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Implementing a Territorial Approach to the SDGs in Paraná, Brazil

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Preface

The OECD and the state of Paraná, Brazil, are delighted to present the results of the policy dialogue we conducted to strengthen a territorial approach to the United Nations (UN) Sustainable Development Goals (SDGs) in Paraná.

Paraná has turned to the SDGs as a guiding framework for its territorial development policy since 2016. The OECD report "A territorial approach to the Sustainable Development Goals in Paraná, Brazil" (2021) provided the state with tailored guidance on reducing territorial disparities within and across municipalities as well as on strengthening co-ordination between the state, municipalities and the federal government through the SDG lens.

In response to analyses and recommendations from the earlier OECD report, the state has continued to leverage the SDGs as a vehicle to solve challenges in a number of policy domains, including agriculture, health, education, economic growth, environmental conservation and public safety. The objective to reduce territorial disparities remains prominent, including through sectoral strategies to curb infant and maternal mortality, boost educational achievements and strengthen reforestation programmes.

This new report assesses progress on the implementation of the 2021 OECD recommendations and suggests possible ways forward to continue responding to the state's main challenges, including the design of a statewide sustainable development plan and the integration of the SDGs in the state's new 2053 Strategic Vision.

Throughout the policy dialogue underlying this report, a wide variety of stakeholders in the state of Paraná, including numerous municipalities and institutions from public, private and non-profit sectors, shared their experiences with each other and peer policy makers from the region of Flanders, Belgium, and the Rhine-Neckar Metropolitan Region, Germany. This broad engagement is expected to facilitate the implementation of policies and actions to achieve the SDGs, improve co-ordination with municipalities and the federal government, and support citizen-centred initiatives and partnerships for the SDGs.

Both our institutions are proud of this journey and the results achieved. We now look forward to continued collaboration to translate the policy recommendations into action in the future.

Lamia Kamal-Chaoui,
Director, OECD Centre for Entrepreneurship, SMEs, Regions and Cities

Carlos Massa Ratinho Junior,
Governor of the State of Paraná, Brazil

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The report was drafted by Aline Matta, Project Manager, and Lorenz Gross, Policy Analyst, under the supervision of Stefano Marta, Head of the Smart and Sustainable Cities Unit. Aziza Akhmouch, Head of the Cities, Urban Policies and Sustainable Development Division, provided guidance on the design and implementation of the project. Nadim Ahmad, Deputy Director of the CFE, and Soo-Jin Kim, Deputy Head of the Cities, Urban Policies and Sustainable Development Division, commented on the draft report.

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Abbreviations and acronyms

ALEP	*Assembleia Legislativa do Paraná*, Legislative Assembly of Paraná
AMCESPAR	*Associação dos Municípios do Centro Sul do Paraná*, Association of Municipalities of the Central South of Paraná
AMCG	*Associação dos Municípios da Região dos Campos Gerais*, Association of Municipalities of the Campos Gerais Region
AMENORTE	*Associação dos Municípios do Médio Noroeste do Estado do Paraná*, Association of Municipalities of the Mid-Northwest of the State of Paraná
AMEPAR	*Associação dos Municípios do Médio Paranapanema*, Association of Municipalities of the Middle Paranapanema
AMERIOS	*Associação dos Municípios da Região do Entre Rios*, Association of Municipalities of the Entre Rios Region
AMLIPA	*Associação dos Municípios do Litoral do Paraná*, Association of Municipalities of the Coast of Paraná
AMOCENTRO	*Associação dos Municípios do Centro do Paraná*, Association of Municipalities of the Centre of Paraná
AMP	*Associação de Municípios do Paraná*, Association of Municipalities of Paraná
AMSOP	Associação dos Municípios do Sudoeste do Paraná, Association of Municipalities of the Southwest of Paraná
AMSULEP	*Associação dos Municípios da Região Suleste do Paraná*, Association of Municipalities of the Southeastern Region of Paraná
AMSULPAR	*Associação dos Municípios do Sul Paranaense*, Association of Municipalities of the Southern Paraná
AMUNOP	*Associação dos Municípios do Norte do Paraná*, Association of Municipalities of the North of Paraná
AMUNORPI	*Associação dos Municípios do Norte Pioneiro*, Association of Municipalities of the Northern Pioneer
AMUNPAR	*Associação dos Municípios do Noroeste do Paraná*, Association of Municipalities of the Northwest of Paraná
AMUSEP	*Associação dos Municípios do Setentrião Paranaense*, Association of Municipalities of the North of Paraná
AMUVI	*Associação dos Municípios do Vale do Ivaí*, Association of Municipalities of the Ivaí Valley
ASSOMEC	*Associação dos Municípios da Região Metropolitana de Curitiba*, Association of Municipalities of the Metropolitan Region of Curitiba
BI	Business intelligence
BNDES	*Banco Nacional de Desenvolvimento Econômico e Social*, Brazilian Development Bank
BRDE	*Banco Regional de Desenvolvimento do Extremo Sul*, Far South Regional Development Bank
CANTUQUIRIGUACU	*Associação do Cantuquiriguaçu*, Association of Cantuquiriguaçu
CEDES	*Conselho Estadual de Desenvolvimento Econômico Social*, State Council for Economic and Social Development
Celepar	*Companhia de Tecnologia da Informação e Comunicação do Paraná*, Paraná Information and Communication Technology Company
CFE	OECD Centre for Entrepreneurship, SMEs, Regions and Cities
CNODS	*Comissão Nacional para os Objetivos do Desenvolvimento Sustentável*, National Commission for the Sustainable Development Goals
COMCAM	*Comunidade dos Municípios da Região de Campo Mourão*, Community of Municipalities of the Campo Mourão Region
Copel	*Companhia Paranaense de Energia*, Paraná Energy Company
Fiep	*Federação das Indústrias do Estado do Paraná*, Federation of Paraná's Industries
Fomento Paraná	Development Agency of Paraná S.A.
HDI-M	Municipality Human Development Index
IBGE	*Instituto Brasileiro de Geografia e Estatística*, Brazilian Institute of Geography and Statistics
IDEB	*Índice de Desenvolvimento da Educação Básica*, Index of Development of Basic Education
IPARDES	Paraná Institute of Economic and Social Development
Ipea	*Instituto de Pesquisa Econômica Aplicada*, Institute for Applied Economic Research
LDO	*Lei de Diretrizes Orçamentárias*, Budget Guidelines Law
LOA	*Lei Orçamentária Anual*, Annual Budget Law
PCT	Patent Cooperation Treaty

