



**1ST PROGRESS REPORT
ON THE SUSTAINABLE
DEVELOPMENT GOALS
IN SÃO PAULO STATE**

SDGs 2016-2019

IN SÃO PAULO STATE'S MULTIYEAR PLAN (PPA)



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FOREWORD

The Sustainable Development Goals (SDGs) are a collection of 17 global goals set by the United Nations General Assembly in September 2015 for the year 2030. They range from poverty eradication to clean water and sanitation, responsible consumption and production, climate action, and peace, justice and strong institutions. Each SDG is broken down into targets, of which there are 169 all told. Indicators are specified to measure progress toward the targets, many of which are generic and aspirational, while others are more specific, such as “By 2030, achieve universal and equitable access to safe and affordable drinking water for all” (SDG 6, target 1).

Indicators are key inputs to public policy design and help measure progress in implementing policies. Until recently, gross domestic product (GDP) was considered the most important indicator of all. GDP measures a country’s economic output, but the SDGs are intended to gauge the well-being of the entire population.

Brazil played an active part in the process that resulted in adoption of the SDGs. São Paulo State in particular has invested time and effort since 2016 to make the available statistical indicators compatible with the SDGs.

This is our first report on these efforts. Statistical indicators for each of the 17 SDGs have been prepared to show “where we are”, followed by indicators that show “what we are doing” and the departments or other government bodies that are leading the activities in question.

The report shows that São Paulo State is on the right track as far as some of the indicators are concerned. For example, child mortality is sharply down (SDG 3, Good health and well-being), and preschool has improved in quality (SDG 4, Quality education). With regard to Affordable and clean energy (SDG 7), 76.8% of the energy consumed by São Paulo State is renewable, and this is already better than the target set for 2030. In the environmental area (SDGs 14 and 15), progress has been achieved in expanding forest cover and protecting the marine environment. In the social area (SDG 16), crime rates have fallen substantially.

However, some indicators have not improved, including the proportion of people living in poverty (SDG 1). Others, such as the unemployment rate resulting from the severe economic crisis in Brazil, have deteriorated.

The significance of this report includes its identification of the indicators that realistically portray our progress to date and highlight the areas in which we must improve. It will be a useful guide to help departments and other state government bodies organize their statistical surveys in compatibility with the SDGs. Hence the importance of the state’s Committee on the SDGs from now on.

Professor José Goldemberg

Former Rector of the University of São Paulo

Former Minister of Education

Former São Paulo State Secretary of the Environment

Former President of FAPESP

INTRODUCTION

Having committed to the agenda set by the United Nations Millennium Development Goals (MDGs, 2000-15), the government of São Paulo State now faces a fresh challenge: implementing the Sustainable Development Goals (SDGs, 2015-30) set by the UN's 2030 Agenda for Sustainable Development, an action plan with 17 goals and 169 targets.

Work on formulating the plan began in 2013, in accordance with a mandate established by the 2012 United Nations Conference on Sustainable Development (UNCSD), also known as Rio+20. The SDGs were adopted by the 193 member states of the UN General Assembly, including Brazil, at the UN Sustainable Development Summit in September 2015 in New York.

The SDGs involve social, economic and environmental issues such as poverty, hunger, health, education, global warming, gender equity, water, sanitation, energy, urbanization and social justice. This agenda has become a global opportunity for dialogue among national and multilateral organizations to enable them all to develop in the same direction within a defined timeframe and with a cross-cutting approach based on shared indicators that enable countries and regions to measure and compare progress over the years.

Since 2016, the São Paulo State government has worked to institutionalize the 2030 Agenda and SDGs. It set up an Interdepartmental Working Group (GTI, Decree 62,063), held awareness workshops for officials and staff, and instated a state SDG committee (Decree 63,792, dated Nov. 9, 2018, reorganized by Decree 64,148, dated Mar. 19, 2019).

This document has been produced by the São Paulo State government in partnership with the São Paulo State Data Analysis System (SEADE Foundation) and the São Paulo State Research Foundation (FAPESP). It is the first report in which the São Paulo State government describes the work done to achieve the 2030 Agenda with a wealth of statistics, objective indicators portraying conditions in the state, and other information on how we are monitoring progress toward the goals and targets.

Selection of the indicators took into account the quality of their methodologies, the consistency of their results, the regularity of their production, and comparability with those of other Brazilian states. The efforts of the São Paulo State government are described in the Multiyear Plan (PPA) for 2016-19.

The information presented in this report shows that São Paulo State has already achieved some of the targets and is close to meeting others. Nevertheless, much remains to be done and our efforts must be stepped up, particularly by integrating civil society's action with public policies in all three tiers of government, in order to advance still further in this process, surmount the difficulties and seize the opportunities offered by the historical context.

The 2016-19 PPA includes strategic objectives, programs and targets for all three dimensions of sustainable development – the economic, social and environmental – and the five critical dimensions of the 2030 Agenda: people, the planet, prosperity, peace, and partnerships.

With this publication, São Paulo expects to promote networking and mobilization by the agencies and entities of the state government with the aim of strengthening synergies between the SDGs and forthcoming administrations’ multiyear plans (2020-23, 2024-27, 2028-31: Decree 64,124, dated Mar. 8, 2019). We also expect to foster partnerships among different tiers of government and engagement on the part of civil society including private enterprise, academia, and non-governmental organizations.

The report has 11 chapters, each covering related groups of SDGs with interconnected solutions, although strictly speaking the 17 SDGs are integrated and indivisible, combining all three dimensions of sustainable development in a balanced manner. The appendix contains a list of the 17 SDGs and 169 targets linked to the respective chapters of the report.

CHAPTER 1

1 NO POVERTY



End poverty in all its forms everywhere

2 ZERO HUNGER



End hunger, achieve food security and improved nutrition, and promote sustainable agriculture

10 REDUCED INEQUALITIES



Reduce income inequality within and among countries





No Poverty (SDG 1), Zero Hunger (SDG 2) and Reducing Inequalities (SDG 10) sum up the most daunting global challenge to sustainable development: eradicating poverty in all dimensions, including the elimination of hunger and malnutrition, and the curtailment of socioeconomic inequality.

The 2030 Agenda therefore calls for the prioritization of measures to benefit the poor and vulnerable, based on integrated solutions. These cross-cutting initiatives must focus on promoting autonomy and opportunities for the most excluded people in the process of development toward full social, economic and political inclusion.

WHERE WE ARE NOW

The proportion of the Brazilian population on the poverty line in 2017 was 27.3%, compared with 27.5% in the previous year. In São Paulo State, however, it rose from 13.5% to 15.4% in the same period (**FIGURE 1**). There was no statistically significant difference between men and women in this regard.

The proportion living in extreme poverty or penury rose nationwide and in São Paulo State in 2017, reaching 10.5% in Brazil, up from 10.4% in the previous year, and

THE CONCEPT OF POVERTY AND PENURY

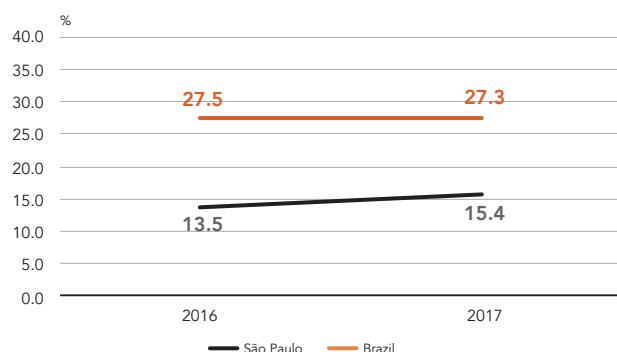
Designing a strategy to eradicate poverty and estimating the size of the population at risk of daily hunger is a technically complex task, especially if regional and temporal comparability is to be assured. Poverty can be defined as having insufficient income to pay for basic goods and services, as a symptom of multiple material wants, or as lack of access to public services. Penury or extreme poverty can be defined as food insecurity, a situation declared by the individuals themselves, or the presence of child malnutrition. It is hardly surprising, therefore, that different researchers and institutions have different estimates of the level of poverty or penury for the same region or country.

Periodic reviews of this metric for various countries including Brazil have served as a basis for the construction of an indicator to track nationwide progress toward No Poverty and Zero Hunger. The difficulties associated with the lack of an official or even consensual indicator of poverty in Brazil led SEADE Foundation to adopt indicators based on normative benchmarks set by compensatory public programs in operation in Brazil, starting with the first MDG progress report in 2005, an analytical reference for this SDG progress report.

Thus for the purposes of this report poverty is defined as having a monthly household income equivalent to half the minimum wage per person or less, and penury or extreme poverty as having a monthly household income equivalent to a quarter of the minimum wage per person or less. These metrics correspond to the poverty line and extreme poverty line for the purposes of this report.

FIGURE 1

Proportion of people on the poverty line Brazil and São Paulo State – 2016-2017

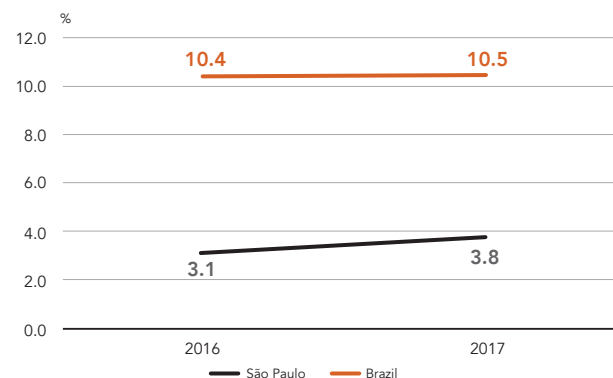


Source: IBGE (Continuous National Household Sample Survey, PNADC).

Note: The poverty line is defined as a monthly household income equivalent to half the minimum wage per person or less in 2017, at September 2015 prices adjusted for inflation measured by the INPC Brazil index.

FIGURE 2

Proportion of people in penury or extreme poverty Brazil and São Paulo State – 2016-2017



Source: IBGE (Continuous National Household Sample Survey, PNADC).

Note: Penury or extreme poverty is defined as a monthly household income equivalent to a quarter of the minimum wage per person or less in 2017, at September 2015 prices adjusted for inflation measured by the INPC Brazil index.

3.8% in São Paulo State, up from 3.1% in the previous year (FIGURE 2). Nationwide there was no statistically significant difference between men and women in this regard. In São Paulo State, however, the proportion of men in extreme poverty rose from 2.8% to 3.7% in the period, while that of women rose from 3.3% to 4.0%.

The numbers living in poverty and penury in Brazil and São Paulo State can also be broken down by age group. The proportions are highest among children aged 0-5 in both cases, but distinctly higher in the former than the latter in all age groups (FIGURE 3 AND 4). These findings justify the tendency for public policy in this area to focus on mitigating penury or extreme poverty, and the prioritization of policy measures that target families with small children and adolescents.

In Brazil, poverty severity or the poverty gap – alternative terms for the distance between the mean income of the poor and the poverty line – was 11.1% in 2012, fell until 2014 and rose to 11.9% in 2017 (FIGURE 5). In São Paulo State it was lower than in Brazil but also rose during the period, from 3.8% in 2012 to 5.5% in 2017.

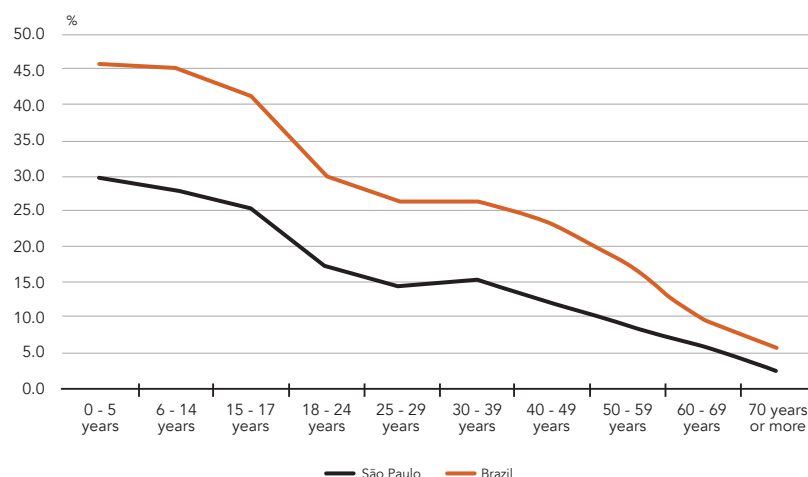
Another pertinent metric for the SDG agenda is income distribution, especially in Brazil, given the well-known severity and persistence of income inequality here. Both nationwide and in São Paulo State, income distribution has improved modestly in recent years but deteriorated again in the last two. The poorest 20% accounted for 5% of total income in Brazil between 2012 and 2015. The proportion fell to less than 3% in 2017. In São Paulo State, the proportion was about 7% in 2012 and only 3.4% in 2017 (FIGURE 6).

The Gini coefficient or Gini index is also a widely used measure of income inequality.¹ It has risen both for Brazil and São Paulo State, where it is slightly better. In 2017 it was 0.521 for São Paulo and 0.531 for Brazil, compared with 0.477 and 0.499 respectively in 2012. Thus there is substantial scope for improvement in this regard, both in São Paulo and nationwide (FIGURE 7).

Also with regard to the eradication of poverty and reduction of inequality, we analyzed the proportion of people in paid work who earned less than the minimum monthly wage between 2012 and 2017 (FIGURE 8). This indicator can serve as a proxy for work situations without a formal employment contract, or discontinuous work. The proportion fell both nationwide and in São Paulo State during the period, although there was an upturn in 2015 and it has risen again since then.

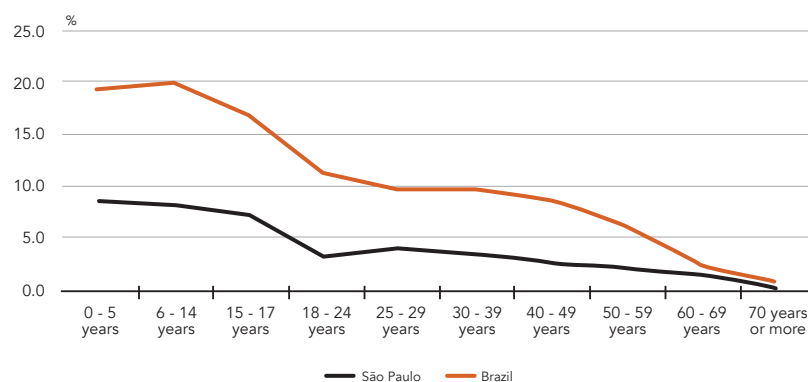
Economic conditions in recent years have made the pursuit of the SDGs particularly challenging. Restoring the favorable structural conditions seen in the early years of the present decade in order to reduce the contingent of poor and occupationally vulnerable workers is one of the major challenges faced by society, business and government in Brazil and São Paulo State. Poverty and penury cannot be effectively reduced without economic growth and development.

1 The Gini index (or coefficient) is a composite indicator of inequality in a distribution (of wages, income, standard of living etc). It varies between 0 and 1. It would be equal to 0 in a theoretical situation of perfect equality and equal to 1 in the most unequal situation possible. Thus the higher the Gini index, the greater the inequality.

FIGURE 3
Proportion of people on the poverty line by age group
Brazil and São Paulo State – 2017


Source: IBGE (Continuous National Household Sample Survey, PNADC).

Note: Penury or extreme poverty is defined as a monthly household income equivalent to a quarter of the minimum wage per person or less in 2017, at September 2015 prices adjusted for inflation measured by the INPC Brazil index.

FIGURE 4
Proportion of people in penury or extreme poverty by age group
Brazil and São Paulo State – 2017


Source: IBGE (Continuous National Household Sample Survey, PNADC).

Note: Penury or extreme poverty is defined as a monthly household income equivalent to a quarter of the minimum wage per person or less in 2017, at September 2015 prices adjusted for inflation measured by the INPC Brazil index.

The Brazilian Food Insecurity Scale (EBIA)² was developed in 2004 to help measure the phenomenon and contribute to public policy to guarantee food and nutritional security. It integrated a number of such surveys conducted in different parts of Brazil with the aim of evaluating food insecurity experience. The findings for São Paulo State show a fall of 61.3% in

² The Brazilian Food Insecurity Scale (EBIA) is a psychometric scale that measures the family's perception of access to food on the basis of a 14-item questionnaire covering the food situation experienced by the household in the preceding 90 days.

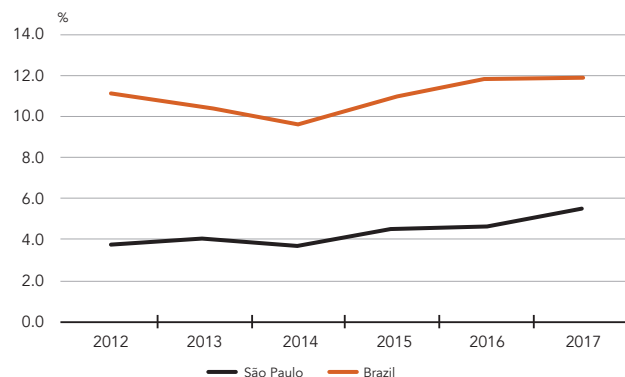
moderate to severe food insecurity between 2004 and 2013 (from 9.3% to 3.6%).

The prevalence of food security rose 17% (from 75.8% to 88.4%) in the same period. The proportion of households living with mild food insecurity was estimated at 8%. Moderate to severe food insecurity was 3.6%, corresponding to 1.7 million people (FIGURE 9).

The proportion of private households with some degree of food insecurity in São Paulo State fell from 24.2% in 2004 to 11.6% in 2013. Severe food insecurity improved

FIGURE 5

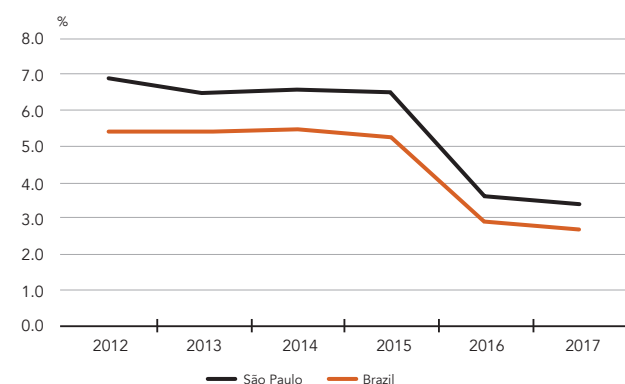
Poverty severity Brazil and São Paulo State – 2012-2017



Source: IBGE. National Household Sample Survey, PNAD. Continuous National Household Sample Survey, PNADC.

FIGURE 6

Proportion of income appropriated by the poorest 20% Brazil and São Paulo State – 2012-2017



Source: IBGE. National Household Sample Survey, PNAD. Continuous National Household Sample Survey, PNADC.

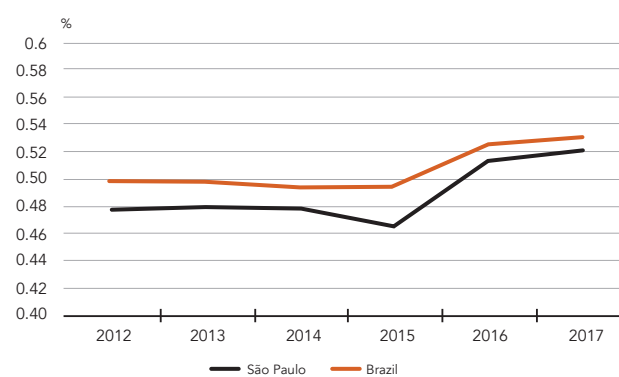
significantly, falling from 3.6% in 2004 to 2.6% in 2009 and 1.7% in 2013. In these households both adults and children suffered from lack of food.

MALNUTRITION AMONG CHILDREN UNDER FIVE

Brazil's National Food & Nutrition Surveillance System (SISVAN), working through basic health care services (UBS), includes anthropometry (body measurements) and food consumption assessments, in accordance with guidelines for the system. The occurrence of malnutrition and undernourishment in childhood, diagnosed on the basis of low weight-for-height (wasting) or low height-for-age (stunting), is associated with a heightened risk

FIGURE 7

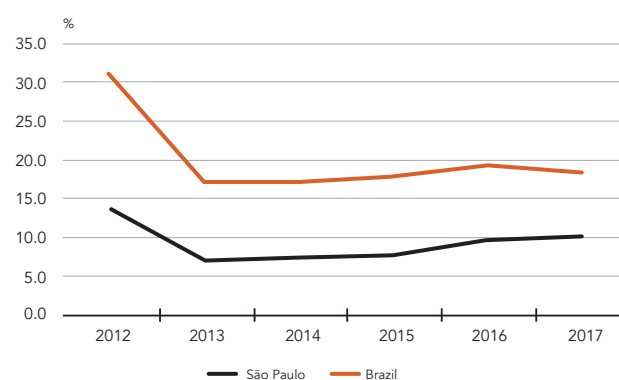
Gini coefficient (total household income) Brazil and São Paulo State – 2012-2017



Source: IBGE. National Household Sample Survey, PNAD. Continuous National Household Sample Survey, PNADC.

FIGURE 8

Proportion of people aged 14 and over in paid work earning less than the minimum monthly wage Brazil and São Paulo State – 2012-2017



Source: IBGE. National Household Sample Survey, PNAD. Continuous National Household Sample Survey, PNADC.

of infectious disease and early mortality, impaired psychomotor development, low educational attainment, and reduced production capacity in adulthood.³ Monitoring nutrition is therefore a key part of public health policy, especially in children.

Height-for-age is the main indicator of childhood linear growth. It is the best measure of the cumulative effect of adverse conditions on growth, and is considered the most sensitive indicator of a population's quality of life. It has recently been included in the Personal Child Health Record, which in Brazil is called Caderneta de Saúde da Criança.

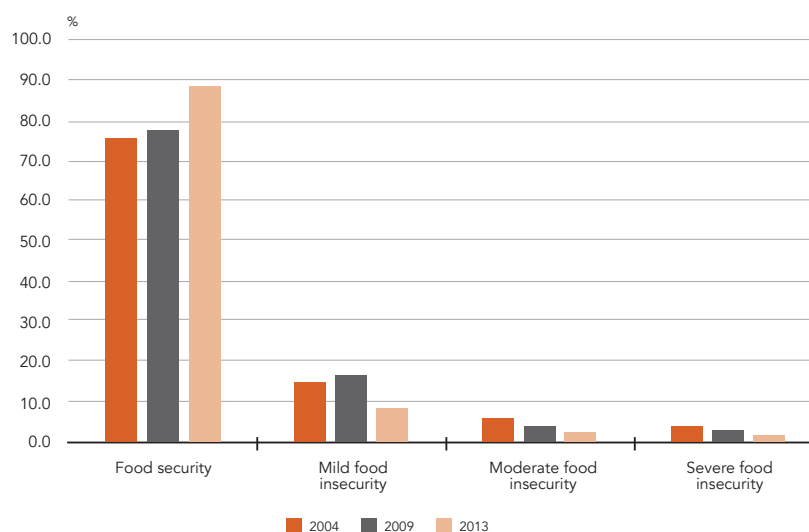
3 Monteiro, C. A. et al. "Da desnutrição para a obesidade: a transição nutricional no Brasil", in Monteiro, C. A. Velhos e novos males da saúde no Brasil: a evolução do país e suas doenças, 2nd ed., São Paulo: Hucitec, Nupens/USP, 2000 (pp. 247-255).

FOOD AND NUTRITIONAL SECURITY

Food and nutritional security represents the “realization of the right of all to regular and permanent access to a sufficient quantity of good food without jeopardizing access to other essential goods and services, based on healthy dietary habits that respect cultural diversity and are environmentally, culturally, economically and socially sustainable”.⁴ Any violation of this human right leads to food insecurity, which in the family context is manifested gradually, from apprehension about the future availability of food to the occurrence of hunger.⁵ Given that food insecurity is a threat to health and nutrition and a structural problem for society, promoting food and nutritional security has been set as one of the SDGs.

FIGURE 9

**Prevalence of food security and insecurity in private households
São Paulo State – 2004, 2009 and 2013**



Source: IBGE. National Household Sample Survey, PNAD.

⁴ Law 11,346, dated Sep. 15, 2006, creating the national food and nutritional security system to guarantee the human right to adequate food, was published in the Federal Gazette (Diário Oficial da União) on Sep. 18, 2006.

⁵ The National Household Sample Survey (PNAD) conducted by IBGE, Brazil's national census and statistics bureau, uses the EBIA to classify households into four groups. Households with food security are those whose members had regular and permanent access to a sufficient quantity of quality food in the previous 90 days and do not expect this to change in the near future. Households with mild food insecurity are those with some degree of concern or uncertainty regarding the availability of a sufficient quantity of quality food in future. Households with moderate food insecurity have experienced a reduction in food quantity and/or quality due to insufficient food for their adult members. In households with severe food insecurity, both adults and children, if any, have experienced food deprivation and ultimately hunger.

The dietary and nutritional indicators analyzed by the National Health and Nutrition Survey (PNSN) in 1989 and the National Surveys of Children's and Women's Demography and Health (PNDS) in 1996 and 2006 reflected a significant reduction in child malnutrition. Height deficit fell from 19.6% to 6.7% nationwide during the period.⁶

According to estimates by UBS teams, stunting (chronic malnutrition) affected 3.58% of under-fives in São Paulo State in 2010 and 4.99% in 2017. The respective proportions for Brazil were 6.55% and 5.81% (FIGURE 10). Thus in 2017 the prevalence of stunting in Brazil estimated by SISVAN was 16% higher than the prevalence in São Paulo State.

INFANT IMMUNIZATION COVERAGE BY ROUTINE SCHEDULE – CHILDREN UNDER 1, SELECTED VACCINES

Brazil pioneered the inclusion of several vaccines in the routine infant immunization schedule implemented by SUS (Sistema Único do Saúde), the national health service, and is one of the few countries in the world to offer free universal infant vaccination involving a large number of wide-spectrum immunobiological products. However, the coverage rate, which was high for a long period, has fallen in recent years (FIGURE 11).

Through the National Immunization Program (PNI), SUS offers all vaccines recommended by the World Health Organization (WHO) according to a routine schedule.

The PNI has been consolidated as a national strategy over time and made significant progress. The most recent targets include eliminating measles and neonatal tetanus, as well as controlling other vaccine-preventable diseases, such as diphtheria, pertussis, accidental tetanus, hepatitis B, meningitis and severe forms of tuberculosis and rubella, and maintaining the eradication of poliomyelitis.

However, immunization coverage is declining in Brazil and São Paulo State. The estimated coverage of infants under 1 by routine schedule illustrates this decline. In the case of poliomyelitis, which was eradicated in Brazil in 1990, immunization coverage in São Paulo State was 71.1% in 2017, a 12-year low. The coverage recommended by WHO is 95%.

Coverage of the MMR vaccine against measles, mumps, and rubella remained stable above 100% in São Paulo State until 2014, falling to 97.9% in 2015, 93% in 2016 and only 76% in 2017. Coverage of the pentavalent vaccine against diphtheria, tetanus and pertussis (DTP), Hib (Haemophilus influenzae type B, the bacterium that causes meningitis and pneumonia), and hepatitis B,⁷ exceeded 95% until 2014, fell to 88.5% in 2016 and again to 70.4% in 2017 (FIGURE 11).

In addition to a reduction in the number of children given the polio, MMR and DTP vaccines, the data shows that in 2016 and 2017 the application of other vaccines indicated for the first year of life fell significantly.

