ 5.7 billion.

PROFITABILITY ON NET WORTH (%)

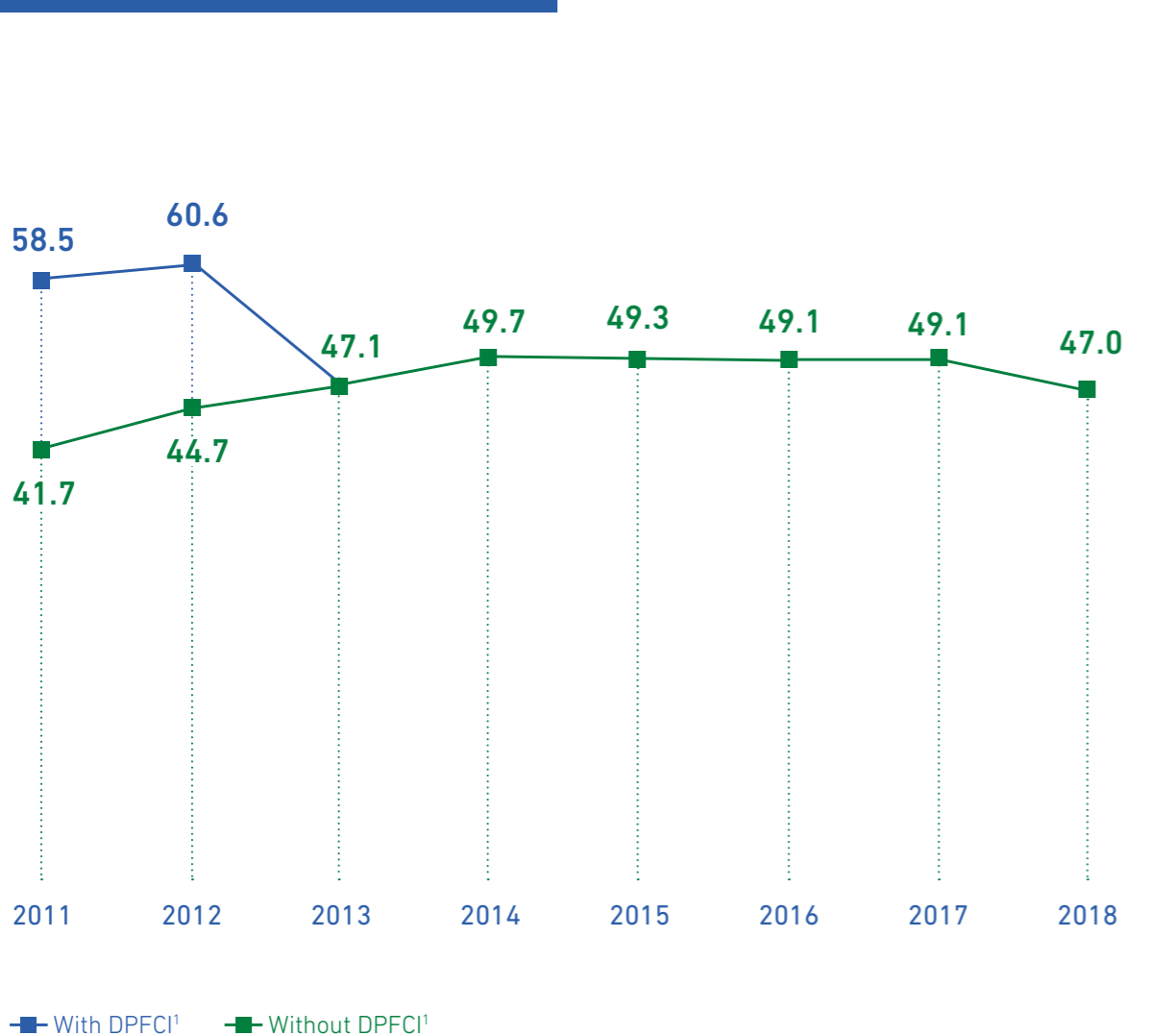


RETURN ON CAPITAL INVESTED (%)





INDEBTEDNESS ON ASSETS (%)



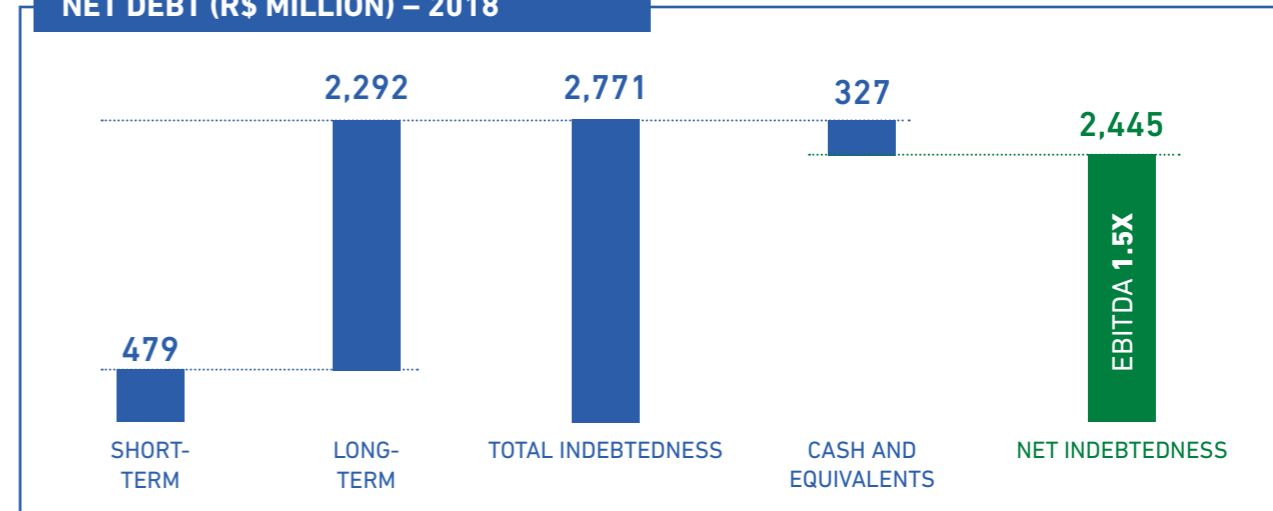
¹ DPFCI: down payment for future capital increase.

NET DEBT

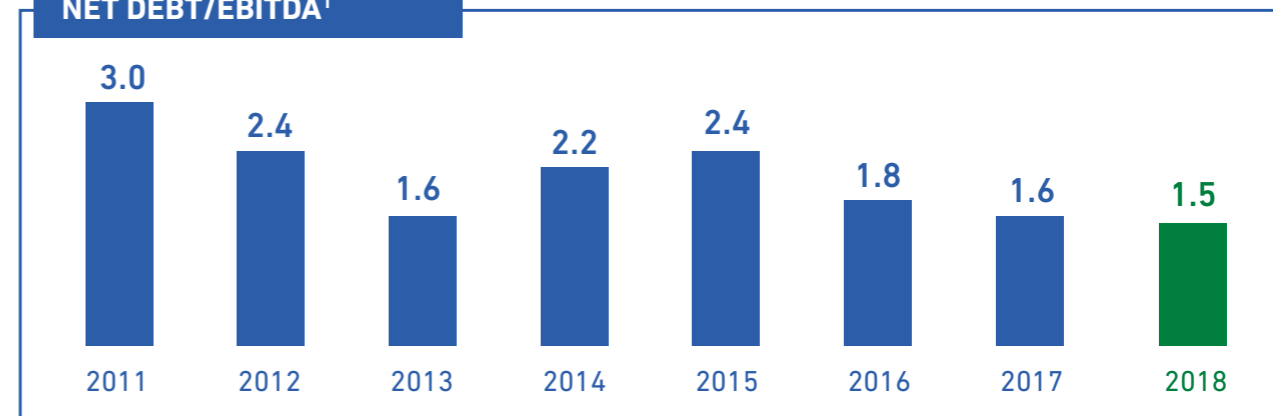
At the end of 2018, the Company's net debt totaled R\$ 2,444.7 million, while the Net Debt vs. EBITDA ratio, which measures the lever-

age ratio, decreased compared to 2017, from 1.6 to 1.5.

NET DEBT (R\$ MILLION) – 2018



NET DEBT/EBITDA¹



¹ Ratio between net debt and EBITDA.

STOCK MARKET

The ordinary shares (SAPR3) ended 2018 at R\$ 16.77, a positive variation of 36.2% compared to the closing of December 2017, when the ratio of each share was R\$ 12.31. Preferred shares (SAPR4) closed the year at R\$

10.70, against R\$ 11.70 in December of the previous year, which means a negative variation of 8.5%. The UNITS (SAPR11), launched in 2017 and consisting of one ordinary share and four preferred shares, reached the end of 2018 with a value of R\$ 61.50, compared to

R\$ 59.90 in December 2017 – a positive variation of 2.7%. The accounting value of each share in December 2018 was R\$ 11.35, an increase of 11.0% over the previous period, when it was R\$ 10.23. The financial volume of Sanepar stock trading totaled R\$ 6,809.5 mil-

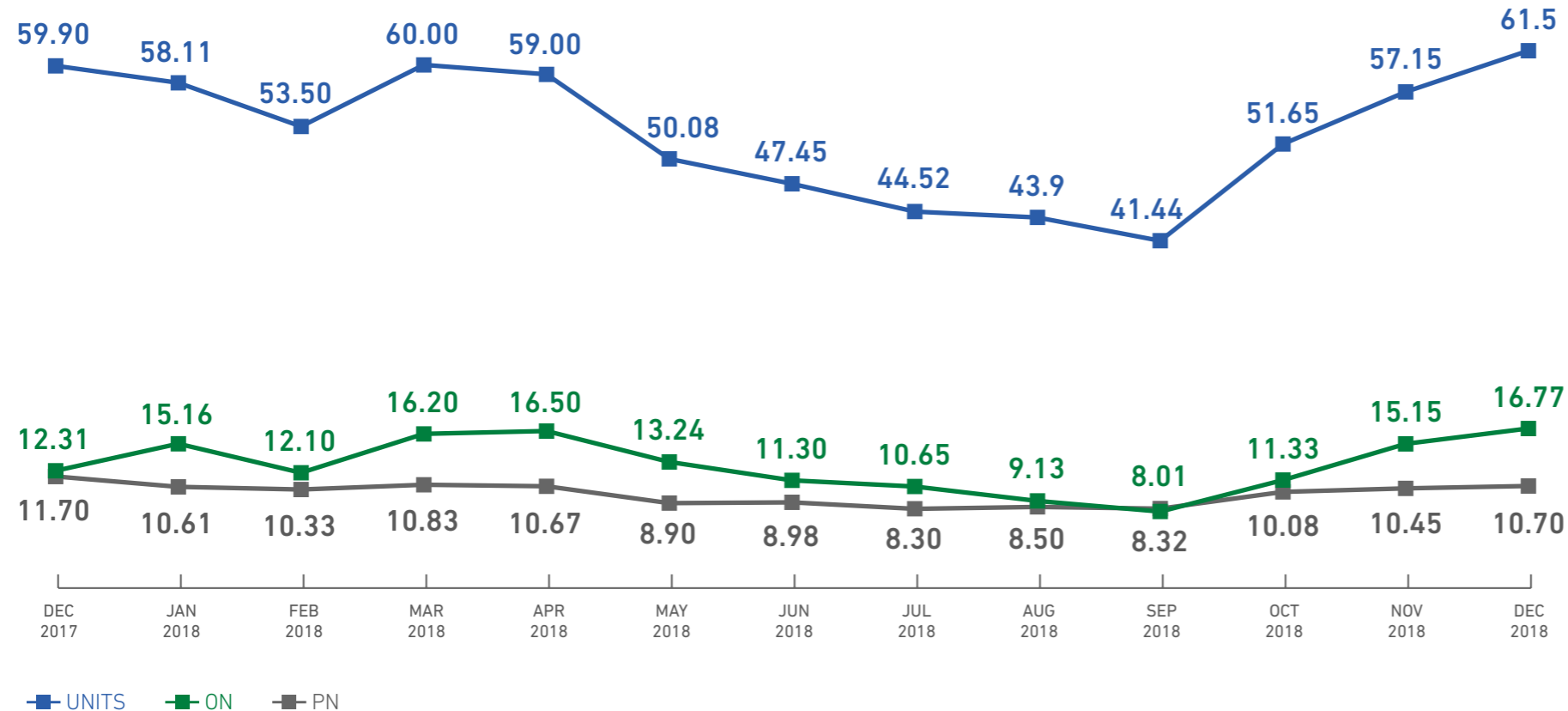
lion in 2018, 34.7% lower than the previous year's volume (R\$ 10,434.7 million).

SERVICES RENDERED BY INDEPENDENT AUDITORS

Sanepar respects the independence of external auditors, understanding the importance of the ability of the audit entity to judge and act with integrity and objectivity, in order to be able to issue impartial reports or opinions.

BDO RCS Auditores Independentes S.S. has a contract with the Company to perform the independent audit services of the 2018 financial statements and to issue the special review reports on the quarterly information (QI) for the third quarter of 2018 and for the 1st and 2nd quarters of 2019. The audit contract has a 12-month term, effective as of October 4, 2018. Independent auditors have not performed any services other than those reported here.

SANEPAR SHARE RATIO (R\$)



ADDED VALUE DISTRIBUTION

GRI 201-1

In 2018, Sanepar analyzed R\$ 2,976,128 in added value, an increase of 9.4% over the previous year. The increase in the Company's operating revenue positively contributed to this increase, as well as a more efficient management of operating costs. As a result, the amount distributed to shareholders and retained earnings increased significantly. The complete information is in the Financial Statements 2018, at Sanepar website.

DIRECT ECONOMIC VALUE GENERATED (R\$ K) GRI 201-1

	2016	2017	2018
Revenues	3,708,034	4,068,820	4,439,108
Inputs	(1,132,165)*	(1,191,478)	(1,247,117)
Depreciations	(217,111)	(247,282)	(271,387)
Equity accounting income	(3,361)	(1,791)	(3,829)
Financial revenues	80,526	91,882	59,353
TOTAL	2,435,923	R\$ 2,720,151	R\$ 2,976,128

DISTRIBUTED ECONOMIC VALUE (R\$ K)

	2016	2017	2018
Staff and managers	932,680	977,092	1,009,560
Governments (taxes)	586,280	694,959	759,301
Funders	290,116	361,928	314,780
Shareholders	297,585	325,633	423,814
Net profit retained	329,262	360,539	468,673
TOTAL	2,435,923	2,720,151	2,976,128

GRI 201-1 DISTRIBUTED ECONOMIC VALUE (%)

	2016	2017	2018
Staff and managers	38	36	34
Governments (taxes)	24	26	26
Funders	12	13	11
Shareholders	12	12	14
Net profit retained	14	13	16
Total	100	100	100

SOCIOECONOMIC COMPLIANCE

GRI 103-2, 103-3

The main commitments and goals related to socioeconomic compliance management are to perform professional duties supported by knowledge, skill and assertive attitudes. Continuous efforts are made to improve processes, comply with legal norms and provisions, promote the development and well-being of employees and collaborators, as well as the company growth. The management of this theme is monitored and evaluated through internal and external audit, as well as internal committees made up of legal staff to evaluate socioeconomic projects.

There has been no records of payment of significant fines within the Legal Board relating to non-compliance with social and economic laws and regulations over the past three years. [GRI 419-1](#)



STRATEGY AND MANAGEMENT

The Company's strategic guideline is the implementation of the Environmental Sanitation Management Excellence Model (MEGSA)

Sanepar's strategic planning is in line with Act No. 13,303/2016, institutional principles and company values (Responsibility, Innovation, Competence, Respect, Commitment, Professionalism, Transparency and Ethics) and is organized from the perspectives and objectives defined in the strategic map. It guides projects and actions from all areas in the Company and, with a view to the future, seeks to meet challenges, pave the way for a safe growth and to generate results. The strategic objectives related to each perspective are: **GRI 102-16**

> **Sustainability** – seeking economic, financial and socio-environmental sustainability.

> **Customers** – maintaining and expanding the market of operation; promoting the universalization of the environmental sanitation; raising customer satisfaction; strengthening the company image.

> **Processes** – investing in institutional development; improving process efficiency; striving for excellence of products and services; ensuring the environmental management.

> **Personnel** – improving knowledge management; promoting people's satisfaction; acting with social and environmental responsibility.



Sanepar has as its strategic guideline the implementation of the Environmental Sanitation Management Excellence Model (MEGSA), which had been adopted by the Operations Department since 1997 and, in 2017, was incorporated by the other departments. The model is proposed by the Brazilian Association of Sanitary and Environmental Engineering (ABES) and consists of fundamentals and criteria that evaluate and score the degree of management maturity. In 2018, the boards continued the management diagnosis, identifying best practices in management processes and opportunities for improvement, providing support to teams to innovate in planning their future actions. The result of this work is reflecting the achievement of a new level of corporate management and the consolidation of MEGSA in the Company.

Our annual goals are related to the four perspectives of our Strategic Map – Sustainability, Customers, Processes and People – and seek to broaden the Company's results, considering its social objective, maintaining its financial soundness and also return to shareholders. Our goals include: continuous expansion of savings in water and sewage, improvements in water loss ratio, satisfaction with the service rendered, concession contract index, productivity index and EBITDA margin.

<http://ri.sanepar.com.br/governanca-corporativa/praticas-de-governanca-corporativa>

MISSION

Providing environmental sanitation services in a sustainable manner, contributing to the improvement of quality of life.

VISION

Being a company of excellence, committed to the universalization of environmental sanitation.

VALUES

Responsibility, innovation, competence, commitment, respect, professionalism, transparency and ethics.

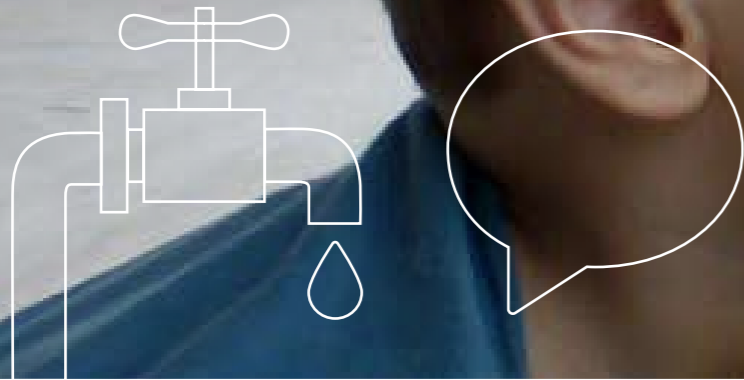
INVESTMENT PLAN

GRI 103-2, 103-3

The The Multiannual Investment Plan (MIP) is developed considering a five-year horizon, based on technical studies. In its elaboration, the sanitation master plans, operational and environmental diagnoses, demands of the local supply systems, goals of the concession/program contracts, compliance with the requirements of the environmental legislation, among other variables are taken into account.

The MIP contemplates short, medium and long-term investments and includes both projects that already have a defined source of funds and those that still need funding.

The program prepared in 2018 estimates resources of R\$ 7,120.5 million over the next five years (2019: R\$ 1,212.3 million; 2020: R\$ 1,565.9 million; 2021: R\$ 1,498.4 million; 2022: R\$ 1,510.8 million; 2023: R\$ 1.333,1 million).



CLIENTES

- 01 Granting authority
- 02 End consumer

We can't run out of water, and quality is a supply condition. This is one of Sanepar's most important guidelines, which, aligned with the Strategic Map Customers perspective, prioritizes quality service and excellence services, seeking technical and environmental solutions for each region, developing a tariff policy that is both fair for those who paid and adequate to ensure return to investors.

The Company serves two groups of customers: Granting Authority, which authorizes the provision of the service by means of contracts, and End Customers, who enjoy the services.

One of the key objectives is to promote the universalization of environmental sanitation.



GRANTING AUTHORITY

30-year contracts
and aligned goals
Municipal Sanitation
Agreements

Since 2007, the relationship between Sanepar and the municipalities has been governed by Federal Act No. 11,445/2007, known as the Sanitation Regulatory Framework. As of this Framework, the relationship between Sanepar and the Granting Authority is through a Program Agreement. These contracts have a 30-year term and goals, brought from the Municipal Basic Sanitation Agreements, which vary according to the

characteristics and conditions of water supply and sewage collection and treatment of each municipality, focusing on improving the population's quality of life. In addition to the Program Contracts, the Company also has existing Concession Agreements signed prior to the Regulatory Framework.

RENEWAL

Of the 346 municipalities served by Sanepar (345 from Paraná and one in Santa Catarina), 338 have current contracts and eight contracts are expired and are under negotiation for a Program Contract to be signed. Among those that are in force, 174 are Program ones, that is, after the Regulatory Framework, and 164 are prior to the Regulatory Framework, therefore Concession ones. Of the total Program Contracts, 15 were signed in 2018. The Company's objective is to transform all of its contracts into Program Contracts.

RELATIONSHIP WITH MUNICIPALITIES

Monitoring of concession and program contracts with municipalities is a routine at Sanepar. Company technicians visit City Halls and hold meetings with communities to evaluate the quality of services, the achievement of goals and the identification of demands.



MUNICIPAL BASIC SANITATION AGREEMENT

One of the requirements of Federal Act No. 11,445/2007 is that each municipality must have its Municipal Basic Sanitation Plan (PMSB), under penalty of having prevented its access to federal government resources. The PMSB is also a mandatory requirement for the signing of Program Contracts.

The Agreement, according to the legislation, must be prepared with the participation of the population, through inquiries, public hearings and approval by local legislatures. It should also be reviewed every four years for goal, project and action adjustments. Services that are part of the agreements and may be awarded include water supply, sewage collection and treatment, urban cleaning, urban waste collection and disposal, rainwater drainage and disposal.

Sanepar offers municipalities support in the preparation of the PMSB for water and sewage services. The participation of the Company's technicians includes attending public hearings and monitoring the approval process in the municipality.

END CONSUMER

When Sanepar speaks of end customers, it is referring to a universe of 3.9 million savings (or households/real estate) served by water supply or 2.8 million savings that are also served by sewage collection system. With such a large clientele, the challenge is to ensure excellent service. **SASB IF0201**

In the past few years, the Company has been investing more and more in technology, in order to get closer to consumers and also to facilitate their access, even from far away, notwithstanding the modernization of the face-to-face relationship centers, which have up-to-date equipment and employees trained to offer an agile service, reducing the customer's time spent on site. **GRI 102-43, 102-44**

SANEPAR MOBILE

For end customers, Sanepar can be accessed with a simple touch on the tablet or smartphone. An application that runs on Android and IOS platforms is available for free from online stores. Since it was launched two years ago, the app has been downloaded 100,000 *times* Google Play and App Store stores, which allows the execution of online services such as registration update, water shortage

check, invoice due date change request, barcode retrieval, and payment, debit, and billing information, reading and consumption.

SELF-SERVICE TOTEMS

To facilitate access to Sanepar's services, the Company began two years ago to install self-service totems in places where there is a flow of people. In Curitiba, they are in the so-called Streets of Citizenship, a City Hall structure that concentrates the services offered by the municipal, state and federal governments.

There are 100 totems in operation in the state, and they are likely to be extended to sites such as supermarkets, *malls* and bus terminals. Services such as debt consultation, consumption, payments, supply cuts, duplicate issue, registration update, repair and debit card payment can be accessed through these totems.