WHAT WE ARE DOING

As part of its Multiyear Plan (PPA) the São Paulo State government has developed programs that focus on the same concerns as those covered by SDGs 1, 2 and 10, establishing complementary relationships with cumulative effects that bolster progress toward eradicating poverty and promoting a decent life for all. These programs comprise actions and targets that contribute to the achievement of the PPA's first strategic goal: "São Paulo without poverty and with less social inequality." They aim to create opportunities for groups of the population at social risk so that they can overcome the situation in which they find themselves, particularly by facilitating access to public programs and services. The first program designed to achieve the three SDGs in the short term is Program 3500, Multidimensional Attack on Extreme Poverty, executed by the São Paulo State Department of Social Development. The program comprises a suite of activities to promote social mobility for families living in penury, especially:

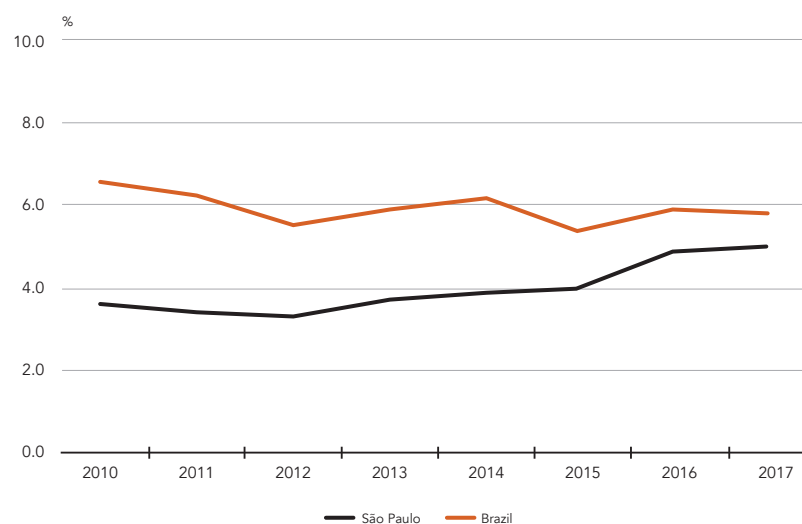
- Distribution of enriched whole milk to families with a monthly per capita income equivalent to a quarter of the minimum wage or less, and with at least one child aged 1 year-5 years 11 months or at least one adult aged 60 or more, to combat the state's two main nutritional deficits;
- Provision of well-balanced high-calorie meals for a token price to supply part of the individual's daily dietary needs, reducing the nutritional deficit among the socially vulnerable low-income population;
- A conditional cash transfer for socially vulnerable young people aged 15-24 to encourage them to

6 Pesquisa Nacional de Demografia e Saúde da Criança e da Mulher (PNDS) 2006: dimensões do processo reprodutivo e da saúde da criança. Brasília, 2009

7 A tetravalent vaccine was introduced in 2002 to replace the DTP and Hib vaccines for infants under 1, and was itself replaced in mid-2012 by the pentavalent DTP/ Hib/HB vaccine.

FIGURE 10

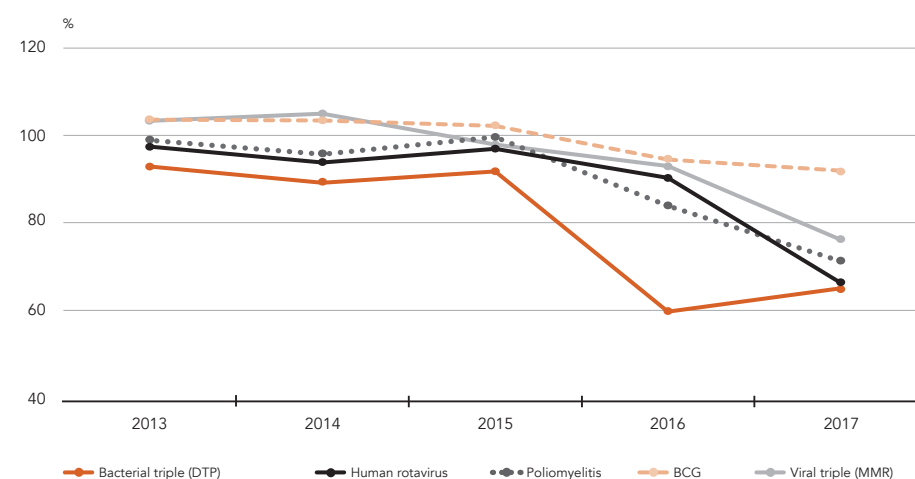
Stunting in children aged 0-5 monitored by UBS teams for SUS
Brazil and São Paulo State – 2010-2017



Source: Health Ministry, Sistema de Vigilância Alimentar e Nutricional (SISVAN).

FIGURE 11

Infant immunization coverage by routine schedule – children under 1,
selected vaccines
São Paulo State – 2013-2017



Source: Health Ministry, National Immunization Program.

Note: Doses applied (not individuals vaccinated), hence can be over 100%. Data for Aug. 16, 2018.

complete their school education and develop work skills for prospective employment, and for elderly people over 80 earning up to half the monthly minimum wage.

Another program executed by the department, offering solutions with immediate effects for socially vulnerable groups, is Program 3517, Social Protection, which provides municipalities with funding, technical support, services and benefits under the aegis of the National Social Welfare System (Sistema Único de Assistência Social, SUAS) to maintain and extend the social protection network for people in situations of vulnerability and social risk.

Complementing the efforts of Social Development to promote a healthy diet and food security, the Education Department's School Meals Program (part of Program 815, Maintenance & Support of Basic Education) supplies the nutritional needs of schoolchildren and helps promote healthy dietary habits while respecting the culinary culture and agricultural vocation of each region. These topics are also covered by parts of the school syllabus that help students learn to develop healthy life practices.

Employment & Labor Relations, complementing initiatives in the social area and programs that promote a healthy diet, runs a number of activities organized into two PPA programs relating to insertion into the job market and designed to mitigate the perverse effects of extreme poverty in the medium term. Program 2302, Public Employment & Income System, aims to insert or reinsert workers into the job market, with emphasis on inclusion of those who face difficulties to enter or return. Activities focus on workforce intermediation, support for persons with special needs (PSNs), and support for graduates. Program 2308, Labor Relations & Entrepreneurship, extends microcredit via Banco do Povo Paulista (BPP) to informal entrepreneurs, small firms, farmers, associations and co-ops requiring financial support to build their businesses.

Program 4700, Management & Implementation of the Policy for Social Inclusion of PSNs, implemented by the Department for the Rights of PSNs, creates opportunities and promotes inclusion through intersectoral and cross-cutting actions relating to accessibility, inclusion and improvements to the quality of life for PSNs and their families, as well as initiatives to raise awareness of the rights of PSNs and ensure they are respected. The highlights of this program include support for paralympic sports via initiatives such as the Brazilian Paralympic Center and the São Paulo

Paralympic Team, which awards sport scholarships, and inclusion initiatives such as Inclusive Fashion, a competition launched in 2009 for students at technical colleges and universities to work with fashion industry professionals on the production of apparel for PSNs.

With regard to the promotion of sustainable agricultural practices through support for family farming and equitable access to land, technology and markets, the highlights are the programs implemented by the Department for Justice & Defense of Citizenship, via the Land Institute (Fundação Instituto de Terras do Estado de São Paulo, ITESP) and the Department of Agriculture & Food Supply. Program 1731, Citizenship in Town & Country, managed by ITESP, is responsible for planning and executing the state's agrarian and land use policies, and for recognizing quilombos (communities of former slaves). Its main lines of activity are technical assistance for families in rural settlements and quilombos, and land tenure regularization. Both strategies pursue sustainability for small farmers and help implement sustainable food production systems.

Finally, three programs run by Agriculture & Food Supply are relevant in this context. Program 1307, Rural Extension for Sustainable Development, implements a set of practices in support of family farmers and their organizations, with the aim of fostering their participation in the market on a competitive basis while respecting the principles of sustainable agriculture. Initiatives include technical assistance for rural producers, and production, distribution and marketing of seeds for species of social interest (e.g. dry beans, rice and corn) to strengthen food security, and of fruit tree and native forest species for São Paulo's farmers. Microbasins II promotes market access for farmers' organizations by providing financial support for sustainable business initiatives with the aim of increasing the competitiveness of family farmers.

Program 1308, Food Supply, Food Security and Dynamization of Production Chains, runs activities relating to food supply, product quality improvement, and organization and qualification of small producers, with the aim of developing and strengthening production chains. Program 1315, Management of Public Policies for Agriculture, implements government policies for agriculture and food supply in the various production chains, establishing guidelines, coordinating execution of state programs and prioritizing environmentally vulnerable areas, especially with regard to soil conservation and water resources. The program's

lines of action include: improvements to trafficability (bridges and rural roads); financial support for farmers via the Family Agribusiness Bank's expansion fund (Fundo de Expansão do Agronegócio Paulista/Banco do Agronegócio Familiar – FEAP/BANAGRO); formation of stocks of native tree seedlings for water source and riparian forest rehabilitation; and environmental rehabilitation in priority watershed areas, including erosion control and recomposition of native vegetation in Permanent Preservation Areas (APPs) and Legal Reserve (RL) areas.

LIST OF PROGRAMS ASSOCIATED WITH SDGS 1, 2 & 10

Department of Education

0800 – Pedagogic Management of Basic Education

815 – Maintenance and Support of Basic Education

Department of Agriculture and Food Supply

1307 – Rural Extension for Sustainable Development

1308 – Food Supply, Food Security and Dynamization of Production Chains

1311 – Agricultural Defense for Environmental Protection, Public Health and Food Security

1315 – Management of Public Policies for Agriculture

Department for Justice and Defense of Citizenship

1731 – Citizenship in Town and Country

Department of Employment and Labor Relations

2302 – Public Employment and Income System

2308 – Labor Relations and Entrepreneurship

Department of Housing

2505 – Social Interest Housing – Casa Paulista

2507 – Land Tenure Regularization for Housing

2508 – Provision of Dwellings

2509 – Housing/Urban Requalification and Social Inclusion

2510 – Urbanization of Slums and Precarious Settlements

Department of Social Development

3500 – Multidimensional Attack on Extreme Poverty

3517 – Social Protection

Public Defender Office

4200 – Free Legal Aid for Those in Need

Department for the Rights of PSNs

4700 – Management & Implementation of the Policy for Social Inclusion of PSNs

CHAPTER 2

3 GOOD HEALTH AND WELL-BEING



Ensure healthy
lives and promote
well-being for all
at all ages





PHOTO: Alexandre Carvalho/A2img - São Paulo State Government

Health, which is covered by SDG 3, is an inalienable and fundamental right, essential to the acquisition of human capabilities, and indispensable to building sustainable and resilient communities and societies. This goal presupposes that the social determinants of health are linked to the conditions in which people live, encompassing diet, schooling, income, employment, transportation, agriculture and housing, among others. All are key factors to assuring health for all and reducing inequality.

WHERE WE ARE NOW

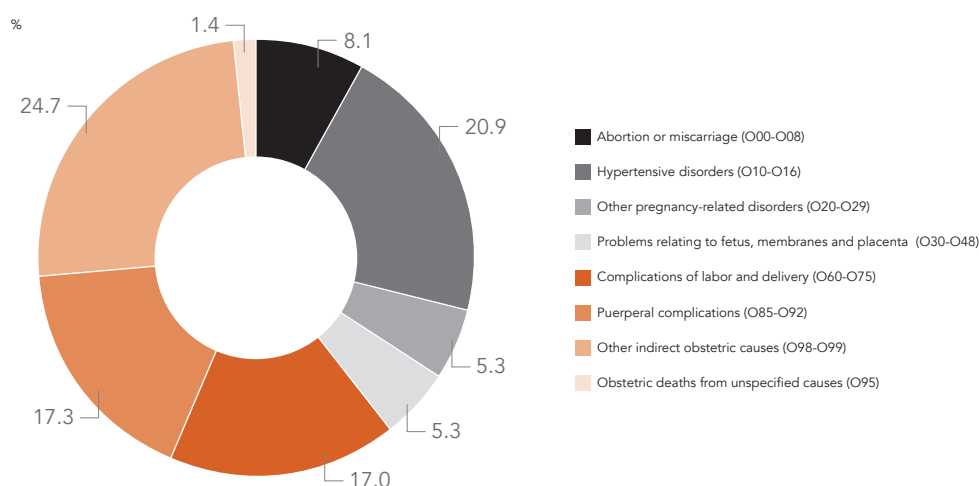
In São Paulo State, maternal mortality has ranged from 30 to 60 deaths per 100,000 live births since 1980. In 2016, however, it fell 14% to 47 deaths per 100,000 live births. Despite fluctuations, the ratio in São Paulo has been consistently lower than the national average. The

outlook is positive, since the level is already well below the target set for 2030 (less than 70).

The main causes of maternal mortality in São Paulo are high blood pressure, hemorrhage, complications resulting from abortions performed in unsafe conditions, postpartum infection, and respiratory disease. These causes can be grouped into two categories: direct obstetric causes deriving from disorders associated with pregnancy, childbirth and the puerperium; and indirect obstetric causes deriving from health problems that developed during pregnancy, delivery or the puerperium, or were aggravated by them. Direct obstetric causes accounted for 70% of maternal deaths in 2016. High blood pressure was the main factor (20.8% of direct obstetric causes), followed by puerperal complications (17.3%), and complications of labor and delivery (17%). Indirect obstetric causes accounted for 24.7% of maternal deaths (FIGURE 1).

FIGURE 1

Distribution of maternal deaths by obstetric cause
São Paulo State – 2016



Source: Fundação Seade.

The infant mortality rate in São Paulo State fell 78.6% between 1980 and 2016, from 50.9 to 10.9 deaths per 1,000 live births. In the same period, early neonatal mortality fell 70.3%, from 18.2 to 4.4 deaths per 1,000 live births, and postneonatal mortality fell 87.0%, from 25.9 to 3.4 deaths per 1,000 live births (FIGURE 2).

Despite the significant fall in these mortality rates, there is room for further reductions. In 2016, 64.7% of infant deaths were due to avoidable causes; 25.8% could have been prevented by adequate antenatal care, 17.9% by adequate neonatal care and 9.2% by adequate care during labor and delivery. Deaths preventable by diagnosis and adequate treatment accounted for 7.6% and deaths preventable by wellness promotion for 4.2%. Nevertheless, 31% of infant deaths were due to other causes or not clearly preventable causes.

Similarly, child mortality in São Paulo State has fallen almost 78% since 1980, from 56.9 to 12.5 deaths per 1,000 live births. Indeed, the target set for 2030 (25 under-five deaths per 1,000 live births) was achieved in 1997. Child mortality in São Paulo is below the national average and all other states in Brazil except the three states of the South region and Brasília.

São Paulo was one of the Brazilian states worst affected by the AIDS epidemic, but the actions implemented have produced positive results in terms of controlling the disease. AIDS incidence rose systematically in Brazil, and especially in São Paulo, until 1998. It then turned down in São Paulo, but continued to rise in Brazil, despite fluctuations, until 2011. In São Paulo it has fallen 55.5% since 1998, and in 2010 it fell below the national average (FIGURE 3).

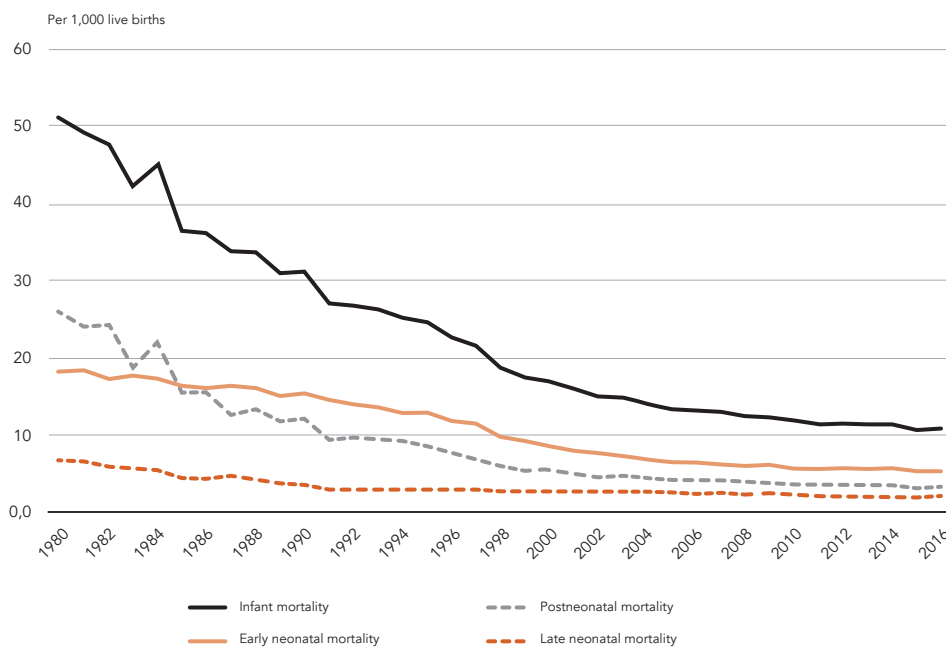
A breakdown of AIDS incidence by gender and age in São Paulo State shows a sharp fall among women in all age groups in the period 2010-16. As for men, while incidence fell in the period, especially among adults, it rose among adolescents aged 13-19.

AIDS mortality has fallen significantly since 1996, when São Paulo State introduced a policy of universal access to antiretroviral treatment combining drugs with different types of action in what is known as Highly Active Antiretroviral Therapy (HAART). By 2016 it had dropped 74.7%, from 22.9 to 5.8 deaths per 100,000 inhabitants.

The incidence of tuberculosis, a disease associated with HIV infection, is expected to fall. In São Paulo State,

FIGURE 2

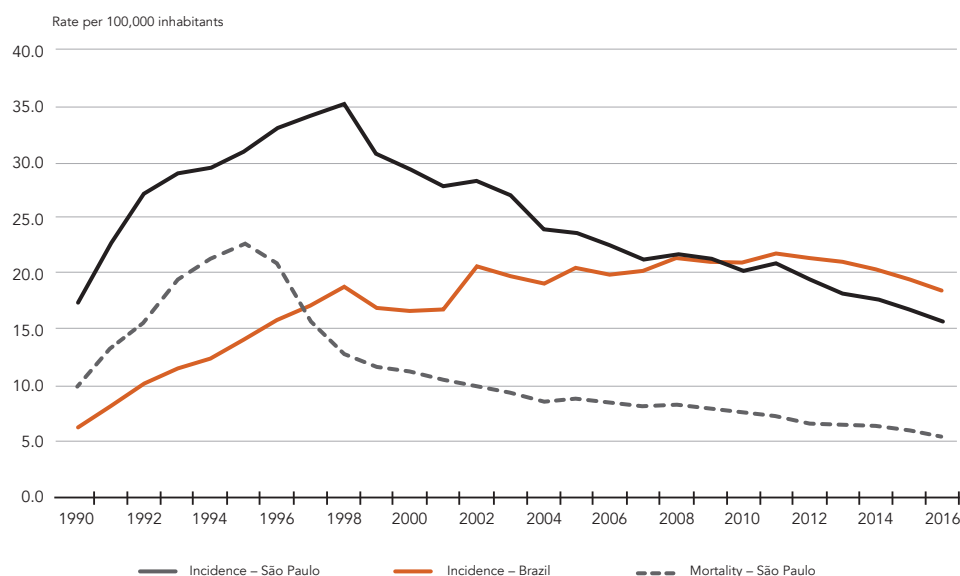
Child mortality São Paulo State – 1980-2016



Source: Fundação Seade.

FIGURE 3

AIDS incidence and mortality São Paulo State – 1980-2016



Source: Health Ministry (MS/SVS/Programa Nacional de DST/AIDS); Base Integrada Paulista de AIDS (BIPAIDS), Cooperação Técnica PEDST/Aids-SP, Fundação SEADE; MS/SVS Departamento Nacional de DST, AIDS e Hepatites Virais.

both incidence and mortality remained stable between 2010 and 2016, and men were a majority of those affected by the disease. Incidence among men was 2.6 times higher than among women, while mortality was almost 4 times higher.

Non-communicable diseases and mental illness caused 55.5% of deaths in São Paulo State in 2016, with cardiovascular disease accounting for 29.4%, cancer for 18.2%, chronic respiratory disease for 3.8%, diabetes for 3.3%, and suicide for 0.8%.

As for gender, mortality was higher among men, except in the case of diabetes. The highest difference was in

suicide, where men accounted for 79.7% (TABLE 1). The age breakdown also shows significant differences. For example, while the 20-59 age group accounted for 79% of suicides, over-sixties accounted for 70%-89% of deaths from other causes classified as non-communicable diseases or mental illness.

The number of road traffic deaths in São Paulo State and Brazil remained higher than 15 per 100,000 inhabitants between 1980 and 2014, with mortality in the state surpassing the national rate until 2000, after which mortality in São Paulo became lower than in Brazil overall. Nevertheless, the rate remained high in

TABLE 1

Deaths from non-communicable disease, by gender São Paulo State – 2016

Non-communicable diseases	Men	Women	Total
1 Cardiovascular disease	52.6	47.4	100.0
2 Cancer	53.3	46.7	100.0
3 Diabetes	46.6	53.4	100.0
4 Chronic respiratory disease	55.0	45.0	100.0
5 Suicide	79.7	20.3	100.0

Source: Fundação Seade.

both for most of the period, often exceeding 20 deaths per 100,000 inhabitants. Declines have recently become more significant in the state. In 2016, road traffic accidents caused 12.5 deaths per 100,000 inhabitants in São Paulo (FIGURE 4) and the state accounted for 14.3% of the Brazilian total, down from 26.4% in 1980.

Thanks to this considerable decline, São Paulo had one of the lowest mortality rates from road traffic accidents in 2016. In fact it was second to last, behind only Amazonas State. The highest rates occurred in Tocantins, Piauí and Mato Grosso, all of which reported more than 32 deaths per 100,000 inhabitants.

The gender and age breakdowns show substantial differences between men and women, and a sharp fall in all age groups. In 2016, male mortality due to road traffic accidents was 4.6 times female mortality (20.8 versus 4.5 deaths per 100,000 inhabitants respectively). Between 1996 and 2016, mortality fell 60% among under-fifteens, and 40%-60% in other age groups (FIGURE 5).

Adolescent fertility (among women aged 15-19) in São Paulo State remained high and practically constant in the range of 70-80 births per 1,000 adolescent women between 1980 and 2000, but fell in the following decade to 52.4. It then stayed flat until 2015, turning down again in 2016, when it was 47.2 (TABLE 2). This decrease

reflected a fall in the number of births in all age groups in 2016. It should be noted that the 15-17 age group accounted for about 35% of this fertility, with the 18-19 age group accounting for 65%.

Adolescent fertility in Brazil was higher, ranging from 85 to 90 births per 1,000 adolescent women in the period 1991-2000, falling in the next decade to 64.2, remaining in the range of 63-64 for a few more years, and falling to 58.6 in 2016.

Respiratory diseases ranked third among causes of death in São Paulo State in 2016, accounting for 13.8%. The leading cause of death was circulatory disease (18.2%), followed by cancer (29.4%). Influenza (flu) and pneumonia caused most deaths among respiratory diseases (59.4%), followed by chronic lower airway diseases (27.8%) (TABLE 3). The gender and age breakdowns show men accounting for 51.7% of all deaths and women for 48.3%, with a majority of deaths occurring in the over-sixty age group, which accounted for 82.4% of the total.

WHAT WE ARE DOING

Many programs in the Multiyear Plan (PPA) for 2016-19 conducted by different bodies and entities of the state's

FIGURE 4

Road traffic mortality Brazil and São Paulo State – 1980-2016



Source: Fundação Seade; Datasus.

FIGURE 5

Road traffic mortality, by gender and age group⁽¹⁾ Brazil e Estado de São Paulo – 1996 e 2016



Source: Fundação Seade; Datasus.

(1) Scales of Y axis are different owing to large gap between gender-related mortality rates.

public administration contribute to the promotion of health and well-being for all. Besides operations in the sphere of health proper, they produce basic sanitation, encourage sports and leisure activities, and enhance food security, especially for socially vulnerable groups.

In recent years São Paulo has implemented actions in health and sanitation that have contributed significantly to a reduction in child mortality. In basic sanitation, the Department of Sanitation & Water Resources carries out water resource planning and management via several programs, such as:

- Program 3906, Environmental Sanitation in Regionally Important Watersheds, which protects reservoirs, rivers and streams used for water supply in metropolitan areas;
- Program 3913, Water Resource Planning and Management, which ensures satisfactory quality standards for the control and use of water as a natural resource essential to life, economic development and social welfare;
- Program 3933, Universal Access to Water and Sanitation, serving the population in the coverage area of SABESP, the water and sewerage company for 368 municipalities in São Paulo State.

The main health problems that affect the population of the state derive from non-communicable diseases, such as cardiovascular and respiratory diseases, cancer and diabetes. Many of these diseases are caused by environmental, hereditary and behavioral factors. Health promotion, preventing and combating unhealthy habits, food security and encouraging physical activity are therefore key initiatives for the well-being of this population.

In food security, a sufficient supply of safe food helps guarantee the population's health and increase life expectancy. In this context, the Department of Agriculture & Food Supply implements programs to

TABLE 2

Adolescent fertility⁽¹⁾ São Paulo State and Brazil – 2010-2016

Years	São Paulo State	Brazil
2010	52.4	64.2
2011	52.8	64.0
2012	53.5	63.3
2013	53.1	63.2
2014	52.7	64.2
2015	50.5	63.5
2016	47.2	58.6

Source: Fundação Seade, IBGE.

(1) Births per 1,000 women aged 15-19

TABLE 3

**Deaths from respiratory disease
São Paulo State – 2016**

Respiratory diseases	%
1. Acute upper airway infection	0.1
2. Influenza and pneumonia	59.4
3. Other acute lower airway infection	0.2
4. Other upper airway disease	0.2
5. Chronic lower airway disease	27.8
6. Lung disease due to external agent	2.9
7. Other respiratory disease principally affecting the interstitium	3.9
8. Suppurative and necrotic conditions of lower respiratory tract	0.7
9. Other diseases of pleura	0.7
10. Other diseases of respiratory system	4.1

Source: Fundação Seade.

assure an adequate supply of healthy food. However, these programs are associated more directly with other SDGs and will be discussed in the corresponding chapters. Health promotion deploys sports and leisure activities as powerful tools to motivate young people to lead healthier lives. In this area the PPA includes initiatives such as Program 4109, São Paulo More Sports & Leisure, implemented by the Department of Sports, Leisure & Youth.

Prevention and treatment of substance abuse, including abuse of narcotics and harmful use of alcohol, is the focus for Program 0944, Starting Over: a Life Without Drugs, implemented in partnership by the Departments of Health, Social Development, and Justice & Defense of Citizenship. The goal of this program is to develop activities designed to prevent abuse of psychoactive substances and to foster the social reinsertion of people who make harmful use of alcohol and other drugs, while extending access to justice and holistic healthcare, and strengthening family and community ties to restore their autonomy.

The reduction of morbimortality due to road traffic accidents is the priority for two programs included in the 2016-19 PPA. Program 2927, Traffic Safety, disseminates traffic safety concepts and aims to reduce the sense of impunity in order to achieve changes in culture and behavior by means of traffic education and oversight. It includes the São Paulo Traffic Observatory, an initiative of the São Paulo State Traffic Department (DETRAN/SP) that collects, processes, analyzes and disseminates information on traffic accidents in São Paulo State. The

Observatory is part of the state's actions to promote traffic safety, and an important planning and strategic tool for the traffic authorities and other state government bodies. Program 5118, São Paulo Movement for Traffic Safety, involves ten state government departments and aims to reduce the number of fatal victims of traffic accidents in the state through coordinated management of actions to promote traffic safety.

Healthcare activities include measures to promote wellness, prevent disease and provide care at different stages of people's lives. Many of these actions are delivered by strategies implemented through basic health units. Although basic healthcare is the responsibility of city governments, the state government supports municipal health systems by providing assistance and formulating strategies to assure efficacy, as well as supplementing municipal healthcare services via its Health Department.

This set of activities is covered in the 2016-19 PPA by Program 0930, Integral and Decentralized Healthcare in SUS/SP, which is designed to deliver regionalized and equitable first-class resolute services of high and medium complexity, and to provide technical and financial support to municipalities in delivering basic healthcare. In addition to supporting municipalities, the program expands the scope of local health services through Multi-Specialty Outpatient Clinics (Ambulatórios Médicos de Especialidades, AMEs), which reduce the flow of patients to hospitals and facilitate the public's access to specialists such as pulmonologists and gastroenterologists, among others, so that simpler cases can receive swift and efficient treatment. In the same

direction, the state government provides technical and financial support for charitable hospitals, especially to facilitate access to complex care services.

In maternal health, support for family planning includes the distribution of contraceptives and emergency contraceptive kits, assistance with childbirth, and care for victims of sexual violence. The Women's Wellness Center at Hospital Pérola Byington provides gynecological medical and hospital care, as well as serving as a referral center for metropolitan São Paulo.

The program also includes specialized pharmaceutical assistance and care for patients with disabilities, delivered in various regions of São Paulo State by the Lucy Montoro Rehabilitation Network.

The Health Department performs actions to protect the public from diseases and actual or potential hazards under Program 0932, Health Surveillance, which includes immunization against vaccine-preventable diseases in the shape of vaccination campaigns and routine vaccination; immunization of animals against rabies; prevention and control of vector-transmitted diseases such as dengue and yellow fever; and epidemiological surveillance for prevention and control of diseases and risk factors.

The remit of Program 0933, Science, Technology & Innovation (STI) in Health, is prevention and treatment on non-communicable diseases through research and development, STI policies, product and process technology innovation, and support for health technology assessment centers, research institution technological innovation, and health economics and clinical research in hospitals.

Program 0935, Production & Supply of Vaccines, Serums, Medications, Blood & Blood Derivatives manages the timely production of medications, serums and vaccines for public health to complement commercial offerings, as well as whole blood and blood components via the national health system (SUS). São Paulo State also has a pharmaceutical factory, Indústria Farmacêutica de Américo Brasiliense (IFAB), run by Fundação para o Remédio Popular "Chopin Tavares de Lima" (FURP) to supply SUS with free medications procured by the Ministry of Health, São Paulo State Department of Health and city governments.

Finally, it should be stressed that health, wellness, well-being and quality are not the sole responsibility of the health sector but involve the execution of integrated policies and activities by all areas of society and tiers of government.

LIST OF PROGRAMS ASSOCIATED WITH SDGS 3

Department of Health

- 0930 – Integral and Decentralized Healthcare in SUS/SP
- 0932 – Health Surveillance
- 0933 – Science, Technology and Innovation in Health
- 0935 – Production and Supply of Vaccines, Serums, Medications, Blood and Blood Derivatives
- 0940 – Strengthening of SUS Management in São Paulo State
- 0941 – Expansion and Modernization in Healthcare
- 0942 – Training and Development of Healthcare Personnel
- 0944 – Starting Over: a Life Without Drugs

Department of Agriculture and Food Supply

- 1308 – Food Supply, Food Security and Dynamization of Production Chains
- 1311 – Agricultural Defense for Environmental Protection, Public Health and Food Security

Department of Health and Department for Justice and Defense of Citizenship

- 1729 – Care for Juvenile Offenders

Department of Public Safety

- 1817 – State Police Welfare Assistance & Pensions

Department of Planning and Management

- 2924 – State Civil Service Medical Assistance
- 2927 – Road Traffic Safety

Department of Social Development

- 3500 – Multidimensional Attack on Extreme Poverty
- 3517 – Social Protection

Department of Housing and Department of Sanitation and Water Resources

- 3906 – Environmental Sanitation in Regionally Important Watersheds

Department of Sanitation and Water Resources

- 3907 – Water Infrastructure, Flood Defense and Sanitation
- 3913 – Water Resource Planning and Management
- 3932 – Sanitation Policy Planning, Formulation and Implementation
- 3933 – Universalization of Water Supply and Sewerage

Department of Sports, Leisure and Youth

- 4109 – São Paulo More Sports and Leisure

Department of Government

- 5114 – Strengthening of Regulatory Competencies in Energy, Gas and Sanitation
- 5118 – São Paulo Movement for Traffic Safety

CHAPTER 3

4 QUALITY EDUCATION



Ensure inclusive and
equitable quality education
and promote lifelong
learning opportunities
for all



EDUARDO CESAR

PHOTO: Diogo Nogueira/A2 Fotografia – Governo do Estado de São Paulo

The SDG 4 refers to assured access to quality education for the entire population and at all levels of the educational system, from pre-primary to higher education via vocational, technical and technological tertiary education. Special emphasis is placed on guaranteeing equal opportunity for girls and women, the vulnerable and the poor.

WHERE WE ARE NOW

Steadily rising attendance levels in all tiers of the educational system and falling inequality between students from wealthier and poorer families evidence the trend toward universal access to basic education in São Paulo State. In 2017, 99.4% of children aged 6-14 attended school in the state. This was similar to the proportion nationwide (99.2%). However, while school attendance in the 6-14 age group is practically universal, the challenge now is to improve school attendance by children aged 4-5 and adolescents aged 15-17, as the proportions for these two age groups are 93.8% and 87.1% respectively (FIGURE 1).

In addition to the improvement in access, age-grade lag and net school attendance also improved in the period 2012-17, especially among the poor.

Gross school attendance is total enrollment divided by the age-appropriate population. Net school attendance is age-appropriate enrollment divided by the age-appropriate population.

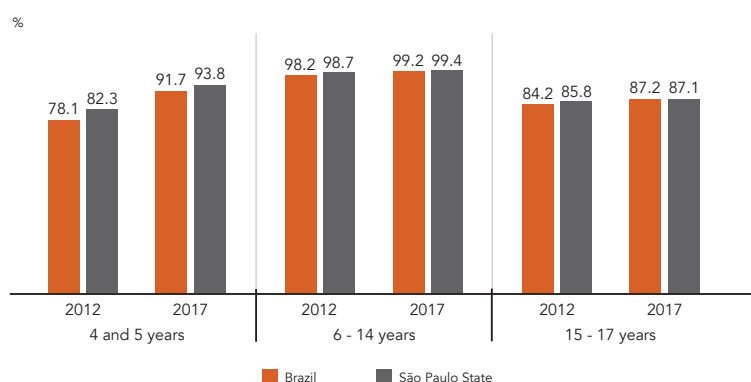
A breakdown of the 4-5 age group attending pre-primary schools by household income shows that net school attendance among the poorest 20% jumped from 42.9% in 2012 to 74.1% in 2017, reducing the difference between the richest and poorest by about 4 percentage points (FIGURE 2).

In the 6-14 age group, age-appropriate school attendance was close to universal in this period in São Paulo, totaling about 94% (FIGURE 2).

In the 15-17 age group, age-appropriate school attendance rose from 69.6% in 2012 to 72.6% in 2017. The improvement resulted from efforts to reduce both dropout and age-grade lag. Inequality of access to secondary education in this age group also fell significantly,

FIGURE 1

School attendance, population aged 4-17, by age group
Brazil and São Paulo State – 2012-2017



Source: IBGE. National Household Sample Survey, PNAD. Continuous National Household Sample Survey, PNADC.

although much remained to be done. Net school attendance among the poorest 20% rose from 63.2% to 72.2% between 2012 and 2017, narrowing the gap between the richest and poorest from 16 pp to almost 11 pp (Figure 2). In national terms there was no improvement, with the difference between the richest 20% and the poorest 20% remaining about 27 pp.

Among children of color (“black” and “brown” according to the official classification, which is self-declared), net school attendance improved in the period

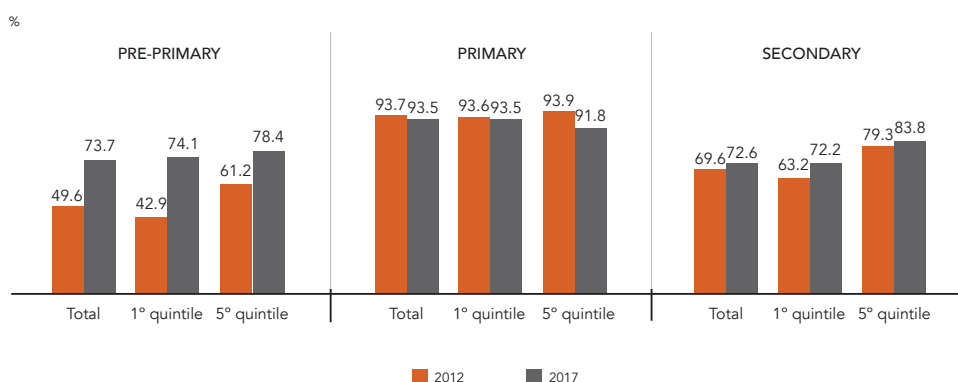
tem in São Paulo State. For girls aged 4-5, net school attendance rose 27 pp from 49.0% in 2012 to 75.8% in 2017, while for boys in the same age group it rose from 50.1% to 71.6% (FIGURE 4).

In the 6-14 age group, net school attendance varied little in the period, remaining at about 94%, and there was practically no difference between boys and girls (FIGURE 4).

In the 15-17 age group, net school attendance among girls was 71.7% in 2012, compared with 65.6% among

FIGURE 2

Net school attendance, population aged 4-17, by household income quintile and educational level
São Paulo State – 2012-2017



Source: IBGE. National Household Sample Survey, PNAD. Continuous National Household Sample Survey, PNADC.
Note: Primary school lasts nine years and is for children aged 6-14.

2012-17, reducing the gap between this group and “non-black” (“white” and “yellow”) children. In the 4-5 age group, net school attendance by children declared “black” rose from 44.5% in 2012 to 70.4% in 2017, narrowing the gap between this group and “non-blacks” from 8 pp to 5 pp (FIGURE 3).

In the 6-14 age group, net school attendance among children of color varied slightly, falling from 93.7% to 92.9%, and remained stable in the range of 94% among “non-blacks”. The difference between these two ethnic categories was less than 1 pp (FIGURE 3).

In the 15-17 age group, net school attendance rose about 1 pp among children of color and 4 pp for “non-blacks”. The gap between the two groups was more than 11 pp in 2017 in São Paulo State and 27 pp in Brazil, up from 15 pp in 2012 (FIGURE 3).

The breakdown by gender shows age-appropriate school attendance rising in all tiers of the school sys-

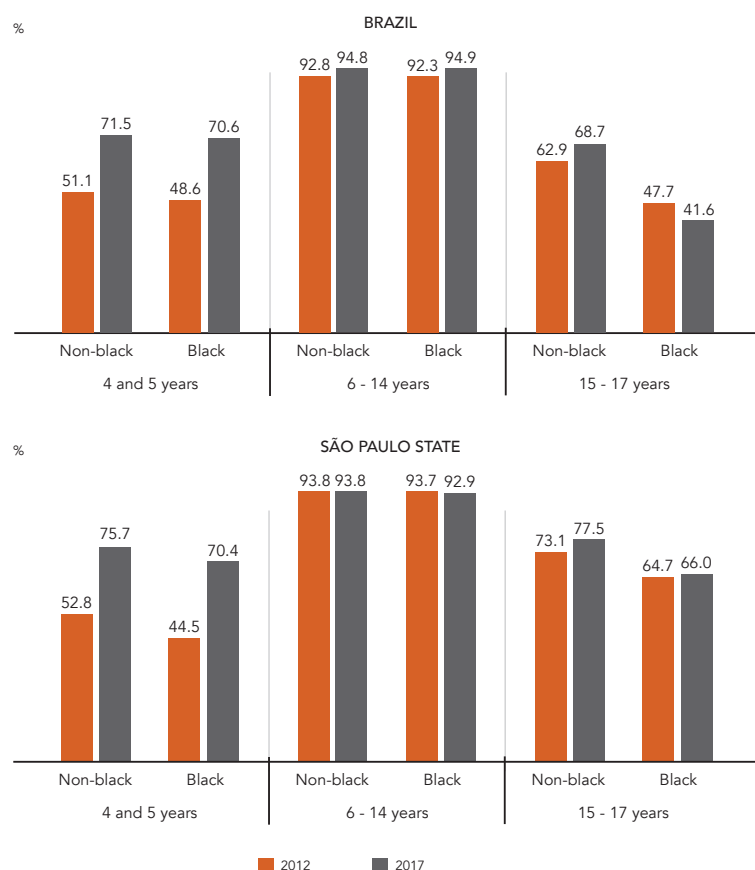
tems. It was higher for both in 2017, but rose faster in the period among boys, narrowing the gender gap to less than 1 pp (FIGURE 4). Nationwide, the proportion also rose faster among males but the gender gap persisted in 2017.

Alongside the effort to achieve universal access to school, avoid dropout and reduce the age-grade lag, it has proved increasingly relevant to monitor and evaluate the quality of teaching and learning in Brazil. In this regard, the National Institute for Educational Studies & Research (INEP), an agency of the Ministry of Education (MEC), has created the Basic Education Development Index (IDEB) to provide an objective measure of student performance based on standardized tests (Prova Brasil and SAEB), as well as pass rates.¹

1 The IDEB is calculated for every school, municipality and state, and for Brazil. It is a standardized indicator with a scale of zero to ten. INEP has set biennial targets for the period 2007-21, in addition to calculating the IDEB.

FIGURE 3

Net school attendance, population aged 4-17, by skin color and age group
Brazil and São Paulo State – 2012-2017



Source: IBGE. National Household Sample Survey, PNAD. Continuous National Household Sample Survey, PNADC.

Between 2011 and 2015, the performance of public schools improved in the earlier and later grades of primary and secondary education in both São Paulo State and in Brazil, as shown by the rising proportion of students awarded “basic”, “adequate” and “advanced” scores in the Prova Brasil test. In São Paulo State, the proportion rose during the period from 81.0% to 91.2% in Portuguese and from 77.8% to 88.5% in mathematics for students in the earlier grades of primary education, and from 79.7% to 82.5% and from 67.2% to 71.2% respectively in the later grades (FIGURE 5).

Assuring equal opportunities for the vulnerable depends in part on the availability of suitable facilities for students with special needs. In 2017, 23.0% of public schools in São Paulo State had a specially adapted

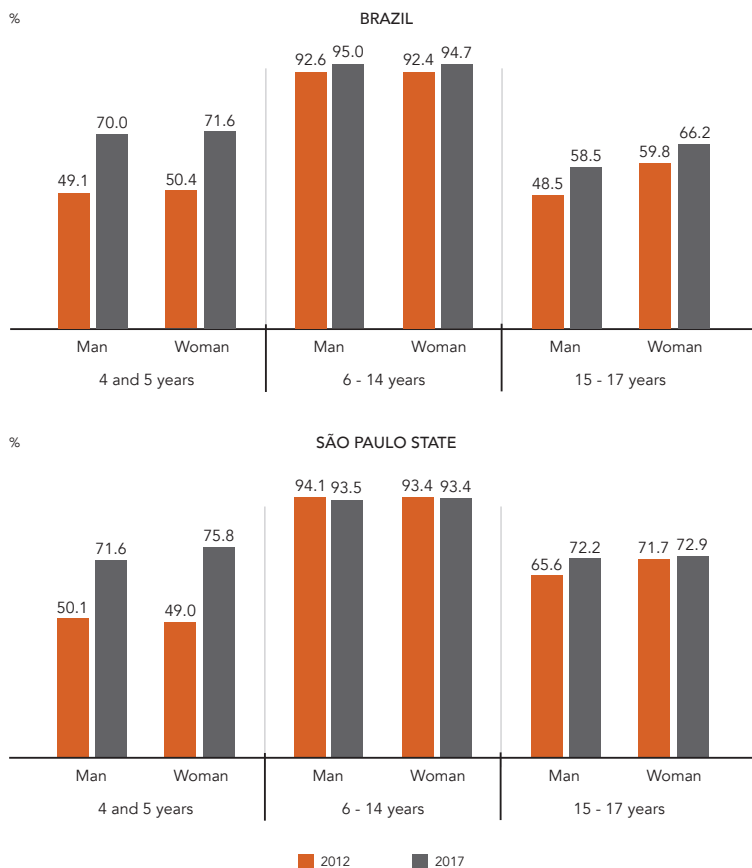
toilet and other accessible facilities suited to students with disabilities or reduced mobility. Access to information via broadband internet connections was present in 70.4% of these schools, while 66.5% of those offering pre-primary education had an early childhood playground (FIGURE 6).

WHAT WE ARE DOING

The Multiyear Plan (PPA) in effect in São Paulo State shares the same concerns as those expressed in SDG 4, establishing a series of programs designed to assure quality education for all and to contribute to the achievement of “Strategic Objective 2: A population with adequate

FIGURE 4

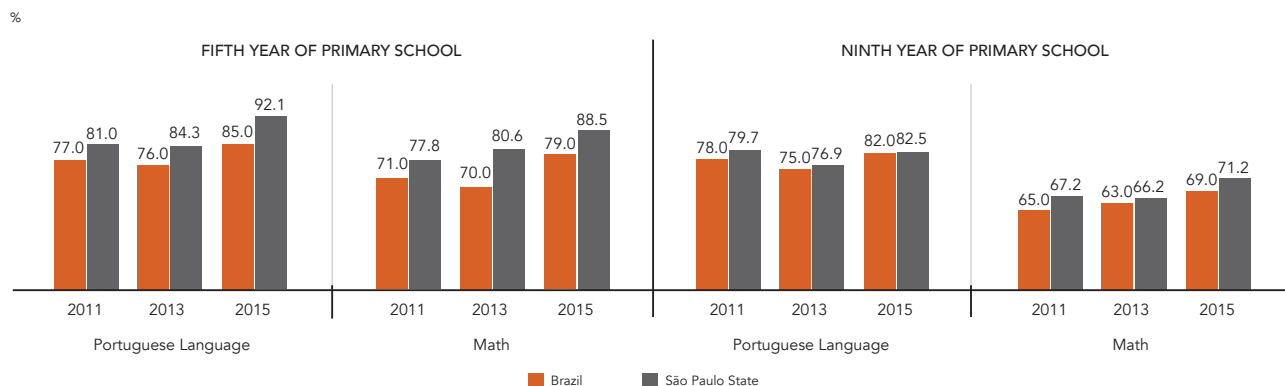
Net school attendance, population aged 4-17, by gender and age group
Brazil and São Paulo State – 2012-2017



Source: IBGE. National Household Sample Survey, PNAD. Continuous National Household Sample Survey, PNADC.

FIGURE 5

Proportion of state school students awarded "basic", "adequate" and "advanced" scores in Prova Brasil test, by educational level
Brazil and São Paulo State – 2011, 2013 and 2015



Source: MEC/Inep. Índice de Desenvolvimento da Educação Básica (Ideb).

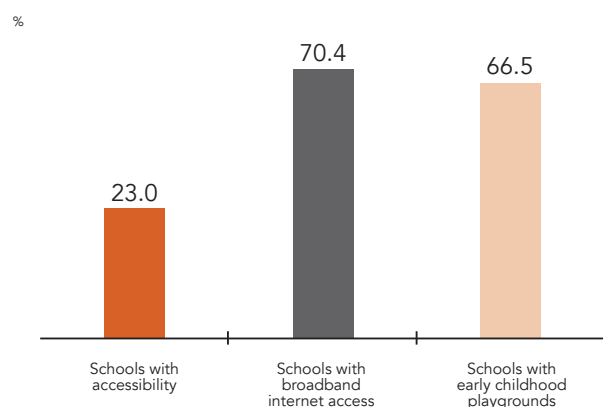
educational attainment, prepared for better job and personal development opportunities regardless of physical and psychological conditions, gender, ethnicity, sexual orientation, gender identity, income and age”.

In **basic education**, one of the most important programs run by the Department of Education manages teaching at this level and includes provision for students with special needs and students who belong to vulnerable social groups (Program 0800 – Pedagogic Management of Basic Education). The Department also runs a specific program to support students in guaranteeing access to school and assuring that no one drops out, especially the poorest (Program 0815 – Maintenance and Support of Basic Education). To this end the state provides students with meals and transportation by school bus, as well as school buildings, furniture and fittings, and the other infrastructure required for educational activities. Quality teacher training and pay, also essential to quality education for all, are assured by Program 0808 – Training and Quality of Life for Education Professionals.

The São Paulo State Government also offers **vocational education** (Program 1038 – Funding of Vocational Education), and **technical and technological education** (Program 1039 – State Program for Technical and Technological Education) via the Department of Economic Development, Science, Technology & Innovation. These programs aim to increase the number of youths and adults with the technical and professional skills needed to get quality jobs and/or become socially and environmentally responsible entrepreneurs.

FIGURE 6

Proportion of state schools with appropriate facilities
São Paulo State – 2017



Source: MEC/Inep. Basic education census.

IDEB

The Basic Education Development Index (IDEB) formulated by the Anísio Teixeira National Institute for Educational Studies & Research (INEP) is an indicator of educational quality that combines information on student performance in standardized tests with educational attainment data (pass rates).

The IDEB combines students' average Portuguese and mathematics scores in national proficiency tests (SAEB and Prova Brasil) taken in the final years of each stage of basic education (the fifth and ninth years of primary school, and the third year of secondary school) with the average primary and secondary school pass rate.

The premise for this indicator is that an educational system should ideally ensure that students learn age-appropriate competencies and skills. An educational system in which students consistently fail to pass from one year to the next and frequently drop out of school altogether is undesirable, even if their test scores are high at one point or another, as is a system in which all students automatically pass but learn very little at school.

The proficiency test scores are standardized to a scale with four levels or tiers that can be compared with a ruler based on the parameters established for the test questions. After application of the tests, the description of the items on the scale provides a probabilistic explanation of the skills demonstrated in each interval of the scale: below basic (the student has not learned enough to pass the year); basic (the student has learned only enough to pass); proficient (the student has learned enough to do well in the next year); and advanced (the student has learned more than enough to pass and do well in the next year).

VOCATIONAL EDUCATION

Vocational education in São Paulo State encompasses secondary-level technical and integrated education as well as concurrent and subsequent vocational education. Enrollment in these courses remained at about 4% of total enrollment in basic education in the period 2015-17.

Source: MEC/INEP, Censo da Educação Básica.

HIGHER EDUCATION

The proportion of students aged 25 and over with an academic degree in São Paulo State rose by more than 5 percentage points, from 16.2% to 21.7%, between 2012 and 2017. For Brazil, the proportion rose less in the same period, from 12.0% to 15.7%.

Source: IBGE, National Household Sample Survey (PNAD), Continuous National Household Sample Survey (PNADC).

Finally, beyond the efforts of all government bodies in favor of **gender equality**, inclusion of vulnerable groups and harmonious coexistence among people with differing worldviews, both the Department of Justice & Defense of Citizenship and the Department for the Rights of People with Special Needs develop cross-cutting programs to ensure that everyone, especially in the most socially vulnerable segments, can fully enjoy their rights and access to work, study, culture, sports and leisure.

The Department is also responsible for **higher education** via Program 1043 – Public Higher Education, which maintains three of Brazil's most important universities as well as other higher education institutions. All of these HEIs stand out for their size and above all for the quality of the teaching and research they perform in the national and international contexts.

In light of the contribution made by **cultural activities** to sustainable development and the promotion of peace, the São Paulo State Government runs several programs to this end via its Department of Culture, both for students and society as a whole. Their aim is to foster a range of cultural manifestations and complement educational activities by creating opportunities for all to enjoy their cultural heritage and acquire the new knowledge essential to valuing cultural diversity, gender equality, human rights and global citizenship, all of which are indissociable from the SDGs.

In the same direction but focusing on **sports and leisure**, the Department of Sports, Leisure & Youth promotes activities to train new athletes and sports practitioners, and above all to create new spaces in which different social groups can mingle in pursuit of healthier, more community-based life alternatives.

LIST OF PROGRAMS ASSOCIATED WITH SDG 4**Department of Education**

- 0800 – Pedagogic Management of Basic Education
- 0805 – Partnerships Among Schools, Communities and Civil Society
- 0808 – Training and Quality of Life for Education Professionals
- 0815 – Maintenance and Support of Basic Education

Department of Economic Development, Science, Technology & Innovation

- 1038 – Funding of Vocational Education
- 1039 – State Program for Technical and Technological Education
- 1043 – Public Higher Education

Department of Culture

- 1201 – Cultural Diffusion, Libraries and Reading
- 1203 – Cultural Education
- 1206 – Radios, Educational TVs and New Media
- 1213 – Management of State Cultural Policy
- 1214 – Museums
- 1215 – Preservation of Cultural Heritage

Department of Justice & Defense of Citizenship

- 1729 – Care for Juveniles Serving Socio-Educational Sentences and Protected by Special Injunctions

Department of Sports, Leisure & Youth

- 4109 – São Paulo Sports and Leisure

Department for People with Special Needs

- 4700 – Management and Implementation of Policy for Social Inclusion of People with Special Needs

CHAPTER 4

5 GENDER EQUALITY



Achieve gender
equality and empower
all women and girls





The UN's diagnosis in support of SDG 5 is that ending discrimination against women and girls is not only a basic human right but also a crucial basis for the construction of a just and sustainable society. Gender equality is a cross-cutting issue interwoven with all themes and strategies for the 17 SDGs that are the centerpiece of Agenda 2030.

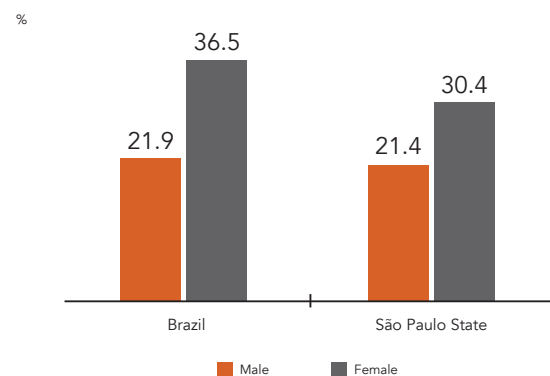
WHERE WE ARE NOW

In education, the target of eliminating disparities between girls and boys at all levels of schooling in order to promote gender equality was achieved in the 1990s. Women and girls have outnumbered boys and men in the educational system since then, particularly in São Paulo State. Nevertheless, in the world of work and in political participation, women are still very much in the minority.

The proportion of women aged 18-29 who are not in education, employment or training (NEET) is higher than among men in the same age group: 36.5% versus 21.9% in Brazil, and 30.4% versus 21.4% in São Paulo State (FIGURE 1).