In addition to its own equipment, Sanepar also shares Detran totems in additional 282 points, with the lowest service offerings – debit inquiry and duplicate payment slip issuance.

QR CODE

The QR Code, a two-dimensional barcode that can be easily scanned using the cell phone camera, is being printed on the back of monthly invoices and also on cardboard boxes and bottled water glasses, which are distributed at events sponsored or supported by Company.

This tool helps in communicating with customers and directs to the website information about the actions that Sanepar develops in compliance with the Sustainable Development Goals (SDGs) and business guidelines.

GRI 102-12

RATE SIMULATOR

The rate simulator is an important tool for customer account understanding. Available at Sanepar's *website* at the "Customers – Our rates" and, with a similar look to the bill that the customer receives at home, it allows the simulation of water and sewage values, after entering data such as consumption, category, amount of savings and location, in addition to the reference month. The tool identifies municipalities that have seasonality, such as the State Coast, where the tariff is different in the summer months.

OMBUDSMAN GRI 103-2

Easily accessible communication channel is available at the *Company's* website (<http://ouvidoria.sanepar.com.br>) to receive reports, complaints, suggestions, compliments. On the Transparency Portal, these same issues can be dealt with in the Citizen Information Service (CIS), also answered by the Ombudsman. The response time is ten business days, and the interested party can follow up the request. All requests, whether valid or not, are answered. If the demand is complaint, compliment, suggestion or information, the content is analyzed by the service team. If the complaint is a complaint, employee request, employee complaint, Code of Conduct and Integrity, and CIS, the content is reviewed by the Ombudsman or his nominee.

In 2018, another communication alternative with Sanepar was created with the operation of the Digital Government (<https://www.governodigital.pr.gov.br/>), a portal developed by Celepar (Company of Information and Communication Technology of Paraná), which aggregates online services of the direct and indirect state administration bodies.

SERVICE MECHANISMS¹

	2016		2017		2018	
	Ombudsman	CIS	Ombudsman	CIS	Ombudsman	CIS
Total number of calls received through the mechanism	10,909	8	10,823	40	10,442	96
Number of calls that were forwarded	10,909	8	10,823	40	10,442	96
Number of answered calls ³	10,909	8	10,823	40	10,442	96

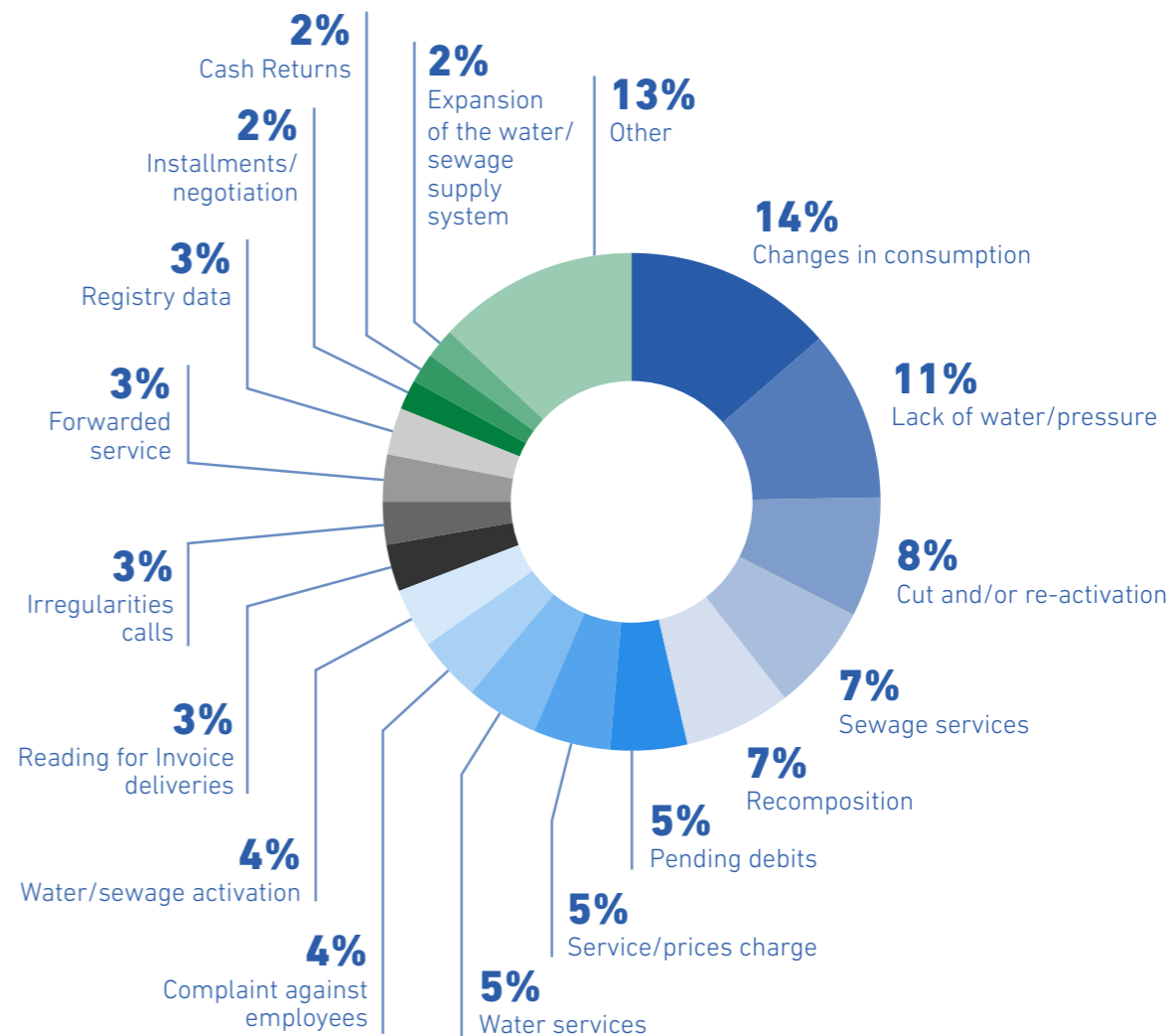
¹ CIS: Citizen Information Service. The ombudsman channel receives the following types of service: complaint; compliment; complaint; suggestion; and request for information. In order to facilitate the understanding of the Ombudsman report, the above call data considers the date of the call's completion.

NUMBER OF FORMAL COMPLAINTS RECEIVED FROM RELATED CUSTOMERS ON PRICES, WATER ACCESS AND/OR WATER AVAILABILITY¹ SASB IF0103-09

	2018		
	Tele-service and Face-to-face	Ombudsman	Total by type of complaint
Prices	16,439	689	17,128
Lack of water	218,373	1,175	219,548

¹ 2016 and 2017 information not available because the internal data control system only stores data from the previous year. Source of information: Tele-service and Face-to-face - Commercial Management System – SGC and Ombudsman - Sanepar Ombudsman System – SOS. Each Regional Management handles complaints regarding its structure, monthly monitored by SISWeb.

MAIN TOPICS ADDRESSED IN THE 2018 OMBUDSMAN (%)





CALL CENTER

Sanepar maintains a 24-hour call center to receive demands from its customers. The service is provided by the number 0800 200 0115, where about 180 attendants hired by a third party provide assistance, taking turns to receive calls and record requests, complaints and suggestions. At the end of the service, a quick survey is conducted on the referral given to the demand presented by the customer. In 2018, more than 2 million calls were answered and the satisfaction rate with the call center service was 82%.

The center also has a structure with its own staff, which assists customers during business hours and is responsible for the so-called active service – that is, offers feedback for some services in the short-term.

For emergency issues such as water shortages, Sanepar uses a text messaging system to communicate residents from the affected areas. To receive the messages, the customer must update their registration and provide the mobile number on the Company's website or application. In 2018, over 2.9 million text messages were triggered with information on water shortages and institutional messages.

CUSTOMER SATISFACTION SURVEY

GRI 102-43, 102-44, 103-2, 103-3

Continuous listening to customers is an important tool for appraising consumers' perceptions and expectations, as well as identifying opportunities for improvements in the products and services offered. Satisfaction surveys are annually conducted through a specialized company, with residential and non-residential customers, via structured questionnaires and personal interviews. These appraisals contribute to the continuous improvement, aiming to achieve excellence.

Experience shows that the Company has consistent ratios. Among the results, 79% of the customers are satisfied with the services provided, 82% approve the service received in the various relationship channels, 82% are satisfied with the water quality and 83% want Sanepar to continue to be the sanitation company of their municipality.

A specific survey on the collection and/or disposal of municipal solid waste indicated an approval rate of 82% of the service.

A qualitative appraisal was also performed with the major clients. The positive points pointed out were: water quality, service provision, cost and demand (quantity). Large cus-



Water quality influences the positive assessment of consumers, and to ensure it, Sanepar maintains a structure with 172 laboratories.

tomers have the Company's image as image as reliable and efficient.

WATER QUALITY

The quality of the water leaving the taps is one of the factors that decisively influences the positive assessment by consumers. To ensure that the water reaches a high standard of potability, Sanepar maintains a structure of its own decentralized laboratories, which periodically analyzes not only the water but also collected and treated sewage.

There are 172 water laboratories throughout the state and 20 more sewage laboratories, as well as four central laboratories, located in the city hubs of Maringá, Londrina, Cascavel and Curitiba. They are equipped with cutting edge technology and have a reference infrastructure in Latin America.

In 2018, this network of laboratories performed more than 1.9 million water analyses (0.24% difference from the previous year) and another 85 thousand sewage analyses (a figure 10.5% higher than that of 2017). The compliance rate of the water distributed by Sanepar is 99.85%.

SOCIAL TARIFF

The social tariff benefited 184,000 families in 2018. This total is equivalent to 5% of Sanepar's number of residential savings and represents a subsidy of R\$ 102.9 million in the year – an amount supported by other categories that use the services, according to the Company's rate structure. The beneficiaries of the program pay R\$ 13.88 per month, of which R\$ 9.25 is related to water rate and another R\$ 4.63 corresponds to sanitary sewage.

Included in this class of consumers are homes that have monthly consumption of up to 10 m³ of water (or 2.5 m³ per person for families with more than four members).

The Social Rate enables the care of needy families, at affordable prices and through cross-subsidization, which enables the maintenance of all systems operated by the Company.

In seeking tariff moderation and adequate service provision, the Paraná Regulatory Agency (Agepar) requested the alteration of the tariff structure, aiming at greater tariff justice among users, reducing the minimum billable consumption to 5 m³. Each consumption range pays fair value for what it consumed. [SASB IF0103-10](#)

To grant this benefit, socioeconomic framework criteria are also used. Families must live in properties of up to 70 m², exclusively for residential use, and have an income of half a minimum wage per person, or two minimum wages (federal) if there are up to four people occupying the same domicile.

Micro and small businesses, individual microentrepreneurs in the state government's ICMS Exemption Program, and philanthropic entities registered with public agencies also have different tariffs.

GARBAGE FEE COLLECTION

By contract, Sanepar collects the garbage tax in 112 municipalities, 111 in Paraná and 1 in the state of Santa Catarina. It is a provision of services to municipalities, with the insertion of the garbage tariff in the water and sewage bills that Sanepar issues and distributes on a monthly basis.

For the municipalities, the system offers advantages by reducing default on payment of this fee and ensures a monthly flow of resources. For taxpayers, the advantage is the installment of this expense throughout the year. Sanepar charges an administrative fee, corresponding in 2018 to R\$ 1.54 per savings

collected, and transfers the amounts collected to municipal administrations by the tenth business day of the following month.

The municipalities that use this collection system continue to be responsible for urban cleaning and sign with Sanepar an amendment to the concession or program contract. Rather, the whole process must proceed through popular appreciation, with public hearings and approval by the City Council.

Of the 112 municipalities that use this service, 12 signed the addendum in 2018. Other municipalities located in the area covered by Sanepar's 23 regional managements expressed interest and, therefore, the Company is conducting training to enable employees for the task. In the Commercial Board's New Business Management, which manages trash collection agreements, this alternative is being viewed as an opportunity to generate extra revenue.

SATISFACTION RATIO

79%

of the customers are satisfied with the services provided

83%

prefer that Sanepar continue to operate in their municipality

82%

are satisfied with the water quality

82%

of the customers are satisfied with the solid waste collection and/or disposal service





PROCESSOS

- 01 Water process
- 02 Sewage process
- 03 Solid waste
- 04 Research, innovation and development
- 05 Environmental management

Created 55 years ago to provide sanitation services, Sanepar constantly strives for excellence in everything it does and has one of the best service levels in Brazil.

A great impetus for the improvement of these indices was given from 2011, when investments in the sanitation area were increased. The evolution was mainly due to sanitary sewage, which in that year reached about 60% of the population.

Sanepar, in addition to water supply and sewage collection and treatment services, also makes collection, treatment and disposal of municipal solid waste to some municipalities.

WATER PROCESS

GRI 103-2, 103-3, 303-2, SASB IF0103-06

River basin management basin management is constant and preventive, ensuring abundant quality water

As an environmental company, Sanepar is committed to the preservation and conservation of water sources. The Company acts in a network with the interested parties to promote constant and preventive management of watersheds, aiming to guarantee abundant quality water as demanded by society.

The quality of drinking water is uninterruptedly controlled and attested by a network of its own laboratories, with 192 units (172 for water analysis and 20 for sewage), three central laboratories in hub cities in the state and one laboratory in Curitiba, which is reference for sanitation area in Latin America. The State Health Surveillance also conducts analyses to verify Sanepar measurements.

In 2018, Sanepar used 254 surface springs (in rivers, mines and reservoirs to accumulate flow regulation dams) and nine aquifer units to capture water for public supply. The limits for the flow of water extraction in each surface catchment or wells are set by the federal and state water resources management bodies, through the Right to Use Water Resources.

For surface water sources in rivers, the assessment of water availability is based on the specific river flow under historical drought conditions in the region and possible impacts on other uses of water resources. In water accumulation reservoirs, catchment conditions are determined by the flow regularized by the dam and downstream flow to be maintained

in the river. For underground catchments, the assessment is performed through production tests and monitoring the quality and quantity of water extracted from each well and the reserves calculated for each aquifer unit.

Sanepar monthly monitors the number of surface and underground abstractions in operation with valid Grants, defining actions to prioritize the regularization processes with the managing body.



TOTAL VOLUME OF WATER WITHDRAWN BY SOURCE (MILLIONS m³)¹ GRI 303-1

	2016	2017	2018
Surface waters	593.01	605.27	609.23
Underground waters	162.05	163.50	164.47
Total	755.06	768.76	773.70

¹ The data come from direct measurements from the daily reading of macrometers in 100% of the Operating Units. The volume from groundwater is equal to the volume of wells (treatment by simple disinfection) monthly reported by the Regional Management from the data collected from the Industrial Control System (ICS). The difference between the total volume of water added and the volume of wells is equal to that from surface waters. The target for volume added in 2019 is 781,425,579 m³; and the target for volume from wells is 134,559,375 m³.

HIGHLIGHTED IN RANKINGS

The ranking of the Universalization of Sanitation, prepared by the Brazilian Association of Sanitary and Environmental Engineering (ASSC), highlighted two cities served by Sanepar: Curitiba and Maringa. They were included in the “towards universalization” category – the highest in the ranking – in a study launched in 2018, which evaluated the performance of 231 municipalities with more than 100,000 inhabitants, based on data from the Ministries of Cities and Health.

Only 6% of the Brazilian municipalities evaluated were included in the “towards universalization” category.

Another study released in 2018, this time by Brazil Institute, a public interest civil organization that operates in the area of sanitation and environmental protection, highlighted the cities of Cascavel, Curitiba, Maringá, Londrina and Ponta Grossa.

The institution's ranking of basic sanitation, based on data from the National Information System on Sanitation (SNIS), evaluated the 100 largest municipalities in the country and ranked Cascavel as the second best city. Curitiba is the best among the capitals. Maringá was 5th, Londrina 13th and Ponta Grossa 14th.

WATER RECYCLED AND REUSED GRI 303-3

	2016	2017	2018
Total volume of water recycled and reused by the organization (m ³)	1,411,473	2,835,789	1,539,426
Total volume of water withdrawn (m ³)	755,055,040.00	768,761,885.00	773,699,832.00
Ratio of the volume of reused and recycled water and the total volume of fresh water withdrawn (%)	0.2	0.4	0.2
Percentage of water recycled and reused in relation to the total of water consumed (%)	0.2	0.4	0.2
Percentage of new water withdrawn from total water consumed (%)	99.8	99.6	99.8

WATER FOR 2030

The dam under construction in Miringuava River Miringuava River will reinforce the integrated supply system of Curitiba Metropolitan Region. Located in São José dos Pinhais, it will have storage capacity of 38 billion liters of water and was sized to keep up with the growing demand for water until the year 2030, benefiting about 650 thousand people.

Miringuava will be the fifth dam of CMR system and, when in operation, the plant will treat 2,000 liters of water per second. Its reservoir capacity corresponds to the volume of 15,200 Olympic swimming pools. The dam's height, 24 meters, is equivalent to that of an eight-story building. The 309-meter-long massif is made up of 256,000 m³ of land.

LOSS MANAGEMENT

SASB IF0103-13

The water loss index is one of the indicators of the efficiency of the water distribution system. The Company adopts continuous measures to combat fraud, leaks, sub-measurement and clandestine connections. There are two ways to measure losses: the activation/day loss rate, the ALR (IPL), which in 2018 stood at 234.4, and distribution losses over the last 12 months average (PSD12), the most widely used metric in Brazil, which was 35.3%. One of the factors that influence the loss rate is the occurrence of fraud and clandestine connections.

Even with rates below the national average, Sanepar pursues the reduction of these losses. The system inspection is part of the routine. Part of this work is carried out at night, using the geophone, which identifies characteristic noises of pipe leaks. During the day, trestles and water connections are inspected.

The application of the Methodology for Analysis and Solution of Problems (MASP) is also used in processes that may cause water losses: production, distribution and maintenance of networks, with a systematic and structured

approach to process management and control. It is an analysis methodology, with the objective of promoting optimization and improvement of results, using quality tools and the PDCA cycle (plan, do, check and adjust).

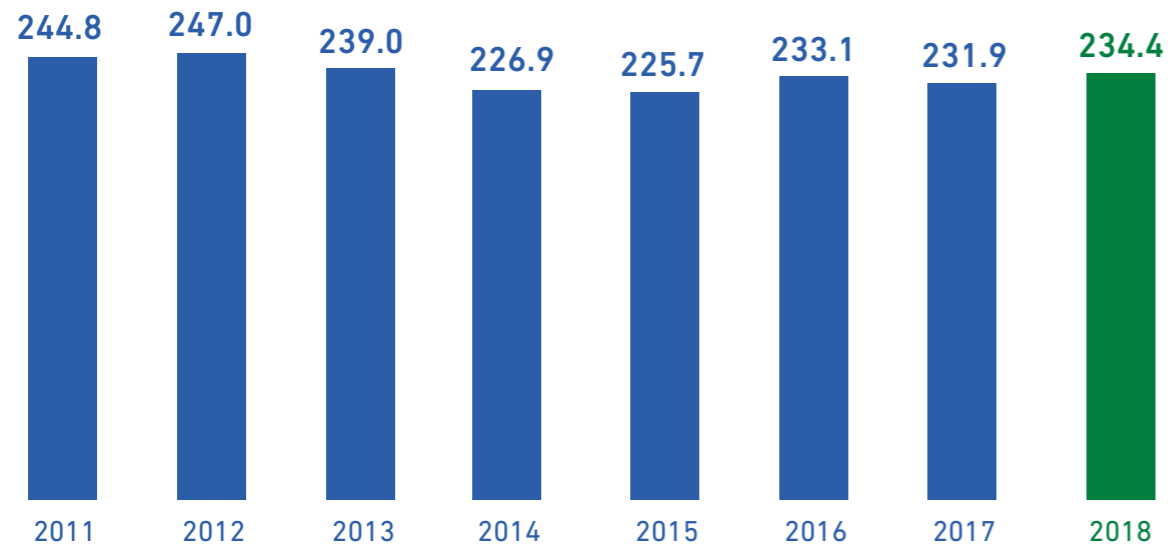
Another practice is the management of the water meter site, so that they are correctly sized and technologically updated, according to the consumption profile of each customer. The equipment is also replaced preventively and correctly, avoiding measurement failures due to wear on internal parts. Each year, about 400 thousand meters are changed.

Other experiments that also reduce losses include the use of high-tech water meters (which allow for remote reading and longer shelf life) and the use of high-density polyethylene (more leak-resistant material) in the pipelines.





ACTIVATION LOSS RATE (IN LITERS/LINK/DAY)



* The loss ratio is the difference between volume produced and micromeasured volume, divided by the number of active connections and number of days of the year, and includes actual and apparent losses.

WATER LOSS DUE TO THEFT

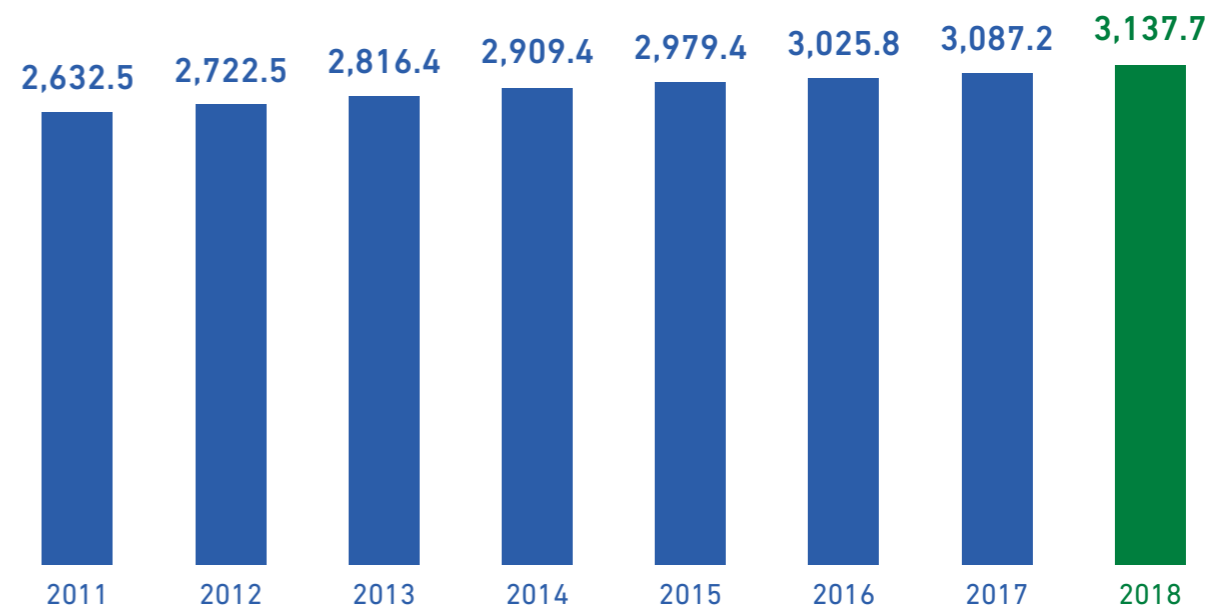
	2016	2017	2018
Volume of water theft in clandestine connections (m ³)	11,364,000.0	13,099,200.0	13,152,000.0
Loss of revenue due to water theft in clandestine connections (R\$)	R\$ 44,774,160.00	R\$ 60,755,297.99	R\$ 69,705,600.00

¹ Volume estimated by the water balance methodology, a methodology that is annually updated and is still being implemented at Sanepar, with improvement initiatives by the regional managers. Revenue losses are calculated by multiplying the estimated volume and average water tariff.