FIGURE 1

Women and men aged 18-29 not in education, employment or training
Brazil and São Paulo State – 2017



Source: IBGE. Continuous National Household Sample Survey, PNADC.

In the 25-64 age group, educational attainment among both women and men rose steadily between 2012 and 2017 in São Paulo State and nationwide.

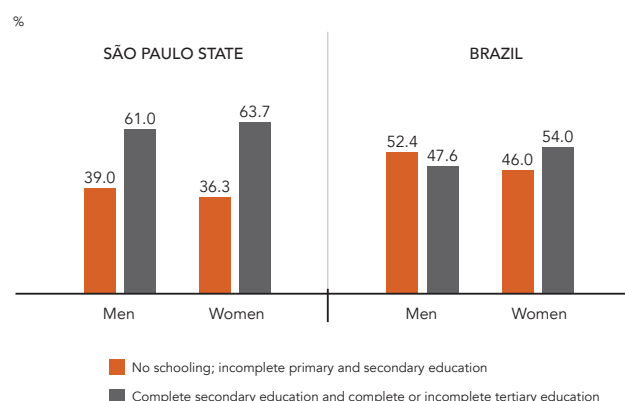
In 2017, 54.0% of women aged 25-64 nationwide had completed at least their secondary schooling, compared with 47.6% of men in the same age group, according to IBGE's Continuous National Household Sample Survey (PNADC). The proportions were 63.7% and 61.0% in São Paulo State (FIGURE 2).

The numbers completing tertiary education in this age group have also risen strongly in recent years, with women outpacing men. In São Paulo State, the proportion of men aged 25-64 who earned a degree at a higher education institution rose 5.1 pp, from 16.0% in 2012 to 21.1% in 2017. Among women the proportion rose 6.1 pp, from 18.8% in 2012 to 24.9% in 2017. In Brazil overall the increase in 2012-17 was less significant than in São Paulo: 3.1 pp for men (from 11.1% to 14.2%), and 4.8 pp for women (from 14.6% to 19.4%) in the same age group.

As a result, the level of educational attainment remained higher in São Paulo State than in Brazil overall, and

FIGURE 2

Educational attainment of population aged 25-64
Brazil and São Paulo State – 2017



Source: IBGE. Continuous National Household Sample Survey, PNADC.

women steadily outperformed men in both geographic contexts (FIGURE 3).

The improvement in women's educational attainment is particularly significant in light of the importance of this factor in enabling women to find and keep decent jobs.

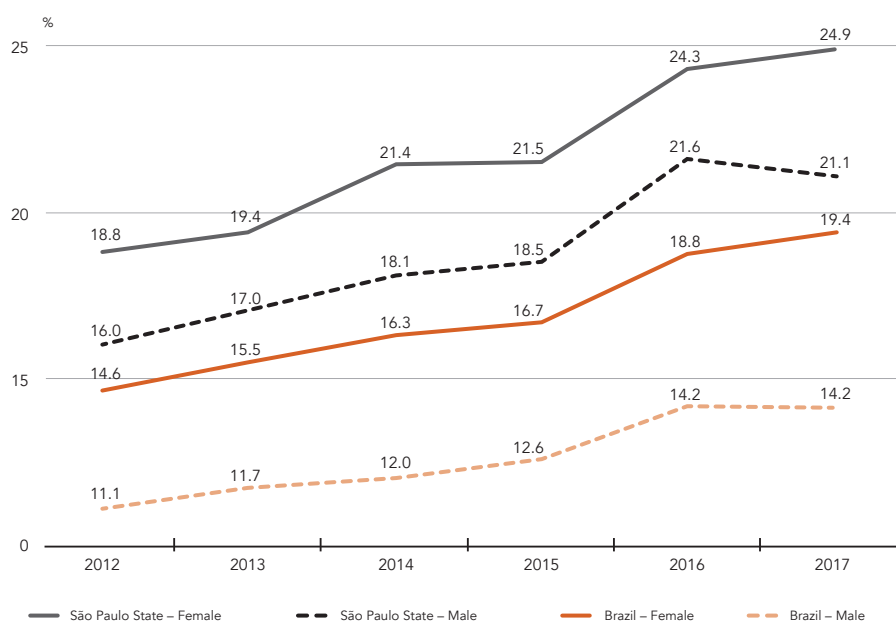
Tertiary education graduates had the highest employment rate¹ among women aged 25-64 in 2017 in São Paulo State: 73.1% were employed, compared with 75.4% for men with complete secondary schooling in the same age group.

tional attainment (FIGURE 5). In 2017, the average participation rate in São Paulo State was 76.0% for men aged 25-64 and 58.7% for women in the same age group, compared with 72.0% and 52.3% respectively nationwide. Taking only tertiary education graduates, the rate was considerably higher: 79.1% for women both in São Paulo State and Brazil overall, and 89.1% in the state versus 87.7% in Brazil for men.

While women's greater educational attainment in recent years has helped increase their presence in the labor market, it is not yet significantly reflected by a reduc-

FIGURE 3

Women and men aged 25-64 with complete tertiary education
Brazil and São Paulo State – 2012-2017



Source: IBGE. Continuous National Household Sample Survey, PNADC.

The lower the level of educational attainment, the more difficult it is to find paid work, especially for women. In 2017, employment rates for women ranged from 17.0% (no schooling) to 73.1% (higher education graduates), compared with 40.7%-84.1% for men (FIGURE 4).

The gap between employment rates for male and female tertiary education graduates was narrower than between men and women with little or no schooling, reinforcing the importance of educational attainment to women's pursuit of paid work.

Similarly, the labor force participation rate² tends to be higher for men and women with higher levels of educa-

tion in the gender pay gap, the difference in women's and men's earnings.

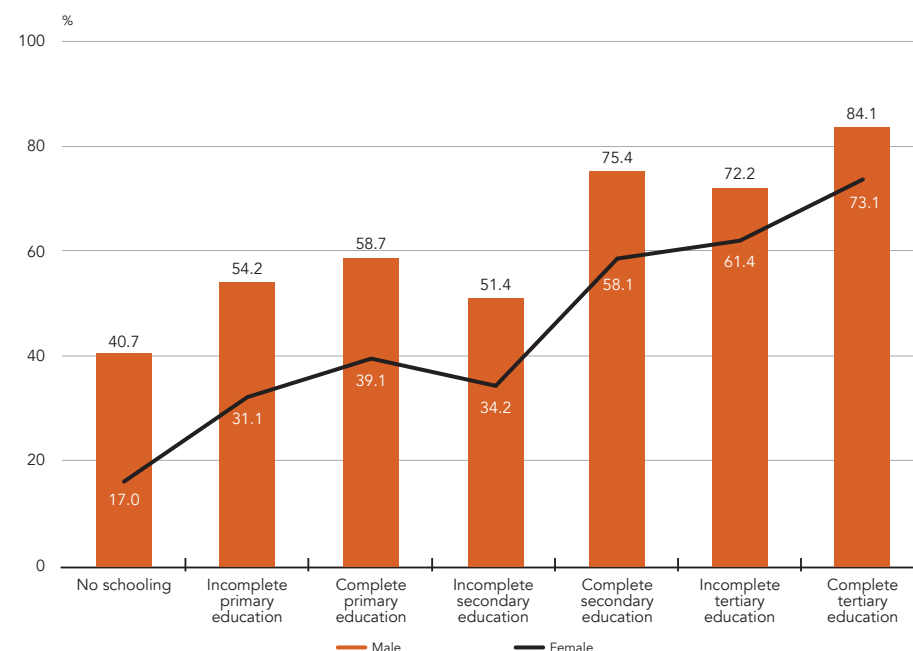
For all levels of educational attainment, women still earn less than men on average, and the gender pay gap is wider among people with tertiary education, complete or incomplete. In 2017, women's average hourly pay in São Paulo State was 78.3% of men's, compared with 86.8% for Brazil overall (FIGURE 6).

In other words, women earned 21.7% less per hour than men in São Paulo State in 2017.

The gender pay gap among people with higher levels of educational attainment can be partly explained by the

FIGURE 4

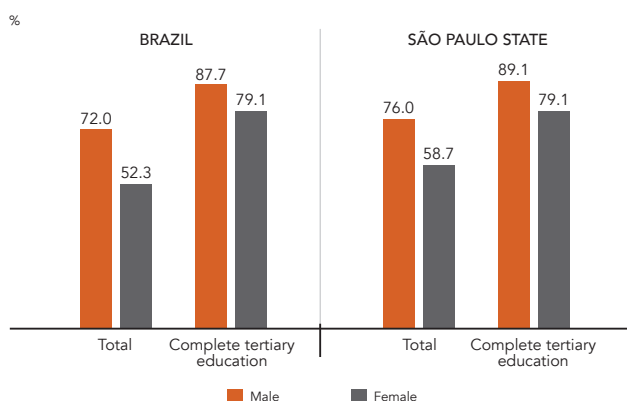
Employment rates for women and men aged 25-64 by level of educational attainment
São Paulo State – 2017



Source: IBGE. Continuous National Household Sample Survey, PNADC.

FIGURE 5

Labor force participation rates for women and men aged 25-64 by level of educational attainment
Brazil and São Paulo State – 2017



Source: IBGE. Continuous National Household Sample Survey, PNADC.

fact that fewer women occupy managerial positions. In 2017, 7.5% of all employees aged 25-64 in São Paulo State were managers, and only 39.7% of these were wo-

men. The proportions for Brazil overall were 5.5% and 40.6% respectively (FIGURE 7).

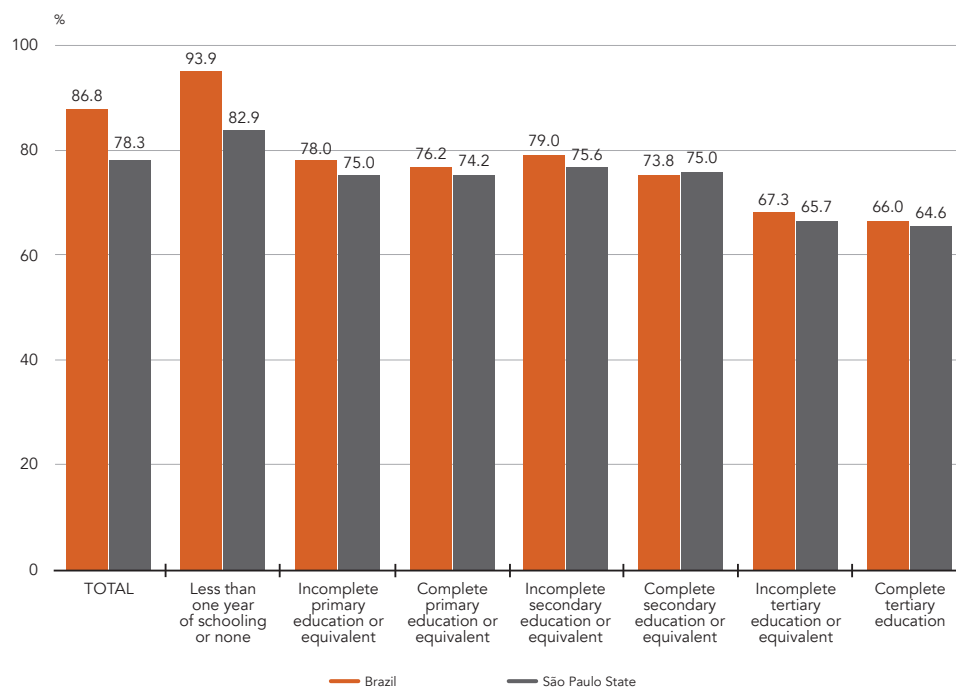
The presence of women in elective office is another relevant indicator of gender equality, especially because it is the subject of legislation. Brazilian electoral law requires political parties and alliances to ensure that women account for at least 30% (and at most 70%) of the candidates they put forward. On paper this should guarantee a growing female presence in electoral contests. The practical effect of this gender quota has fallen short of expectations but it has at least helped more women win elective office.

The results of the 2014 elections show that women's participation in the legislative branch remains low, both in the federal sphere and in the state assemblies.

Ten women were elected to the São Paulo State Assembly in 2014, occupying 10.6% of 94 seats. This merely repeated the 2010 result. Only six women from São Paulo State were elected to the lower house of Congress (Câmara Federal) in 2014, occupying 8.6% of 70 seats and also repeating the 2010 result. Nationwide, 51

FIGURE 6

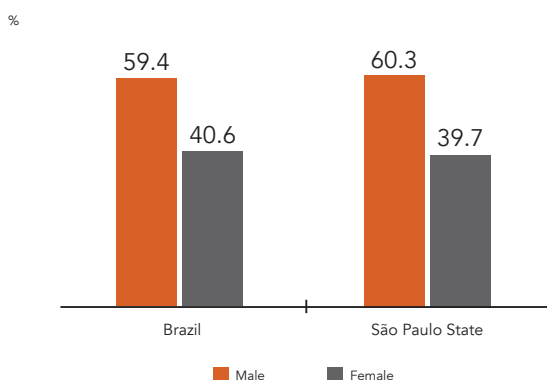
Ratio between women's and men's average hourly pay (main source of income)
by level of educational attainment
Brazil and São Paulo State – 2017



Source: IBGE. Continuous National Household Sample Survey, PNADC.

FIGURE 7

Women and men aged 25-64 in managerial jobs
Brazil and São Paulo State – 2017



Source: IBGE. Continuous National Household Sample Survey, PNADC.

women were elected to these offices, or 9.9%, a slightly higher proportion than in the previous election (8.8%), as can be seen from [FIGURE 8](#).

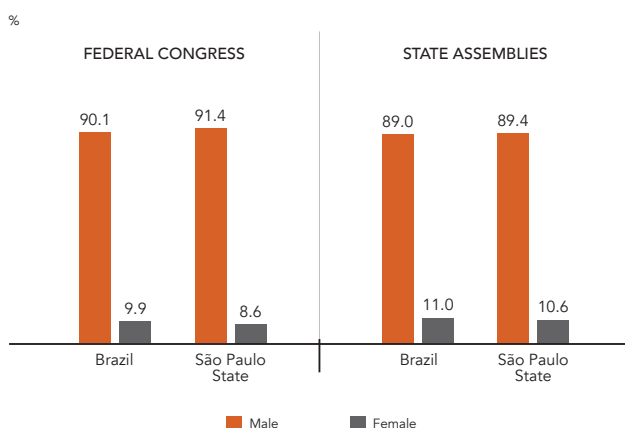
In sum, progress has been made in promoting gender equality in the various areas mentioned, but efforts are still needed to surmount the obstacles to full achievement of this goal. Higher levels of educational attainment have undoubtedly opened up more opportunities for women in the world of work, but do not yet guarantee their occupancy of the best jobs. The gender pay gap remains significant, especially in jobs that require more advanced education and qualification. Women's political participation remains well below the desirable level despite the existence of specific legislation.

WHAT WE ARE DOING

The Women's Policies Unit at the Department of Justice & Defense of Citizenship plays a key role in this field.

FIGURE 8

Women and men elected to office Brazil and São Paulo State – 2014



Source: Tribunal Superior Eleitoral (TSE).

Its mission is to support the implementation of public policies that aim to eliminate all forms of discrimination and violence against women, assure full enforcement of women's rights, and promote women's participation and integration in economic, social, political and cultural development. The unit carries out its mission by working with several agencies and entities of the São Paulo State Government, and with the judiciary, public prosecutors, public defenders and entities linked to justice, citizenship and human rights. It develops initiatives on three main fronts:

- Support for the activities of Citizenship Councils, many of which have to do with gender, such as the Councils for Women's Condition, Defense of the Human Person, Drug Policy, Indigenous Peoples, Black Community Participation & Development, and LGBTQ Rights.
- Production and dissemination of knowledge about human rights and citizenship based on research into human rights and citizenship for specific themes, including gender.
- Structuring of Citizenship integration Centers (CICs) to guarantee access to justice for people with high social vulnerability in the state capital and interior.

Considered an example of excellence in São Paulo State, the Tender Loving Care Program (Programa Bem-mequer) run by the Women's Wellness Referral Center (CRSM) at Hospital Pérola Byington provides care for adult women and girls who have suffered any form of sexual violence. Executed in partnership with the Departments of Public Safety and Health, this program has a multidisciplinary team comprising social workers,

nurses, gynecologists, pediatricians and psychologists. Patients are given a warm welcome and humanized treatment based on prevention of harm to physical and mental health.

São Paulo was the first state in Brazil to establish a police force that specializes in protecting women from all kinds of aggression. In August 1985, a long time before the Maria da Penha Law was passed (2006), the first Women's Defense Police Station (DDM) was unveiled. Today the state has 133 DDMs.

The Department of Education and Public Prosecutor's Office run a musical competition called Voices for Gender Equality (Vozes pela Igualdade de Gênero). Three editions have been held to date. Secondary and Youth & Adult Education (YAE) students in state schools are the target audience. The aim of the competition is to educate students about women's rights, equality and empowerment in all social, economic and political environments, help them think about gender inequality, and promote full effective participation by women in society.

CHAPTER 5

6 CLEAN WATER AND SANITATION



Ensure availability and sustainable management of water and sanitation for all

7 AFFORDABLE AND CLEAN ENERGY



Ensure access to affordable, reliable, sustainable and modern energy for all





SDG 6 CLEAN WATER AND SANITATION SDG 7 AFFORDABLE AND CLEAN ENERGY

The SDG 6 foregrounds a concern with a safe supply of drinking water for all, directly associated with the availability of water and basic sanitation. Lack of sanitation leads to contamination of the soil, rivers and water sources. SDG 7 focuses on the need for universal access to affordable, reliable and modern energy services, and for an increase in renewables as a share of the global energy mix.

WHERE WE ARE NOW

To measure progress toward SDG 6 in São Paulo State, we chose seven indicators relating to the availability of potable water and sanitation. The data for these indicators came mainly from two sources: the Basic Municipal Information Survey (MUNIC 2017) and the National Household Sample Survey (PNAD 2016), both conducted by IBGE, Brazil's national bureau of statistics.

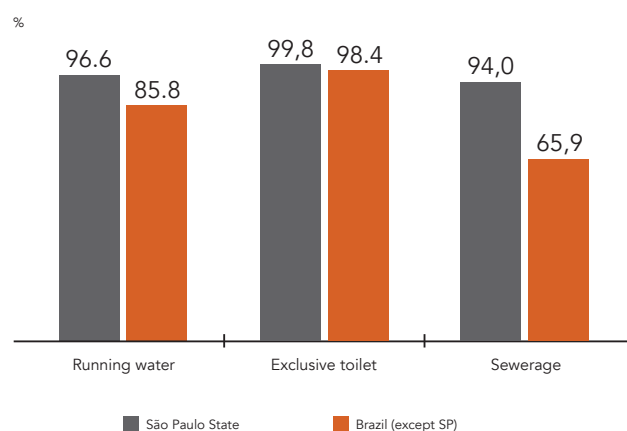
With regard to water supply, 96.6% of permanent private households in São Paulo State were connected to a supply of running water, according to PNAD 2016. The proportion in Brazil as a whole was 85.8%. Thus the proportion in São Paulo State was more than 10 percentage points higher than in Brazil (FIGURE 1). As for the existence of exclusive toilets, the averages for São Paulo State and Brazil are similar (99.8% and 98.4% respectively), especially because the data refers to permanent private households and collective households typically have shared toilets. The proportion of households connected to sewerage systems is very different in the state and nationwide. Whereas 94.0% have this service in São Paulo, in Brazil the average is 65.9%, or 28.1 pp less. These numbers show that although the state has not yet achieved 100% coverage by water and wastewater systems, its situation is better than Brazil's overall.

The quality of water and sanitation management processes is also reflected by data that measures municipalities' commitment to protecting the environment. Cities with strong environmental commitments have better indicators for universal access to water and wastewater systems.

According to MUNIC 2017, more than half the municipalities in São Paulo State that responded to the survey (58.7%) have some kind of partnership, consortium or concession scheme to handle environmental management (FIGURE 2). This is a higher proportion than for Brazil's other municipalities (38.3%), showing the low level of institutional organization on the part of city governments in general and especially outside São Paulo State.

FIGURE 1

Permanent private households with running water, exclusive toilet and connection to sewerage system
Brazil and São Paulo State – 2016



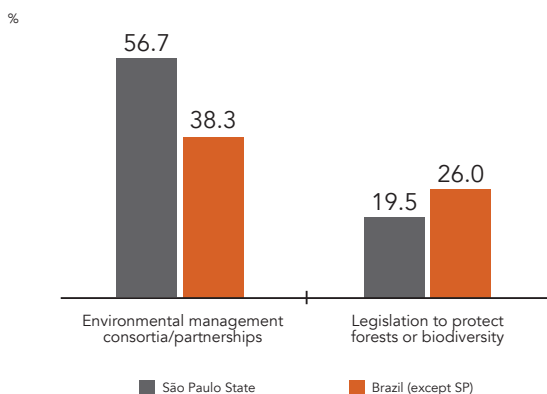
Source: IBGE. Continuous National Household Sample Survey, PNADC. 2016.

Most municipalities lack legislation to guarantee better water quality by protecting forests, biodiversity, water sources and riparian vegetation, and to assure the recharging of aquifers. Only 26.0% (except municipalities in São Paulo State) have such laws. The situation is worse still in São Paulo State, where only 19.5% of municipalities have such laws.

Our progress toward achieving SDG 7 (affordable and clean energy) can be gauged in terms of residential

FIGURE 2

Municipalities with environmental management public or administrative consortium or partnership agreement in any federative sphere, and municipalities with legislation or environmental management instruments to protect forests and biodiversity
Brazil and São Paulo State – 2017



Source: IBGE. Continuous National Household Sample Survey, PNADC, 2017.

electricity, renewable energy production and energy intensity.

With regard to electricity, practically all households in São Paulo State are connected to the grid. Data from PNAD 2016 show that 99.9% have electricity, compared with 99.5% in the rest of Brazil.

São Paulo State's installed electricity generating capacity was 23,346 kW in 2018, and renewable sources of energy accounted for 90.1%, according to data from the National Electricity Agency (ANEEL).

The evolution of primary power production in São Paulo State shows a fall in the share of renewables from 99.1% to 86.9% between 2007 and 2016, owing to significant growth of natural gas production in the period, from 322,103 tons of oil equivalent (toe)¹ in 2007 to 5,791,103 toe in 2016.

In final consumption of primary sources, the share of renewables rose 5.9 pp, from 76.8% in 2007 to 82.6% in 2016 (FIGURE 3).

Energy intensity, defined as the ratio of final energy consumption to GDP and representing the amount of energy required to produce one unit of output expressed as toe/BRL, fell from 0.076 (toe/10³ BRL) in 2007 to 0.073 (toe/10³ BRL) in 2016, displaying relative stability.

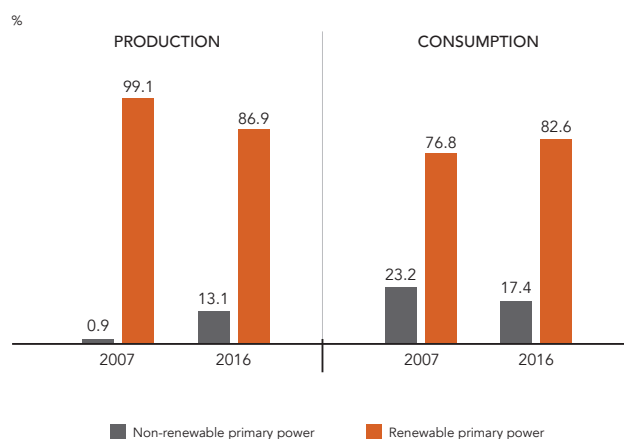
¹ ton of oil equivalent

WHAT WE ARE DOING

In the Multiyear Plan (PPA) for 2016-2019, the issues referred to by SDG 6 (Clean water and sanitation) and SDG 7 (Affordable and clean energy) are directly associated with programs that contribute to achievement of

FIGURE 3

Share of renewables and non-renewables in primary power production and consumption
São Paulo State – 2007-2016



Source: Balanço Energético do Estado de São Paulo (data for 2016).

“Strategic Objective 6 – Preserved, healthy and sustainable environment”, and “Strategic Objective 10 – Society resilient to climate change, with availability of water for present and future generations”.

The programs run by the Department of Sanitation & Water Resources contribute significantly to the assurance of a safe water supply for all, involving integrated management of water resources at all levels, including cross-border cooperation where appropriate. The following are especially important:

- Program 3913 – Planning and Administration of Water Resources, which controls the use of river basins and aquifers; plans and executes actions required for the use, conservation and rehabilitation of the state's water resources; collects, analyzes and disseminates the information required for water resource planning and administration; oversees and charges for water use; and maintains a register of users;
- Program 3934 – Water Resource Policy Planning, Formulation and Implementation, which implements water resource policy using such instruments as water resource plans, granting of water resource

use rights, charging for water resource use, classifying water bodies, and operating water resource information systems; and finances projects via the State Water Resource Fund (FEHIDRO).

Two other programs run by the Department of Sanitation & Water Resources are noteworthy in respect of the execution of actions and efforts to assure access to clean water and sewerage systems. Program 3933 – Universalization of Water Supply and Basic Sanitation encompasses the activities of São Paulo State Basic Sanitation Company (SABESP) and aims to bring about universal access to clean water and sewerage systems in 368 municipalities covered by the company. Program 3907 – Water Infrastructure, Flood Fighting and Sanitation includes such activities as support for small municipalities with the performance of water and sanitation infrastructure studies, designs, projects, services and public works.

Program 3932 – Planning, Formulation and Implementation of the State's Sanitation Policy, besides being responsible for the instruments of public policy management such as the State Basic Sanitation Plan, provides technical and financial support to municipalities that operate their own water and sewerage systems. This is done by transferring funds for execution of public

works and/or provision of basic sanitation services under the aegis of agreements entered into between the department and small municipalities or localities. Another initiative of the program, in partnership with Desenvolve/SP, entails support for municipalities to implement wastewater treatment systems, preferably using waste stabilization ponds in towns with up to 50,000 inhabitants that are not serviced by SABESP and discharge effluent untreated into local rivers and streams.

This program also implements the project Reágua, which supports basic sanitation initiatives that contribute to the expansion of water availability in the state, water quality improvement, and the institutional development of service providers in Water Resource Management Units (UGRHI) that are suffering from the most acute water shortages. These actions encompass control of losses and reduction of consumption, reuse of treated wastewater, expansion and optimization of sewerage systems, and execution of sewer connections for low-income households not classified in Groups 4, 5 or 6 of the São Paulo Social Vulnerability Index (IPVS) and not able to afford the internal adaptation of their homes required for connection to the public sewerage network, with the aim of universalizing basic sanitation to improve health and the quality of life.

DROUGHT

The central and northeastern regions of São Paulo State suffered from a severe drought in 2014 and 2015.

The Cantareira System, the main source for metropolitan São Paulo's supply of drinking water, was so badly affected by the drought that the inflow of water in 2014 and most months of 2015 was the lowest recorded by SABESP in more than 80 years.

In this context of low water availability, SABESP executed dozens of works and actions to guarantee supply for the metropolitan area, which has a population of more than 21 million inhabitants. The water crisis was surmounted without interruptions to supply, and the company is now better prepared to tackle similar shortages in future:

- Increase in water source conservation capacity from 1.753 billion m³ to 2.107 billion m³.
- Increase in transfer between water sources from 10,200 liters/second to 26,800 liters/second.
- Increase in water treatment capacity from 73,400 liters/second to 82,300 liters/second.
- Increase in transfer of treated water between production systems from 3,000 liters/second to 12,000 liters/second.
- Decrease in average consumption from 13.2 m³/month to 10.8 m³/month as a result of educational campaigns and a program awarding incentives to reduce water consumption.

In addition to the Department of Sanitation & Water Resources, other departments of the São Paulo State Government also run programs involving basic sanitation, especially the Department of Housing and the Department of the Environment.

Considering that one of the main challenges involving sanitation in the state is irregular and disorderly land use and occupation by dwellings, the Housing Department has the following programs:

- 2510 – Urbanization of Favelas and Precarious Settlements, addressing problems of housing quality, urban integration and socio-environmental anomie in these areas by means of urbanization, infrastructure rehabilitation, resettlement of families living in high-risk areas, environmental protection and sanitation works;
- 2511 – Sustainable Housing and Environmental Rehabilitation in Serra do Mar and along the Coast of São Paulo State, executed in partnership with the Environment Department, aiming to restore and conserve environmentally protected areas of Serra do Mar and coastal areas, which are among the state's most important environmental assets, by means of actions such as resettlement of people living in high-risk areas, and protection of these areas via rehabilitation, conservation and monitoring;
- 3906 – Environmental Sanitation in Regionally Important Watersheds, executed in partnership with the Department of Sanitation and Water Resources, rehabilitating and protecting reservoirs, rivers and streams that supply metropolitan areas, improving living conditions and habitability for residents in water resource areas, and promoting sustainability on the coast of São Paulo State.

The Environment Department plays an important role in the promotion and execution of initiatives designed to protect and restore water-related ecosystems, especially in the context of the following programs:

- 2604 – Monitoring of Quality and Environmental Footprint Reduction, monitoring and controlling water, air and soil pollution; and handling environmental licensing of projects and activities that use environmental resources and may potentially pollute or degrade natural resources;
- 2617 – Environmental Citizenship and Quality of Life Improvement, executing environmental education actions integrated with environmental management, disseminating concepts and practices, and encouraging the general public to participate in en-

vironmental policy implementation. Also worthy of note is Município Verdeazul (“Green-Blue City”), a set of best environmental practices to which city governments commit voluntarily as part of the state's efforts to help them draw up and execute strategic policies for sustainable development of the state;

- 2618 – Environmental Conservation and Ecological Restoration, conserving native vegetation by means of ecological restoration in natural environments; and making improvements to research and monitoring. Important actions include Nascentes (“Water Sources”), a project involving coordination of 12 state government departments in riparian forest restoration projects, contributing directly to water resource protection; and Microbacias II (“Microbasins II”), supporting implementation of Agroforestry Systems (SAF), restoration of vegetation, and rehabilitation of water resources used in agriculture;
- 2619 – Mitigation of Environmental Vulnerability and Climate Change, rehabilitating springs and water resources, reducing risk of disasters, mitigating atmospheric emissions, and executing territorial environmental plans. To this end the program involves initiatives such as the creation and implementation of territorial environmental plans geared to sustainable development, especially Economic Ecological Zoning (ZEE) and Coastal Management (GERCO), as well as other initiatives, such as a solid waste policy, hazard and vulnerability analysis and mapping, financial support from the State Water Resource Fund (FEHIDRO) for actions by the State System for the Administration of Environmental Quality, Protection, Control and Development of the Environment (SEAQUA), and monitoring of environmental parameters and public policy indicators for risk mitigation and adaptation with the aim of implementing measures to prevent natural disasters.

With regard to clean and affordable energy for all, a number of important programs are run by the Department of Energy & Mining.

Program 4901, Hydropower Plant Unavailability Management, aims to guarantee the quality and reliability of power generation for the national grid, in terms of assuring the supply of electricity at satisfactory levels by maintaining the operation of the generating units that belong to Companhia Energética de São Paulo (CESP) and Empresa Metropolitana de Águas e Energia (EMAE).

Program 4903, Promotion of Energy Development and the Mineral Industry in São Paulo State, is responsible for coordinating state energy policies and plans to assure the supply, universalization, reliability and quality

of energy inputs and optimization of their use for the benefit of the state's development. Its activities include coordinating actions and actors in the electricity sector and technical support to increase renewables as a share of the energy mix.

Program 5114, Strengthening of Regulatory Competencies in Energy, Gas and Sanitation, run by the São Paulo State Sanitation and Energy Regulatory Agency (ARSESP), regulates gas supply services and oversees electric power distribution utilities in São Paulo State with a view to improving the quality of these services for consumers.

LIST OF PROGRAMS ASSOCIATED WITH SDGS 6 & 7

Department of Sanitation and Water Resources

- 3906 – Environmental Sanitation in Regionally Important Watersheds
- 3907 – Water Infrastructure, Flood Defense and Sanitation
- 3913 – Water Resource Planning and Management
- 3932 – Sanitation Policy Planning, Formulation and Implementation
- 3933 – Universal Access to Water and Sanitation
- 3934 – Water Resource Policy Planning, Formulation and Implementation

Department of Housing

- 2510 – Urbanization of Favelas and Precarious Settlements
- 2511 – Sustainable Housing and Environmental Rehabilitation in Serra do Mar and along the Coast of São Paulo State

Department of the Environment

- 2604 – Monitoring of Quality and Environmental Footprint Reduction
- 2617 – Environmental Citizenship and Quality of Life Improvement
- 2618 – Environmental Conservation and Ecological Restoration
- 2619 – Mitigation of Environmental Vulnerability and Climate Change

Department of Agriculture and Food Supply

- 1301 – Sustainable Technologies for Rural and Agroindustrial Development
- 1307 – Rural Extension for Sustainable Development
- 1311 – Agricultural Defense for Environmental Protection, Public Health and Food Security
- 1315 – Management of Public Policies for Agriculture

Department of Energy and Mining

- 4901 – Hydropower Plant Unavailability Management
- 4903 – Management of Electricity Generation, Supply and Use

Department of Government

- 5114 – Strengthening of Regulatory Competencies in Energy, Gas and Sanitation

CHAPTER 6

8 DECENT WORK AND ECONOMIC GROWTH



Promote sustained, inclusive
and sustainable economic
growth, full and productive
employment, and decent
work for all





PHOTO: Eliana Rodrigues/D.O. – Governo do Estado de São Paulo

The SDG 8 focuses on economic growth with higher levels of productivity through technological innovation, more efficient use of natural resources, and the creation of decent jobs and opportunities for entrepreneurship. It also advocates equality of opportunity for men and women, especially migrants, and effective measures to end forced labor and modern slavery.

WHERE WE ARE NOW

Economic growth in São Paulo State fluctuated considerably in the period 2003-15 in terms of gross domestic product (GDP). Annual growth was robust between 2003 and 2008, reaching 7.5% in 2007. This trend was interrupted in 2009, when GDP contracted 0.1% owing to the effects of the international financial crisis. It re-

turned to positive territory in 2010 and 2011, suggesting that the economic environment remained vigorous, possibly reflecting the strong structure and dynamism that have historically been a feature of São Paulo State. However, this behavior was not sustained: GDP grew modestly after 2011, contracting again in 2014 and 2015. The second half of the period clearly contrasted with the first, therefore, with the data for almost all segments pointing to a sharp decline in economic activity (FIGURE 1).

This variability in GDP growth was also seen in GDP per capita¹ during the period, albeit to a slightly lesser extent. GDP per capita rose between 2003 and 2008,

1 GDP per capita for São Paulo State is GDP divided by the population residing in the state. For the complete statistics in Portuguese, see: <<http://www.seade.gov.br/produtos/pib-anual/>>.

FIGURE 1

Total GDP and GDP per capita growth
São Paulo State – 2003-2015



Source: IBGE; Fundação Seade.

also reflecting better income and employment conditions. The uptrend was interrupted in 2009. Growth then resumed for a time, but 2014 and 2015 saw a decline (FIGURE 1).

Slow economic growth is reflected most strongly in the labor market, restricting job openings, access to opportunities for employment and hence income from work. The unemployment rate rose in São Paulo State during the period, especially in 2014-15, reaching 13.4% in 2017 (FIGURE 2).

Women have historically faced more restrictions in accessing the labor market than men. This problem is aggravated at times of slow economic growth and decreasing employment opportunities. The unemployment rate among women therefore rose more than among men, jumping from 8.0% in 2012 to 15.1% in 2017 and

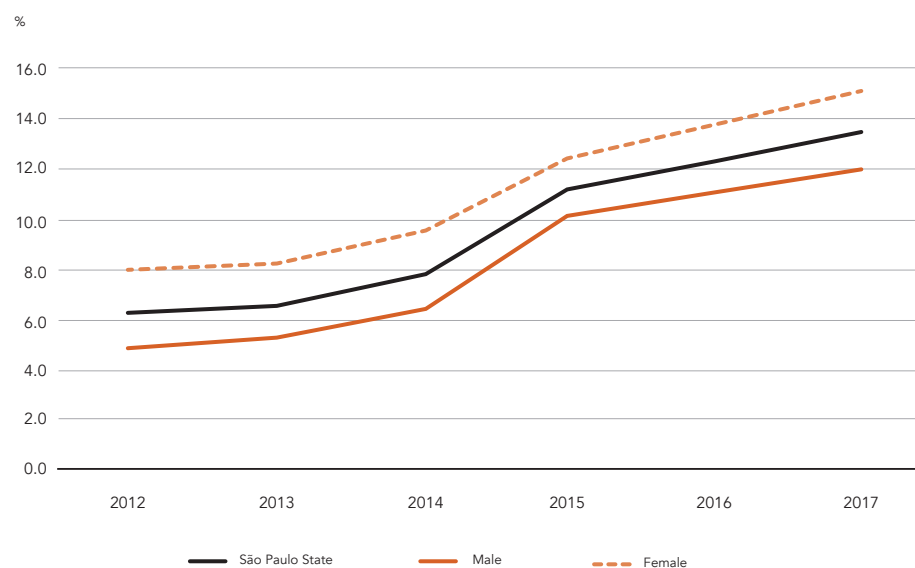
reflected the effects of the economic slowdown, particularly the loss of opportunities for paid work. This problem intensified from 2014 on. Given that paid employment is the main and often the only means of family subsistence under the incumbent economic model, the prospect of social sustainability remains limited.

In Brazil both male and female unemployment rates, albeit slightly lower than in São Paulo State, also rose steadily throughout the period and especially from 2014 on. It can be said that the higher proportion in search of paid work among the population of São Paulo State is aligned with its economic dynamism, so that job opportunities there are likely to increase faster when robust economic growth resumes (FIGURE 3).

The rise in the number of individual micro-entrepreneurs (MEIs) in São Paulo State between January 2012

FIGURE 2

Unemployment rate among women and men aged 14 and over
São Paulo State – 2012-2017



Source: IBGE. National Household Sample Survey, PNAD. Continuous National Household Sample Survey, PNADC.

almost doubling the proportion of women who unsuccessfully sought paid work during the period (FIGURE 2).

The male unemployment rate remained lower than the female rate but followed the same trend, as the lack of strong economic growth restricted access to the labor market. Unemployment among men increased particularly sharply in 2014-15, rising from 6.4% to 10.1%. It continued to rise, albeit less sharply, in ensuing years.

The behavior of both male and female unemployment

and August 2018 can be considered an indicator of the pursuit of formalization.² According to the federal tax authority (Receita Federal), the number rose from 414,942 to 1,912,714,³ differing little from the growth seen nationwide in Brazil and accounting for about 24% of the national total.

2 For the complete legislation in Portuguese, see: <<http://www.portaldoempreendedor.gov.br/legislacao>>.

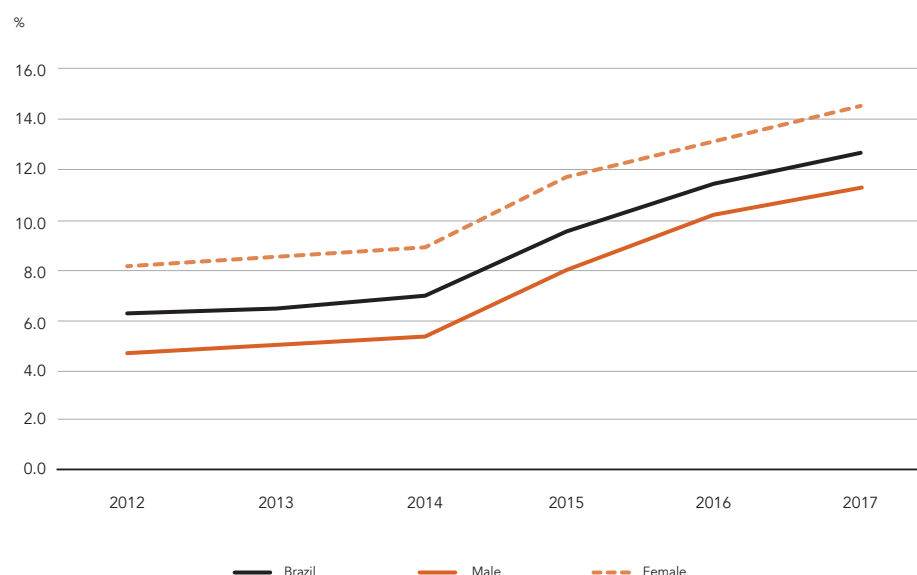
3 Source: <http://www.portaldoempreendedor.gov.br/estatisticas>.

Alongside the challenges represented by low economic dynamism, rising demand for jobs and income, and a lack of equivalent job creation, it is also important to maintain formal employment, given its role in regulating labor relations and guaranteeing respect for workers' rights.

stressing that paid work for women is often the main or only source of household income. Lack of guaranteed rights in these cases, including unemployment insurance, social security benefits, paid leave, 13th wage and commuting allowance, among others, heightens the risk of poverty and even extreme poverty for many families.

FIGURE 3

Unemployment rate among women and men aged 14 and over Brazil – 2012-2017



Source: IBGE. National Household Sample Survey, PNAD. Continuous National Household Sample Survey, PNADC.

In 2017, 27.6% of the workforce in São Paulo State consisted of individuals aged 14 and over in non-formalized jobs, in the sense that they had no employment contracts, were self-employed and did not pay social security contributions, or belonged to self-production and -consumption communities, characterizing situations of vulnerability regarding guaranteed rights and the quality of employment relations. This proportion, albeit lower than for Brazil, held steady with minor fluctuations from 2012 on, indicating exclusion of part of the working population from the rights and benefits established by the labor laws. Some segments of the workforce were affected more than others, and this inequality contributed to the reproduction of social vulnerability (FIGURE 4).

The larger proportion of women than men in non-formalized jobs in 2016-17 represented greater exposure of women to the risk of poverty (FIGURE 5). It is worth

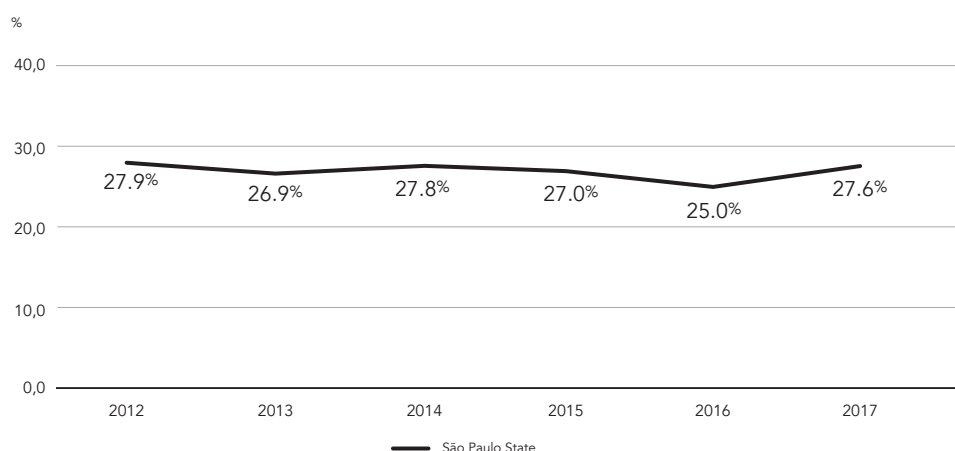
Formal job creation depends on the dynamics of the economy, and especially on sustained growth in the structurally important economic sectors, but investment in human capital formation and the use of new technologies, among other measures to stimulate the economy, is clearly a key way to reduce the number of workers in vulnerable work situations and hence to lower the level of poverty.

WHAT WE ARE DOING

This chapter also describes significant convergence between the SDGs and the expected impacts of the Multiyear Plan (PPA) being implemented by the São Paulo State government, embodied particularly in the programs

FIGURE 4

Proportion of workforce aged 14 and over in vulnerable work situations ⁽¹⁾
São Paulo State – 2012-2017



Source: IBGE. National Household Sample Survey, PNAD. Continuous National Household Sample Survey, PNADC.

⁽¹⁾Including employees and domestic servants without employment contracts, self-employed workers who do not pay social security contributions, workers producing for own consumption and building for own use, and unpaid workers.

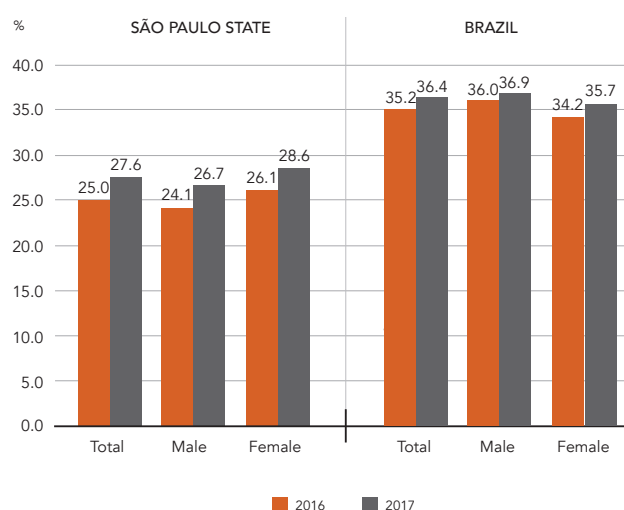
that contribute to achievement of “Strategic Objective 8: A competitive economy in São Paulo State, engaging with technological innovation, rising productivity and the creation of high-quality jobs”. The main strategies of the 2016-19 PPA to promote economic growth consist of supporting technological innovation and the training of qualified personnel. These programs are associated with others that offer society the tools with which to take advantage of the new work opportunities that derive from the technological transformations undergone by the state's economy.

GROSS DOMESTIC PRODUCT (GDP)

A synthetic indicator that measures the total output of an economy in goods and services produced for final consumers during a given period by all resident producer units. Hence it is equivalent to the sum of the values added by all producers in the economic area being measured, plus taxes, less subsidies on products. On the other hand, GDP is equal to the sum of the market values or prices of all final goods and services, or to the sum of primary incomes.

FIGURE 5

Proportion of workforce aged 14 and over in vulnerable work situations ⁽¹⁾, by gender
Brazil and São Paulo State – 2016-2017



Source: IBGE. National Household Sample Survey, PNAD. Continuous National Household Sample Survey, PNADC.

⁽¹⁾Including employees and domestic servants without employment contracts, self-employed workers who do not pay social security contributions, workers producing for own consumption and building for own use, and unpaid workers.

The programs implemented by the São Paulo State Government to foster economic growth are characterized above all by the importance given to scientific research and technological development, innovative activities, and gains in productivity and competitiveness. Examples include some of the programs run by the Department of Economic Development, Science, Technology & Innovation, and the Department of Agriculture & Food Supply. In the first group it is worth mentioning Program 1015, Competitiveness for Regional and Territorial Development; Program 1021, Innovation and Technology for Public Policies, Government Agencies and Companies; and Program 1044, Development of Science and Technology. In the second, Program 1301, Sustainable Technologies for Rural and Agroindustrial Development, and Program 1315, Management of Public Policies for Agriculture, stand out.

Central to these programs, especially those run by the Department of Agriculture & Food Supply, is support for growth of agricultural activities by associating technological, environmental and food security aspects. Examples include Program 1307, Rural Extension for Sustainable Development, and Program 1308, Supply, Food Security and Dynamization of Production Chains.

This group of programs has undoubtedly helped the state's economy achieve higher levels of productivity, since they all contribute to its diversification and technological modernization, and to more creation and diffusion of innovations.

Alongside these, the PPA also calls for support to high value-added and labor-intensive industries. This is another facet of the economic growth strategy implicit in SDG 8 and embodied by Program 1218, Fostering Culture and the Creative Economy, run by the Department of Culture, Program 5001, Building Tourism in São Paulo State, and Program 5002, Improving Infrastructure in Resort Cities and Places of Tourist Interest. These two segments, the creative economy and tourism, have proved capable of not only valorizing the cultural diversity present in São Paulo State and its regions, but also creating a significant number of job opportunities and fostering entrepreneurship in much of the state's society.

The new economy that is establishing itself in São Paulo State tends to create jobs and opportunities that require new occupational and professional qualifications. To provide the wherewithal for young people and older adults to seize these opportunities, the Department of Economic Development, Science, Technology & Innovation and the Department of Employment & Labor Relations run education and training programs such as the former department's Program 1038, Fostering Vocational Education, and Program 1039, State Vocational and Technological

Education Program, and the latter's Program 2302, Public Employment and Income System, and Program 2308, Labor Relations and Entrepreneurship.

São Paulo State's development strategy, embodied in the programs of its PPA, can be summed up as support for environmentally sustainable productive activities that benefit its citizens and create decent jobs and entrepreneurial opportunities through creativity and more creation and diffusion of technological innovations.

LIST OF PROGRAMS ASSOCIATED WITH SDG 8

Department of Economic Development, Science, Technology and Innovation

- 1015 – Competitiveness for Regional and Territorial Development
- 1021 – Innovation and Technology for Public Policies, Government Agencies and Companies
- 1038 – Fostering Vocational Education
- 1039 – State Vocational and Technological Education Program
- 1044 – Development of Science and Technology

Department of Culture

- 1218 – Fostering Culture and the Creative Economy

Department of Agriculture and Food Supply

- 1301 – Sustainable Technologies for Rural and Agroindustrial Development
- 1307 – Rural Extension for Sustainable Development
- 1308 – Supply, Food Security and Dynamization of Production Chains
- 1311 – Agricultural Defense for Environmental Protection, Public Health and Food Security
- 1315 – Management of Public Policies for Agriculture

Department of Finance

- 2005 – Fostering Socio-Economic Development

Department of Employment and Labor Relations

- 2302 – Public Employment and Income System
- 2308 – Labor Relations and Entrepreneurship

Department of Tourism

- 5001 – Building Tourism on São Paulo State
- 5002 – Improving Infrastructure in Resort Cities and Places of Tourist Interest

Department of Government

- 5110 – Technology for a Single Citizen-Oriented Government

CHAPTER 7

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



Build resilient infrastructure,
promote inclusive and
sustainable industrialization,
and foster innovation



FOTO: Edson Lopes Jr./A2 Fotografia – Governo do Estado de São Paulo

The SDG 9 refers to three key elements of the Prosperity pillar of Agenda 2030 for Sustainable Development: **resilient infrastructure, inclusive and sustainable industrialization, and technological advancement**. In general it can be said that a number of conditions are necessary to attract and promote investment in infrastructure and innovation, and in the expansion and enhancement of industry. In order to achieve the targets set by SDG 9, investment projects must be sustainable and resilient, and inequality of access among regions and population groups must also be taken into account.

WHERE WE ARE NOW

According to data from the Annual Survey of Industry (PIA) conducted by IBGE, Brazil's national statistics bureau, the manufacturing industry in São Paulo State corresponded to 37.4% of the national total in 2015. For high-tech industries according to OECD's classification based on technological intensity, São Paulo State had 37.5% (BRL 81 billion) of the national total (BRL 217 billion).

TABLE 1 breaks down the manufacturing industry in São Paulo State and Brazil by technological intensity.

To illustrate the importance of innovation in the economy of São Paulo State, we have chosen two indicators: the innovation rate, and invention patents.

The innovation rate was calculated by dividing the number of firms that reported having introduced at least one product or process innovation in the period analyzed by the total number of firms in the segment, according to IBGE's Survey of Technological Innovation in Industry (PINTEC).¹ Thus the innovation rate measures the result of innovation efforts by industrial firms.

¹ IBGE is Brazil's national census and statistics bureau. It conducts the PINTEC survey every three years, covering industry, services, electricity and gas. The data collected is used to construct national indicators of innovation by Brazilian firms. In the case of São Paulo State, electricity and gas are not included and these sectors are therefore not considered here in comparison with the national total.

The most recently published PINTEC survey, which covers the period 2012-14, identified 14,556 innovative firms in São Paulo State, of which 88% (12,783) were in the industrial sector and 12% (1,773) in the service sector (**TABLE 2**). They corresponded to 30.6% of the total number of innovative firms in Brazil (in industry and services), slightly less than in the PINTEC survey for 2009-11, when the proportion was 32.4% (the fall was due mainly to industrial firms).

FIGURE 1 presents a breakdown by manufacturing segment of firms in São Paulo State that reported at least one product innovation, using the PINTEC survey data for 2012-14. The largest proportions were among automotive manufacturers, with 86% reporting product innovations, and manufacturers of motors, pumps and transmission equipment, with 61%.

As defined by Instituto Nacional de Propriedade Industrial (INPI), Brazil's patent office, an invention patent is a title deed whereby the state grants temporary ownership of an invention or utility model to inventors, authors or other natural or legal persons who hold the intellectual property rights to the innovation, enabling them to prevent third parties from producing, using, selling or importing the process or product concerned. In exchange, the inventor must disclose in detail the entire technical content of the innovation protected by the patent. Invention patents cover products and processes that meet the requirements of novelty, inventive activity and industrial application. They remain in force for 20 years from the filing date.

FIGURE 2 presents numbers for invention patents filed in São Paulo State and other Brazilian states in the period 2007-17. While the total fell 12% in São Paulo, it rose 31% in the rest of Brazil.

As shown by **FIGURE 3**, São Paulo State's share of total invention patent filings in Brazil fell from 44.3% to 29.9% between 2007 and 2017, while the shares of other states rose, especially Rio de Janeiro and Minas Gerais.

FIGURE 4 and **FIGURE 5** present a breakdown of invention patent filings by technological field. Here it should be noted that no classification was performed in 2016 and 2017 for a significant proportion of these filings – 62.3%

TABLE 1

Manufacturing value added (MVA) by technological intensity
Brazil and São Paulo State – 2015

Technological intensity	São Paulo		Brazil		A/B %
	R\$ thousand (A)	%	R\$ thousand (B)	%	
High intensity	81,338,595	22.9	217,032,054	22.8	37.5
Medium-high intensity	65,283,154	18.4	228,841,665	24.1	28.5
Low-medium intensity	63,798,578	17.9	164,858,716	17.3	38.7
Low intensity	145,211,958	40.8	334,094,759	35.1	43.5
Total	357,753,880	100.0	951,484,296	100.0	37.4

Source: IBGE – Pesquisa Industrial Anual – Empresa.

Note: Manufacturers' physical output can be divided into four segments by technological intensity, in accordance with the OECD's methodology: high intensity, medium-high intensity, low-medium intensity, and low intensity. This classification is based on the ratio of R&D expenditure to net sales.