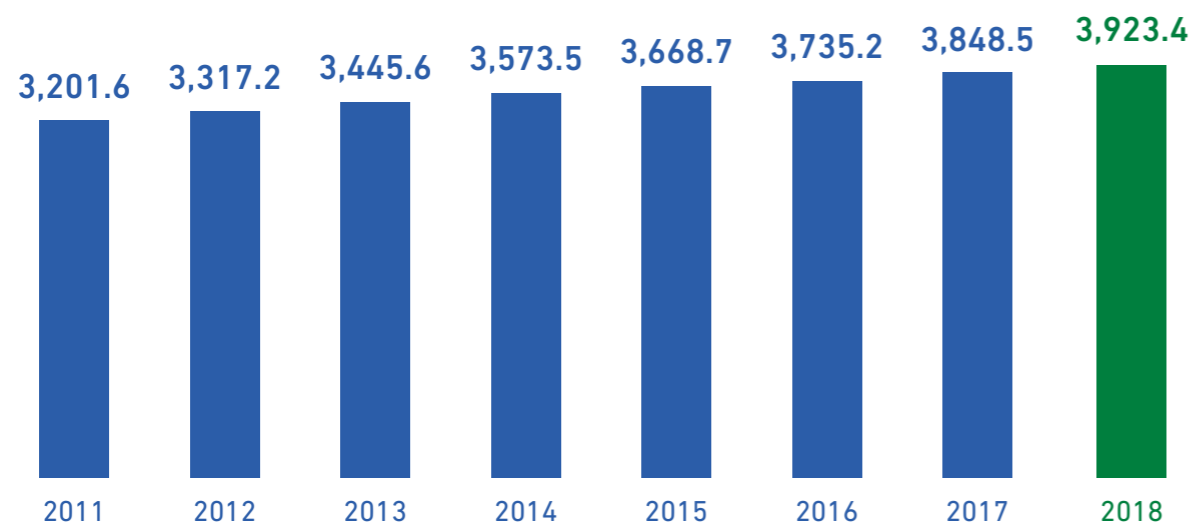
DISTRIBUTION NETWORK SASB IF0103-D, SASB IF0103-12

	2016	2017	2018
Length of water distribution supply system (km)	51,557,989	52,892,496	54,103,163
Water pipe replacement (km)	95.2	113.0	251.2

NUMBER OF ACTIVATIONS / WATER (IN THOUSANDS)

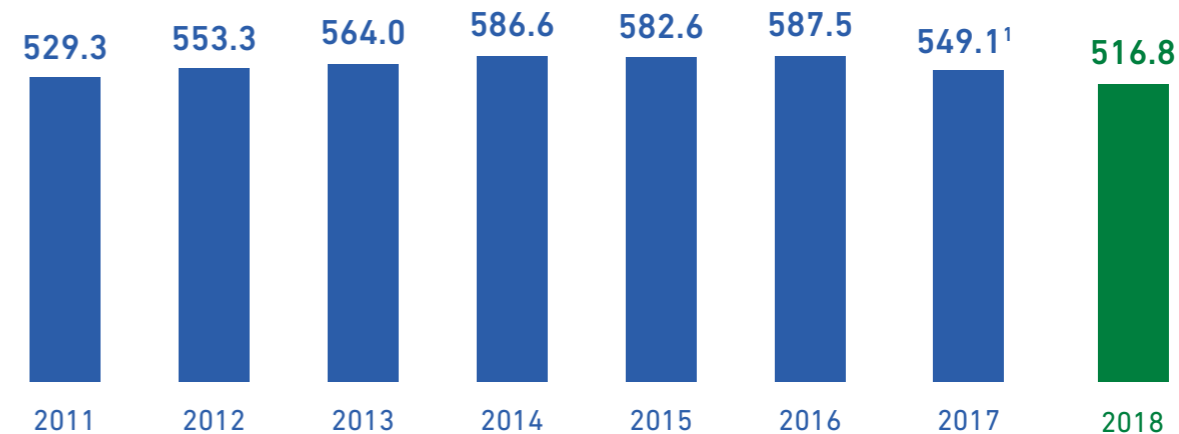


ACTIVE SAVINGS¹ / WATER (IN THOUSANDS)



¹ The term active savings is used to designate every property or subdivision of a property that has a private facility or common use of water and/or sewage services registered and billed by Sanepar.

BILLED VOLUME / WATER (IN MILLIONS OF m³)



¹ In 2017, the basic structure of the minimum tariff changed from 10m³ to 5m³.

SERVICE INTERRUPTIONS

The indicator that analyzes planned and unplanned outages considers a suspension of more than four hours. The other companies, on the other hand, adopt the limit set by NSIS - National Sanitation Information System, indicating only interruptions longer than six hours. Nevertheless, it is not yet possible to indicate the affected population and the total duration of service interruptions. The large integrated systems already have

the operational register deployed, a process that should be completed in 2020, when the entire system will be prepared to allow the complete management of this indicator.

NUMBER OF SERVICE INTERRUPTIONS SASB IFO103-16

2016	2017	2018
3,291	3,069	3,475

The management of the violation indicator is individually performed by each management by consulting the indicator in Sanepar's systems. Every month, a report is made with all the parameters that generated the violations to accompany the management and help to take preventive/corrective actions. The result of the violations is transformed into percent as a function of the number of parameters analyzed. In 2016, they represented 0.150%; in 2017, 0.169%; in 2018, 0.165%. The appraisal

of violations is also based on the number of parameters met, which in 2018 was 99.85%.

NUMBER OF DRINKING WATER VIOLATIONS PROVIDED SASB O103-07

2016	2017	2018
2,640	3,036	2,990

CONSERVATION OF SPRINGS

Sanepar launched in 2018 the Environmental Services Program (ESP), an improvement of Moringa Cheia Program, part of its watershed conservation program. It is directed to owners of areas where waterways pass, which receive incentives to take measures to preserve the natural conditions of the terrain, especially water and soil.

The basis on which the program was instituted is State Act No. 17,134/2012, which provides for payment for environmental services. The goal is to encourage preservation through a material reward, ensuring the quantity and quality of water, and soil conservation.

The pilot project is being developed in Piraquara, in the Curitiba Metropolitan Region,

in partnership with Paraná Environment Department (ED) and the local City Hall. The municipality is of great importance in the region's water supply and is home to well-preserved forest remnants. The area chosen is within the scope of Piraquara River basin, where in the first phase of the program 180 rural properties that were able to join the program were identified.

Owners' adherence, which occurs at a later stage (ongoing at the end of the year), is voluntary. Participants are subject to continuous monitoring of the environmental conditions of the property and monitoring of measures taken in favor of preservation.

Elsewhere in the state, there are also two projects still in their early stages, in Castro and São José dos Pinhais, and negotiations

in other municipalities, in addition to negotiations in other municipalities where Sanepar has springs.

REVITALIZATION OF URBAN RIVERS

Monitoring water quality in urban rivers is the main objective of the Urban River Revitalization Program (PRRU). Measurement of dissolved oxygen content – an indicator of water health – in different stretches of rivers, streams and galleries enables the detection of critical points and the adoption of corrective measures, such as repairs to the sewage collection system and elimination of improper sewage discharges into the rain galleries.

Measurements are made with specialized water resources personnel, mainly in the Curitiba Metropolitan Region, with the acquisition of the so-called Mobile Operational Units – vehicles equipped to function as mobile laboratories. This activity is being implemented throughout the state to streamline the analysis of river conditions by providing the immediate result of quality. The surrounding river community follows these measurements and is oriented to observe the appearance of the water and report any changes to Sanepar. Thus, it becomes a participant in the process and is made aware of the importance of river preservation.

URRP EXPANSION

In Curitiba and the Metropolitan Region, where the program is most structured, in 2018, 95 rivers were monitored, out of the 101 that are cataloged. The main rivers and streams, as well as the basins that make up Iraí and Passaúna dams, are systematically monitored by the program.

Monitoring of urban rivers will continue as Sanepar priority in 2019. The expansion of this program is guaranteed by the 25 regional managements, which were equipped with Mobile Operational Units to routinely collect samples for the analysis of the treated water. The vehicles, which will be used as mobile units, were acquired by Sanepar in 2018.

Participatory monitoring, which is part of the program, aims to motivate society to help maintain the quality of urban rivers. Once the revitalization of the river has been achieved, the continuous monitoring is necessary, as changes in the river water quality characteristic show possible problems related to the sewage collection system, such as incorrect connections, network disruption and clandestine dumping.

Sanepar also participates in River Basin Committees, State and Federal Water Resources Councils, Water Source Management Council,

Environmental Services Program (ESP) will encourage owners of watercourse areas to preserve natural conditions

Technical Chambers and also the Iguaçu River Management Group. [GRI 102-13](#)

With 1,300 kilometers in length, Iguaçu starts in Serra do Mar, crosses the entire state until it ends at the triple border (Brazil, Argentina and Paraguay). It is the most emblematic river of Paraná. One of the actions planned for its revitalization is the planting, in the next two years, of 1 million tree seedlings, for the restoration of the riparian forest.

RISK MANAGEMENT RELATED TO THE WATER

SASB IF0103-06

The risk assessment related to water availability is carried out by Sanepar in Preliminary Technical Studies (PTS) or Basic Engineering Projects (BEP) for the expansion of surface abstractions or definition of new sources. Since 2011, guidelines have been established in the Sanitation Project Manual (SPM) for assessing historical conditions of water availability, existing uses in the watershed, and the assessment of flow regularization dam to reduce the risks of climate variability on the availability of water for the supply. Moreover, since 2017 Sanepar has defined additional technical guidelines in the SPM, for the assessment of water availability in severe drought conditions and also the oc-

currence of extreme rainfall events, causing flooding of sanitation system structures.

Regarding the risks related to the quality of water resources, Sanepar monitors the water collected according to Consolidated Ordinance No. 05/2017 of the Ministry of Health, which defines the control and surveillance procedures for drinking water quality for human consumption and its potability standard (read more at [Water Quality](#)).

DAM SAFETY MANAGEMENT

The four dams that are part of the Curitiba Integrated Supply System (SAIC) – Iraí, Pirapara I and II and Passaúna – are monitored as a safety and accident prevention measure. The monitoring also aims to improve the condition of operation and use of water potential, and ensure the quality of water.

The monitoring work follows the guidelines of the National Dam Safety Plan, established by Federal Act No. 12,334/2010, and Ordinances 14 and 15, issued in 2015 by the Water Institute, which is responsible for inspection in Paraná.

In 2018, Sanepar became the first sanitation company in the country to draw up its Dam





Safety Plan report and file it with relevant bodies. The Company also contracted the format of an Emergency Action Plan (EAP), to minimize risks and reduce impacts on neighboring populations.

The new SAIC dam, Rio Miringuava dam, when it comes into operation, will be included in the monitoring plan.

DISASTER PREVENTION

Sanepar participates in a technical cooperation and scientific exchange program aimed at disaster risk reduction in Paraná. Coordinated by the University Center for Disaster Studies and Research (Ceped), the program began in 2016 and covers hydrological (flooding), meteorological (heavy rainfall), climatological (dry weather and drought), hazardous product (water contamination) risks and civil works (dam breaking or collapse).

Among the 16 projects under study is the training of public managers and community members in the 399 municipalities of the state, through distance learning (EaD), to cope with natural disasters.

By joining the program, Sanepar became part of Redesastre – a network of institutions, pioneer in the country, aimed at reducing risks and disasters.

First sanitation company to report on its Dam Safety Plan

SEWAGE PROCESS

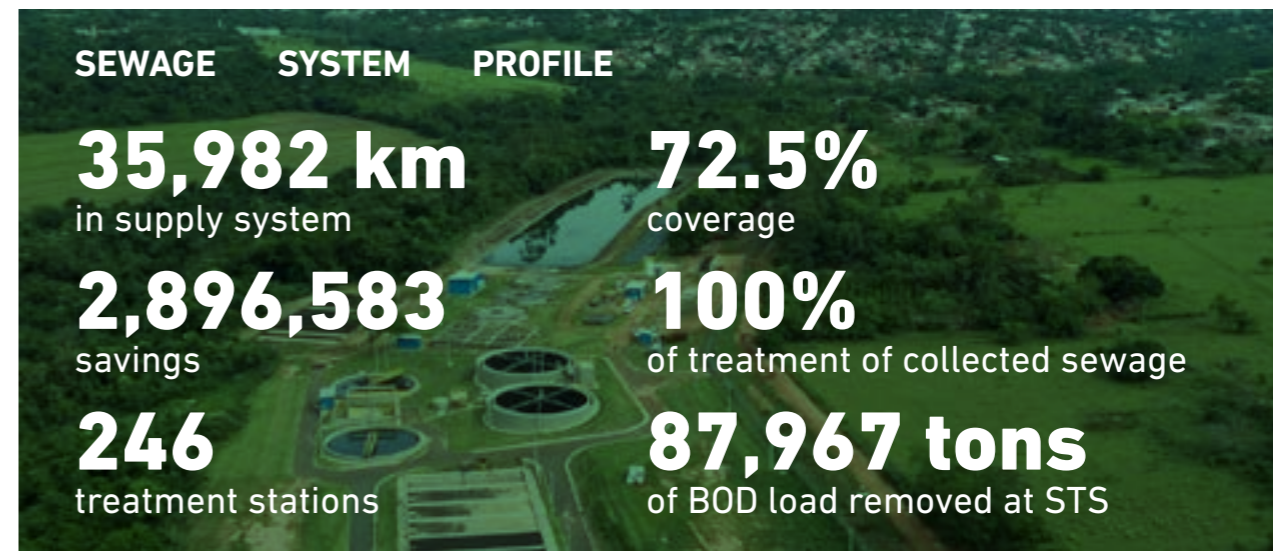
The collection network grew by 2.04%, reaching almost 36,000 kilometers long

The goal of universalization of sanitation directs Sanepar to focus its efforts on expanding sewage collection networks, which today reach 72.5% of the urban population, maintaining the 100% treatment rate for collected sewage. Some municipalities in the state are very close to reaching the universal target, with rates above 90%, such as Curitiba, Londrina, Maringá and Cascavel.

In 2018, the collection network grew by 2.04%, reaching almost 36,000 kilometers in length. The increase in the number of economies linked to the network had a similar growth (4.9%), reaching 2.89 million (including households, industries, commercial establishments and public institutions).

COLLECTION SYSTEM SASB IF0103-D, SASB IF0103-12

	2016	2017	2018
Sewage system length (km)	33,068,741	35,264,280	35,982,485
Sewage pipe replacement (km)	49.7	58.5	77.9



SANITIZED COASTLINE

The most significant growth occurred in the State Coast, where an investment program developed over three years significantly evolved the sanitation profile of the municipalities.

This is the case, for example, of Pontal do Paraná, which in 2015 had an index of only 25.9% of sewage collection and went to 72%. Guaratuba and Matinhos, two of the state's main resorts, also recorded rates of 83% and 90.2%, respectively.

Throughout the region, about 500 kilometers of sewage collection network and 25,000 activations were made. The system implemented included the construction of 29 pumping stations and expansion of treatment plants. The sanitation program on the coast has also brought improvements in the water supply network and the extension of the supply network by another 40 kilometers. The installed capacity considered projections of the so-called floating population, vacationers and tourists that, during the holidays, cause the demand for treated water to increase considerably.

ENVIRONMENTAL COMPLIANCE

GRI 103-2, 103-3, 307-1, SASB IF0201-11

Sanepar has the principle of reporting all its fines and does not define a (minimum value) to consider them as significant or not. They are all assessed so that the company can position itself and offer a counterpart.

A relevant fact for Sanepar, in 2018, was the agreement involving the Company and the Federal Justice, the Public Prosecution Service, the Paraná Environmental Institute (IAP) and the Brazilian Institute of Environment and Renewable Water Resources (Ibama), ending the lawsuit in 17 public civil actions. Through this agreement and by means of an

environmental management and governance process, in addition to the heavy investments already included in its Multi-annual Investment Planning (2019-2023), the Company will carry out works in more than 197 Sewage Treatment Plants (STP), in order to modernize them and make them national and international references for compliance and environmental compliance, making Sanepar remain at the top of the Brazilian sanitation sector.

In total, the Company received 28 assessments issued by the Paraná Environmental Institute (IAP), Ibama, Guaratuba Municipal Urbanization Secretary, Campo Largo Municipal Environmental Secretary, Londrina Municipal Environmental Secretary, Curitiba Mu-

nicipal Environmental Department and the Municipal Procon at Chopinzinho. The fines are being disputed by the company.

Among the 168 Water Treatment Plants (WTP), some are exempt from environmental license (administrative act of the competent agency for operation) due to their size. On the other hand, the 246 Sewage Treatment Plants (STP) need licenses because they are projects that can cause environmental damage. Sanepar monthly monitors the number of water and sewage treatment systems in operation with valid environmental licenses, defining actions to prioritize regularization processes with the managing environmental agency.

EFFLUENT DISPOSAL

GRI 103-2, 103-3, 306-5

In addition to expanding the sewage service, Sanepar is also concerned with the efficiency of treatment processes, with internal control at the plants and laboratory analysis. Different systems (aerobic, anaerobic and physico-chemical) are used to remove the pollutant load from sewage and to meet the parameters determined by environmental legislation.

Control measurements take into account the quality of the treated sewage and its compliance with the analytical parameters defined in the environmental legislation, permits and rights of use for discharging effluents into water bodies. Among the various laboratory tests performed to control sewage quality is the Biochemical Oxygen Demand (BOD), which expresses the amount of oxygen required for degradation of organic matter, a standardized laboratory test that simulates the actual condition of sewage clearance in environment.

To diminish exhaled odors during the treatment process, Sanepar adopts measures such as biofilter, hydrogen peroxide, enclosure, daily cleaning, installation of "green curtains" and planting trees around the stations, forming a barrier and facilitating the dispersion of odors by means of the wind, and the treatment of gases.

Sanepar establishes and implements Environmental Control Plans (ECP) for monitoring effluent and water body upstream and downstream of the discharge points, in accordance with the requirements issued in the environmental licenses and licenses of each operating STP. Environmental diagnostics and surveys also identify possible irregulari-

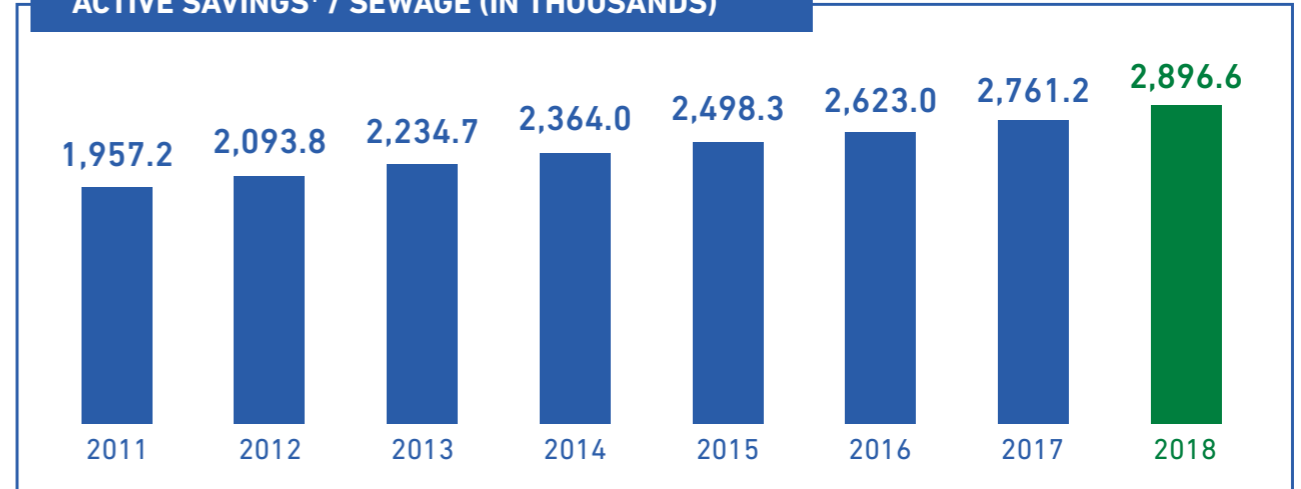
In addition to expanding the sewage service, Sanepar is also concerned with the efficiency of its treatment processes.

ties in effluent releases, corrected through action plans.

The effluents generated in the 246 STP were disposed of in 241 water bodies in 2018, according to criteria for dilution of the remaining organic load of the treatment. The criteria are established by federal and state water resources management agencies, considering water availability and water quality in the stretch of the river used. For operating STPs, Sanepar monthly monitors the number of effluent releases with valid grants, defining actions to prioritize the regularization process-

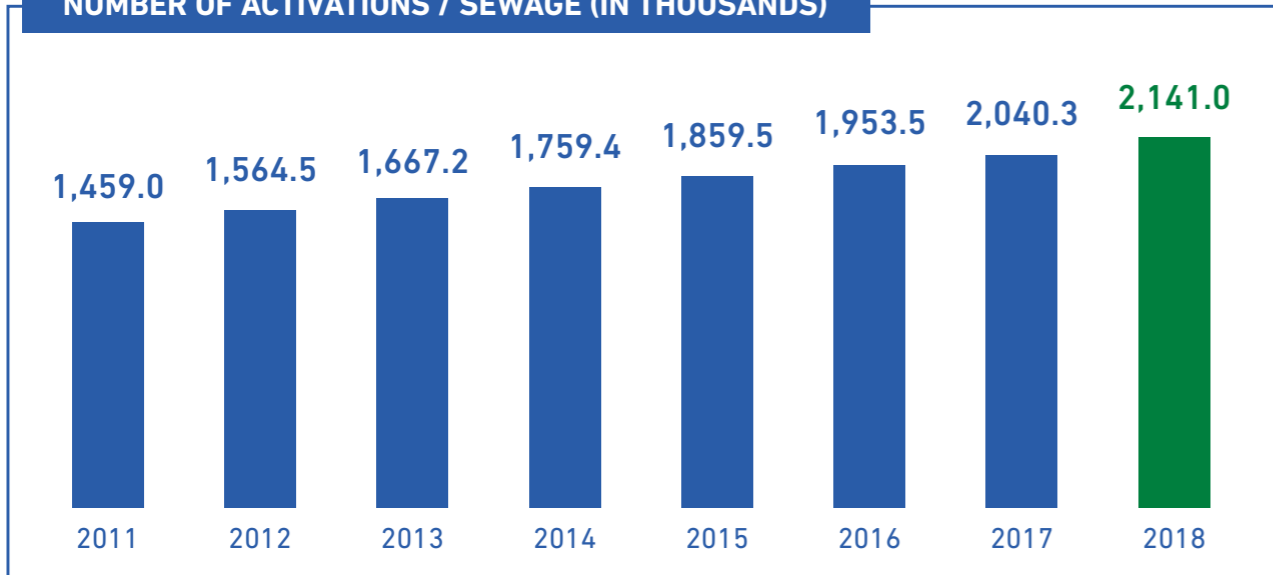
es with the managing body. The management of the works in 197 STPs defined to comply with the Federal Justice agreements, signed in 2018, will allow the reduction of the impacts of existing launches.

ACTIVE SAVINGS¹ / SEWAGE (IN THOUSANDS)

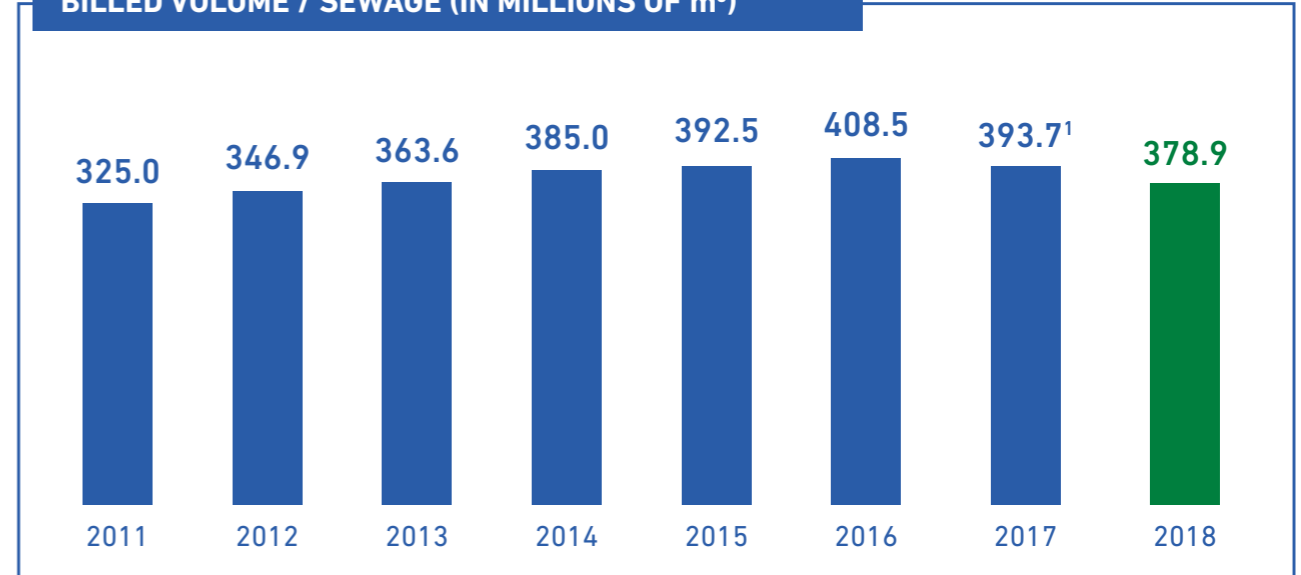


¹ The term active savings is used to designate every property or subdivision of a property that has a private facility or common use of water and/or sewage services registered and billed by Sanepar.

NUMBER OF ACTIVATIONS / SEWAGE (IN THOUSANDS)



BILLED VOLUME / SEWAGE (IN MILLIONS OF m³)



¹ In 2017, the basic structure of the minimum tariff changed from 10m³ to 5m³.

Developed by Sanepar in 1980, the disposal of sewage sludge for agriculture has already been highlighted by UNEP.

WATER DISPOSAL

GRI 306-1

Sanepar adopts different methods for sewage treatment, modulated according to the environmental requirement for the release point. Each of these points has a grant that defines the maximum volume and maximum concentration that the recipient body can assimilate without impacting the environment. Concentrations range from 20 mg/l for BOD to 90 mg/l, the maximum allowable concentration for release in Paraná State (SEMA Resolution No. 021/2009).

Among the treatment methods to ensure sewage quality, Sanepar uses: individual anaerobic reactors or combined with aerobic, anaerobic and submerged aerated percolator biological filters; stabilization ponds;

anaerobic lagoon followed by stabilization lagoon; anaerobic reactors combined with physicochemical system by dissolved air flotation and accelerated decantation; anaerobic reactors followed by parallel plate sedimenters; activated sludge conventional aeration mode; activated sludge extended aeration mode; batch activated sludge.

TOTAL VOLUME OF DISPOSED EFFLUENTS (m³)

2016	2017	2018
337,479,515	355,312,711	362,380,051

SLUDGE IN AGRICULTURE

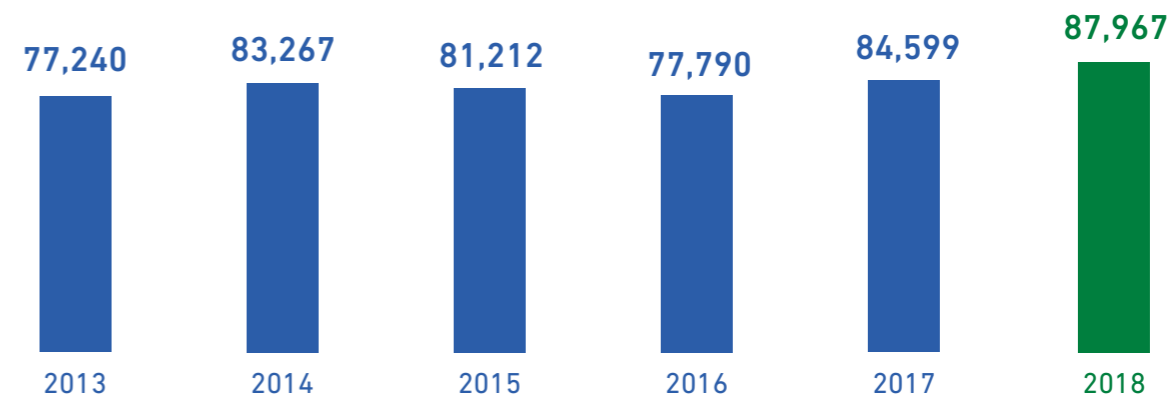
An alternative introduced to Sanepar in the late 1980s, the disposal of sewage sludge for agricultural soil correction has already been considered by the United Nations Environment Program (UNEP) as an example of environmentally sound practice. The experience began in Curitiba and reached other regions of the state, motivating most of Sanepar's Regional Management to adopt the process of sanitation and agricultural disposal of sewage sludge.

As waste generated in the treatment process, the sewage sludge is usually landfilled. For use in agriculture – a more environmen-

tally sustainable solution – the sludge goes through a process for liquid runoff and sanitation to meet the requirements and conditions of federal and state regulations. The resulting material is rich in nutrients and serves to correct soil pH.

Since 2007, around 300,000 tons of sludge have been destined for agriculture and there are projects to expand this practice in all regions of the state. This experience, already consolidated, influenced the elaboration of standards by Conama (Resolution 375/2006) and by the State Environment Department of Paraná (SEMA Resolution 021/2009), disciplining the agricultural use.

REMOVED ORGANIC LOAD (t/YEAR)



SOLID WASTE

GRI 103-2, 103-3, 306-5, SASB IF0201-C

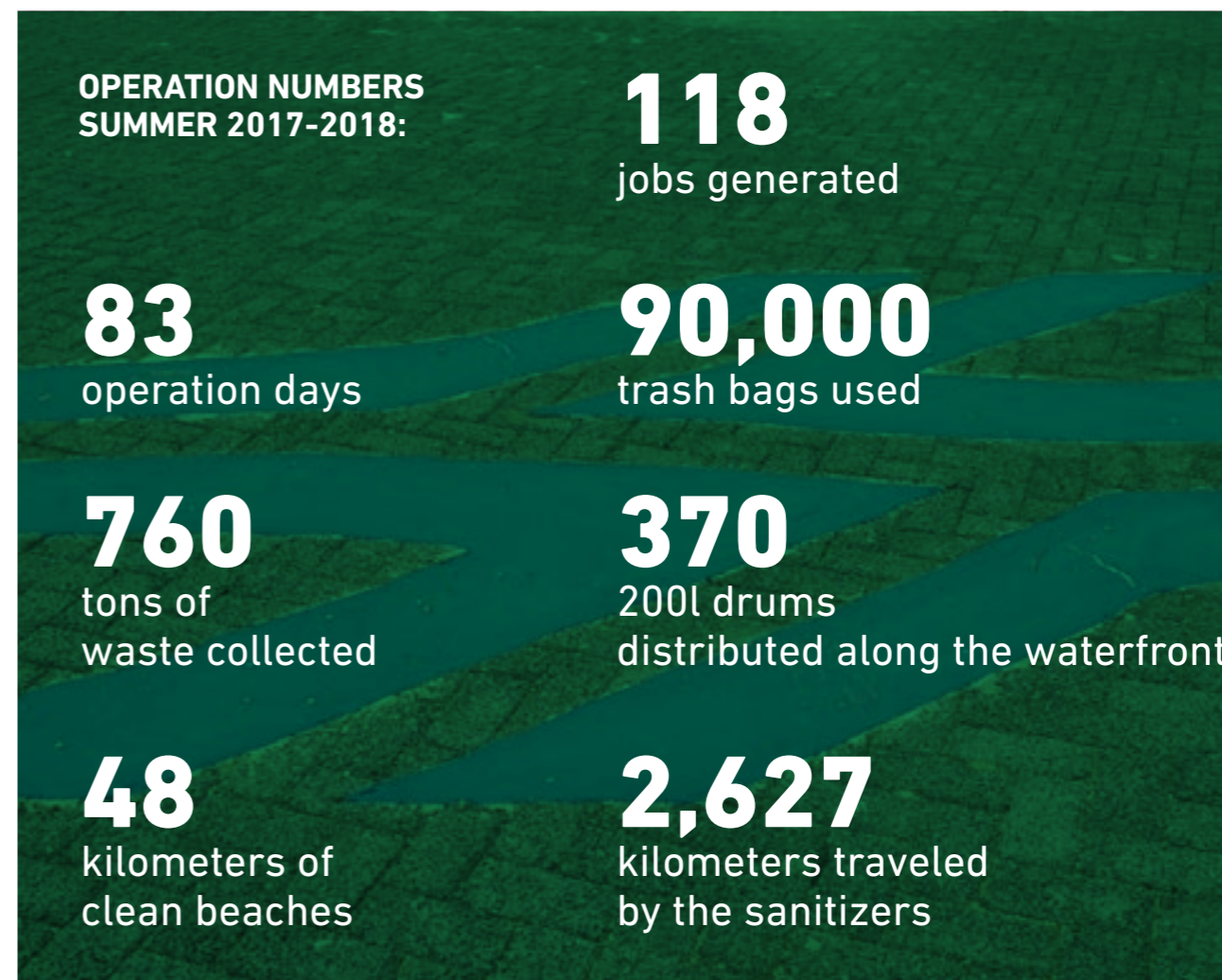
Sanepar manages three urban solid waste treatment systems, which currently serve seven municipalities in the northern region of the state. Through contracts with the municipalities of Cianorte, Apucarana and Cornélio Procópio, the Company manages three treatment plants, which in 2018 handled 64,000 tons of waste, serving a population of 290,000 people.

The first landfill to be operated by Sanepar was that of Cianorte in 2002. It serves the municipalities of Sao Tome, Terra Boa, Gua-porema and Indianópolis, as well as Cianorte itself; and it was the first in the country to receive ISO 14001 certification for environmental management. In 2010, the Company started to manage MSW in Apucarana and, two years later, it also started to attend the municipality of Cornélio Procópio. In the Cianorte and Cornélio Procópio systems, Sanepar performs, in addition to treatment, waste collection and transshipment steps.

To extend the shelf life of landfills, promote income to waste pickers and also reduce the volume of waste discharged into springs, riv-

ers and dams, Sanepar supported the Ecocidadão Paraná program, in partnership with Provopar – Paraná Volunteer Program – Social Action/PR. In 2018, this program was implemented in 100 municipalities, and since its inception in 2012, more than 167 municipalities have been awarded. The work supported the organization of recyclable waste pickers' associations and cooperatives. Provopar and Sanepar enabled several waste pickers' associations to have access to training and increased machinery.

Another important work performed annually is Operation Summer, cleaning and sanitizing the sand throughout the season on the coast of Paraná. During the day, teams travel the 48 km of beaches, manually collecting the waste by bathers. At night, seven sanitizing machines sift through the sands, removing minor debris and revolving the surface, thereby enhancing the sanitizing effect of solar radiation. The work done during Operation Summer on the beaches of Paraná is considered a reference in the country.



On the other hand, waste from the sewage process comes from 246 Sewage Treatment Stations (STPs), 470 Sewage Pumping Stations (SPS) and cleaning of sewage systems. In 2018, 82,191 tons of waste (railing, sewage, foam and sewage sludge) intended for licensed landfills and 21,420.7 tons of sewage sludge for agricultural use were removed. There was an increase in the generation of laboratory waste due to the intensification of analysis of the parameters to meet the requirements negotiated with the Federal Court in which monthly frequencies became biweekly. **GRI 306-2**

TOTAL NON-HAZARDOUS WASTE GENERATED BY DISPOSAL (IN TONS)¹ GRI 306-2

OPERATION	DISPOSAL	TYPE OF WASTE	2016	2017	2018
STS	Landfill	Waste from preliminary treatment (railing) ²⁾	9,036.00	30,330.00	82,191.00
		Waste from a preliminary treatment (sanitizer ³⁾)	22,854.00		
	Sludge	45,471.00	81,969.00		
	Agricultural Destination	Sludge	25,422.00	28,388.00	21,420.70
Laboratory	Recycling ¹	Non-inert Waste (Class IIA) – Office Paper, A4, newspaper, plastic waste, cardboard, recyclable material	10.91	10.43	10.27
	Landfill from the Laboratory ¹	Non-inert Waste (Class IIA) – Sanitary Waste, Food Waste, Paper Towel contaminated with fat	9.24	5.89 ¹	6.30 ¹²
Total non-hazardous waste generated (in tons)			102,803.15	140,703.32	103,628.27

TOTAL HAZARDOUS WASTE GENERATED BY DISPOSAL (IN TONS)¹

OPERATION	DISPOSAL	TYPE OF WASTE	2016 ³	2017 ⁴	2018 ⁴
Laboratory	Incineration (mass burning)	Hazardous Waste (Class I) – Expired laboratory reagents and chemicals (solids and liquids)	6.29	4.99	5.87
	Landfill	Hazardous Waste (Class I) – Expired laboratory reagents and Chemicals (Solids and Liquids)	0.09	n.a.	n.a.
	Autoclaving and/or Microwave	Hazardous Waste (Class I) – Expired laboratory reagents and chemicals (solids and liquids); Healthcare Waste (Group A – Infectants and Group E – Sharps)	2.96	6.28	6.28
Total hazardous waste generated (in tons)			9.33	11.26	12.16

1 In 2016, non-inert waste (Class IIA) from Londrina laboratories was estimated per kilogram. In 2017 and 2018, due to changes in the methodology of the new outsourced company, the calculation was made in liters and the volume was not considered, affecting the comparison with previous years.

2 For non-inert waste (Class IIA) – sanitary waste, food waste, grease-contaminated paper towels etc. – Sanepar has no control and its volume is estimated in the Health Services Waste Management Program (HSWMP) Report. This data was revised to higher volumes in 2018 compared to the previous year.

3 The company contracted for transportation, treatment and final disposal used two types of treatment: Autoclaving for Hazardous Waste Class I – Group “A1 - Infectants” and “E – Sharps”; and Incineration for waste Group “B – Chemicals (Solid or Liquid)”.

4 For the Central Laboratory of Curitiba, the company contracted for transportation, treatment and final disposal used microwave treatment technology for both Class I – Group “A1 - Infectants” and “E – Sharps” as well as hazardous waste as treatment technology. Class I – Group “B – Chemicals (Solid or Liquid)”. For the other laboratories, the methods remain autoclaving and incineration.

MANAGEMENT APPROACH FOR EFFLUENTS AND WASTE

GRI 103-2, 103-3

The main regulatory policies governing the theme of waste are established in federal and state legislation (laws, ordinances, resolutions and technical standards) and aims to constantly improve the environmental performance of processes; prevent and reduce environmental risks and damage; comply with environmental legislation; conserve water resources; promote the management of environmental objectives and targets; consolidate internal and external socio-environmental actions.

Sanepar's main goal is to properly dispose of waste generated in sanitary sewage systems (SES), in accordance with the National Solid Waste Policy of non-generation, reduction, re-use, recycling and treatment of waste, and to follow the guidelines available in Sanepar's Normative System and Strategic Planning 2019 – 2023.

The monitoring and evaluation related to the waste theme is carried out through a control of annual data of waste generation and destination, which are requested at the beginning of each year from the management, referring to the previous year.

QUANTITY OF WASTE MANAGED BY CUSTOMER CATEGORY (TONS) GRI 306-2, SASB IF0201-D

Municipal ¹	30,544.12	32,838.34	33,826.02
Residential ²	25,075.98	26,045.55	25,774.72
Non-Domestic Urban Solid Waste ³	1,111.19	1,077.17	1,143.23
Sanitation Waste ⁴	1,631.09	2,511.13	2,360.98
Total	58,362.38	62,472.19	63,104.95

¹ All managed waste arising from obligations assumed by the government through program contracts with municipalities without Sanepar having responsibility for collecting: Terra Boa, Sao Tome, Guaporema, Indianopolis and Apucarana.

² All managed waste from the municipalities in which Sanepar is responsible for collection, considering that in these cases the customer is the municipality.

³ All managed waste from differentiated customers, such as cemeteries and alcohol plants.

⁴ Waste from wastewater treatment activities in landfill sites.

⁵ 2017 data has been corrected. At the time of closing the data for the publication of that year's report, information on three days of waste disposal was missing for one of the landfills and four days for the other. This information has been corrected for this publication.



RESEARCH, DEVELOPMENT AND INNOVATION

More than 100 R&D+i initiatives are underway, some in partnership with international organizations

Sanepar has experience in research, development and innovation (R&D+i) and constantly seeks to improve its processes. The innovation perspective for sustainability is embedded in strategic planning and aims to ensure competitive advantages and agility in overcoming current and future business challenges.

A management linked to the Environment and Social Action Board acts as the focal point of the innovation ecosystem and coordinates the Sanepar Sustainable Technologies Center (CETS). The CETS maintains specialized laboratories for prototypes, water and sewage analysis and for the development of water treatment technologies. Aware of collaborative innovation, the Company has

space to host partners and cooperates with research centers, universities and companies from Brazil and abroad (Germany, Portugal, Netherlands, England, United States, Mexico, Paraguay, Japan and South Korea). In 2018, the Creativity Laboratory was opened, as a *co-working* space to foster intrapreneurship and open innovation. The pilot plants and equipment in production units complement the Company's infrastructure for innovation.

More than 100 initiatives are underway, covering topics such as raw water and springs, water and sewage treatment, waste recovery (sludge, scum, biogas and organic materials), energy, automation and sustainable management.

In 2018, the following activities stood out: start of operation of new modular technologies in sewage treatment plants (STPs) in the municipalities of Toledo and Pinhão and works in Santa Helena; implementation of enclosed biogas burners in STP of Curitiba and the Metropolitan Region; consolidation of technical and environmental requirements for the installation of sewage sludge thermal drying system at STP Atuba Sul; studies on spring conservation, phytoremediation techniques for urban river revitalization, energy efficiency and bioenergy, Internet of Things (IoT), desalination, industrial water reuse and industrial effluent treatment.

In addition to its own resources for conducting the projects, Sanepar seeks to broaden the impact of its activities by prospecting external resources and encouraging innovation mechanisms. These include tax benefits from Act No. 11,196/2005 (Law of Good) and resources from the Brazilian Company for Industrial Research and Innovation (Embrapii) and the United States Agency for Development and Trade (USTDA). Sanepar also signed a commitment to the Araucaria Foundation, a research and extension agency for the State of Paraná, adding efforts and increasing the resources allocated to the Paranaense Environmental Sanitation Research Program to R\$ 3 million, to be applied by 2021 in research

projects oriented to the Company's demands.

To boost the culture of innovation in the organizational environment, the Innovation Treatment Station (ITS) was created, a corporate program for the identification, systematization and dissemination of innovative practices. The initiative also integrates the Sanepar Award for Sustainable Technologies, open to researchers from all over Brazil, and the Inova Sanepar Award, intended for employees. The Bank of Ideas and Practices, also aimed at employees, was restructured.

In order to share its advances in the area of innovation, in 2018 Sanepar published over 50 technical-scientific papers and acted as protagonist in important forums such as the 8th World Water Forum, the 14th Italian-Brazilian Sanitary Engineering Symposium and Environmental, the Smart City Expo Curitiba and Rio Water Week. The Company also organized relevant events for the environmental sanitation sector, such as the 1st National Seminar on Sustainable Sewage Treatment Plants.

ENVIRONMENTAL MANAGEMENT

The commitment to a balanced use of natural resources is clear in its Mission, Values and Strategic Map

As an environmental company, Sanepar is committed to the balanced use of natural resources, the adoption of sustainable practices and compliance with legal requirements. This commitment is clear in the company's Mission, Values, and Strategic Map, and thus there is a continuing effort at all levels, from senior management to operational personnel, to increasingly refine the care for correct environmental practices that is essential to ensure business continuity.

The ISO 14.001 Environmental Management System (EMS), deployed in 1999, takes into account compliance with legal requirements and standards, the establishment of objectives, targets and monitoring indicators, professional training and the improvement of

internal controls. Sanepar has also added to the EMS the principles set forth in NBR ISO 31000, raising environmental risk management to international standards.

One of the ways of monitoring the risks related to the preservation of the environment is inserted in the water supply, sewage treatment and solid waste processes that undergo routine analysis and include the diagnosis of environmental indicators, which must be aligned with the requirements of the legislation.

To ensure the process integrity, Sanepar continually allocates resources to environmental education, river revitalization, spring protection, research and development, greenhouse

gas (GHG) control, dam management and certification programs.

CERTIFICATIONS

In 1997, Sanepar became the first sanitation company in Latin America to obtain NBR ISO 9001 certification for the water producing system of Itaquí Treatment Plant in Campo Largo, in Curitiba Metropolitan Region (CMR). Later, the certification was extended to CMR's entire production system and distribution control center.

Londrina, the second most populous city in the state, also has NBR ISO 9001 certification for the complete water and sewage cycle, covering all production and treatment processes, as well as network operation, maintenance, commercial and administrative activities. Londrina's certification also includes project and construction management.

In 2018, Sanepar was externally certified to NBR ISO 9001: 2015 with the following scope:

- ▶ Dam operation, capture, adduction, water treatment and reserves by the Water Production Management in the Integrated Supply System of Curitiba;
- ▶ Collection, adduction, treatment, water reserves and sewage treatment and final disposal by the Industrial Management of Londrina;
- ▶ Water distribution, sewage collection and transportation and customer relationship by the Londrina Regional Management;
- ▶ Project Management by the Special Project Management and Northeast Project and Construction Management;
- ▶ Construction Management for Water Supply and Sanitary Sewage Systems by the Northeast Project and Construction Management.

In 1999, Sanepar was the first in the Americas to obtain NBR ISO 14001 certification for the Foz do Iguaçu system. In 2012, the same

certification was granted for the operation of the Cianorte landfill.