TABLE 2

Innovative firms (industry and services)
Brazil and São Paulo State – 2009-2011 and 2012-2014

Sector	2009-2011				2012-2014			
	São Paulo		Brazil		São Paulo		Brazil	
	Total	Product and/or process innovation	Total	Product and/or process innovation	Total	Product and/or process innovation	Total	Product and/or process innovation
Total	43,320	14,653	128,196	45,728	42,581	14,556	132,061	47,556
Industry	39,049	12,984	116,632	41,470	37,419	12,783	117,976	42,987
Services	4,271	1,668	11,564	4,258	5,162	1,773	14,085	4,569

Source: IBGE, Pintec 2012-2014.

(3,288) and 90.8% (4,974) in Brazil and 56.3% (899) and 87.4% (1,434) in São Paulo State respectively – impairing an analysis of patenting in terms of technology during the period.

WHAT WE ARE DOING

In the São Paulo State Government's Multiyear Plan (PPA) for 2016-19, the programs associated with “*Strategic Objective 8: A competitive economy in São Paulo State, engaging with technological innovation, rising productivity and the creation of high-quality jobs*” present different routes to achievement of the targets for SDG 9, involving support for science, technology and innovation, and investment to improve, modernize and expand infrastructure, especially for logistics and transportation.

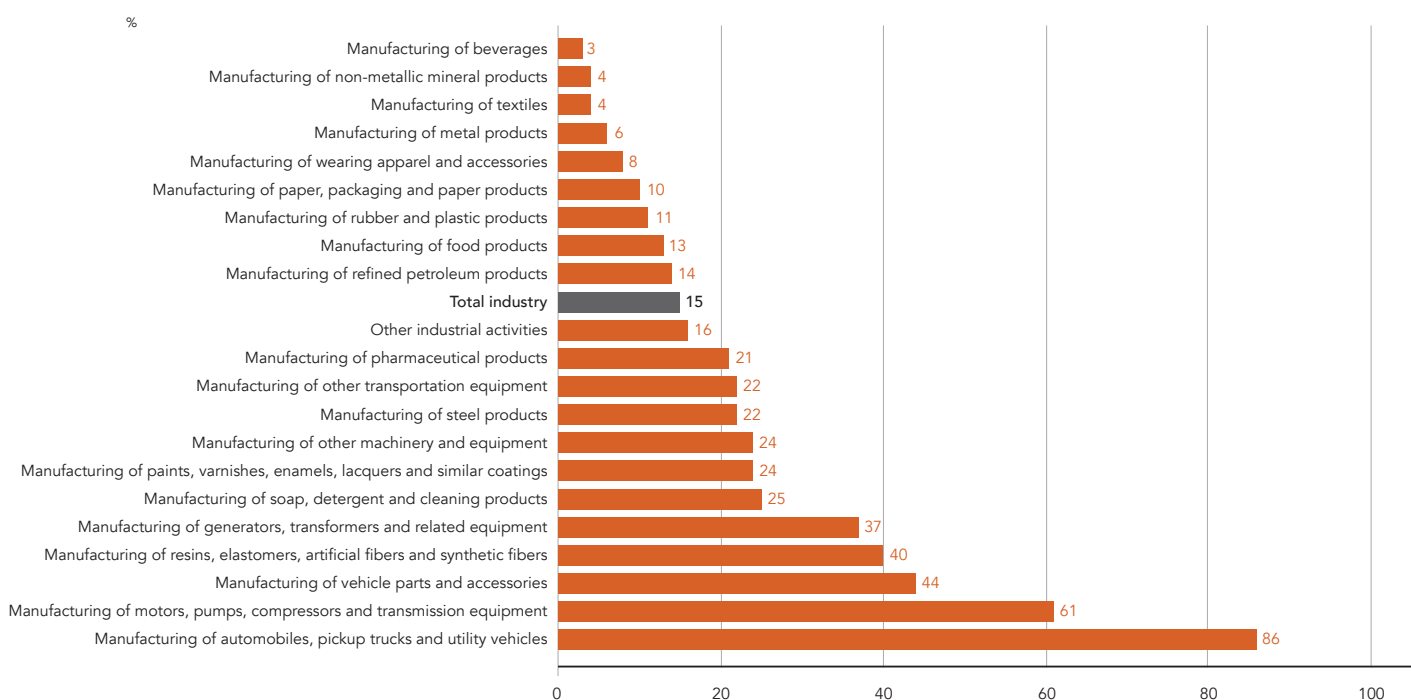
In infrastructure, the most noteworthy programs are those run by the Department of Logistics & Transportation

and the Department of Metropolitan Transportation. Program 1601, Planning of Logistics and Transportation, run by the former department, modernizes management and facilitates integrated planning of the state's logistics system by fostering the integration of strategies, structures, personnel, processes and technologies across all transportation modes via the Logistics & Transportation Master Plan (PDLT). The same department also implements programs relating to waterway logistics management (Program 1602); road management, operation and safety (Program 1605); road network upgrading (Program 1606); airport infrastructure modernization (Program 1607); coastal ferries (Program 1608); and road-rail crossings in metropolitan São Paulo (Program 1611).

All state activities involving rail, tram, subway, bus, trolleybus and other metropolitan transportation systems are coordinated by the Department of Metropolitan Transportation, which continuously plans and moder-

FIGURE 1

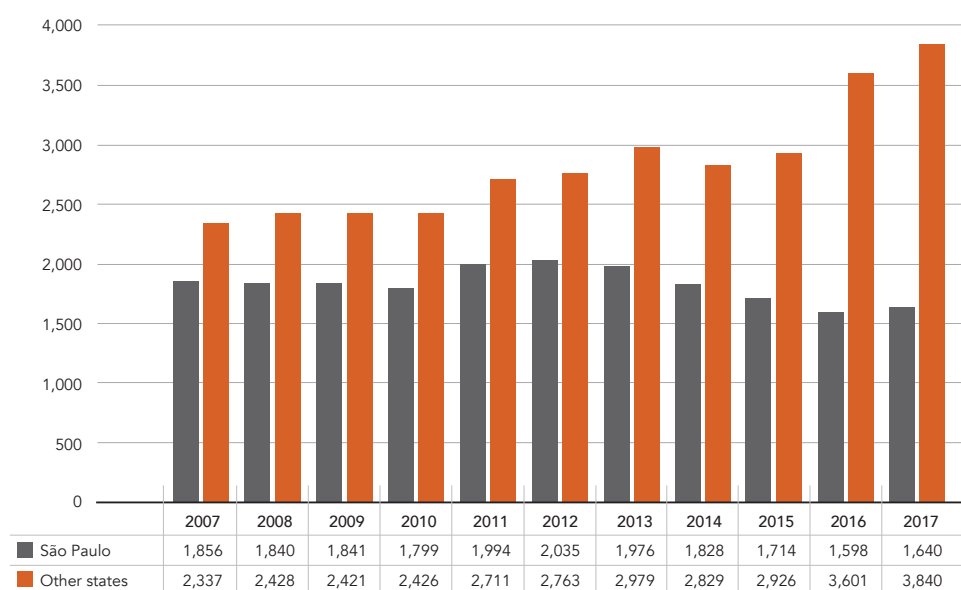
Innovation rate by industry São Paulo State – 2012-2014



Source: IBGE, Pintec 2012-2014.

FIGURE 2

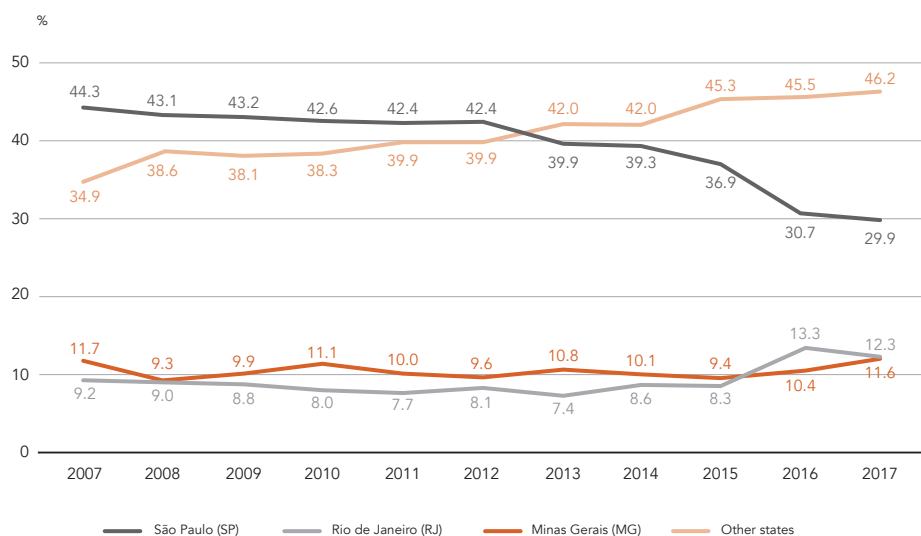
Invention patent applications filed São Paulo State and other states – 2007-2017



Source: INPI (Assessoria de Assuntos Econômicos, Base de Dados Estatísticos de Propriedade Intelectual BADEPI v5.0)..

FIGURE 3

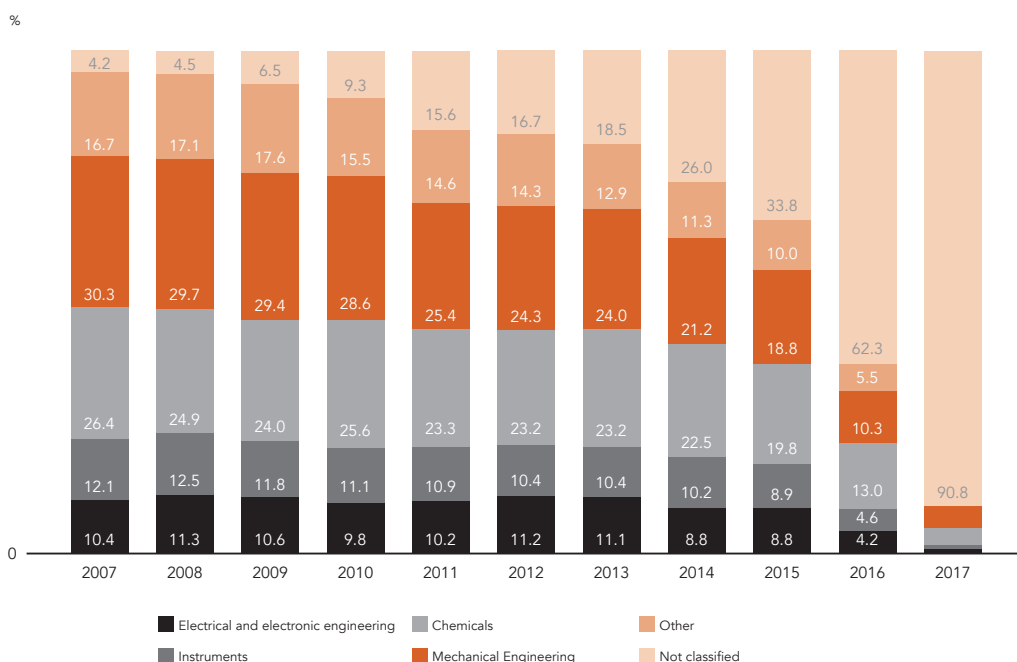
Invention patent applications filed
São Paulo, Rio de Janeiro and Minas Gerais States and other states – 2007-2017



Source: INPI (Assessoria de Assuntos Econômicos, Base de Dados Estatísticos de Propriedade Intelectual BADEPI v5.0).

FIGURE 4

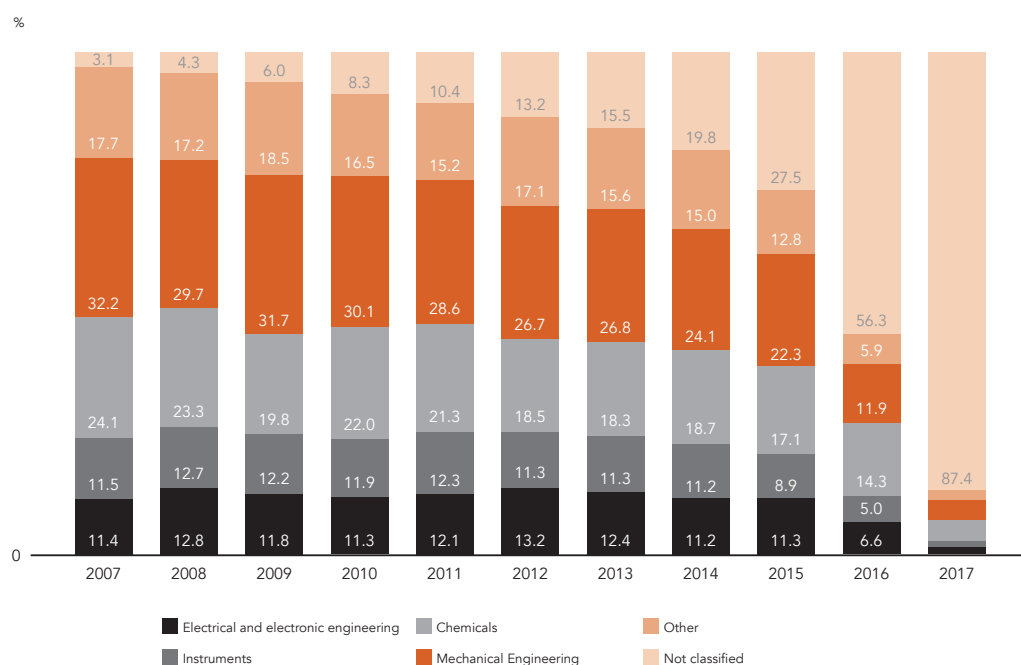
Invention patent applications filed by technological field
Brazil – 2007-2017



Source: INPI (Assessoria de Assuntos Econômicos, Base de Dados Estatísticos de Propriedade Intelectual BADEPI v5.0).

FIGURE 5

Invention patent applications filed by technological field São Paulo State – 2007-2017



Source: INPI (Assessoria de Assuntos Econômicos, Base de Dados Estatísticos de Propriedade Intelectual BADEPI v5.0).

nizes the instruments, management models and actions required to implement its integrated passenger transportation, land use and environmental management strategy in the metropolitan areas. Among other activities, this involves expansion and management of low- and medium-capacity transportation, including participation in maintenance of sponsored concessions to the Santos region's integrated metropolitan system (SIM RMBS, Program 3706); expansion, modernization and operation of rail transportation, including development of projects and plans, environmental impact studies, urbanistic intervention and land use proposals in metropolitan areas (Program 3707); and expansion, modernization and operation of subway and surface light rail systems, including participation in oversight of the process of implementing new lines and regulation of mass transit concessions (Program 3708).

With regard to inclusive and sustainable industrialization, an important initiative is Program 1015, Competitiveness for Regional and Territorial Development, whose remit is to induce economic development by promoting an environment in which entrepreneurs of different sizes can develop their potential. The program is coordinated by the Department of Economic Development, Science,

Technology & Innovation. It comprises activities of three main types: building links among productive agents, coordinating support instruments, and fostering the development of regional potential. The following initiatives are involved among others:

- Assistance for investors, including support services, links to other government units to facilitate new ventures, and financial support for projects and programs via Invest SP, the São Paulo State Investment & Competitiveness Promotion Agency;
- The São Paulo State Innovation Environment System (SPAI), which supports and finances the creation of favorable environments for the use of the knowledge required to build high-level scientific and technological competencies, including stimulation of new investment spaces for sustainable socio-economic development;
- Technological support provided via the Technological Research Institute (IPT) to micro, small and medium businesses for technological enhancements to products, processes, management and packaging to foster exports, more efficient production management and cleaner production, among others.

Credit is considered an important channel for fostering the development of small and medium businesses. Program 2005, Financing Socio-Economic Development, aims to assist growth of agricultural and agroindustrial production, as well as related services, and provide the basic infrastructure required by housing, healthcare and education systems for micro, small and medium firms and production co-ops.

Lastly, SDG 9 refers to the importance of enhancing scientific research to upgrade the technological capabilities of industrial sectors. This requires support for innovation, which can be measured by the number of researchers involved in research and development (R&D) and the aggregate volume of public and private investment in R&D.

Brazil's share of new knowledge creation has increased significantly in recent years. This performance is associated, especially in São Paulo State, with permanent funding for the three state-run public universities, FAPESP, and technical training by Centro Paula Souza. São Paulo State's initiatives in science, technology and innovation include, for example, Program 1044, Development of Science and Technology, which among other activities promotes the modernization of research institutions by revitalizing, expanding and upgrading laboratories to perform services with a high-level innovation and technology content, and the production of research whose results contribute to the advancement of knowledge and have a clear potential for technological innovation.

In terms of public policies to promote technological innovation and sustainable economic growth in the state, it is relevant to mention Program 1043, Public Higher Education, which maintains and increases places and higher education courses in strategic areas, supports scientific and technological research, and constantly improves the quality of undergraduate and graduate courses; Program 1039, Professional and Technological Education, which provides initial, technical and technological education and training; and Program 1038, Funding for Vocational Education, which provides basic vocational training and supports initiatives designed to foster projects that drive the creative economy in order to develop innovation and creativity in São Paulo State, thereby implementing mechanisms for the consolidation of this new economy.

LIST OF PROGRAMS ASSOCIATED WITH SDG 9**Department of Economic Development, Science, Technology and Innovation**

- 1015 – Competitiveness for Regional and Territorial Development
- 1021 – Innovation and Technology for Public Policies, Government Agencies and Companies
- 1038 – Funding for Vocational Education
- 1039 – Professional and Technological Education
- 1043 – Public Higher Education
- 1044 – Development of Science and Technology

Department of Agriculture and Food Supply

- 1301 – Sustainable Technologies for Rural and Agroindustrial Development
- 1307 – Rural Extension for Sustainable Development
- 1308 – Food Supply, Food Security and Dynamization of Production Chains
- 1311 – Agricultural Defense for Environmental Protection, Public Health and Food Security
- 1315 – Management of Public Policies for Agriculture

Department of Logistics and Transportation

- 1601 – Planning of Logistics and Transportation
- 1602 – Waterway Logistics Management
- 1605 – Road Management, Operation and Safety
- 1606 – Road Network Upgrading
- 1607 – Airport Infrastructure Modernization
- 1608 – Coastal Ferries
- 1611 – Road-Rail Crossings in Metropolitan São Paulo

Department of Finance

- 2005 – Financing Socio-Economic Development

Chief of Staff

- 2829 – Fostering Sustainable Development in the São Paulo Macro Metropolitan Area
- 2830 – Planning and Organization for Sustainable Development in the São Paulo Macro Metropolitan Area

Department of Metropolitan Transportation

- 3703 – Planning, Strategic Management and Modernization of Metropolitan Transportation (PITU Vivo)
- 3706 – Expansion and Management of Low- and Medium-Capacity Transportation (PITU em Marcha)
- 3707 – Expansion, Modernization and Operation of Rail Transportation (PITU em Marcha)
- 3708 – Expansion, Modernization and Operation of Subway and Surface Light Rail Transportation (PITU em Marcha)

CHAPTER 8

11 SUSTAINABLE CITIES AND COMMUNITIES



Make cities and human settlements inclusive, safe, resilient and sustainable

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



Ensure sustainable production and consumption patterns

13 CLIMATE ACTION



Take urgent action to combat climate change and its impacts





The UN's diagnosis in support of SDGs 11, 12 and 13 evidences a concern with social, economic and environmental sustainability respectively. In the case of SDG 11, disorderly urbanization is a feature of most developing countries. Its negative effects include problems in the areas of sanitation (drinking water supply, sewerage, urban rainwater drainage and management, solid waste management) and urban infrastructure (such as lack of housing in sufficient quantity and of suitable quality, and poor urban transportation). With regard to SDG 12, expansion or even persistence of current consumption patterns would require natural resource use at levels incompatible with those available, so that states need to find a delicate balance between fostering economic growth and protecting the environment. The diagnosis underpinning SDG 13 draws attention to the importance of action to mitigate the environmental hazards caused by pollution of water and air, requiring governments to deal with natural disasters and invest in low-carbon development

WHERE WE ARE NOW

For SDG 11 we selected five indicators to analyze the situation in our cities, using data from three main sources: the 2017 Basic Municipal Information Survey (MUNIC 2017) and the 2016 National Household Sample Survey (PNAD 2016), both conducted by IBGE, Brazil's national bureau of statistics; and the São Paulo State Environmental Corporation (CETESB). The first indicator is the proportion of households living in tenements or favelas, termed subnormal settlements by IBGE, which was very similar in São Paulo State (5.8%) and the rest of Brazil (5.6%). The similarity can be explained by the fact that many of the largest Brazilian cities, characterized by acute socio-spatial inequality, are located in São Paulo State.

The number of deaths due to natural events in cities is an indicator of the fragility of urban settlements built in defiance of topographic adversities, and characterized

SUBNORMAL SETTLEMENT

A subnormal settlement is group of 51 or more housing units characterized by lack of title and at least one of the following:

- Non-compliant streets and plot sizes/shapes
- Lack of essential public services (garbage collection, sewerage, potable water, electricity and street lighting)

Source: IBGE.

by irregular land use and occupation – hence the lack of action to mitigate potential natural disasters. Deaths due to flooding and landslides occurred in 5.0% of São Paulo State's municipalities in the four years prior to MUNIC 2017. This was due to the existence of towns and cities with extensive peripheries lacking in urban infrastructure.

The data on urban solid waste disposal in São Paulo State's municipalities shows an improvement between 2011 and 2017. Managed landfills were the destination for 84.7% in 2011 and for 98.0% in 2017. The quality of the state's landfills improved in the period, according to CETESB's Landfill Quality Index (IQR), which rose from 8.0 in 2011 to 8.7 in 2017 (CETESB 2018).

Another dimension relevant to SDG 11 with respect to sustainable cities and settlements is housing policy in São Paulo State's municipalities, and in particular the existence of municipal housing plans. Just under a third of respondents to MUNIC 2017 (32.4%) had such a plan.

We selected three environmentally relevant indicators for SDG 12 (sustainable production and consumption): the proportion of municipalities with environmental management frameworks, the proportion with environmental management budgets, and the proportion with legislation or management instruments governing selective collection of domestic solid waste. The data comes from MUNIC 2017 and serves as a proxy for sustainable or responsible production and consumption at the municipal level.

The vast majority (91.6%) had some kind of structure of framework for environmental management, such as departments, agencies, or bodies classified as being under indirect administration. Almost three-quarters (74.1%) of those without such structures had populations of fewer than 10,000. As can be seen from **MAP 1**, the municipalities with dedicated departments of the environment were distributed throughout São Paulo State and included several major cities. Altogether there were 199 of these municipalities (30.9% of the total), with an aggregate population of 29.4 million (67.9% of the total). In a significant number of municipalities (284, or 44.0% of the total) throughout the state, containing 11.4 million inhabitants (24.4% of the total), such frameworks coexisted with other sectoral policies.

Roughly half the state's municipalities (55.5%) had environmental management budgets, and almost two-thirds (61.1%) had environmental legislation.

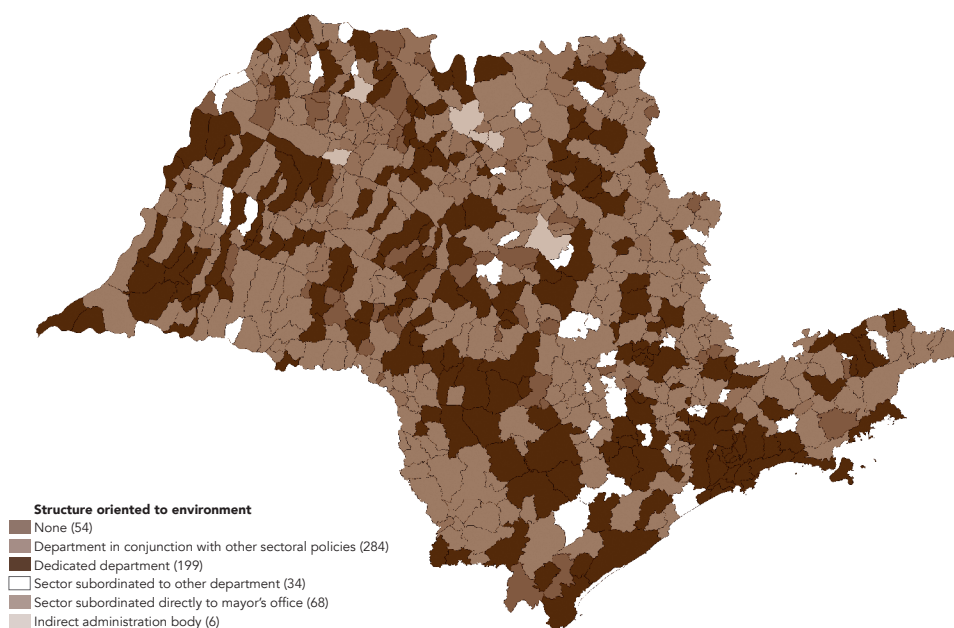
Analysis of the third indicator shows that 61.1% of the state's municipalities, with an aggregate population of 36 million (83.2% of the total), had laws or norms requiring selective garbage collection. The average population in the 212 municipalities that reported having no such normative instruments was 30,000, or a third of the average population of municipalities that did have them. **MAP 2** shows the distribution of the state's municipalities in terms of selective domestic solid waste collection.

Two indicators were selected to estimate progress on SDG 13 (action to combat climate change): the proportion of municipalities in São Paulo State with legislation or management instruments regarding air pollution, and the proportion with legislation or instruments regarding adaptation to and mitigation of climate change.

Almost half the municipalities that responded to MUNIC 2017 (48.7%) said they had legislation or management instruments regarding air pollution. They included the state's largest cities, with an aggregate population of 29.5 million (67.5% of the total) and an average of 93,400

MAP 1

**Environmental management framework or structure
Municipalities of São Paulo State – 2016**



Source: IBGE, MUNIC 2017 (Pesquisa de Informações Básicas Municipais).

inhabitants. **MAP 3** shows the distribution of these municipalities, which included Adamantina, Aguaí, Analândia, Campinas, Itanhaém, Presidente Venceslau, Santos, São Paulo, and Valentim Gentil.

Although municipalities are not obliged to have normative instruments governing adaptation to or mitigation of climate change, 36 of São Paulo State's municipalities (5.0% of the total) reported having legislation relating to climate change. They included several of the largest cities – São Paulo, Campinas and Piracicaba – as well as smaller municipalities such as São Bento do Sapucaí, Santo Expedito and Restinga (**MAP 4**).

In **housing policy**, five main types of intervention were used:

- Technical and financial support for implementation of housing policy by means of funding for financial agents and promoters of housing programs, subsidies, and assistance for municipal governments (Program 2505, Funding for Social-Interest Housing – Casa Paulista);
- Provision of housing directly by Companhia de Desenvolvimento Habitacional e Urbano (CDHU) or in partnership with other agents, especially the federal

MAP 2

Legislation on selective collection of domestic solid waste
Municipalities of São Paulo State – 2016



Source: IBGE, MUNIC 2017 (Pesquisa de Informações Básicas Municipais)

WHAT WE ARE DOING

In the most recent cycle of the Multiyear Plan (PPA), the São Paulo State Government ran several programs that contributed directly to the achievement of three Strategic Objectives: “7 – Inclusive urbanization, with adequate housing and infrastructure throughout the state and enhanced urban mobility”; “9 – Integrated, connected, territorially organized cities with enhanced access to goods and services and reduced regional imbalances”; and “10 – Society resilient to climate change, with availability of water for present and future generations”.

government’s social housing program Minha Casa, Minha Vida (Program 2508, Provision of Dwellings);

- Requalification of urbanized spaces that are underused or lacking in infrastructure (Program 2509, Housing/Urban Requalification and Social Inclusion);
- Improvements to housing conditions in favelas and other subnormal settlements (Program 2510, Urbanization of Favelas and Precarious Settlements);
- Provision of infrastructure and sanitation in environmentally hazardous areas that can be rehabilitated (Program 2511, Sustainable Housing and Environ-

MAP 3

Legislation on air pollution
Municipalities of São Paulo State – 2016



Source: IBGE, MUNIC 2017 (Pesquisa de Informações Básicas Municipais)

MAP 4

Legislation on adaptation to and mitigation of climate change
Municipalities of São Paulo State – 2016



Source: IBGE, MUNIC 2017 (Pesquisa de Informações Básicas Municipais)

mental Rehabilitation in Serra do Mar and along the Coast of São Paulo State).