The achievement of these certifications brought changes to the company's culture and procedures, with the adoption of stricter control standards, strict compliance with legislation, standardization of procedures, investments in staff training, pursuit of process efficiency and management effectiveness, besides reduction in inputs consumption.

FORUMS ATTENDANCE

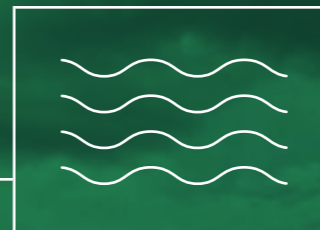
Sanepar has a formal representation and actively participates in deliberative or advisory collegiate forums on the environment and water resources at municipal, state and federal levels. These forums discuss and evaluate issues and publish legally binding resolutions, within specific attributions, which may influence the planning and management of Sanepar's processes.

In this context, Sanepar acts effectively on the 11 Paraná River Basin Committees and the Paranapanema River Basin Committee. The Basin Committees have a heterogeneous composition, including representatives of various sectors of society, having as important attributions the classification into classes

of river use and the guidelines and procedures for charging for water use, as well as the debate and guidelines for effective water resource management and contributions to deploying policies related to the preservation and rational use of water.

In addition to the Basin Committees, Sanepar has a formal representation in the State Water Resources Council of the State of Paraná, in the Municipal Environment Councils of the main municipalities where it operates, in the Paraná Forum on Climate Change, in the Source Management Council of the Metropolitan Region of Curitiba and through Aesbe (Brazilian Association of State Sanitation Companies) in the National Water Resources Council and its Technical Chambers.

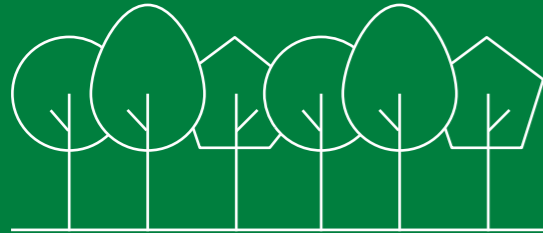
In 2018, Sanepar created an internal normative procedure establishing guidelines to systematize the Company's performance in the representation in the Deliberative Environment and Water Resources Forums and to internalize the issued resolutions that may influence the company's performance.



WATERSHED COMMITTEES

WITH A PARTICIPATION OF SANEPAR:

- > **COALIAR** - Alto Iguaçu and tributaries of Alto Ribeira (charged for the use of water instituted since 2013);
- > **Tibagi**
- > **Jordão**
- > **Paraná III**
- > **Baixo Ivaí and Paraná I**
- > **Piraponema** (Pirapó, Paranapanema 3 and Paranapanema 4)
- > **Norte Pioneiro** (Cinzas, Itararé, Paranapanema 1 and 2)
- > **Paranapanema** (Federal Committee in conjunction with the State Committees of São Paulo)
- > **Coastal**
- > **Baixo Iguaçu** (implemented with activities to be started)
- > **Piquiri** (implemented with activities to be started)
- > **Alto Ivaí** (implemented with activities to be started)



GREEN CURTAINS

Aiming to improve the environment, minimize the negative impact on the neighborhood and improve the quality of life of people around the plant and the working environment of the system operators themselves, since 2007 Sanepar has adopted the deployment of Green Curtains in the Sewage Treatment Plants (STPs). It is the oriented deployment of two or more tree and shrub species adapted to the region and the local soil, distributed in parallel lines, forming an isolation barrier around the STP. The curtain meets Sema Resolution 16/14, state air emissions legislation, and also fulfills its objective of promoting wind verticalization.

ENERGY EFFICIENCY

GRI 103-2, 103-3

Energy cost and global climate change agenda make efficiency efforts essential

The issue of energy is widely discussed at Sanepar due to the high energy demand of its activities and the constant expansion of the coverage of services rendered to society. In 2018, the Company consumed 705.6 GWh of electricity, representing approximately 16% of operating expenses, which is Sanepar's second largest operating cost. Energy consumption in more than 3,500 units, especially in sanitary infrastructures, makes of Sanepar the largest corporate consumer of electric power in the state of Paraná.

This scenario, coupled with the global climate change agenda, makes it essential to implement energy efficiency actions to minimize environmental impacts and reduce

greenhouse gas (GHG) emissions. To this end, Sanepar has encouraged innovation, research and the development of good practices that enable cost reduction, process efficiency and, consequently, improvement of its environmental sanitation services.

Measures such as the management of electricity bills, based on the selection of the most appropriate tariff modality, have been successfully implemented in the Company.

Technical committees or internal committees promote efficiency actions in the production units and in regional areas such as Foz do Iguaçu and Maringá, there are permanent forums dedicated to the theme. In Curitiba Inte-

grated Water Supply System, the first experiments are underway to adopt NBR ISO 50.001 standard for energy management.

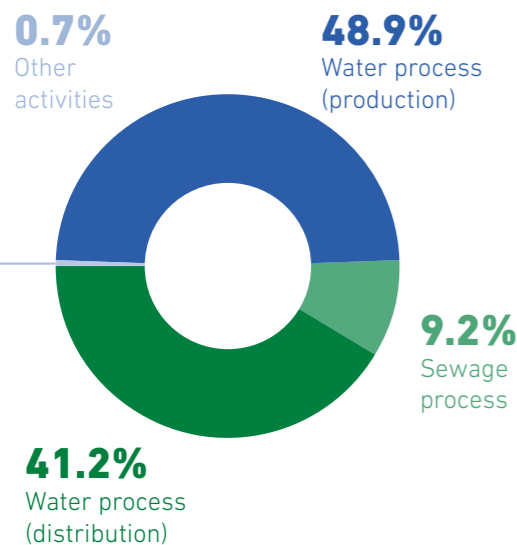
In 2018, 93 consumer units began to monitor electricity consumption in real time and remotely. Additionally, the Company has structured projects in the Internet of Things (IoT) area, such as real-time monitoring and operation of a water reservoir and distribution system in Lapa, with remote access to data. In 2019, this solution should be expanded.

In cooperation with German agency GIZ and the Ministry of Cities, Sanepar has carried out activities under the Energy Efficiency in Water Supply Systems Project (ProEESA). The partnership resulted in the training of 50 employees, who performed the hydroenergetic pre-diagnosis of 97 water lifting systems distributed in different regions.

After research on the measurement and energy use of biogas – from anaerobic reactors – treating domestic sewage, such as the pioneering microgeneration system of Ouro Verde – Foz do Iguaçu STP, Sanepar also started in 2018 the activities of Paraná Bem Tratado (“Well-treated Parana”) program. The initiative has a funding of 50 million euros contracted with the German bank KfW, which will be applied to projects in STPs in Curiti-

ba, Londrina, Maringa, Umuarama, Araucaria, Toledo, Arapongas and Guarapuava. The Company is also taking its first steps towards making use of solar energy.

ELECTRICITY CONSUMPTION (%)



ENERGY CONSUMPTION GRI 302-1, SASB IF0103-01

	2016 ¹	2017	2018	VAR. (%) 2017 vs. 2018
Fuel consumption from non-renewable sources (GJ)²				
Gasoline	96,573.30	102,993.55	90,135.80	-12%
Compressed Natural Gas (CNG)	30.46	.00	101.48	n.a.
Diesel oil	45,920.41	46,296.19	46,614.64	1%
TOTAL	142,524.17	149,289.74	136,851.92	-8%
Fuel consumption from renewable sources (GJ)				
Ethanol	21,191.54	19,084.21	28,660.58	50%
TOTAL	21,191.54	19,084.21	28,660.58	50%
Energy purchased (electricity purchased from SIN) (GJ)³				
TOTAL Electricity purchased from SIN (2)	191,236,532,591.77	194,980,210,442.77	196,019,708,087.73	1%
Total consumed energy (GJ)⁴				
TOTAL	191,236,696,307.48	194,980,378,816.73	196,019,873,600.23	1%

¹ The 2016 data were updated based on the November and December measurements, reported in the previous report from the process estimate.

² Data consider fuel consumption in own and outsourced fleet. Approximately 80% of the fleet used by Sanepar is outsourced. **GRI 302-2**

³ Historical data for 2016 and 2017 has been revised. The electricity consumption purchased from the SIN was 688,453,445 KWh, 701,930,723 KWh and 705,672,925 KWh for 2016, 2017 and 2018, respectively (Conversion factor used 1 KWh = 277,777 GJ. Source Brazilian GHG Protocol Program).

⁴ According to the Operational Development Management, there has never been a surplus of self-generated electricity converted into credit, since the energy generated at Foz do Iguaçu's Ouro Verde STP is biogas, the photovoltaic system of the new headquarters building is not yet operational and the photovoltaic panel project for dams in dams has not yet been bid. On average, STP Ouro Verde generates 600W and consumes 700W per month, resulting in a 100W account with Copel (note: biogas consumption not considered in the above data because it is not significant).



ENERGY INTENSITY GRI 302-3

		2016 ¹	2017	2018
Water supply	Metric (thousand m ³ produced)	740,680,446	756,184,333	760,841,619
	Electricity consumption purchased from NIS (kWh)	688,407,855	635,197,392	636,229,435
	Energy intensity (kWh/ thousand m ³ produced)	0.93	0.84	0.84
Sanitary sewage	Metric (thousand m ³ treated)	337,683,281	355,312,711	362,380,051
	Electricity consumption purchased from SIN (kWh)	60,754,279	61,670,055	64,412,487
	Energy intensity (kWh/ thousand m ³ treated)	0.18	0.17	0.18
Urban solid waste	Metric (t intended)	58,362.38	62,472.20	63,104.96
	Consumption of electricity purchased from SIN (kWh)	45,590	47,754	45,606
	Energy intensity (kWh/ t intended)	0.78	0.76	0.72

CS BIOENERGIA

Sanepar's most complete experience in sustainable energy production from sewage sludge and organic waste treatment is in the final stages of construction and in pre-operation. This is CS Bioenergia, created through a partnership with Cattalini Bioenergia, in which Sanepar has 40% of share capital.

Located next to Belém STS, in São José dos Pinhais, CS Bioenergia has an installed capacity of 2.8 MW (megawatts) – enough energy to serve approximately 2,100 homes, or 8,400 people. The project started receiving sewage sludge in June 2017 and organic waste in March 2018. These materials are processed in biodigesters, generating biogas as a byproduct. The biogas, mostly composed of methane, is previously treated and sent to power generators that convert it into electricity. The electricity produced at this initial stage is being used at the plant itself.

REDUCING EMISSIONS GRI 103-2, 103-3

Monitoring of Greenhouse Gases (GHG), performed by Sanepar since 2009, underwent a methodological review in 2017 and was submitted in 2018 to a third party verification accredited by Inmetro, obtaining the Gold Seal of Reliability, from the Brazilian GHG Protocol Program, coordinated by Getulio Vargas Foundation (FGV). The monitored emissions constitute the Greenhouse Gas Inventory, released annually by Sanepar – the first sanitation company in the country to carry out this work.

Inventory disclosure is made annually on the GHG platform (*Greenhouse Gases Protocol*) and is available for inquiry at www.reg-istropublicodeemissoes.com.br, where one can also find the history of Sanepar. Publication of annual reports is available for access from the second half of the year following the survey.

With monitoring, it is possible to identify the processes of greenhouse gas generation and adopt measures to reduce or neutralize emissions, preventing or minimizing environmental risks and damages, and improving performance.

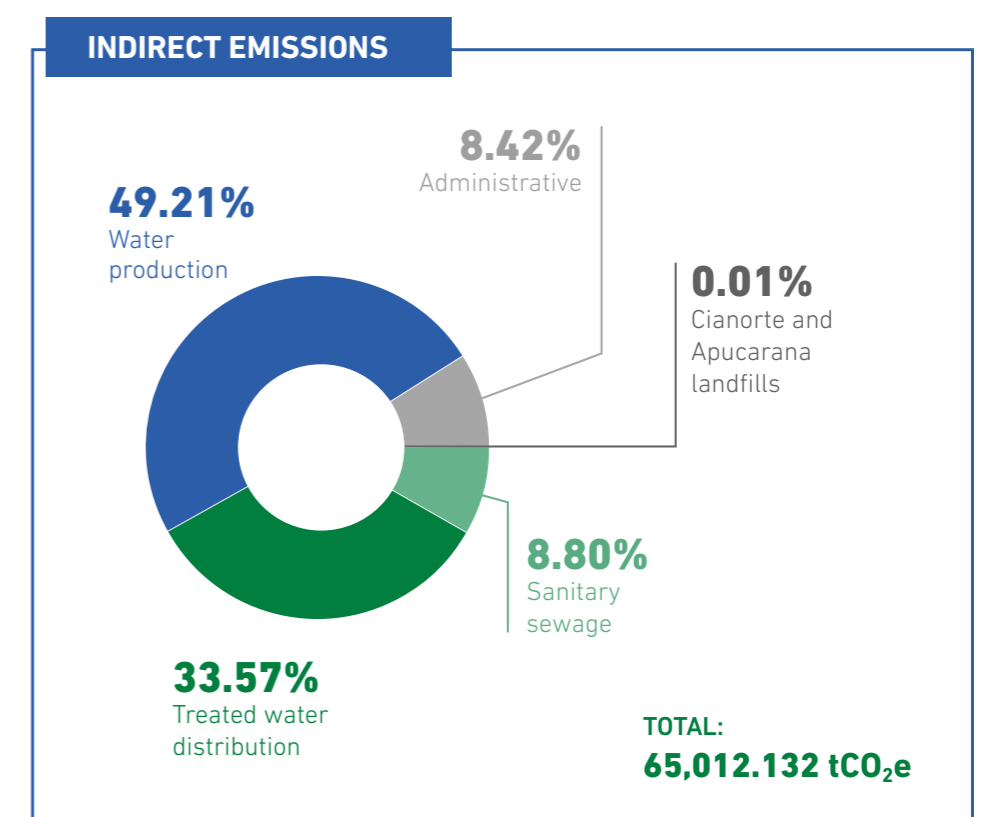
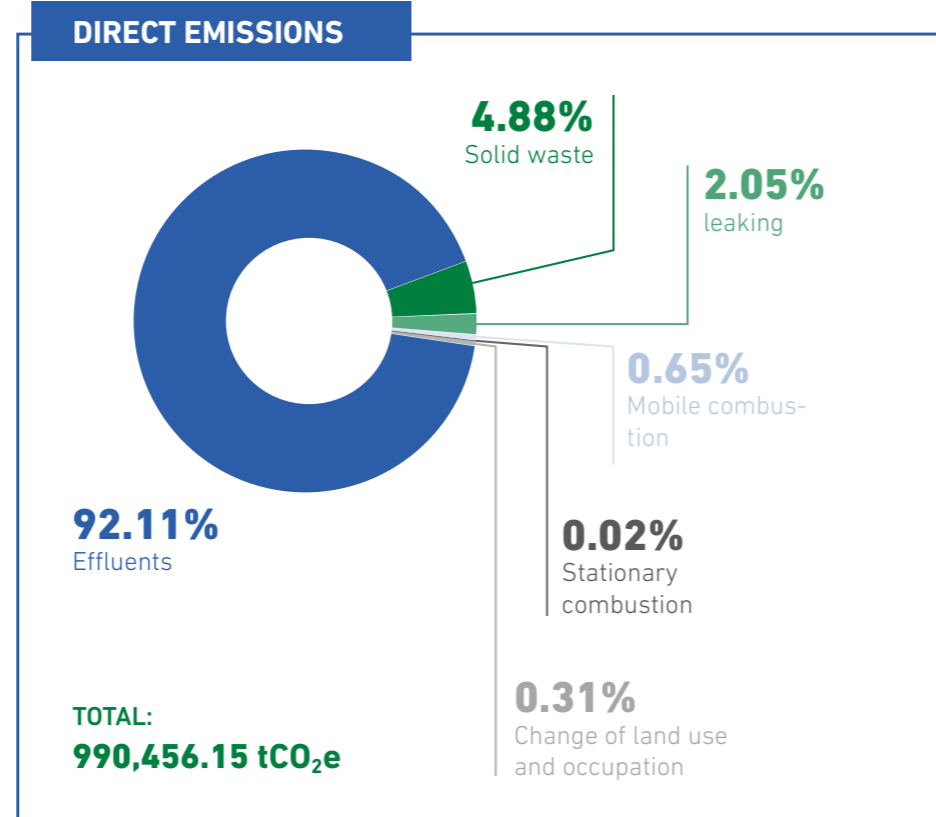
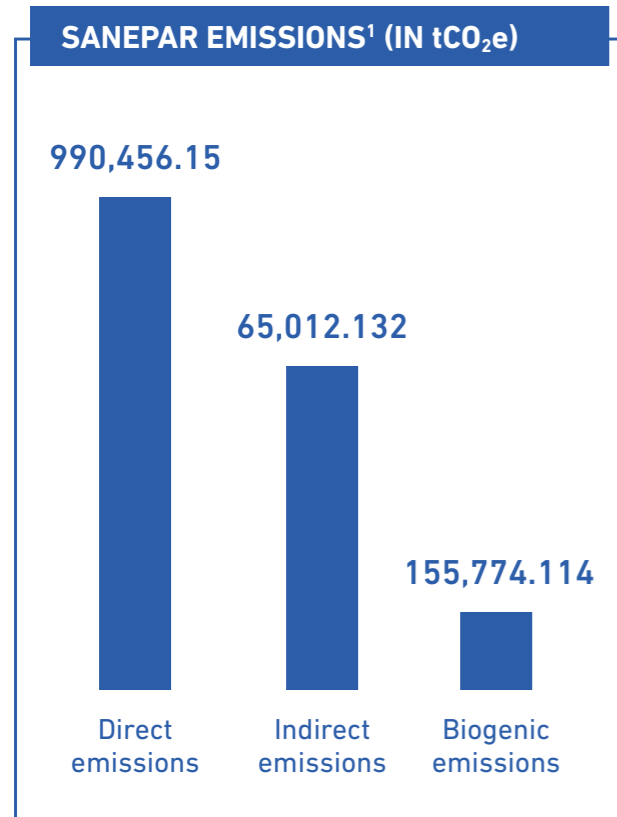
MORE ACCURATE DATA

The latest available Sanepar 2017 emission inventory has more accurate data, such as the decentralized calculation of GHG emissions by operating unit and the maintenance of the *Global Warming Potencial* (GWP) of the fourth IPCC report, namely the *Fourth Assessment Report*.

In addition, there was a change in the methodology for calculating methane emissions from sewage treatment plants, using flow monitoring, affluent BOD and efficiency data from each STP instead of literature data, as before.

The volume of emissions between 2013 and 2017 was recalculated with the new methodology to ensure comparability.

Compared to previous years, there was 8.61% increase in Sanepar's direct emissions in 2017, while the population growth served by sewage collection was 24.94%, compared to 2013. Although electricity consumption increased by 2.86% compared to 2013, indirect emissions from the purchase of energy increased by 3.56%. This was due to the 3.47% reduction in the emissions factor of the National Interconnected System (SIN).



1 Source: GHGI (de grenhouse gas inventory) Sanepar, 2017

DIRECT GREENHOUSE GAS EMISSIONS (t CO₂ EQUIVALENT)¹ GRI 305-1

	2016 ²	2017	2018
Electricity, heat or steam generation	1,244.86	156.27	239.82
Transportation of materials, products, waste, employees and passengers	5,165.18	6,403.51	6,109.75
Leaking emissions	547.07	20,274.61	22,192.93
Solid waste disposal and treatment	47,127.75	48,294.04	49,790.36
Effluent disposal and treatment	733,288.02	912,279.72	964,363.97
Change of soil use and occupation	26,551.73	3,048.01	1,639.25
Total scope 1 gross direct emissions	813,924.61	990,456.15	1,044,336.08
Carried out in relation to the base year (%)³	-5.90	14.50	20.73

¹ Emissions of tons of carbon dioxide equivalent (t CO₂e) were estimated based on the methods provided by the Intergovernmental Panel on Climate Change and the GHG Protocol Program. The consolidation approach chosen for emissions is operational control. There are no emission limiting regulations in the industry. The gases included in the calculations are carbon dioxide (CO₂), nitrous oxide (N₂O), methane (CH₄), perfluorocarbons (PFCs) and hydrofluorocarbons (HFCs).

² Sanepar's base year is currently 2013, considering that this year the GHGI preparation procedure was internally consolidated and included in the regulatory system. Therefore, due to the change in the methodology for calculating methane emissions in STP, emissions from 2013, 2014, 2015 and 2016 were recalculated for analysis and comparison. Between 2013 and 2015, the efficiency of STP main unit process was considered. In order to improve the accuracy of calculations, in 2016 the efficiency of all treatment stages of the STP were considered. In 2017, on the other hand, it was decided to use flow monitoring data, affluent BOD and efficiency of each STP. In 2016, 813,924.61 tons of CO₂ equivalent were obtained after the recalculation with the 2017 methodology, which considers STP operational data.

³ Considering the scope 1 emissions of the base year of 864,989.80 tCO₂ equivalent, the results compared to the base year were -5.9% in 2016, +14.5% in 2017 and +21.9% in 2018.

BIOGENIC CO₂ EMISSIONS – SCOPE 1 (t CO₂ EQUIVALENT)

2016	2017	2018
216,863.21	155,774.11	181,415.07

The increase in emissions in the solid waste process is due to the fact that waste that has been landfilled in the past continues to degrade, emitting methane. In the case of the sanitary sewage process, this increase was

due to methodological changes, accuracy in the data collected, internalization of the practice, as well as increased coverage of the services provided by the company and implementation of post-treatment plants.

DIRECT GREENHOUSE GAS EMISSIONS (t CO₂ EQUIVALENT) BY BUSINESS

	2016	2016 (%)	2017	2017 (%)	2018	2018 (%)
Water supply	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Sanitary sewage	766,796.86	94	942,162.11	95	994,545.72	95
Urban solid waste	47,127.75	6	48,294.04	5	49,790.36	5
Total	813,924.61	100	990,456.15	100	1,044,336.08	100

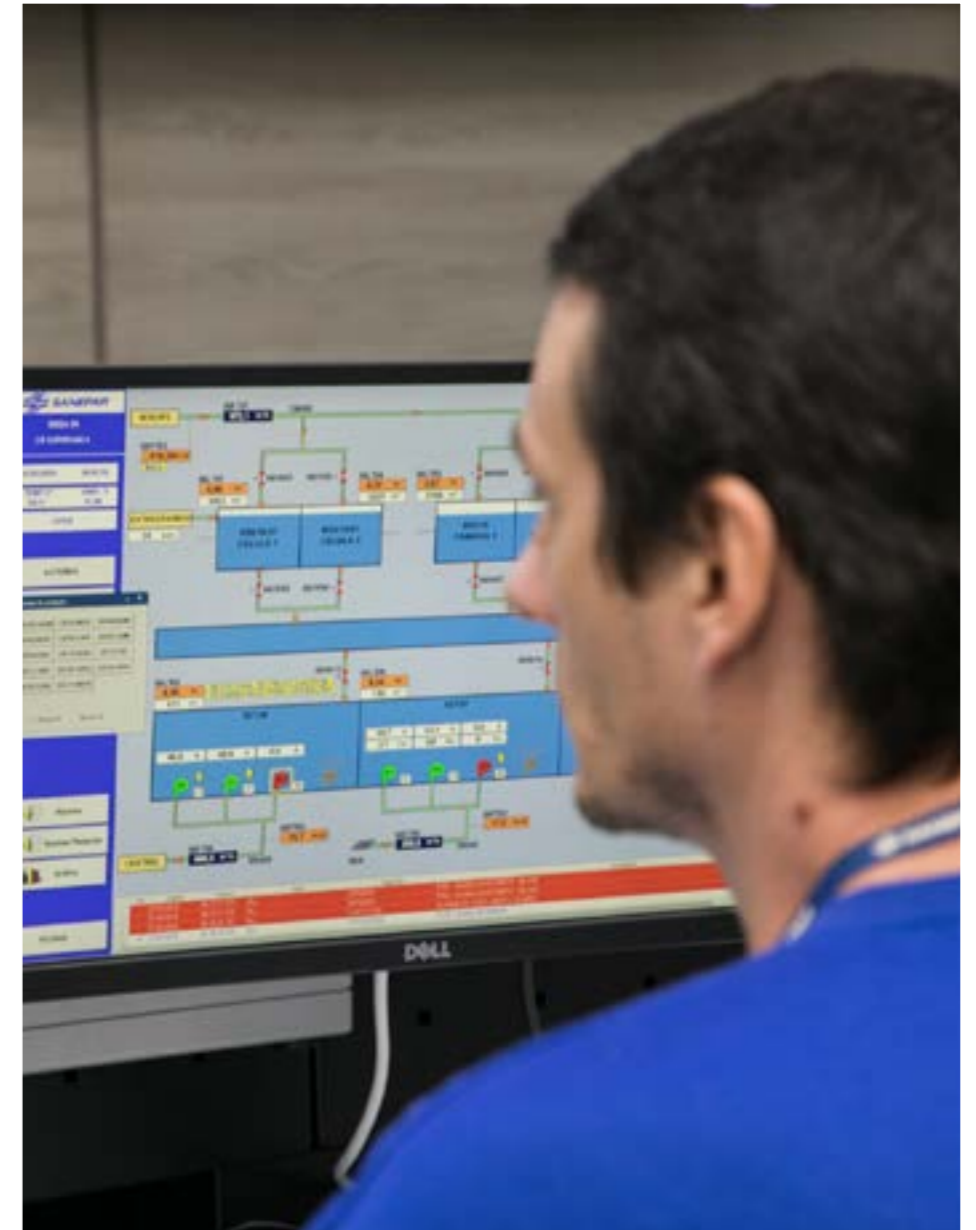
INDIRECT EMISSIONS FROM THE ACQUISITION OF ENERGY PER BUSINESS (t CO₂ EQUIVALENT) GRI 305-2

	2016	2017	2018
Water supply	50,931.59	53,816.35	42,650.26
Sanitary sewage	4,935.50	5,718.58	4,660.28
Urban solid waste	3.71	3.95	3.21
Administrative	414.29	5,473.25	4,706.66
Total Scope 2 indirect emissions	56,285.09	65,012.13	52,020.41
Carried out in relation to the base year (%)	-10.35	3.55	-17.14

Although energy consumption has continued over the years, NIS emission factor in 2018 was much lower than that of 2017, reducing the Company's scope 2 emissions.

INTENSITY OF GREENHOUSE GAS EMISSIONS PER BUSINESS GRI 305-4

		2016	2017	2018
Water supply	Specific Metric (denominator): one thousand m ³ produced	740,680.45	756,184.33	760,841.62
	Scope 1 emissions (t CO ₂ equivalent)	n.a.	n.a.	n.a.
	Scope 2 emissions (t CO ₂ equivalent)	50,931.59	53,816.35	42,650.26
	Total GHG Emissions (t CO ₂ equivalent)	50,931.59	53,816.35	42,650.26
	Intensity of greenhouse gas emissions (t CO ₂ equivalent / thousand m ³ of water produced)	0.07	0.07	0.06
Sanitary sewage	Specific Metric (denominator): thousand m ³ produced	337,463.86	355,312.71	362,380.05
	Scope 1 emissions (t CO ₂ equivalent)	766,796.86	942,162.11	994,545.72
	Scope 2 emissions (t CO ₂ equivalent)	4,935.50	5,718.58	4,660.28
	Total GHG emissions (t CO ₂ equivalent)	771,732.36	947,880.69	999,206.00
	Intensity of greenhouse gas emissions (t CO ₂ equivalent / thousand m ³ of treated effluent)	2.29	2.67	2.74
Urban solid waste	Specific Metric (denominator): t intended	58,362.38	62,472.20	63,104.96
	Scope 1 emissions (t CO ₂ equivalent)	47,127.75	48,294.04	49,790.36
	Scope 2 emissions (t CO ₂ equivalent)	3.71	3.95	2.83
	Total GHG Emissions (t CO ₂ equivalent)	47,542.04	53,767.29	49,793.57
	Intensity of greenhouse gas emissions (t CO ₂ equivalent / t waste intended)	0.815	0.861	0.789





PESSOAS

- 01 Sanepar's staff
- 02 Socioenvironmental responsibility



SANEPAR'S STAFF

GRI 103-2, 103-3

With 7,022 employees, Sanepar continually invests in personal and professional development programs. The Company understands that maintaining excellent service requires a qualified staff up to date with the corporation's trends and technological advances.

In 2018, the company underwent an organizational restructuring process, with the advice of an external consultancy. The objective was the modernization and rationalization of management. The company continually strives for efficiency while ensuring service excellence and return to its shareholders, as well as meeting the requirements set forth in State Act (No. 13,303/2016).

This reorganization movement also reflects the effects of employee termination programs, which have been in force for three years at the Company: RIP (Retirement Incentive Plan) and WVDPKT (Voluntary Dismissal Program with Knowledge Transfer) for positions. endangered. Since 2016, about 10% of employees have left the Company,

most of them within the mentioned incentive programs.

Sanepar's personnel policy aims to provide a safe and healthy work environment valuing knowledge, equal opportunity, respect for plurality, diversity and gender equity. This last guideline is part of the Sustainable Development Goals (SDGs), to which Sanepar is a signatory. **GRI 102-12**

Employees are hired through a public tender, as per item II of art. 37 of the Federal Constitution, and item II of art. 27 of the Constitution of the State of Paraná. Public Contest Notices are published on Sanepar website. The Company also has employees assigned by other agencies and interns of high school, professional school and university, hired in accordance with the rules of Act 11,788/2008 and receive a grant.

Maintaining excellent service requires a qualified staff up to date with trends.

NUMBER OF EMPLOYEES PER FUNCTIONAL CATEGORY

TYPE OF CONTRACT	2016		2017		2018	
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
Council	32	1	38	2	9	1
Board of Directors	9	0	8	0	6	1
Managerial	419	152	340	132	412	152
Professional	482	267	488	257	468	244
Technical	740	198	756	202	741	196
Operating/Administrative	4,129	948	4,046	936	3,901	901
Interns	104	118	90	89	82	88
Total by gender	5,915	1,684	5,766	1,618	5,619	1,583
Grand total	7,599		7,384		7,202	

NUMBER OF EMPLOYEES PER TYPE OF EMPLOYMENT CONTRACT AND GENDER¹ GRI 102-8

TYPE OF CONTRACT	2016			2017			2018		
	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL
Determined time	104	118	222	90	89	179	82	88	170
Undetermined time	5,779	1,565	7,344	5,638	1,527	7,165	5,528	1,494	7,022
Total	5,883	1,683	7,566	5,728	1,616	7,344	5,610	1,582	7,192

¹ Advisors are not considered.

NUMBER OF EMPLOYEES PER TYPE OF EMPLOYMENT AND GENDER¹

JOB TYPE	2016			2017			2018		
	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL	MEN	WOMEN	TOTAL
Full day	5,779	1,565	7,344	5,638	1,527	7,165	5,528	1,494	7,022
Partial day (part time)	104	118	222	90	89	179	82	88	170
Total	5,883	1,683	7,566	5,728	1,616	7,344	5,610	1,582	7,192

¹ Advisors are not considered.

NUMBER OF EMPLOYEES PER TYPE OF EMPLOYMENT CONTRACT AND REGION¹

REGION IN THE STATE OF PRANÁ	2016		2017		2018	
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
Northeast	1,028	137	1,010	136	1,046	177
Northwest	786	134	812	141	862	156
Metropolitan and coast line	2,543	1,044	2,329	967	2,089	844
Southeast	665	101	693	123	708	127
Southwest	757	149	794	160	823	190
Total by gender	5,779	1,565	5,638	1,527	5,528	1,494
Total	7,344		7,165		7,022	

The protection of diversity, equal opportunities and respect in the workplace is guaranteed by the Code of Conduct.

BENEFITS TO FULL-TIME EMPLOYEES

GRI 401-2

The benefits offered to employees¹ at Sanepar are as follows:

- > Healthcare agreement
- > Disability aid
- > Maternity/paternity leave
- > Pension Fund/Benefit Agreement
- > Social Assistance
- > Indemnity Allowance
- > Child Care & Day Care Aid²
- > Disease Aid (Social Security)
- > Profit Sharing Program - PSP
- > Food vouchers
- > Transportation voucher
- > Medicines Aid (Foundation)
- > Handicap (Foundation)
- > School Supply Aid³
- > School Coat Aid³
- > Funeral assistance

¹ Temporary officials are not included among the beneficiaries. Interns are served with food stamps and transportation vouchers.

² Exclusively for female employees, with children from 04 (four) months up to 6 (six) years and 11 (eleven) months. Employees who hold custody of children of the same age are also entitled to the benefit.

³ Available to employees who receive up to a certain salary range.

EQUALITY AND PLURALITY

GRI 103-2, 103-3

Sanepar's institutional policies include "continuously promoting gender equity in social and labor relations", which is part of a set of values aimed at creating, increasingly, a company with actions in the present, focused on the future.

These actions have been promoted based on the tripod economy, environmental protection and social inclusion. The protection of diversity, equal opportunities and respect in the workplace is also guaranteed by compliance with the Code of Conduct and free access to the Ombudsman.

Women represent 21.26% of Sanepar's staff and occupy 30.13% of managerial positions. In the governance bodies – Executive Board and Administration Council –, they have a share of 14.3% and 11.1%, respectively.

The gender equity program, adopted in 2016, is in line with UN Women's Empowerment Principles (Weps). Sanepar was the first sanitation company in the country to establish it. **102-12**

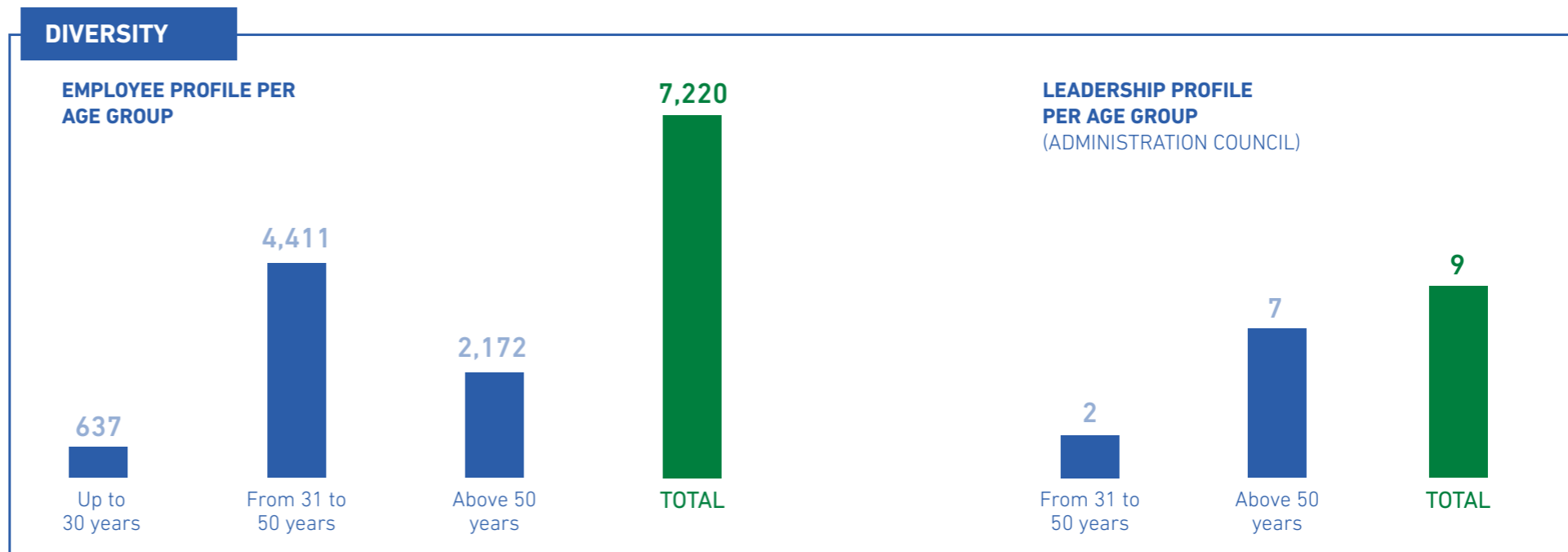
In 2018, the program had actions in all regionals, emphasizing the importance of equality in social and labor relations. Issues

such as violence against women were also addressed in lectures held in Curitiba and displayed throughout the state in videoconference rooms. In 2019, equality will become part of the distance learning platform (EaD) made available by Sanepar to all employees.

Another policy adopted since 2016 is to stimulate the plurality of segments represented in the staff. Since then, the Company has been monitoring the participation of black citizens and people with disabilities amongst its employees. According to the latest surveyed data, 1.12% of employees in general (at managerial, professional and technical levels) are black and 13.98% of them are people with disabilities.

PROFIT SHARING PROGRAM

The Company has a Profit Sharing Program based on the results of the most representative performance indicators of its business and conditioned to the percentage of goals achieved. The amount distributed annually is equal and fixed to all members of the Board of Executive Officers and employees (Decree No. 1,978 of December 20, 2007, Decree No. 5,631 of October 28, 2009 and Decree No. 6,453 of March 12, 2010), having as the ba-



sis for calculation the overall results, within the limit of 25% of the total dividends paid to shareholders. Learn more in item 7 of the 2018 Governance Letter.

PERCENTAGE OF INDIVIDUALS WITHIN BODIES OF GOVERNANCE IN THE ORGANIZATION (%) GRI 405-1

	2018	
Per genre	Men	90.5
	Women	9.5
Per age group	Below 30 years	0.0
	Between 30 and 50 years	28.6
	Over 50 years	71.4
Minorities and/or vulnerable groups	Black	2.4
	People with disabilities	0.0

¹ Does not consider interns and advisors.

PERCENTAGE OF EMPLOYEES, PER FUNCTIONAL CATEGORY AND GENDER (%)

	2016		2017		2018	
	MEN	WOMEN	MEN	WOMEN	MEN	WOMEN
Council	97.0	3.0	95.0	5.0	90.0	10.0
Board of Directors	100.0	0.0	100.0	0.0	85.7	14.3
Managerial	73.4	26.6	72.0	28.0	73.0	27.0
Professional	64.4	35.6	65.5	34.5	65.7	34.3
Technical	78.9	21.1	78.9	21.1	79.1	20.9
Operating/Administrative	81.3	18.7	81.2	18.8	81.2	18.8
Interns	46.8	53.2	50.3	49.7	48.2	51.8
Total per gender	77.8	22.2	78.1	21.9	78.0	22.0

Sanepar was the first sanitation company in the country to institute gender equality

PERCENTAGE OF EMPLOYEES, PER FUNCTIONAL CATEGORY AND AGE GROUP (%)

	BELOW 30 YEARS	BETWEEN 30 AND 50 YEARS	OVER 50 YEARS
Council	0.0	40.0	60.0
Board of Directors	0.0	42.9	57.1
Managerial	3.7	59.8	36.5
Professional	2.9	68.3	28.8
Technical	8.3	63.6	28.1
Operating/Administrative	7.4	61.6	31.0
Interns	94.7	5.3	0.0
Total per age group	8.8	61.0	30.2

PERCENTAGE OF MINORITY AND/OR VULNERABLE GROUP REPRESENTATIVES AMONG EMPLOYEES, PER EMPLOYEE CATEGORY (%)

	2018	
	BLACK PEOPLE	PEOPLE WITH DISABILITIES
Council	0.0	0.0
Board of Directors	0.0	0.0
Managerial	2.3	0.7
Professional	3.7	0.7
Technical	5.0	0.7
Operating/Administrative	5.2	1.1
Interns	2.4	0.0
Total per minority group	4.7	1.0

COMPENSATION AMONG WOMEN AND MEN

Due to performance appraisals, as well as collective bargaining agreements with 22 different unions, the average compensation of

employees in the Professional, Technical and Administrative/Operational categories may be noted. The oscillation in the compensation of the Managerial category occurs due to the natural dynamic flow of replacements of the position occupants.

MATHEMATICAL RATIO BETWEEN WAGE AND BASIC COMPENSATION FOR WOMEN AND MEN IN EACH FUNCTIONAL CATEGORY (R\$) GRI 405-2

		2016	2017	2018
Council	Base salary	1.30	1.09	1.00
	Compensation	1.30	1.09	1.00
Board of Directors ¹	Base salary	n.a. ²	n.a. ²	1.00
	Compensation	0.00	0.00	0.96
Managerial	Base salary	i.n.d. ³	i.n.d. ³	i.n.d. ³
	Compensation	1.06	0.94	1.04
Professional	Base salary	1.00	1.00	1.00
	Compensation	0.89	0.89	0.90
Technical	Base salary	1.00	1.00	1.00
	Compensation	0.82	0.84	0.84
Operational/ Administrative	Base salary	1.00	1.00	1.00
	Compensation	0.91	0.91	0.90
Interns	Base salary	i.n.d.	i.n.d.	1.004
	Compensation	i.n.d.	i.n.d.	0.994

¹ The average compensation of male directors is affected because the compensation of the chief executive officer is higher than that of other directors.

² There were no women in management positions in 2016 and 2017.

³ It is not possible to establish a base salary for the managerial category since there are several managerial levels, with their respective compensations calculated as bonus with a complementary function to the salary of the one occupying such function, in order to reach the amount referring to the respective role.

⁴ There is no gender differentiation for the scholarship paid to interns. It differs by the workload, namely: higher level 120h: R\$ 634.80; upper level 80h: R\$ 423.20; 80h average level: R\$ 320.80.

DISCRIMINATION CASES GRI 406-1

In 2016, as in 2017, only 1 case per year recorded and analyzed. While in 2018, there were 3 cases.

For the cases analyzed for which a remedy plan is being implemented, no occurrences

were recorded in 2016, one in 2017 and two in 2018.

There were 3 complaints of discrimination in 2018 that were analyzed, one of which was filed and 2 generated actions and were concluded. **GRI 406-1**

EMPLOYEES TRAINED IN HUMAN RIGHTS POLICIES AND PRACTICES¹ GRI 412-2

	2016	2017	2018
Total number of training hours in Human Rights	4,903	33,510	5,967
Percentage of employees trained in Human Rights (%)	16.6	58.0	13.5

¹ Does not consider interns and advisors.

² The figures related to this theme in 2017 were representative, due to the approval of the Code of Conduct and Integrity by Sanepar's Administration Council.

KNOWLEDGE MANAGEMENT

GRI 103-2, 103-3

The legacy of former employees makes up a collection and will be part of a project aimed at best practices.

Knowledge management is a practice that has been adopted by Sanepar for about ten years and was intensified after the adoption of retirement and voluntary dismissal agreements. The experience of former employees has been properly recorded and, as a result, many processes, practices and experiences have been systematized to preserve them. This collection will be part of a project aimed at improving procedures and aligning best practices with the company's strategic objectives. **GRI 404-2**

Valuing knowledge is one of the cornerstones of Sanepar's personnel policy and, as such, there are ongoing investments in strengthen-

ing the company's intellectual capital. One of the initiatives of the year was the offer of a specialization course in Environmental Sanitation, in the semi-present modality, held in partnership with the State University of Northern Paraná, using the technology network of the State Virtual University. The class was attended by 500 employees from all areas of the Company, including capital and the countryside.

Distance Learning (EaD) is a widely used alternative for the dissemination of knowledge within the company because it allows the employees, regardless of their capacity or work shift, to have access to training. Thereby, an

online platform was created, with differentiated content, offering opportunity for improvement in the most diverse areas. There are about 300 courses in modules in the general catalog of distance learning and another 20 courses named customized, that is, they are more compact and related to Sanepar activities. All courses offer certificates. The platform also makes it possible to access technical publications and videos.

In 2018, 186,343 opportunities were offered, covering approximately 548,000 hours of training. Of this total, Sanepar's distance learning courses served 2,155 Sanepar employees, with the issuance of 4,672 completed course certificates, totaling 50,166 training hours.

Employee training hours make up a strategic corporate indicator, listed in the Sanepar Normative System - SNS. The standard establishes an individual minimum annual workload, with the objective of stimulating the development of employees, to improve professional performance, business units, boards of directors and the company as a whole.

IMPROVEMENT AND LEADERS TRAINING

The Training and Management Improvement (TMI) program, in partnership with the Pontifical Catholic University of Paraná (PUC-PR), was created in 2015 to provide training for managers and coordinators. In 2018, already in its third phase, it expanded its reach and included professionals with the potential to assume leadership positions, benefiting 226 employees. There was internal selection to define the occupation of vacancies.

One of the differentials of this training is that participants, during the course, develop a project that has a practical application in the Company's routines, seeking the use of new technologies and process improvement.

PERFORMANCE EVALUATION AND CAREER PLAN

In 2018, the Executive Board appointed a Mixed Committee with the participation of company representatives, employees, through trade unions and the State Company Control Council (CCEE), to study and propose the Positions, Careers and Compensation Plan (PCCP).

Based on the perspectives, strategic objectives, guiding principles forwarded by the Board, analyses of the current Plan and consultations with employees, the committee drafted a proposal to update and revise the PCCP. The work resulted in propositions for the New PCCP which foresees improvements and development of evaluation systems; restructuring of salary scale; budget allocation rules; redistribution of relative weights to institutional, sectoral and individual dimensions; restructuring of the individual performance evaluation methodology; new ruler

for final assessment concepts; training for evaluation and *feedback* between appraisers and appraised; and the creation of the Ethics Committee of the Agreement itself.

At the end of 2018, the Mixed Committee delivered a report with the necessary requirements for deliberation by the Company's governance bodies. If approved, intermediate steps should be developed by 2019 and fully implemented by 2020.

The degree of satisfaction and employee welfare has been periodically evaluated since 2001

PERCENTAGE OF TOTAL EMPLOYEES RECEIVING REGULAR PERFORMANCE REVIEWS AND CAREER DEVELOPMENT GRI 404-3

	2016			2017			2018		
	MEN	WOMEN	TOTAL PER FUNCTIONAL CATEGORY	MEN	WOMEN	TOTAL PER FUNCTIONAL CATEGORY	MEN	WOMEN	TOTAL PER FUNCTIONAL CATEGORY
Board of Directors	i.n.d.	i.n.d.	11%	13%	0%	13%	67%	0%	57%
Managerial	i.n.d.	i.n.d.	96%	91%	100%	94%	90%	95%	92%
Professional	i.n.d.	i.n.d.	100%	95%	100%	97%	92%	96%	93%
Technical	i.n.d.	i.n.d.	100%	95%	93%	95%	93%	93%	93%
Operating/Administrative	i.n.d.	i.n.d.	98%	100%	95%	99%	94%	89%	93%
Total by gender	97%	88%	-	96%	91%	-	92%	86%	-
Grand total	95%			95%			90%		

¹ 2016 performance appraisal data do not have any gender segmentation per professional category.