As for **water and sanitation**, there are challenges at either extreme: dealing with the risk of flooding, and at the same time avoiding shortages due to climate change, population growth, and irregular land use. In the latest cycle of the PPA the Department of Sanitation & Water Resources took action along the following lines:

- Combating flooding with water course drainage projects, construction of retention reservoirs, and river floodplain rehabilitation, maintenance and conservation, especially along the Tietê River, which crosses almost the entire state and is a major feature of the largest Brazilian city, São Paulo (Program 3907, Water Infrastructure, Flood Defense and Sanitation);
- Support for municipalities (which, it should be noted, are responsible for operating their own water and sewerage systems) in various ways, such as providing infrastructure in rural areas and isolated localities, and connecting homes to the public sewerage network – all in the context of Program 3932, Planning, Formulation and Implementation of the São Paulo State Sanitation Policy;
- Provision of water supply and sewerage under the responsibility of SABESP (Program 3933, Universalization of Water Supply and Sewerage);
- Rehabilitation and protection of reservoirs, rivers and streams used to supply water to metropolitan areas (Program 3906, Environmental Sanitation in Regionally Important Watersheds).

In **urban mobility**, the challenge to be tackled has been the so-called Macrometropolitan Area (MMP), one of the largest urban agglomerations in the southern hemisphere, comprising metropolitan São Paulo (RMSP), the Santos, Campinas and Sorocaba metropolitan areas, the Paraíba Valley and North Coast metropolitan areas, the Jundiaí and Piracicaba Urban Agglomerations, and the Bragança Paulista Regional Unit (not yet institutionalized). Providing mass transit services in this urban complex is a huge challenge. During the current cycle of the PPA, the state government has pursued better access to mass transit and social inclusion via free passes for specific groups, such as students, seniors and the unemployed. Three programs pursue improvements to the performance of metropolitan mass transit by means of planning, expansion and modernization of the following:

- Low- and medium-capacity transportation as a larger share of motorized travel: Program 3703, Planning, Strategic Management and Modernization of Metropolitan Transportation (PITU Vivo), run by Empresa

Metropolitana de Transportes Urbanos (EMTU);

- Rail transportation, focusing on accessibility, connectivity and shorter journey times between urban agglomerations: Program 3707, Expansion, Modernization and Operation of Rail Transportation (PITU em Marcha), run by Companhia Paulista de Trens Metropolitanos (CPTM);
- Subway and light rail transportation to expand the existing network in the context of overcrowding and pent-up demand: Program 3708 – Expansion, Modernization and Operation of Subway and Surface Light Rail Transportation (PITU em Marcha), run by Companhia do Metropolitano de São Paulo (Metrô).

Besides issues intrinsically linked to housing, transportation and urban mobility, the state's public policies for inclusive and sustainable urban infrastructure provision include programs in the area of basic sanitation implemented by the Department of Sanitation & Water Resources on various fronts, also contributing to the achievement of targets associated with other SDGs and therefore discussed in more detail in other chapters. These initiatives are covered by Program 3906, Environmental Sanitation in Regionally Important Watersheds; Program 3907, Water Infrastructure, Flood Defense and Sanitation; Program 3932, Sanitation Policy Planning, Formulation and Implementation; and Program 3933, Universalization of Water Supply and Sewerage.

The **sustainable production and consumption** agenda calls for a new environmental management paradigm and a new conception of development in which all actors – governments, companies, institutions and society – have responsibilities and roles to play. In São Paulo State, the programs and actions of the Department of the Environment and the Department of Agricultural & Food Supply are especially significant in this context.

São Paulo State emphasizes **environmental education**, and its initiatives in this area have consistently been integrated with environmental management, diffusing concepts and practices, and encouraging public participation in the implementation of environmental policies. An important initiative is Município VerdeAzul (“Green-Blue City”), a set of best environmental practices to which city governments commit voluntarily as part of the state's efforts to help them draw up and execute strategic policies for sustainable development of the state. Both actions are part of Program 2617, Environmental Citizenship and Quality of Life Improvement, run by the Department of the Environment.

Reducing environmental vulnerability and mitigating the impact of climate change is the remit of Program 2619, by rehabilitating springs and water resources, reducing

the risk of disasters, mitigating atmospheric emissions, and executing territorial environmental plans. To this end the program involves initiatives such as the creation and implementation of territorial environmental plans geared to sustainable development and natural disaster prevention, including Economic Ecological Zoning (ZEE), Coastal Management (GERCO), a solid waste policy, hazard and vulnerability analysis and mapping, support from the State Water Resource Fund (FEHIDRO) for actions by the State System for the Administration of Environmental Quality, Protection, Control and Development of the Environment (SEAQUA), and monitoring of environmental parameters and public policy indicators for risk mitigation.

Civil Defense also plays an important role in this last area, providing rescue and other forms of emergency assistance, which requires the dissemination of knowledge about prevention and the preparation of local agents, the community and volunteers via face-to-face and distance training; care for the people affected, specifically in terms of rescue, humanitarian aid and scene rehabilitation; and execution of prevention or rehabilitation works for protection and civil defense via transfers of funds to municipalities vulnerable to or affected by disasters. All these initiatives are covered by Program 5101, Resilience for São Paulo State.

LIST OF PROGRAMS ASSOCIATED WITH SDGS 11, 12 AND 13**Department of Agriculture and Food Supply**

1301– Sustainable Technologies for Rural and Agroindustrial Development

1307– Rural Extension for Sustainable Development

Department of Housing

2505 – Social Interest Housing – Casa Paulista

2508 – Provision of Dwellings

2509 – Housing/Urban Requalification and Social Inclusion

2510 – Urbanization of Slums and Precarious Settlements

2511 – Sustainable Housing and Environmental Rehabilitation in Serra do Mar and along the Coast of São Paulo State

Department of Metropolitan Transportation

3703 – Planning, Strategic Management and Modernization of Metropolitan Transportation (PITU em Marcha – EMTU)

3707– Expansion, Modernization and Operation of Rail Transportation (PITU em Marcha)

3708 – Expansion, Modernization and Operation of Subway and Surface Light Rail Transportation (PITU em Marcha)

Department of Sanitation and Water Resources

3907 – Water Infrastructure, Flood Defense and Sanitation

3932 – Planning, Formulation and Implementation of the State's Sanitation Policy

3933 – Universalization of Water Supply and Sewerage

3906 – Environmental Sanitation in Regionally Important Watersheds

Department of Energy and Mining

4903 – Promotion of Energy Development and the Mineral Industry in São Paulo State

Department of the Environment

2617– Environmental Citizenship and Quality of Life Improvement

2619 – Mitigation of Environmental Vulnerability and Climate Change

Department of Government

5101– Resilience for São Paulo State

CHAPTER 9

14 LIFE BELOW WATER



Conserve and sustainably use the oceans, seas and marine resources for sustainable development

15 LIFE ON LAND



Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss





The SDG 14 (Life below Water) and SDG 15 (Life on Land) focus on protecting and conserving terrestrial, marine and coastal ecosystems. Both require action to assure a healthy environment and combat degradation of the planet, especially by means of the sustainable management of its natural resources and measures to counterbalance the effects of climate change so that it can support the needs of present and future generations.

SDG 14 calls for conservation and sustainable use of the oceans, seas and marine resources by preventing and significantly reducing marine pollution, sustainably managing and protecting marine and coastal ecosystems, combating destructive fishing practices, and conserving coastal and marine areas. SDG 15 urges protection, restoration and promotion of the sustainable use of terrestrial and inland freshwater ecosystems and ecosystem services, sustainable management of forests, and action to halt biodiversity loss, protect wildlife, and combat desertification and land degradation.

WHERE WE ARE NOW

While SDGs 14 and 15 refer to territories far larger than municipalities, some of the pertinent indicators are municipally based, especially with regard to SDG 15.

We selected two indicators for SDG 14 – beach water quality and protection of marine areas – and three for SDG 15 – conservation of forests, municipalities with forest and biodiversity protection legislation, and municipalities with erosion.

Beach water quality in São Paulo State, estimated in terms of the number of beaches with excellent or good water quality, rather than fair, bad or very bad, as a percentage of the total number of beaches in the state, improved moderately between 2010 and 2017. The proportion of beaches with excellent or good water quality

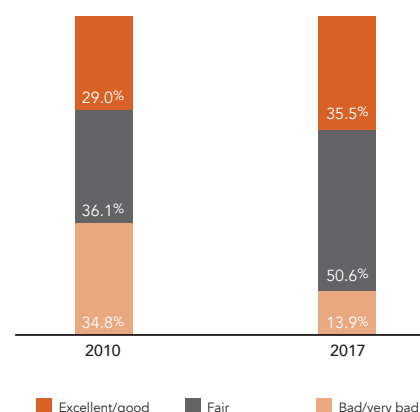
rose 6.5 percentage points (pp) from 29.0% in 2010 to 35.5% in 2017. The proportion with fair water quality rose 14.5 pp from 36.1% to 50.6%, and the proportion with bad or very bad water quality fell 20.9 pp from 34.8% to 13.9% (FIGURE 1). The situation is still alarming despite the improvement, as two-thirds of São Paulo State's beaches are not entirely safe for bathing.

Protection of marine areas also improved, albeit very modestly. The proportion of protected marine areas rose 0.6 pp from 44.7% in 2010 to 45.3% in 2017. This result can be considered positive inasmuch as almost half the state's territorial waters were protected at the end of the period.

For SDG 15 we selected three indicators: protected forest areas, municipalities with legislation or environmental management instruments to protect forests and biodiversity, and municipalities with erosion.

FIGURE 1

Beach water quality on coast of São Paulo State
2010-2017



Source: Cetesb, 2018.

PROTECTION OF AQUATIC LIFE

Considering biodiversity in continental waters, a key indicator is the Aquatic Life Protection Quality Index (IVA) created and monitored by São Paulo State Environmental Corporation (CETESB). The IVA is calculated for 22 Water Resource Management Units (UGRHs) throughout the state, based on essential variables (pH, toxicity and dissolved oxygen), toxic substances (heavy metals such as mercury, lead and zinc, and tensoactive substances such as detergent), and trophic state. The number of sites at which the IVA was analyzed rose from 214 to 362 in the period 2012-16, and again to 364 in 2017, making it more comprehensive as an indicator of aquatic life protection in São Paulo State. The number of sites classified as excellent, good or fair corresponded to 83% of the total in 2012 and to 84% in 2017. Thus there was little change in overall quality measured by the IVA, although the proportion classified as excellent fell while the proportion considered good and fair decreased.

Source: São Paulo State Department of the Environment.

Using data from the 2001 and 2009 Forest Inventory, it can be seen that the proportion of protected or conserved forest areas in São Paulo State rose 3.6 pp from 13.9% to 17.5% in the period. Meanwhile, in 2018 the aggregate area of the state's protected marine areas was 11,200 square kilometers, or 45.3% of the total area of its territorial waters (25,100 km²). This exceeds the SDG 14 target that calls for conserving at least 10% of coastal and marine areas in accordance with national and international law by 2020.

MAP 1 shows that the municipalities with normative frameworks to protect forests and biodiversity are unevenly distributed in the state, despite the importance of some ecosystems such as those of the Atlantic Rainforest and Cerrado biomes. Ninety-three municipalities reported having forest protection legislation, with an aggregate population of 21.2 million, or half that of the municipalities that answered this question (43.4 million). Ninety-one municipalities with 20.9 million inhabitants had biodiversity protection legislation. Thus although the municipalities with forest or biodiversity protection laws or management instruments were small in number they had the largest populations in the state, averaging more than 200,000 inhabitants, or more than ten times the average population of the municipalities without such legislation or instruments.

The third indicator is erosion. In the four years prior to 2016, erosive processes were reported in 22.5% of the state's municipalities, or 3.3 pp more than in the rest of Brazil (19.2%). As can be seen from MAP 2, most of these municipalities (57, or 39.0% of those reporting erosion in the preceding four years) are located in the

west of the state and hence associated with the Western Plateau geomorphological province, where susceptibility to erosion is above average. Their aggregate population is 1.5 million. It may therefore be the case that erosion in the Western Plateau municipalities is associated with improper vegetation and soil management. In coastal municipalities, suppression of restinga forest and mangrove vegetation boosts the erosion caused by marine transgression.

CONSERVATION UNITS IN SÃO PAULO STATE

São Paulo State contains 228 privately managed federal and state conservation units, termed Private Natural Heritage Reserves (RPPNs). They are located inland, on the coast and offshore. The offshore segment is significant: 45.3% of the state's territorial waters are protected by conservation units. Four additional conservation units have been established since 2012, three managed by Fundação Florestal and one by Instituto Florestal.

Source: São Paulo State Department of the Environment.

MAP 1

Municipalities with legislation or environmental management instruments to protect forests and biodiversity
São Paulo State – 2016



Source: IBGE. Pesquisa de Informações Básicas Municipais (Munic 2017).

WHAT WE ARE DOING

The programs implemented by the São Paulo State Government in connection with environmental management and sustainability as part of the 2016-19 Multiyear Plan (PPA) contribute to “Strategic Objective 6 – Preserved, healthy and sustainable environment”, and “Strategic Objective 10 – Society resilient to climate change, with availability of water for present and future generations”. These programs comprise initiatives for the adequate management of protected areas, restoration of degraded and riparian forest areas, and licensing of projects with a potential impact on biodiversity and natural resources.

The Department of the Environment is responsible for programs directly linked to the issues addressed by SDGs 14 and 15, such as Program 2604, Environmental Quality Monitoring and Footprint Reduction, concerned with monitoring and controlling water, air and soil pollution, and with improving environmental licensing procedures to permit the monitoring, control and inspection of potentially polluting economic activities.

The department also contributes via Program 2617, Environmental Citizenship and Quality of Life Improve-

ment, to the adoption of environmental agendas by municipalities throughout the state, via an environmental best practice protocol, and by encouraging and helping them to formulate and execute strategic public policies for sustainable development.

Program 2619, Mitigation of Environmental Vulnerability and Climate Change, is responsible for creating and implementing environmental planning instruments, especially Ecological Economic Zoning (EEZ), a technical and policy planning tool that establishes land use guidelines and urban and rural environmental standards, identifying vulnerabilities and common natural and socio-economic potentials. Another important part of this program is the State Coastal Management Plan, which disciplines and rationalizes the use of natural resources in coastal areas, specifying permitted uses, prohibited activities, and penalties for non-compliance. Program 2618, Environmental Conservation and Ecological Restoration, acts on three complementary fronts: environmental research, maintenance of collections and knowledge diffusion via the institutions responsible; law enforcement by Environmental Police and the department’s technical staff; and native vegetation con-

COASTAL EROSION MONITORING

The Geological Institute (IG) has monitored São Paulo State's beaches since 1992. This routine has been the basis for publication of a map of hazardous coastal areas every five years since 2002 (the latest is for 2017). The maps consider 11 indicators of shoreline erosion, which are used to identify five levels of risk. The proportion of "very high risk" beaches was 22.8% in 2002 and had risen to 28.3% by 2017, showing a deterioration in erosion hazards. The proportion classed "high risk" rose from 19% to 23.2% in the same period. In the case of mass movements including continental erosion and landslides, since the 1990s the Geological Institute has conducted surveys of terrain susceptibility and analyzed geodynamic hazards considering the vulnerability of the different elements exposed. Analysis of the state's built-up area, commencing a new time series, showed in 2017 that about 8% was at "high" or "very high" risk. The frequency of natural disasters rose 50% between 2010 and 2017 in all parts of the state. The number of buildings affected fell from 11,365 in 2010 to 3,219 in 2017. The number of people affected fell from 56,640 to 6,437 in the same period.

Source: São Paulo State Department of the Environment.

MAP 2

Municipalities reporting accelerating erosion in previous four years
São Paulo State – 2016



Source: IBGE. Pesquisa de Informações Básicas Municipais (Munic 2017).

servation, management and restoration in areas protected by governments as well as privately owned areas, including partnerships with other institutions and with landowners.

The Department of Agriculture & Food Supply's Fishery Institute (IP) conducts scientific and technological research projects in the areas of fishery and aquaculture with the aim of obtaining and transferring new knowledge and technologies to improve agriculture, fishing and the quality of the environment.

Via the Water Sources and Microbasins II projects, the department contributes to Program 1301, Sustainable Technologies for Rural and Agroindustrial Development, with activities relating to ecological agriculture and R&D in technologies for areas with water insecurity; Program 1307, Rural Extension for Sustainable Development, covering Microbasins II and the protection and restoration of springs and riparian forests; Program 1311, Agricultural Defense for Environmental Protection, Public Health and Food Security, aiming at agricultural soil conservation in areas covered by the Water Sources project; and Program 1315, Management of Public Policies for Agriculture, restoring water sources and riparian forests.

Finally it is worth mentioning the programs implemented by the Department of Sanitation & Water Resources, such as Program 3932, Sanitation Policy Planning, Formulation and Implementation, although these are more pertinent to other SDGs and are therefore not detailed in this chapter.

ENVIRONMENTAL PROTOCOLS WITH PRODUCTIVE SECTORS: PROMOTING SUSTAINABLE USE OF TERRESTRIAL RESOURCES

The environmental protocols entered into by the São Paulo State Government with productive sectors as efficient instruments to promote the sustainable use of terrestrial ecosystems involve the voluntary adoption of technical sustainability directives in agricultural and agroindustrial activities by the signatories, with the implementation of best practices and far more than is required by law. Two such protocols are currently in force. One is Etanol Mais Verde ("Greener Ethanol"), between the Departments of the Environment and Agriculture, CETESB and the sugar and energy industry, represented by the Brazilian Sugarcane Industry Association (UNICA) and the Cane Growers Association (ORPLANA). This involves 124 sugar and ethanol plants and 14 associations of cane growers representing 24% of the cultivable land in São Paulo State. The signatories undertake to stop burning cane fields, protect riparian forest, conserve the soil and reduce water consumption. The other agroecological transition protocol is between the Departments of the Environment, Agriculture, Justice and Citizenship, the Organic Agriculture Association, and Instituto Kairós. Its aim is to foster sustainable use of natural resources and increase the supply and consumption of healthy foodstuffs.

Source: São Paulo State Department of the Environment.

LIST OF PROGRAMS ASSOCIATED WITH SDGS 14 AND 15

Department of Agriculture and Food Supply

- 1301 – Sustainable Technologies for Rural and Agroindustrial Development
- 1307 – Rural Extension for Sustainable Development
- 1311 – Agricultural Defense for Environmental Protection, Public Health and Food Security
- 1315 – Management of Public Policies for Agriculture

Department of Public Safety

- 1811 – Fire Brigade: Prepared for Emergencies Focusing on Risk Management

Department of Housing

- 2510 – Urbanization of Favelas and Precarious Settlements
- 2511 – Sustainable Housing and Environmental Rehabilitation in Serra do Mar and along the Coast of São Paulo State

Department of the Environment

- 2604 – Environmental Quality Monitoring and Footprint Reduction
- 2617 – Environmental Citizenship and Quality of Life Improvement
- 2618 – Environmental Conservation and Ecological Restoration
- 2619 – Mitigation of Environmental Vulnerability and Climate Change

Department of Planning and Management

- 2916 – São Paulo: Territory and Cartography

Department of Sanitation and Water Resources

- 3906 – Environmental Sanitation in Regionally Important Watersheds
- 3907 – Water Infrastructure, Flood Defense and Sanitation
- 3913 – Water Resource Planning and Management
- 3932 – Sanitation Policy Planning, Formulation and Implementation
- 3933 – Universalization of Water Supply and Sewerage
- 3934 – Water Resource Policy Planning, Formulation and Implementation

Department of Energy and Mining

- 4902 – Pinheiros Canal Water Level Control
- 4903 – Promotion of Energy Development and the Mineral Industry in São Paulo State

Department of Government

- 5114 – Strengthening of Regulatory Competencies in Energy, Gas and Sanitation

CHAPTER 10

16 PEACE, JUSTICE AND STRONG INSTITUTIONS



Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable and inclusive institutions at all levels





The SDG 16 focuses on promoting peaceful and inclusive societies, improving citizens' access to justice, and building effective and accountable institutions at all levels. Initiatives relating to this goal therefore include programs to combat homicide, deaths due to conflict, physical and psychological violence against women and children, human trafficking, sexual abuse, provisional detention or imprisonment without due process, and corruption in public administration, as well as action to increase public satisfaction with public services, collective participation in political decisions, and public access to information.

WHERE WE ARE NOW

The first SDG 16 target is a significant reduction in all forms of violence and related death rates everywhere.

Deaths due to assault, as defined by the International Classification of Diseases (ICD), include deaths due to homicide, neglect, abandonment and maltreatment by another person using whatever means and with intent to injure or kill.

This chapter uses data from Fundação Seade's Vital Statistics System (SEV), which is based on monthly reports submitted by civil registries. The data serves to estimate risk indicators for the inhabitants of specific localities and to formulate public policy. Deaths due to assault can be considered thermometers of the degree of risk or potential for severe litigation to which a community is subject in a geographic area and period, generically constituting a symptom of the level of violence.

The rate of death by assault rose steadily between 1980 and 2016 in Brazil. In São Paulo State, however, it peaked in 2000 at 42.0 per 100,000 inhabitants and then turned down, falling 74.7% in the period. In 2016, the rate was 10.8 per 100,000 (FIGURE 1).

In 2000 São Paulo State was one of the units of the federation with the highest death rates, alongside Rio de Janeiro State, Espírito Santo and Pernambuco (over 42 per 100,000 inhabitants). In 2016 São Paulo State had the lowest death rate in the country, while Pará, Rio Grande do Norte, Alagoas and Sergipe had the highest rates (over 50 per 100,000 inhabitants).

Deaths due to assault among young males are rising, especially in the 15-39 age group, for which the rate is higher than for other age groups by a significant margin. Among older males they are trending down, reaching a low for those aged 70 or over. In the period 2000-16 they fell for all age groups but most sharply of all for males aged 10-34, decreasing more than 75%. The fall ranged from 50% to 70% for all other groups except 0-3 and 70 or over (FIGURE 2).

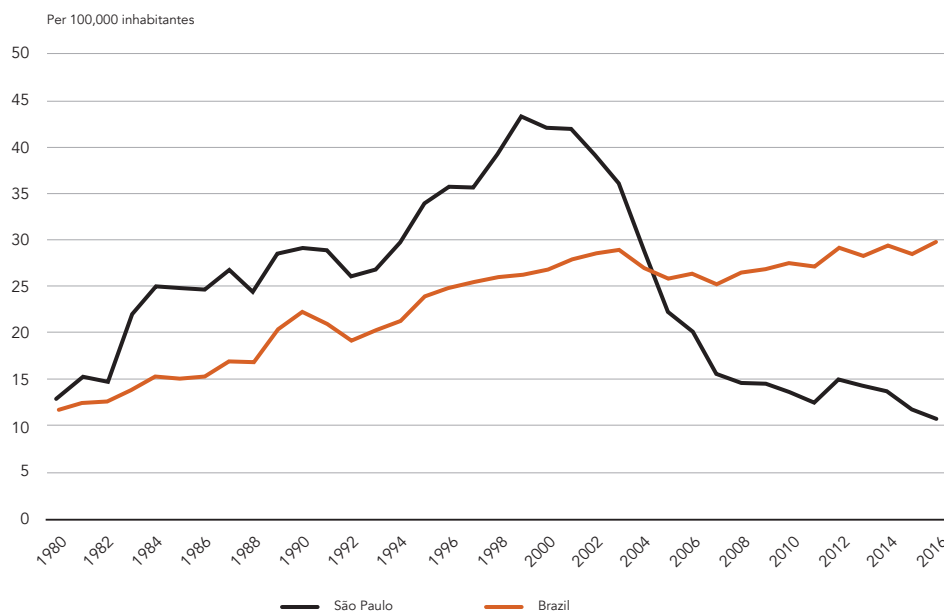
Among females the curves fluctuated, especially in 2016, when death rates were significantly lower. Between 2000 and 2010 only the rates for the 45-49, 55-64 and 70-74 age groups fell less than 50%. The sharpest fall – almost 79% – was for females aged 15-19.

WHAT WE ARE DOING

In the context of the São Paulo State Government's 2016-19 Multiyear Plan (PPA), the programs most relevant to "Strategic Objective 4 – Safe society with less violence and crime", "Strategic Objective 5 – Population fully exercising citizenship rights, including the right to justice, basic social protection, culture, sport and leisure" and "Strategic Objective 11 – Innovative, efficient public administration committed to planning and execution of programs and public services". Governmental strategies in this field are organized into three main lines of action: defense of the citizen and consumer, including access to justice and assistance in situations of risk and vulnerability; provision of public

FIGURE 1

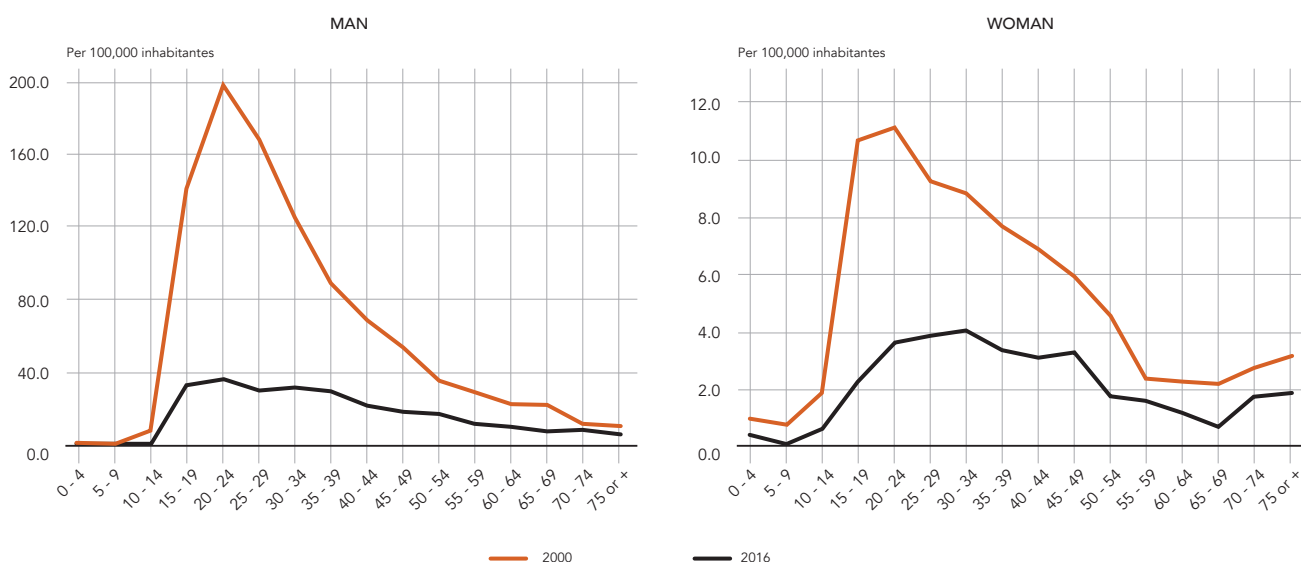
Deaths due to assault Brazil and São Paulo State – 1980-2016



Source: Fundação Seade; Datasus.