² Employee participation in the 2017 appraisal cycle (conducted in 2018) is governed by the Position, Career and Compensation Plan (PCCC) Regulation, which determines the performance and participation appraisal for the staff members, conditioned to admission prior to 12/31/2015 and still fulfilling 120 days of effective exercise in the evaluated period (01/01/2017 to 12/31/2017).

EMPLOYEES' INTEGRATION, MOTIVATION AND SATISFACTION

The Quality of Life Program serves multiple purposes: promoting employee integration; creating opportunities for socializing; offering leisure, recreation and culture activities; bringing people of different ranks closer together and encouraging team spirit.

One of the achievements that adds practically all these requirements is the Sanepar Olympics, which takes place between June and September, with local, regional and state stages. In 2018, about 4,000 employees participated in the games.

The Workers Party is also a traditional celebration event. Alluding to Labor Day, it is promoted simultaneously in all Regional units of the company, with the participation of families. Another activity that involves family members occurs during school holidays, when children and teenagers, children of employees, will spend a day in the company.

Employee satisfaction and well-being has been assessed periodically since 2001 through an organizational atmosphere survey called Fale Francamente ("Speak Honestly"), accessed via the Intranet. The results of the questionnaires are analyzed and disseminated, serving to define action plans inserted in the sectoral and strategic planning. In the latest survey, released in 2017, 82% of the employees participated, with an overall score of 7.27.

ENGAGEMENT WITH EMPLOYEES

GRI 102-43, 102-44

Sanepar professionals' listening tools seek to ensure employee participation in the day-to-day decisions and in the analysis of continuous improvement points. The main channels are:

- > **Speak honestly:** Organizational Atmosphere Survey, which assesses employee satisfaction and well-being and provides information that supports the company's strategic actions.
- > The Permanent Union Relations Committee aims to strengthen the company's relationship with the 22 unions acting on behalf of the various professional categories of Sanepar's workforce.
- > Online survey: Dialogues for Sustainability, with annual frequency, seeks to know the employees' perception about the theme, in order to structure social and environmental education actions for the internal public.

ENGAGEMENT WITH PROVIDERS OF SERVICE

- > Training Socio-Environmental Agents. This involves training for external customer service. Intended for teams providing social and environmental services.



HEALTH AND SAFETY

Focused on prevention, a number of significant initiatives and investments promote a safe and healthy environment.

Providing improvements in the quality of life of its employees and their families is a constant concern of Sanepar. The Company understands safety as a duty and a right of all, in view of the employees' physical, psycho-emotional and social integrity. That is why it is committed to preventing and minimizing the risks that exist in its activities, in providing environmental sanitation services with quality, efficiency and unlimited dedication.

The work is based on the Safety Policy, Regulatory Standards and "Occupational Safety and Health Management Procedures in Contracted Companies" to ensure the application of current legislation, establish improvements and the safe execution of works and services.

Acting in prevention, Sanepar adopts a series of initiatives, resulting from significant investments focused on health and safety:

- Safety technicians and engineers work directly in operational areas near work areas to identify points for improvement and implementation of the Safety Policy.
- CIPAs define procedures and actions to prevent accidents, occupational diseases and interpersonal relationships related to daily life, making the activity compatible with the preservation of life and and promotion of workers' health.

- SIPATs are designed to raise employee awareness on the importance of mental health and safety in the development of their activities.
- It offers several possibilities for personal development to improve the performance of each employee, conducting regulated training in current standards, which require specific and periodic courses, performed by qualified and legally qualified employees such as: electrical services, work in confined spaces and height, handling chlorine gas and chemicals, safety in shoring, road signage, defensive driving, correct use of IPE and CPE and wearing uniforms.

Drivers who carry dangerous goods perform periodic and activity-specific exams: Hazardous Goods Handling (HGH) course.

In 2018, 13,300 training opportunities were offered to employees' health and safety, totaling approximately 89,000 hours of training. In addition to courses, lectures and face-to-face activities, Sanepar offers distance education training, also focusing on disease prevention and other problems that may originate in the workplace.

The healthcare area conducts annual influenza vaccination campaigns, conducts analyses of ergonomic conditions of staff, encourages employee engagement in blood donation, and, at an exclusive website, provides guidance and tools for organizing the routine of donations. and social campaigns over the years.

Employees periodically undergo specific medical examinations in accordance with occupational hazards identified in the Environmental Risk Prevention Program (PPRA), prepared by occupational safety, and defined in the Occupational Health Medical Control Program.

Sanepar also makes available to all employees the Health and Assistance Plan - SaneSaúde, as well as the Private Pension Plan - Fusanprev, benefits administered by the Sanepar Social Security and Welfare Foundations, non-profit legal entities.

COLLECTIVE NEGOTIATION [GRI 102-41](#)

Collective bargaining agreements cover 100% of employees and dialogue with 22 unions, in a process of cordial, open and constructive relationship with representatives of the various professional categories, recognizing them as important actors in the dynamics of labor relations. The relationship with unions requires the intermediation of a representative grouped per employee category (collective bargaining), specific groups and also individually. Dialogue with the unions is well established and, to this end, a Trade Union Relations Commission was created.

NEW BUILDING

At the end of 2018, Sanepar concluded the construction of a new building next to its main administrative complex, in Rebouças neighborhood, in Curitiba. With 9,700 square meters, it will house about 1,000 employees who currently work in rented real estate in various parts of the city. As a result, the Company gains more unit and reduces rental and travel costs.

The new building is what one should call an intelligent construction, incorporating new technologies and innovations that will make its use sustainable.

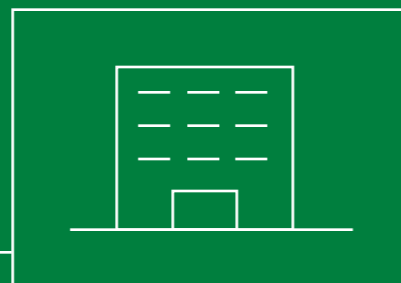
EXPANDED SPACE

9,700 m²
on four floors

Capacity for
989 work stations

Lower operation
cost

Special glass
with higher thermal performance and automated blinds



Leed Gold Certification
for sustainable buildings

Use of water
from rains, efficient metals and crockery

Use of natural
lighting and LED lamps

Outlet control
lighting and automated blinds

VRF air conditioning system
with automated temperature control

Renewable energy
with the installation of photovoltaic panels

SOCIOENVIRONMENTAL RESPONSIBILITY

GRI 103-2, 103-3

Environmental awareness and the rational use of natural resources are part of Sanepar's activities.

As a company with a strong environmental commitment, Sanepar is not limited to ensuring compliance in its processes and developing actions for nature protection, but also engages in environmental awareness programs and encourages the rational use of natural resources. The Company maintains several social and environmental education projects with the most diverse segments of public – riverside communities, residents of its equipment neighborhood, schools, employees and their families and the general population.

The Socio-Environmental Education Management (SEEM) is the area responsible for developing and operating programs and projects dealing with local communities, accompanied by Sanepar's Management and Information System, which is responsible for project indicators developed in 17 decentralized SEEM offices.

Residents of areas of irregular occupation form a vulnerable group identified in the social mapping process, carried out before the



start of sanitation works. Sanepar implements community support actions by social workers. These professionals articulate local needs with management in order to guarantee the right to water by installing community taps.

The program was created to encourage people to properly connect the sewage in the collection network.

SE LIGUE NA REDE (“GET CONNECTED TO THE SYSTEM”)

This program seeks to combat the incorrect connection between the property and the sewage collection system. Due to the lack of knowledge of residents, who are responsible for carrying out this task, the sewage ends up being directed to rainwater galleries and, consequently, polluting the rivers.

Sanepar provides advice and monitors home liaison work. In the deployment of new net-

works, the Company's teams come in contact with the communities in advance and, with the support of local leaders and public agents, provide information and guidance on how to properly connect the sewage.

The Se Ligue na rede Program has an action plan, consisting of the Social Work Project, which advocates home-to-home approaches and watershed management in sewage system implementations. The mechanism for receiving and handling complaints from local communities is Sanepar's ombudsman. The number of formal complaints processes by local communities was 10,909 in 2016; 10,823 in 2017 and 10,442 in 2018.

Another Company initiative is to promote the training of plumbers by offering them not only the knowledge to perform their work in accordance with environmental rules, but also the opportunity to increase their income.

The mechanism for receiving and handling complaints from local communities is Sanepar's Ombudsman

ACHIEVEMENT GRI 102-33, 102-44

The arrival of the sewage system in the communities is always seen as an achievement and, therefore, when completing the implementation, Sanepar conducts socio-educational events, turning residents into multipliers of the concepts of environmental conservation. In 2018, the program was present in 40 regions of the state and made it possible to make connections in 22,000 properties.

During sanitation works, Sanepar also usually promotes monthly meetings with its technicians and the population to approach the community to be benefited.

ENVIRONMENTAL EDUCATION TO THE COMMUNITY

Two Sanepar spaces welcome visitors and are important diffusers of environmental education concepts. One of them is the Center for Environmental Education of Serra (CEES), which is next to Piraquara I and II Reservoirs in Curitiba Metropolitan Region. Inserted in an Environmental Preservation Area (EPA), next to river springs, CEES housed Paraná's first public supply system, Carvalho Reservoir, from 1908. The site can be visited by the general public, but is especially sought by students, who walk trails in the remnants of Serra do Mar Atlantic Forest. In 2018, 7,138 people visited the Center.

The other space, the Sanitation Museum, is also historic. It is housed in a building from 1945, where the former Tarumã Water Treatment Plant, the first one in Curitiba, used to be operated. It brings together the memory, history and culture of sanitation in the state, with a collection of 10,000 pieces, including plants, documents and photographs. In 2018, it received 1,246 visitors.

SUMMER OPERATION

Each summer, Sanepar makes a concerted effort to serve the vacationing population on the State Coast, overloading the supply system and testing the beach bathing rate. To ensure that there is no shortage of water – especially on critical dates such as New Year's Eve and Carnival – Sanepar has 18 generators (rented or loaned) that are ready to go into operation if the lack of electricity affects the operation of the reservoirs.

The other front of operation is the 48 kilometers of beaches, between Pontal do Paraná and Guaratuba. The Company installs ecologically sustainable showers to be used by bathers. They are supplied with water extracted from the underground sea sand, treated with chlorine and filtered with activated charcoal, which removes 95% of salt, 99% of bacteria and coliforms and reduces pH by 10%. The showers allow continuous

baths with up to two liters per activation. For people with disabilities or reduced mobility, amphibious chairs are available for safe access to the sea.

ECOEXPRESSO

Five adapted buses, called EcoExpresso, travel through Paraná visiting schools, companies and other institutions to bring environmental education to communities and guide good water conservation practices.

Inside the bus, visitors get to know the waterway from the spring to the taps and the treatment and quality control processes. They are also informed about the sewage process and how this sewage, after treatment, is able to return to the river. Other topics such as disposal and treatment of urban waste; climate changes; deforestation; waste management and health are included in the presentations.

In 2018, EcoExpresso visited 155 municipalities and was visited by 180,446 people.

SUSTAINABILITY: FROM SCHOOL TO THE RIVER

Awareness of the importance of preserving rivers in the urban environment is the main objective of the project "Sustainability: from school to river", which works with students and teachers, especially those linked to tech-

nical courses in the environment. The focus is defined on the aggressions that rivers suffer in cities, such as plumbing, course changes, volume reduction and water pollution.

Throughout the school year, the project performs actions such as the recognition of the watershed, analysis of water quality, planting of native trees, proper collection and disposal of waste and mobilization of riverside communities.

Since 2013, when it was created, the project has carried out over 600 actions in 30 monitored rivers involving around 12,000 people in the activities.

ENVIRONMENTAL EDUCATION TO EMPLOYEES

USE O BOM SENSO ("USE GOOD JUDGMENT") PROGRAM

Acting with social and environmental responsibility is part of Sanepar's strategic objectives. To internalize this theme, the company established in 2000 a program named Use Good Judgment, with involvement of all employees.

After 17 years of existence, the program has undergone an update of concepts and methodology to fit current organizational principles, focusing on sustainability, quality management and global initiatives such as the Sustainable Development Goals (SDGs). Attitudes that promote the improvement of the work environment; fight against waste; responsible use of resources and inputs; reduc-

tion and integrated waste management are part of the program guidelines, which aims at the adoption of sustainable practices and citizenship, from the social and environmental point of view.

This is a corporate standard that aims to certify all managements.

ECOPROSA

Conversation rounds among employees, or prose coffee, as the program is also known. The objective is to promote informal meetings to discuss environmental issues. Among the topics discussed in 2018 are agroecology; payment for environmental services; conservation of springs; prevention and control of environmental risks; solid waste; and urban mobility.

Employees are encouraged to adopt attitudes that promote a better work environment.

**BE TUNED WITH THIS IDEA:
NO OIL IN THE SYSTEM**

Improper disposal of cooking oil in the network causes clogging and damage to the sewage system, and Sanepar initiates aware-

ness of the risks of such conduct at home. The Be tuned with this Idea: No Oil on the system program is targeted at employees who become multipliers of good practice in their communities.

In addition to alerting to the danger of an unlawful disposal, the program also collects used oil to route it to the correct disposal. Created three years ago, the program has 213 collection points and partners that

receive the material in 20 municipalities. In 2018, 4,000 liters of oil were collected.

PERCENTAGE OF OPERATIONS WITH LOCAL COMMUNITY ENGAGEMENT IMPLEMENTED, IMPACT ASSESSMENTS AND/OR DEVELOPMENT PROGRAMS. GRI 413-1

	2016		2017		2018	
Sanepar Regional Service Providers	71		79		79	
TYPE OF INITIATIVE ¹	MANAGEMENTS INVOLVED	%	MANAGEMENTS INVOLVED	%	MANAGEMENTS INVOLVED	%
Environmental Impact Assessments and Continuous Monitoring ²	19	26.8	19	24.1	19	24.1
Local development programs based on the needs of local communities ³	22	31.0	22	27.8	22	27.8
Engagement plans for stakeholders based on mappings of these parts ⁴	22	31.0	22	27.8	15	19.0
Local community wide inquiry committees and processes including vulnerable groups ⁵	40	56.3	58	73.4	42	53.2
Labor councils, occupational health and safety committees and other employee representative bodies to discuss impacts ⁶	71	100	94	119	94	119.0

¹ No social impact assessments, including gender, were conducted based on participatory processes. In 2019, a study by the gender equity group should be conducted as a proposal to improve the indicator. The Environmental Management System Manual provides that the criteria and mechanisms for external reporting and reporting are defined by Sanepar in the text of the procedures associated with the EMS.

² There are 19 managements in the five macro-regions that have the environmental impact assessment worksheet and are updated at least once a year, or whenever there is a revision of any aspect. In addition, two operations are externally certified by ISO14.001: Foz do Iguacu and Cianorte landfill.

³ It refers to the Socio-Environmental Education and Intervention Program in Sanitation Enterprises and the External Socio-Environmental Education Program.

⁴ It considers all technical social work projects (TSWP) carried out by the regionals (number of TSWP implemented: 228 in 2016; 189 in 2017; and 72 in 2018). When the Technical Project of Social Work is prepared, a survey of the conditions related to following items is accomplished: Water, Sewage, Solid Waste and Drainage. Health and education conditions are referenced to support the planning of actions directed to the beneficiary community.

⁵ Considers project management groups responsible for preparing the social and environmental action plan to be carried out during the sanitation works, and also accompany the community meetings.

⁶ All managements have a Use Good Judgment and CIPAs program committee. The figure over 100% in 2017 and 2018 is due to the increase in the number of managements.

OPERATIONS WITH SIGNIFICANT ACTUAL AND POTENTIAL NEGATIVE IMPACTS ON LOCAL COMMUNITIES GRI 413-2

OPERATION SITE	IMPACT SITE	OPERATIONS WITH SIGNIFICANT CURRENT AND POTENTIAL NEGATIVE IMPACTS ON LOCAL COMMUNITIES		INTENSITY	ESTIMATED DURATION	REVERSIBILITY	SCALE
São José dos Pinhais	Miringuava Dam	Actual impacts	Removal of families from their homelands to nearby areas or outside the municipality	Low	Continuous	Low	Average
Curitiba and Metropolitan Region	STP and Sewage Pumping Stations	Actual impacts	Smell. Sanepar is implementing methane burners to mitigate this impact.	Average	Continuous	High	Low
Headquarters of the 22 Regional Managements	STP and Sewage Pumping Stations	Actual impacts	Smell. Sanepar is implementing methane burners to mitigate this impact.	Average	Continuous	High	Low
166 localities with WTS	WTP	Potential impacts	Leakage of chlorine gas and chemicals	Very severe	A few hours	Low	Catastrophic

1 Potential impacts are mitigated by: detection, dispersal, Emergency Action Plan (EAP), containment dikes, product reuse and regulated transport. In 2019, the goal is to serve nine communities in Curitiba and the Metropolitan Region that live around STP with strong odor issues.

SUMMARIZED SOCIAL AND ENVIRONMENTAL ACTIONS TO THE COMMUNITY

The management of cultural actions is carried out by the Coordination of Historical Heritage and Socio-Environmental Education Centers, within the structure of the Socio-Environmental Education Management. The goal for 2018 was the adherence of 13,000 people. The opening of the Iguaçú River Memorial, the increase in the number of visitors to the mountain springs and a greater demand for activities in the socio-environmental education center contributed to increase the number of participants.

SOCIAL AND CULTURAL ACTIONS DEVELOPED IN 2018

NAME	DESCRIPTION	TOTAL INVESTMENT (R\$)	NUMBER OF PARTICIPANTS
Sanitation museum	The Sanitation Museum, maintained by Sanepar, is a memory and culture space on sanitation in the state of Paraná, which promotes knowledge and reflection and the environment. Inaugurated in 2014, it researches, preserves and disseminates memory, promotes knowledge and reflection on humans and the environment. The Museum occupies part of the Tarumã Space in Curitiba.	R\$ 250,000.00	1,246
Iguaçu River Memorial	At the Iguaçú River Memorial, there is an environmental education center for sustainability, with actions directed to students and the community in general. It is possible to learn historical, geographical and social aspects and proposals for sustainable actions for Iguaçú River Basin. The Memorial is housed in the Japanese Immigration Centennial Park.	R\$ 1,000,000.00	2,598
Opening of Serra Springs to public visitation	Serra Spring, is the first reservoir that supplied Curitiba, since 1908. On site, one can get to know equipment and construction from the beginning of sanitation in the region and enjoy the Cayuguava Dam (also known as Piraquara I), Sanepar's first large water accumulation dam, inaugurated in 1979. About 40 km from Curitiba, the place is suitable for hiking, with trails lasting at least one hour, round trip.	R\$ 600,000.00	5,130
Christmas in São Francisco Reservoir	As a project carried out in partnership with Curitiba City Hall and Curitiba Institute of Art and Culture, it is part of the city's Christmas program. Several Christmas-themed theater and music shows are offered on a pre-defined calendar from November to December of each year.	R\$ 45,000.00	1,200
Music Workshop in Curitiba	Every year, renowned musicians or the ones aspiring to this category come to Curitiba to study and improve, in classical and popular music courses. The city turns into a grand stage, which span into public and private spaces.	Amount covered in sponsorships via Rouanet Act	2,500
Rouanet Act Sponsorships	Project approved at Pronac sponsored by Sanepar through tax waiver. In 2018, seven projects were sponsored.	R\$ 1,470,000.00	Not available
Serra Springs Socioenvironmental Education Center	Inaugurated in 1997, the Socioenvironmental Education Mananciais da Serra Center – SEMC in Piraquara, promotes socioenvironmental education and forms a new environmental awareness, focused on the conservation and preservation of the environment, especially the care of water.	R\$ 500,000.00	7,138

¹ It refers to investments made mainly in renovations and construction of structures that went through vandalism and fire; besides production of exhibitions and costing with security and conservation of the spaces.

Monitoring of environmental education projects is carried out by the number of participants. The target for 2018 was 33,170 people, but the number of people served by the projects was almost six times higher. This increase was made possible by hiring four new Ecoexpresso buses, allowing more schools, fairs and companies to be served.

ACTIONS FOCUSED ON ENVIRONMENTAL EDUCATION OF LOCAL COMMUNITIES IN 2018¹

NAME	DESCRIPTION	TOTAL INVESTMENT (R\$)	NUMBER OF PARTICIPANTS
Environmental Agenda	Social and environmental education actions carried out on environmental commemorative days. On these occasions, joint efforts of cleaning, planting, workshops are carried out.	R\$ 78,763.32	8,663
Training for external facilitators	Train facilitators from various segments of society to multiply information on Basic Sanitation and the Environment.	R\$ 65,636.10	919
Environmental education with an emphasis on solid waste	This project seeks to sensitize the population to the correct separation of waste, aiming at improving the operationalization of the process of collection and disposal of solid waste.	R\$ 58,072.49	2,864
Lecture	These are actions in which technicians talk to the community about caring for the environment, in particular with water resources and sanitation.	R\$ 328,180.49	11,382
Se Ligue nessa Ideia, sem Óleo na Rede ("Be tuned with this idea, no Oil in the System")	It is a project that encourages the reduction of the use of oil in food preparation and provides the correct collection and disposal of waste oil, contributing to the community adoption of correct and responsible social and environmental practices.	R\$ 52,508.88	1,498
Sustainability: From School to River	The project Sustainability: from School to River aims to mobilize teachers and students, preferably from Technical Courses in the Environment, for the development of social and environmental education actions in urban rivers, in order to internalize the concept of sustainability and improve environmental quality.	R\$ 728,560.69	1,149
Guided visits	To promote the construction of knowledge about water resources problems through guided visits to Sanepar structures.	R\$ 1,021,191.92	5,695
Ecoexpresso	Ecoexpresso is a mobile Environmental Education Center, which provides information on the environment and sanitation. Five model-equipped buses take participants to get to know the water path from the springs to the sewage treatment process.	R\$ 2,373,867.64	180,446



NAME	DESCRIPTION	TOTAL INVESTMENT (R\$)	NUMBER OF PARTICIPANTS
Urban Art	The Urban Art project is an instrument of rapprochement between Sanepar and the community surrounding the company's reservoirs, with the objective of promoting the resignification of urban space for heritage preservation in five reservoirs in the cities of Colombo and Almirante Tamandaré. The structures were constantly vandalized. By cherishing these spaces, through graffiti workshops and murals themed as "Our water is Drinking", vandalism was reduced by about 90%. The Project was the SDG Seal Winner, promoted by SESI PR.	R\$ 60,000.00	40
Chuá Project	The Chuá project is a set of socio-environmental education actions developed in the Paraná coast during Operation Summer. Through the use of ecologically sustainable showers and recreational activities, topics such as water saving and proper disposal of solid waste are addressed. For people with disabilities or reduced mobility, amphibious chairs are available for safe access to the sea.	R\$ 1,110,362.44	100,839
Se ligue na Rede ("Be tuned with the System")!	It is a program developed with the objective of ensuring that the connections are correctly made to the sewage collection system and contribute to avoid environmental pollution, having as a methodology of social intervention, the dialogue for sustainability, mobilization and community participation.	R\$ 3,125,910.45	28,339
Balance Project	It is a project that seeks to establish communication channels between the company and the communities surrounding the STP. Through dialogue and socially just actions, conflicts are expected to be reduced and managed. The actions taken are: odor group meetings; alignment and planning meetings; alignment meetings with USEG; participation in congresses and seminars; socioenvironmental diagnosis; survey of local leaders; meetings with local leaders; training for STP operations and technical visits. In 2018, we acted in the following locations: Cambuí, Fazendinha, CIC Xisto, São Jorge, Fazenda Rio Grande, Elevatória Maracanã, Quitandinha, Atuba Sul and Cachoeira.	R\$ 39,391.66	100
Total		R\$ 9,042,446.08	350,533

¹ The values listed above consider the costs of technical staff, special contracts and other resources required to perform the activities.