FIGURE 2

Deaths due to assault by gender and age group ⁽¹⁾ São Paulo State – 2000-2016



Source: Fundação Seade; Datasus.

⁽¹⁾ The X-axis scale is different in each graph owing to the considerable disparity between death rates for men and women.

safety services as a way to fight crime; and strengthening public institutions to assure more effective and accountable delivery of services to citizens.

In the first line of action, the 2016-19 PPA includes citizen and consumer defense initiatives, in particular those implemented by the Department of Justice & Defense of Citizenship. In consumer protection and defense, one of the most important is Procon-SP, a foundation that plays a key role in consumer education, receiving and processing complaints against suppliers, offering guidance to consumers and suppliers regarding their rights and obligations in consumer relations, and legal oversight of the retail market. Its activities are reflected in Program 1711, Consumer Protection and Defense.

Several programs contribute to the promotion of rights linked to citizenship. The São Paulo Institute of Social Medicine & Criminology (IMESC), which provides forensic genetics, pathology and scientific services to coroners, law enforcement agencies and the judicial system, contributes to the recognition of paternity for children with no father named on their birth certificate (Program 1714, Metrology and Quality of Products and Services).

Any country that pursues human and sustainable development will have to implement policies to achieve full citizenship, which necessarily includes guaranteed access to justice for all. The Public Defense Office, via Program 4200, Comprehensive Free Legal Aid for the Indigent, contributes to an increase in opportunities for citizen defense. The Office employs more than 700 public defenders in 65 units located in 43 cities.

Victims of violence are addressed by at least three initiatives in the context of Program 1730, Human Rights and Citizenship. The Victim Referral & Support Center (CRAVI) offers free public support for victims of violent crimes and their families. The Program for Protection of Children & Adolescents Who Receive Death Threats (PPCAAM) protects children and adolescents referred by the Child Safety Council (Conselho Tutelar), Public Defense Office and Public Prosecution Office (Ministério Público). The State Victim & Witness Protection Program (PROVITA) protects victims and witnesses who receive threats because they are cooperating with criminal investigations or prosecutions.

The remit of Citizenship Integration Centers (CICs) is to assure respect for citizens' rights by means of popular participation and alternative forms of access to justice, operating out of 16 permanent positions in areas of high social vulnerability in the state capital and interior. They also offer lectures on a range of topics, cultural workshops, social and legal counseling, community conflict medication, and educational, promotion and awareness raising activities on human rights and citi-

zenship. In addition, they issue identity papers, record -of-employment booklets, and birth, marriage and death certificates, and hold courses and events in partnership with various bodies.

Guaranteeing citizenship entails specific activities for specific groups. In this area it is worth mentioning the efforts of the São Paulo State Land Institute Foundation (ITESP), which plans and executes the state's agrarian and land use policies, including recognition of quilombos (former maroon communities) and support in the form of technical assistance and land regularization (Program 1731, Citizenship in Town and Country). The Department for Persons with Special Needs (PSNs) runs programs and policies for this group. Its initiatives include the Inclusion Memorial, unveiled in 2009 as a permanent exhibition of photographs, documents, manuscripts, sound recordings and videos on personalities and events featured in the PSN social and political movement, and the first PSN Police Station, opened in 2014 in partnership with the Department of Public Safety to receive and investigate complaints or crime reports. All these actions are covered by Program 4700, Management and Implementation of the Policy for Inclusion of Persons with Special Needs.

Program 5102, Social Network for Solidarity and Citizenship, runs social projects via partnerships with municipal funds, social entities and state government agencies. Its initiatives include Casas de Solidariedade, "solidarity houses" maintained by the São Paulo State Social Solidarity Fund (FUSSESP) to offer educational, cultural, creative and complementary activities for children aged 6-16 in areas with significant vulnerability and exposure to risks.

Fundação Casa is responsible for the resocialization and re-education of juvenile offenders aged 12-21 remanded in custody or sentenced to "semi-freedom". Program 1729, Care for Juvenile Offenders Remanded in Custody or Serving Socio-Educational Sentences, Fundação Casa operates in a decentralized manner to ensure that the teenagers in its care can remain close to their families and within their communities, facilitating resocialization.

With regard to the second line of action – providing law enforcement and anti-crime services – the Department of Public Safety uses an array of instrument and precautionary measures to protect the public from danger, harm and risks to their lives and property. These are not confined to repression and surveillance. The challenges are huge and in this context they are addressed by public safety programs. In the 2016-19 PPA São Paulo State prioritizes the fight against organized crime, drug trafficking and homicide, via criminal investigation ca-

capacity expansion (Program 1801, Expansion of Police Investigation); enhancements to technical evidence production, shortening call response and expert report issuance time (Program 1814, Modernization and Upgrading of Technical and Scientific Police); and increased police patrolling, deterrence, proximity with the community and valorization of human capital (Program 1819, Increased Citizen Protection and Defense).

With regard to the third line of action – strengthening public institutions to assure more effective and accountable citizen services – democracy requires stable institutions and formal procedures as a basis for collective decision making with the broadest possible participation by the public. This calls for strenuous efforts by the public administration, which must produce and publicize relevant information while taking measures internally to assure the implementation of best practices and combat corruption.

In the 2016-19 PPA, several programs help the state government achieve these objectives. Program 5117, Promoting Transparency and Citizen Defense Instruments, enhances social control and implements effective anti-corruption measures, including the State Transparency Portal, an online database and information service designed to assure official transparency and accountability, and the State Ombudsman Network, established in 1999 and now with almost 400 units that receive complaints from the public, analyze them and forward them to the areas responsible for investigating and resolving the problems detected. Program 5103, State Internal Control System, strengthens internal control of the sta-

te's executive branch, in particular by enhancing and integrating the bodies responsible for auditing, oversight, assessment and control. Its main aim is to improve the provision of public services.

Program 805, Partnerships Among Schools, Communities and Civil Society, contributes to a reduction in community and school vulnerabilities, and to an increase in school autonomy. It comprises three complementary lines of action. The first focuses on supporting pupil associations, parent-teacher associations and school boards in order to strengthen democracy in the school space. The second is the Family School program, launched in 2003 to develop and implement preventive activities that reduce child vulnerability via integration and support for the construction of healthy attitudes and behavior. The third focuses on the teacher as mediator to reduce and prevent conflict in schools.

To facilitate and improve relationships between citizens and a single integrated government in an effective, efficient, secure and transparent manner, and to offer technologies for citizen inclusion and digital empowerment, Program 5110, Technology for a Single Citizen-Oriented Government, provides a range of public services at specific locations, with highly trained staff to serve citizens with dignity, efficiency and agility (Poupatempo); spaces with computers, technological infrastructure and internet access for digital inclusion; courses and training; community projects; government services and programs; and Wi-Fi in government buildings and their vicinity, as well as other high pedestrian traffic areas (Acessa SP).

LIST OF PROGRAMS ASSOCIATED WITH SDG 16**Department of Justice and Defense of Citizenship**

1711 – Consumer Protection and Defense

1714 – Forensic Genetics, Pathology and Scientific Services for the Judicial System

1724 – Metrology and Quality of Products and Services

1729 – Care for Juvenile Offenders

1730 – Human Rights and Citizenship

1731 – Citizenship in Town and Country

Department of Education

0805 – Partnerships Among Schools, Communities and Civil Society

Department of Public Safety

1801 – Expansion of Police Investigation

1814 – Modernization and Upgrading of Technical and Scientific Police

1818 – Modernization of Public Safety

1819 – Increased Citizen Protection and Defense

State Office of Public Defense

4200 – Comprehensive Free Legal Aid for the Indigent

Department for the Rights of Persons with Special Needs

4700 – Management and Implementation of the Policy for Social Inclusion of PSNs

Department of Government

5102 – Social Network for Solidarity and Citizenship

5103 – State Internal Control System

5110 – Technology for a Single Citizen-Oriented Government

5117 – Promoting Transparency and Citizen Defense Instruments

CHAPTER 11

17 PARTNERSHIPS FOR THE GOALS



Strengthen the means
of implementation and
revitalize the global
partnership for sustainable
development





PHOTO: Governo do Estado de São Paulo

The adoption of Agenda 2030 and the SDGs represents the construction and development of a global action plan with targets for areas to be prioritized in the effort to build a new model of sustainable development that eradicates poverty, income and gender inequality, and all forms of social exclusion, as well as promoting peace, food security, a protected and healthy environment, and efficient resource use.

However, as the UN document emphasizes, sustainable growth and development will occur only if the different political, social and economic actors in each country renew their commitment to partnership as a means of surmounting the difficulties of internal governance, especially in countries with fragile institutional structures, and of putting effective and efficient programs and implementation mechanisms in place. In this direction, SDG 17 relates to aspects such as financial and budgetary management, internet and cell phone use (in the context of infrastructure availability), domestic resource mobilization, technology, capacity building, promotion of public and public-private partnerships, and improvements to monitoring and accountability.

With regard to the policies and actions of the São Paulo State Government, these recommendations apply directly to the efforts encompassed by “Strategic Objective 11, Innovative and efficient public administration committed to planning and results from high-quality programs and public services”. The most relevant programs in this context are run by the Departments of Finance, Planning & Management, and Government, and by the Office of the Chief of Staff, as described below.

Program 2000, Fiscal and Tax Management, concerns the financial resources with which to assure the delivery of public services and investment by São Paulo State. The program calls for appropriate provision and management of the state’s funds and budget with fiscal responsibility. The initiatives involved include the Electronic Procurement Exchange (Bolsa Eletrônica de Compras, BEC), a system for negotiating the prices of

goods and services purchased by the direct and indirect public administration, permitting competition and equality of participation.

Program 2900, Strengthening the State Planning and Budgeting System, contributes to execution as planned of the programs and actions of the Multiyear Plan (PPA), calls for constant evaluation and enhancement, and requires the production of timely and properly formatted technical information to support governmental decisions. The latter aspect benefits significantly from the activities of state organizations that produce information on the territory, including Instituto Geográfico e Cartográfico, Fundação Seade and Emplasa.

Instituto Geográfico e Cartográfico comes under Program 2916, São Paulo: Territory and Cartography, which produces and disseminates up-to-date geographic and cartographic information for various purposes, including public policy formulation and implementation oversight. Fundação Seade conducts research and collects information from other sources to assemble a freely available database that can be used to analyze different socioeconomic aspects of the state’s regions and municipalities, and their evolution over time. Seade comes under Program 2917, Demographic and Socioeconomic Information and Information on Government Action. Empresa Paulista de Planejamento Metropolitano (Emplasa) assists the state government with the implementation of public policies and integrated urban and regional development projects.¹ Emplasa comes under Program 2830, Planning and Organization for Sustainable Development of the Macrometropolitan Area.

Information technology in public administration has changed the way the government interacts with the public, expediting processes, improving the use of funds, and facilitating the work of public administrators and

¹ It focuses on the institutionalized regional units (metropolitan São Paulo, metropolitan Campinas, metropolitan Santos, Paraíba Valley/North Coast, Sorocaba, Jundiaí and Piracicaba), all of which comprise Macrometropolitan São Paulo.

government employees. Program 5109, Strengthening and Modernizing Infrastructure, concerns Companhia de Processamento de Dados do Estado de São Paulo (Prodesp), the state-owned IT company. Prodesp develops and implements e-government solutions for a range of state bodies, improving operating procedures, helping manage state affairs and contributing to citizen services. Program 5110, Technology for a Single Citizen-Oriented Government, calls for initiatives that facilitate and improve relations between society and government, promoting inclusion and citizen digital empowerment. It defines and reviews guidelines and standards that permit the updating and efficient and safe use of information and communications technology (ICT). The program's initiatives include Poupatempo and Acesso São Paulo (described in Chapter 10, which discusses SDG 16 and public satisfaction with government services, among other topics).

In the past 15 years, the Brazilian government and the country's state and municipal governments have pursued new forms of private-sector participation in the implementation, upgrading and management of public infrastructure, especially roads, railroads, waterways, ports and power systems. They have also partnered with civil society to provide public services that do not have to be delivered solely by government, particularly in culture and healthcare. Program 5115, Development of Partnerships for the Execution of Projects and Investments, concerns initiatives to provide technical and institutional support for priority projects in the above areas involving interaction between private enterprise and the state. These include technical studies for the modeling of public-private partnerships (PPPs), concessions and other kinds of partnership, and to refine models and processes for contracting social organizations such as NGOs.

It is also important to note Program 5116, Government Innovation, which disseminates the culture of innovation by means of education, prospecting and support for innovative projects, and by establishing institutional mechanisms to bolster interaction between society and different governmental sectors.

With regard to the strengthening of government employees' activities, most direct and indirect administrative bodies have programs dedicated to training, which is important not only to assure efficient delivery of public services but also to improve governance. The most noteworthy programs in this respect, especially in light of the number of public servants involved, are run by the Departments of Education (Program 808, Training and Quality of Life for Education Professionals), Health (Program 942, Training and Professional Development in Healthcare) and Public Safety, involving different products in accordance with the body concerned (Product 539 – Employee Training for the program relating to the Civilian Police, and Product 990, Employee Training for the program relating to the Technical and Scientific Police).

These programs and initiatives constitute the government's effort to ensure that it is accountable, transparent, efficient, results-oriented and open to a dialogue with society, as embodied in the 2016-19 PPA. The formulation of Strategic Objectives, programs and targets for the next three multiyear plans (PPAs) will again take Agenda 2030 into account, strengthening public policy integration and the dissemination of management best practices, creating the conditions to address challenges, converting the SDGs into opportunities to maximize the benefits for people and the planet, and working toward peace and prosperity cooperatively through partnerships.

LIST OF PROGRAMS ASSOCIATED WITH SDG 17**Department of Education**

808 – Training and Quality of Life for Education Professionals

Department of Public Safety

1801 – Expansion of Police Investigation

1814 – Modernization and Upgrading of Technical and Scientific Police

Department of Finance

2000 – Fiscal and Tax Management

Chief of Staff

2830 – Planning and Organization for Sustainable Development in the São Paulo Macrometropolitan Area

Department of Planning and Management

2900 – Strengthening the State Planning and Budgeting System

2916 – São Paulo: Territory and Cartography

2917 – Demographic and Socioeconomic Information and Information on Government Action

Department of Government

5109 – Strengthening and Modernizing Infrastructure – Prodesp

5110 – Technology for a Single Citizen-Oriented Government

5115 – Development of Partnerships for the Execution of Projects and Investments

5116 – Government Innovation

APPENDIX I – GOALS AND TARGETS

CHAPTER 1

SDG 1. NO POVERTY

End poverty in all its forms everywhere

- 1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day.
- 1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions.
- 1.3 Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable.
- 1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance.
- 1.5 By 2030, build the resilience of the poor and those in vulnerable situations, and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters.
- 1.a Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programs and policies to end poverty in all its dimensions.
- 1.b Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions.

SDG 2. ZERO HUNGER AND SUSTAINABLE AGRICULTURE

End hunger, achieve food security and improved nutrition and promote sustainable agriculture

- 2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round.
- 2.2 By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons.
- 2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment.
- 2.4 By 2030, ensure sustainable food production systems, and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters, and that progressively improve land and soil quality.
- 2.5 By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed.
- 2.a Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development, and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries.
- 2.b Correct and prevent trade restrictions and distortions in world agricultural markets, including through the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round.
- 2.c Adopt measures to ensure the proper functioning of food commodity markets and their derivatives and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility.

SDG 10. REDUCED INEQUALITIES**Reduce inequality within and among countries**

- 10.1 By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average.
- 10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.
- 10.3 Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices, and promoting appropriate legislation, policies and action in this regard.
- 10.4 Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality.
- 10.5 Improve the regulation and monitoring of global financial markets and institutions and strengthen the implementation of such regulations.
- 10.6 Ensure enhanced representation and voice for developing countries in decision-making in global international economic and financial institutions in order to deliver more effective, credible, accountable and legitimate institutions.
- 10.7 Facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of planned and well-managed migration policies.
- 10.a Implement the principle of special and differential treatment for developing countries, in particular least developed countries, in accordance with World Trade Organization (WTO) agreements.
- 10.b Encourage official development assistance and financial flows, including foreign direct investment, to States where the need is greatest, in particular least developed countries, African countries, Small Island developing States and landlocked developing countries, in accordance with their national plans and programs.
- 10.c By 2030, reduce to less than 3 per cent the transaction costs of migrant remittances and eliminate remittance corridors with costs higher than 5 per cent.

CHAPTER 2**SDG 3. GOOD HEALTH AND WELL-BEING****Ensure healthy lives and promote well-being for all at all ages**

- 3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births.

- 3.2 By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births.
- 3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases, and combat hepatitis, water-borne diseases and other communicable diseases.
- 3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment, and promote mental health and well-being.
- 3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.
- 3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents.
- 3.7 By 2030, ensure universal access to sexual and reproductive healthcare services, including for family planning, information and education, and the integration of reproductive health into national strategies and programs.
- 3.8 Achieve universal health coverage, including financial risk protection, access to quality essential healthcare services and access to safe, effective, quality and affordable essential medicines and vaccines for all.
- 3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.
- 3.a Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate.
- 3.b Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all.
- 3.c Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and Small Island developing States.
- 3.d Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction, and management of national and global health risks.

CHAPTER 3

SDG 4. QUALITY EDUCATION

Ensure inclusive and equitable quality education, and promote lifelong learning opportunities for all

- 4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes.
- 4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education.
- 4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university.
- 4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.
- 4.5 By 2030, eliminate gender disparities in education, and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations.
- 4.6 By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy.
- 4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.
- 4.a Build and upgrade education facilities that are child, disability and gender sensitive, and provide safe, non-violent, inclusive and effective learning environments for all.
- 4.b By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, Small Island developing States and African countries, for enrollment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programs, in developed countries and other developing countries.
- 4.c By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and Small Island developing States.

CHAPTER 4

SDG 5. GENDER EQUALITY

Achieve gender quality, and empower all women and girls

- 5.1 End all forms of discrimination against all women and girls everywhere.
- 5.2 Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation.
- 5.3 Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation.
- 5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate.
- 5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.
- 5.6 Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Program of Action of the International Conference on Population & Development and the Beijing Platform for Action and the outcome documents of their review conferences.
- 5.a Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws.
- 5.b Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women.
- 5.c Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels.

CHAPTER 5

SDG 6. CLEAN WATER AND SANITATION

Ensure availability and sustainable management of water and sanitation for all

- 6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all.

- 6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all, and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.
- 6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.
- 6.4 By 2030, substantially increase water-use efficiency across all sectors, and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.
- 6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate.
- 6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes.
- 6.a By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programs, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies.
- 6.b Support and strengthen the participation of local communities in improving water and sanitation management.

SDG 7. AFFORDABLE AND CLEAN ENERGY

Ensure access to affordable, reliable, sustainable and modern energy for all

- 7.1 By 2030, ensure universal access to affordable, reliable and modern energy services.
- 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix.
- 7.3 By 2030, double the global rate of improvement in energy efficiency.
- 7.a By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology.
- 7.b By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, Small Island developing States, and land-locked developing countries, in accordance with their respective programs of support.

CHAPTER 6

SDG 8. DECENT WORK AND ECONOMIC GROWTH

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

- 8.1 Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries.
- 8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labor-intensive sectors.
- 8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services.
- 8.4 Improve progressively, through 2030, global resource efficiency in consumption and production, and endeavor to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programs on sustainable consumption and production, with developed countries taking the lead.
- 8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value.
- 8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training.
- 8.7 Take immediate and effective measures to eradicate forced labor, end modern slavery and human trafficking, and secure the prohibition and elimination of the worst forms of child labor, including recruitment and use of child soldiers, and by 2025 end child labor in all its forms.
- 8.8 Protect labor rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.
- 8.9 By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products.
- 8.10 Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all.
- 8.a Increase Aid for Trade support for developing countries, in particular least developed countries, including through the Enhanced Integrated Framework for Trade-Related Technical Assistance to Least Developed Countries.

- 8.b By 2020, develop and operationalize a global strategy for youth employment and implement the Global Jobs Pact of the International Labor Organization (ILO).

CHAPTER 7

SDG 9. INDUSTRY, INNOVATION AND INFRASTRUCTURE

Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation

- 9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.
- 9.2 Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries.
- 9.3 Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets.
- 9.4 By 2030, upgrade infrastructure, and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.
- 9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending.
- 9.a Facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, least developed countries, landlocked developing countries and Small Island developing States.
- 9.b Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities.
- 9.c Significantly increase access to information and communications technology, and strive to provide universal and affordable access to the Internet in least developed countries by 2020.

CHAPTER 8

SDG 11. SUSTAINABLE CITIES AND COMMUNITIES

Make cities and human settlements inclusive, safe, resilient and sustainable

- 11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services, and upgrade slums.
- 11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.
- 11.3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries.
- 11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage.
- 11.5 By 2030, significantly reduce the number of deaths and the number of people affected, and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations.
- 11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.
- 11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities.
- 11.a Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning.
- 11.b By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels.
- 11.c Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials.

SDG 12. RESPONSIBLE CONSUMPTION AND PRODUCTION

Ensure sustainable consumption and production patterns

- 12.1 Implement the 10-year framework of programs on sustainable consumption and production, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries.
- 12.2 By 2030, achieve the sustainable management and efficient use of natural resources.
- 12.3 By 2030, halve per capita global food waste at the retail and consumer levels, and reduce food losses along production and supply chains, including post-harvest losses.
- 12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.
- 12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.
- 12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle.
- 12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities.
- 12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.
- 12.a Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production.
- 12.b Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products.
- 12.c Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries, and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities.

SDG 13. CLIMATE ACTION

Take urgent action to combat climate change and its impacts

- 13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.
- 13.2 Integrate climate change measures into national policies, strategies and planning.

- 13.3 Improve education, awareness-raising and human and institutional capacity in climate change mitigation, adaptation, impact reduction and early warning.
- 13.a Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly \$100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation, and fully operationalize the Green Climate Fund through its capitalization as soon as possible.
- 13.b Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and Small Island developing States, including focusing on women, youth and local and marginalized communities.

CHAPTER 9

SDG 14. LIFE BELOW WATER

Conserve and sustainably use the oceans, seas and marine resources for sustainable development

- 14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.
- 14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans.
- 14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels.
- 14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices, and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics.
- 14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information.
- 14.6 By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing, and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization (WTO) fisheries subsidies negotiation.

- 14.7 By 2030, increase the economic benefits to Small Island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism.
- 14.a Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria & Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular Small Island developing States and least developed countries.
- 14.b Provide access for small-scale artisanal fishers to marine resources and markets.
- 14.c Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in UNCLOS [UN Convention on the Law of the Sea], which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of The Future We Want.

SDG 15. LIFE ON LAND

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

- 15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.
- 15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests, and substantially increase afforestation and reforestation globally.
- 15.3 By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world.
- 15.4 By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development.
- 15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species.
- 15.6 Promote fair and equitable sharing of the benefits arising from the utilization of genetic resources, and promote appropriate access to such resources, as internationally agreed.
- 15.7 Take urgent action to end poaching and trafficking of protected species of flora and fauna, and address both demand and supply of illegal wildlife products.

- 15.8 By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species.
- 15.9 By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts.
- 15.a Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems.
- 15.b Mobilize significant resources from all sources and at all levels to finance sustainable forest management, and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation.
- 15.c Enhance global support for efforts to combat poaching and trafficking of protected species, including by increasing the capacity of local communities to pursue sustainable livelihood opportunities.

CHAPTER 10

SDG 16. PEACE, JUSTICE AND STRONG INSTITUTIONS

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable and inclusive institutions at all levels

- 16.1 Significantly reduce all forms of violence and related death rates everywhere.
- 16.2 End abuse, exploitation, trafficking and all forms of violence against and torture of children.
- 16.3 Promote the rule of law at the national and international levels, and ensure equal access to justice for all.
- 16.4 By 2030, significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets, and combat all forms of organized crime.
- 16.5 Substantially reduce corruption and bribery in all their forms.
- 16.6 Develop effective, accountable and transparent institutions at all levels.
- 16.7 Ensure responsive, inclusive, participatory and representative decision-making at all levels.
- 16.8 Broaden and strengthen the participation of developing countries in the institutions of global governance.
- 16.9 By 2030, provide legal identity for all, including birth registration.
- 16.10 Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements.

- 16.a Strengthen relevant national institutions, including through international cooperation, for building capacity at all levels, in particular in developing countries, to prevent violence and combat terrorism and crime.
- 16.b Promote and enforce non-discriminatory laws and policies for sustainable development.

CHAPTER 11

SDG 17. PARTNERSHIP FOR THE GOALS

Strengthen the means of implementation and revitalize the global partnership for sustainable development

- 17.1 Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection.
- 17.2 Developed countries to implement fully their official development assistance commitments, including the commitment by many developed countries to achieve the target of 0.7 per cent of overseas development aid as a percentage of gross national income (ODA/GNI) to developing countries and 0.15 to 0.20 per cent of ODA/GNI to least developed countries; ODA providers are encouraged to consider setting a target to provide at least 0.20 per cent of ODA/GNI to least developed countries.
- 17.3 Mobilize additional financial resources for developing countries from multiple sources.
- 17.4 Assist developing countries in attaining long-term debt sustainability through coordinated policies aimed at fostering debt financing, debt relief and debt restructuring, as appropriate, and address the external debt of highly indebted poor countries to reduce debt distress.
- 17.5 Adopt and implement investment promotion regimes for least developed countries.
- 17.6 Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation, and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism.
- 17.7 Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favorable terms, including on concessional and preferential terms, as mutually agreed.

- 17.8 Fully operationalize the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017, and enhance the use of enabling technology, in particular information and communications technology.
- 17.9 Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the sustainable development goals, including through North-South, South-South and triangular cooperation.
- 17.10 Promote a universal, rules-based, open, non-discriminatory and equitable multilateral trading system under the World Trade Organization (WTO), including through the conclusion of negotiations under its Doha Development Agenda.
- 17.11 Significantly increase the exports of developing countries, in particular with a view to doubling the least developed countries' share of global exports by 2020.
- 17.12 Realize timely implementation of duty-free and quota-free market access on a lasting basis for all least developed countries, consistent with World Trade Organization (WTO) decisions, including by ensuring that preferential rules of origin applicable to imports from least developed countries are transparent and simple, and contribute to facilitating market access.
- 17.13 Enhance global macroeconomic stability, including through policy coordination and policy coherence.
- 17.14 Enhance policy coherence for sustainable development.
- 17.15 Respect each country's policy space and leadership to establish and implement policies for poverty eradication and sustainable development.
- 17.16 Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries.
- 17.17 Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships.
- 17.18 By 2020, enhance capacity-building support to developing countries, including for least developed countries and Small Island developing States, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts.
- 17.19 By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement gross domestic product, and support statistical capacity-building in developing countries.