IBASE SOCIAL BALANCE

ANNUAL SOCIAL BALANCE - 2018

	2018			2017		
	Amount (k Reais)			Amount (k Reais)		
1) Calculation basis						
Net operating revenue (NOR)	4,162,205			3,869,401		
Operating Profit (OP)	1,165,002			914,073		
Gross Payroll (GPR)	893,281			926,708		
2) Internal Social Indicators	Amount (k R\$)	% on GPR	% on NOR	Amount (k R\$)	% on GPR	% on NOR
Nourishment	93,059	10.42	2.23	94,491	10.20	2.44
Compulsory social charges	207,561	23.23	4.99	206,464	22.28	5.34
Private social security	31,682	3.55	0.76	30,566	3.30	0.79
Healthcare	64,961	7.27	1.56	60,241	6.50	1.56
Transportation voucher	1,267	0.14	0.03	1,488	0.16	0.04
Occupational Safety and Health	12,760	1.43	0.31	11,638	1.26	0.30
Education	693	0.08	0.02	12	-	-
Training and professional development	5,102	0.57	0.12	4,191	0.45	0.11
Day-care or day-care aid	2,323	0.26	0.05	2,313	0.25	0.06
Profit sharing	134,246	15.03	3.23	69,681	7.52	1.80
Other	76,160	8.53	1.83	119,662	12.91	3.09
Total - Internal Social Indicators	629,814	70.51	15.13	600,747	64.83	15.53
3) External Social Indicators	Amount (k R\$)	% on GPR	% on NOR	Amount (k R\$)	% on GPR	% on NOR
Cultural, Artistic, Audiovisual and Sports	6,480	0.56	0.16	5,000	0.55	0.13
Child and Elderly Funds	2,600	0.22	0.06	2,000	0.22	0.05
Health and Cancer Care Programs	1,914	0.17	0.05	1,735	0.19	0.04
Leisure and entertainment	1,619	0.14	0.04	1,539	0.17	0.04
Other	6,329	0.54	0.15	6,723	0.74	0.17
Total Contributions to Society	18,942	1.63	0.46	16,997	1.87	0.43
Taxes (excluding social charges)	621,036	53.31	14.92	550,414	60.22	14.22
Total - External Social Indicators	639,978	54.94	15.38	567,411	62.09	14.65



ANNUAL SOCIAL BALANCE - 2018

	2018			2017		
	Amount (k R\$)	% on GPR	% on NOR	Amount (k R\$)	% on GPR	% on NOR
4) Environmental Indicators						
Related to the company operation	1,000,300	85.86	24.03	961,734	105.21	24.85
In External Programs and/or Projects	60,681	5.21	1.46	43,070	4.71	1.11
Total Investments in the Environment	1,060,981	91.07	25.49	1,004,804	109.93	25.96
5) Functional Body Indicators		2018			2017	
No. of employees at the end of the period		7,022			7,165	
No. of admissions during the period		17			212	
No. of interns		170			179	
No. of employees over 45 years old		3,060			2,992	
No. of women working in the company		1,494			1,527	
% of managerial positions held by women		30.13%			24.87%	
No. of black people working in the company ¹		335			338	
No. of people with disabilities or special needs ²		93			98	
6) Relevant Information on the Exercise of Corporate Citizenship						
Relationship between highest and lowest compensation in the company		23.77			23.04	
Total number of occupational accidents		310			364	
The social and environmental projects developed by the company were defined by:	<input type="checkbox"/> the board of directors	<input checked="" type="checkbox"/> board of directors and managers	<input type="checkbox"/> all employees	<input type="checkbox"/> the board of directors	<input checked="" type="checkbox"/> board of directors and managers	<input type="checkbox"/> all employees
The workplace safety and health standards were defined by:	<input type="checkbox"/> the board of directors and managers	<input type="checkbox"/> all employees	<input checked="" type="checkbox"/> all + Cipa	<input type="checkbox"/> board of directors and managers	<input type="checkbox"/> all employees	<input checked="" type="checkbox"/> all + Cipa
Social security covers:	<input type="checkbox"/> the board of directors	<input type="checkbox"/> board of directors and managers	<input checked="" type="checkbox"/> all employees	<input type="checkbox"/> the board of directors	<input type="checkbox"/> board of directors and managers	<input checked="" type="checkbox"/> all employees
Profit sharing covers:	<input type="checkbox"/> the board of directors	<input type="checkbox"/> board of directors and managers	<input checked="" type="checkbox"/> all employees	<input type="checkbox"/> the board of directors	<input type="checkbox"/> board of directors and managers	<input checked="" type="checkbox"/> all employees
In selecting suppliers, the same ethical and social and environmental responsibility standards adopted by the company:	<input type="checkbox"/> are disregarded	<input type="checkbox"/> are suggested	<input checked="" type="checkbox"/> are required	<input type="checkbox"/> are disregarded	<input type="checkbox"/> are suggested	<input checked="" type="checkbox"/> are required
Regarding employee participation in voluntary work programs, the company:	<input type="checkbox"/> is not involved	<input type="checkbox"/> offers support	<input checked="" type="checkbox"/> organizes and encourages it	<input type="checkbox"/> is not involved	<input type="checkbox"/> offers support	<input checked="" type="checkbox"/> organizes and encourages it
Total added value to be distributed (in thousand R\$)		In 2018: 2,976,128			In 2017: 2,720,151	
Added Value Distribution (AVD):	25.5% government	33.9% employees		25.5% government	35.9% employees	
	14.2% shareholders	10.6% third parties	15.8% retained	12.0% shareholders	13.3% third parties	13.3% retained

¹ Share of Afrodescendants in Public Contests as of calendar year 2005.

² Quota of Physically Disabled people in public contests as of calendar year 2000.

TAX WAIVER RESOURCES (R\$ K)

Cultural and artistic	5,180
Sports	1,300
Children and Adolescent Fund	1,300
Elderly Fund	1,300
Pronon (National Cancer Care Support Program)	1,300
Pronas (National Program for Supporting the Healthcare of Persons with Disabilities)	614
WFP (Worker Food Program)	5,864
Citizen Company Incentive	911
Law of Good	2,465
Total	20,234



SOBRE O RELATÓRIO

- 01 Materiality
- 02 GRI content summary

MATERIALITY

GRI 102-46, 102-48, 102-49

For complete information on Sanepar practices and performance, visit Sanepar: <http://ri.sanepar.com.br>

In 2018, a new materiality process was carried out by Sanepar to identify the topics that should focus on management and reporting. The process had the following steps:

- Aiming to deepen knowledge of the sector and to create an initial list of topics, in the first step, sectoral studies (Sustainability Topics for Sector (GRI), SASB Standard; and RobecoSAM Sustainability Yearbook (DJSI)) and internal documents were analyzed. (last materiality, strategic planning, policies, codes, among others).
- These initial themes were prioritized based on the interviews conducted with Sanepar's leadership, market analysts, suppliers, consumers and the Brazilian Association of State Sanitation Companies (AESBE). An

online consultation was also held with advisors, employees, consumers, investors, market analysts, suppliers and others (including community representatives, third sector researchers, etc.).

- The results of the prioritization stage were analyzed and processed in a matrix that opposes the perspective of the public and the leadership. The results of this stage defined the material themes for Sanepar, which were validated by the senior management (listed in the following table).

The Sanepar Sustainability Report is annual and follows the guidelines of the Global Reporting Initiative (GRI), pursuant to the Essential option. **GRI 102-52, 102-54**





GRI 103-1, 102-47			
MATERIAL THEMES	EXTENSION OF IMPACTS (AFFECTED AUDIENCES)	INDICATORS MAPPING	CORRELATION WITH SDGS
Operational efficiency and quality in the provision of own and third party services.	<ul style="list-style-type: none"> Executive Board Advisors Operating Managers Market analysts Suppliers Investors Employees Consumers 	GRI 306-2; SASB IF0103-07; SASB IF0201-A; SASB IF0201-C; SASB IF0201-D; SASB IF0103-06	3 (3.9)
		GRI 102-43-44; GRI 103-2; SASB IF0103-10; SASB IF0103-09; SASB IF0103-16	6 (6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.a; 6.b)
		SASB IF0103-12; SASB IF0103-13 Sanepar's own indicators for Link Loss Index; Volume of stolen water in clandestine connections and loss of revenue due to water theft in clandestine connections.	9 (9.1) 11 (11.6) 12 (12.4, 12.5)
Governance, transparency and ethics	<ul style="list-style-type: none"> Executive Board Advisors Operating Managers Market analysts Investors Consumers 	GRI 307-1; GRI 419-1; SASB IF0201-11; SASB IF0103-07; SASB IF0103-02	16 (16.5, 16.6, 16.7)
		GRI 102-43 GRI 102-44	17 (all - transverse)
		GRI 205-1; GRI 205-3	
Sustainability and economic-financial balance	<ul style="list-style-type: none"> Executive Board Advisors Operating Managers Market analysts Investors 	GRI 201-1 Sanepar's own indicators: Volume of water billed; Billed volume of sewage collected; Volume of stolen water in clandestine connections and loss of revenue due to water theft in clandestine connections.	8 (8.2, 8.5)

GRI 103-1, 102-47			
MATERIAL THEMES	EXTENSION OF IMPACTS (AFFECTED AUDIENCES)	INDICATORS MAPPING	CORRELATION WITH SDGS
Universalization of access to water and sewage	<ul style="list-style-type: none"> Executive Board Market analysts Suppliers Investors Consumers 	Sanepar's own indicators: Number of water activations and active savings; Number of sewage activations and active savings SASB IF0103-B; SASB IF0103-D	6 (6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.a; 6.b)
Water resources management	<ul style="list-style-type: none"> Executive Board Advisors Employees Consumers Market analysts 	GRI 303-1; GRI 303-2; GRI 303-3; GRI 306-1; GRI 306-5 Sanepar's own indicators: Organic Load Removed; Programs aimed at preserving springs. SASB IF0103-06	6 (6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.a; 6.b) 12 (12.2)
Environmental sustainability	<ul style="list-style-type: none"> Operating Managers Employees Consumers Market analysts 	GRI 413-1; GRI 413-2; GRI 302-1; GRI 302-2; GRI 302-3; GRI 305-1 GRI 305-2; GRI 305-4 Sanepar's own indicators: Actions and programs aimed at the environmental education of local communities; Social projects and cultural actions developed; Programs aimed at preserving springs. SASB IF0103-1; SASB IF0201-1	4 (4.7) 7
Work organization and quality of life:	<ul style="list-style-type: none"> Executive Board Advisors Employees 	GRI 102-8; GRI 102-41; GRI 401-2 GRI 404-2 ; GRI 404-3; GRI 405-1 GRI 405-2; GRI 406-1; GRI 412-2	4 (4.4) 5 8 (8.5, 8.6, 8.8)



GRI CONTENT SUMMARY GRI 102-55

GRI STANDARD	DISCLOSURE	PAGE/URL	OMISSION	SUSTAINABLE DEVELOPMENT GOALS
GENERAL DISCLOSURE				
GRI 101: FOUNDED IN 2016				
	GRI 101 has not been disclosed			
ORGANIZATIONAL PROFILE				
GRI 102: General Disclosure 2016	102-1 Organization's name	7		
	102-2 Activities, brands, products and services	7		
	102-3 Headquarters' location	7		
	102-4 Operations location	7		
	102-5 Nature of ownership and legal form	7		
	102-6 Markets served	9		
	102-7 Organization's size	9		
	102-8 Information about employees and workers	68		8
	102-9 Supplier chain	Most Sanepar bids are performed in trading floor or contest modalities, which do not require previous registration, but only legal qualification requirements as defined in the public notice. The network of suppliers with registration in force amounts to over 500 companies - most of them suppliers of goods and services like chemicals, pipes and fittings and laboratory materials.		
	102-10 Significant changes in the organization and its supply chain			
	102-11 Approach or precautionary principle	16		
	102-12 Externally developed initiatives	36, 67, 69		
	102-13 Participation in Associations	48		

GRI STANDARD	DISCLOSURE	PAGE/URL	OMISSION	SUSTAINABLE DEVELOPMENT GOALS
STRATEGY				
GRI 102: General Disclosure 2016	102-14 Statement from the senior decision-maker	4		
ETHICS AND INTEGRITY				
GRI 102: General Disclosure 2016	102-16 Values, principles, standards and behavior standards	31		16
GOVERNANCE				
GRI 102: General Disclosure 2016	102-18 Governance structure	13		
STAKEHOLDERS ENGAGEMENT				
GRI 102: General Disclosure 2016	102-40 List of stakeholder groups	19		
	102-41 Collective negotiation agreements	77		8
	102-42 Identification and selection of stakeholders	19		
	102-43 Approach to stakeholder engagement	36, 38, 75		
	102-44 Main topics and concerns raised	36, 38, 75, 79		



GRI STANDARD	DISCLOSURE	PAGE/URL	OMISSION	SUSTAINABLE DEVELOPMENT GOALS
REPORT PRACTICES				
GRI 102: General Disclosure 2016	102-45 Entities included in the consolidated financial statements	The scope of the Sustainability Report and Financial Statements contemplates all Sanepar operations.		
	102-46 Defining report content and topic boundaries	19		
	102-47 List of material topics	90		
	102-48 Data reformulations	89		
	102-49 Report changes	89		
	102-50 Report period	2018		
	102-51 Latest report date	2017		
	102-52 Report cycle	Anual.		
	102-53 Contact point for questions about the report	Any annotations must be forwarded to the Social Communication Services Unit, phone (41) 3330-3077		
	102-54 Option according to GRI Standards	Essencial		
	102-55 GRI Content Summary	91		
102-56 External Assurance	None.			

GRI STANDARD	DISCLOSURE	PAGE/URL	OMISSION	SUSTAINABLE DEVELOPMENT GOALS
MATERIAL TOPICS				
ECONOMIC PERFORMANCE				
GRI 103: Management approach in 2016	103-1 Explanation of the material topic and its limits	90		
	103-2 Management approach and its components	20, 32		1, 5, 8, 16
	103-3 Evolution of the management approach	20, 32		
GRI 201: Economic performance in 2016	201-1 Direct generated and distributed economic value	30		2, 5, 7, 8, 9
FIGHT AGAINST CORRUPTION				
GRI 103: Management approach in 2016	103-1 Explanation of the material topic and its limits	90		
	103-2 Management approach and its components	16		
	103-3 Evolution of the management approach	16		
GRI 205: Fight against corruption in 2016	205-1 Operations subjected to corruption risk assessments	16		16
	205-3 Confirmed cases of corruption and measures taken	16		16
ENERGY				
GRI 103: Management approach in 2016	103-1 Explanation of the material topic and its limits	90		
	103-2 Management approach and its components	60		
	103-3 Management approach evolution	60		

GRI STANDARD	DISCLOSURE	PAGE/URL	OMISSION	SUSTAINABLE DEVELOPMENT GOALS
GRI 302: Energy in 2016	302-1 Energy consumption inside the organization	61		7, 8, 12, 13
	302-2 Energy consumption outside the organization	61		7, 8, 12, 13
	302-3 Energy intensity	62		7, 8, 12, 13
WATER				
GRI 103: Management approach in 2016	103-1 Explanation of the material topic and its limits	90		
	103-2 Management approach and its components	42		
	103-3 Evolution of the management approach	42		
GRI 303: Water in 2016	303-1 Total water withdrawal by source	43		6, 7
	303-2 Water sources significantly affected by water withdrawal	42		6
	303-3 Percentage and total volume of recycled and reused water	43		6, 8, 12
EMISSIONS				
GRI 103: Management approach in 2016	103-1 Explanation of the material topic and its limits	90		
	103-2 Management approach and its components	62		
	103-3 Evolution of the management approach	62		

GRI STANDARD	DISCLOSURE	PAGE/URL	OMISSION	SUSTAINABLE DEVELOPMENT GOALS
GRI 305: Emissions in 2016	305-1 Direct greenhouse gas emissions (Scope 1)	64		3, 12, 13, 14, 15
	305-2 Indirect emissions of greenhouse gases (Scope 2)	64		3, 12, 13, 14, 15
	305-4 Intensity of greenhouse gas emissions	65		13, 14, 15
EFFLUENTS AND WASTE				
GRI 103: Management approach in 2016	103-1 Explanation of the material topic and its limits	90		
	103-2 Management approach and its components	51, 54, 56		
	103-3 Evolution of the management approach	51, 54, 56		
GRI 306: Effluents and waste in 2016	306-1 Water disposal per quality and destination	53		3, 6, 12, 14
	306-2 Waste, broken down in type and method of disposal	55, 56		3, 6, 12
	306-5 Bodies of water affected by discharges and/or water drainage	51, 54		6, 15
ENVIRONMENTAL COMPLIANCE				
GRI 103: Management approach in 2016	103-1 Explanation of the material topic and its limits	90		
	103-2 Management approach and its components	51		
	103-3 Evolution of the management approach	51		
GRI 307: Environmental compliance in 2016	307-1 Non-compliance with Environmental Laws and Regulations	51		12, 13, 14, 15, 16

GRI STANDARD	DISCLOSURE	PAGE/URL	OMISSION	SUSTAINABLE DEVELOPMENT GOALS
EMPLOYMENT				
GRI 103: Management approach in 2016	103-1 Explanation of the material topic and its limits	90		
	103-2 Management approach and its components	67		
	103-3 Evolution of the management approach	67		
GRI 401: Employment in 2016	401-2 Benefits provided to full-time employees that are not offered to temporary or part-time employees	69		8
TRAINING AND EDUCATION				
GRI 103: Management approach in 2016	103-1 Explanation of the material topic and its limits	90		
	103-2 Management approach and its components	73		
	103-3 Evolution of the management approach	73		
GRI 404: Training and Education in 2016	404-2 Continuing learning programs for employees and preparation for retirement	73		8
	404-3 Percentage of employees who regularly receive performance reviews and career development	74		5, 8
DIVERSITY AND EQUAL OPPORTUNITIES				
GRI 103: Management approach in 2016	103-1 Explanation of the material topic and its limits	90		
	103-2 Management approach and its components	69		
	103-3 Management approach evolution	69		

GRI STANDARD	DISCLOSURE	PAGE/URL	OMISSION	SUSTAINABLE DEVELOPMENT GOALS
GRI 405: Diversity and equal opportunities in 2016	405-1 Diversity in governance bodies and employees	70		5, 8
	405-2 Mathematical ratio for wages and remuneration of women and men	70		5, 8, 10
NON-DISCRIMINATION				
GRI 103: Management approach in 2016	103-1 Explanation of the material topic and its limits	90		
	103-2 Management approach and its components	69		
	103-3 Evolution of the management approach	69		
GRI 406: Non-discrimination 2016	406-1 Cases of discrimination and corrective action taken	72		5, 8, 16
HUMAN RIGHTS ASSESSMENT				
GRI 103: Management approach in 2016	103-1 Explanation of the material topic and its limits	90		
	103-2 Management approach and its components	73		
	103-3 Evolution of the management approach	73		
GRI 412: Human Rights Assessment 2016	412-2 Employees trained in human rights policies and practices	72		



GRI STANDARD	DISCLOSURE	PAGE/URL	OMISSION	SUSTAINABLE DEVELOPMENT GOALS
LOCAL COMMUNITIES				
GRI 103: Management approach in 2016	103-1 Explanation of the material topic and its limits	90		
	103-2 Management approach and its components	81		
	103-3 Evolution of the management approach	81		
GRI 413: Local communities in 2016	413-1 Operations with implemented local community engagement, impact assessment and local development programs	81		
	413-2 Operations with significant potential impacts or real negative impacts on local communities	82		1, 2
SOCIOECONOMIC COMPLIANCE				
GRI 103: Management approach in 2016	103-1 Explanation of the material topic and its limits	90		
	103-2 Management approach and its components	30		
	103-3 Evolution of the management approach	30		
GRI 419: Socioeconomic compliance in 2016	419-1 Non-compliance with social and economic laws and regulations	30		16

SASB INDICATORS ANSWERED (FULLY OR PARTIALLY):		
SASB	INDICATOR	PAGE/URL
Infrastructure – Companies Water Concessionaires	IF0103-D Length of sewage and water distribution network	45
	IF0103-01 Energy consumed, percentages from supply network and from renewable sources	61
	IF0103-06 Risk management related to quality and availability of water resources.	42, 48
	IF0103-07 Number of drinking water violations considering acute and non-acute health risks and non-health risks.	46
	IF0103-09 Number of formal complaints received from customers regarding pricing, water access and/or water availability, including percentage of complaints canceled by the customer.	37
	IF0103-10 Information on how fair pricing and access considerations integrate the definition of tariff structures	40
	IF0103-12 (adapted) Water and sewage pipe replacement rate	45, 50
	IF0103-13 Volume of Actual Non-Revenue Water Losses	44
	IF0103-16 Number of water outages, affected population and average duration.	95
Industry – Waste Management	IF0201-A Number of customers per category: municipal, commercial, industrial, residential and others.	36
	IF0201-C Number of landfills, transshipment stations, recycling stations, composting centers, incinerators and other facilities.	54
	IF0201-D Quantity of waste managed per customer category: municipal, commercial, industrial, residential and others.	56
	IF0201-1 Gross global scope 1 emissions, portion subject to emission limiting regulation, and portion covered by emission reporting regulation	51
	IF0201-11 Number of incidents of non-compliance associated with environmental impacts.	51



SUSTAINABLE DEVELOPMENT GOALS

1. No Poverty
2. Zero Hunger
3. Good Health and Well-Being
4. Quality Education
5. Gender Equality
6. Clean Water and Sanitation
7. Affordable and Clean Energy
8. Decent Work and Economic Growth
9. Industry, Innovation and Infrastructure
10. Reduced Inequalities
11. Sustainable Cities and Communities
12. Responsible Production and Consumption
13. Climatic Action
14. Life Below Water
15. Life On Land
16. Peace, Justice and Strong Institutions
17. Partnerships for the Goals

CREDITS

Strategic Planning Management

Luiz Carlos Braz de Jesus
Rodrigo Fernando de Oliveira Fernandes
Jamile Gema de Oliveira

GRI Consultancy, editorial coordination and design

Report Sustentabilidade

Accounting Management

Ozires Kloster
Gislaine Chimborski Lopes

Photos

Camila Picolo
Rawpixel (unsplash): page 33

Communication and Marketing Management

Giovanna Migotto da Fonseca Galleli
Giovani Montano
Ana Cecília Pontes