PM	Particulate matter
PPA	*Plano Plurianual*, Multi-year Plan
RDPC	Regional Development Policy Committee
Sanepar	*Companhia de Saneamento do Paraná S.A*, Paraná Sanitation Company
SDGES	*Superintendência Geral de Desenvolvimento Econômico e Social*, General Superintendence of Economic and Social Development
SDG	United Nations Sustainable Development Goal
SEAB	*Secretaria de Estado Secretaria da Agricultura e do Abastecimento*, Secretary of State for Agriculture and Food Supply
SEDU	*Secretaria de Estado do Desenvolvimento Urbano e de Obras Públicas*, Secretary of State for Urban Development and Public Works
SEED	*Secretaria de Educação*, State Secretariat of Education
SEMIPI	*Secretaria de Estado da Mulher, Igualdade Racial e Pessoa Idosa*, Secretary of State for Women, Racial Equality and Older Persons
SEPL	*Secretaria de Estado do Planejamento*, Secretary of State for Planning
SETI	*Secretaria de Estado de Ciência, Tecnologia e Ensino Superior do Paraná*, Secretary of State for Science, Technology and Higher Education
SMEs	Small and medium-sized enterprises
TCE-PR	*Tribunal de Contas do Estado do Paraná*, State Audit Court of Paraná
TJPR	*Tribunal de Justiça do Estado do Paraná*, Court of Justice of the State of Paraná
UN	United Nations
VLR	Voluntary Local Review
WDPA	World Database on Protected Areas

Executive summary

Located in the south of Brazil, Paraná is the fifth most populous state, with more than 11 million inhabitants and the fifth largest exporter. Based on the findings of the 2021 OECD report providing guidance on using the SDGs to reduce territorial disparities, the government has implemented various sectoral policies to address the identified challenges, in particular health, education and safety, while also defining new strategic priorities in relation to family farming, population ageing, sustainable urban infrastructure and environmental preservation. In addition, Paraná has initiated the elaboration of its 2053 Strategic Vision to assist municipalities in addressing their sustainable development challenges, coinciding with the 200th anniversary of the state.

Key findings

Paraná faces several sustainable development challenges, including health, education, environmental preservation and safety

- In 2022, infant mortality in Paraná (10.32 deaths per 1 000 live births) was nearly twice the average of OECD regions (5.9 deaths per 1 000 live births). Furthermore, with only 23 hospital beds per 10 000 people in 2022, the state was comparable to the bottom third of OECD regions (SDG 3 Good health and well-being).
- Paraná is grappling with an ageing population at the same time as – and in part reflecting – declining population growth rates. Annual population growth is projected to decrease from 0.78% per annum between 2010 and 2020 to 0.28% between 2030 and 2040. In comparison, between 2000 and 2019, OECD regions grew by 0.4% per year on average. By 2040, the number of people aged 65 years or more is expected to surpass those under the age of 14 (SDG 3 Good health and well-being).
- The enrolment rate of 15- and 19-year-olds in Paraná's educational institutions (68%) is similar to the average of Brazilian states (69%) but below the average of OECD regions (82%). In 2022, the high school completion rate among 20-22 year-olds in Paraná was 73.4%, just above the national average of 73.0% (SDG 4 Quality education).
- Between 1992 and 2015, Paraná lost over 1% of its tree cover, equivalent to the third of OECD regions with the largest tree cover loss, which was highlighted as a major challenge in the 2021 report. However, while the state's deforested area nearly doubled between 2019 and 2022, Paraná managed to reduce deforestation by 42% between 2021 and 2022 through monitoring, enforcement and environmental education (SDG 15 Life on land).
- With a homicide rate of 22.38 per 100 000 people, Paraná is comparable to the 10% of OECD regions with the highest rate. Between 2021 and 2022, the state also saw a 6.1% increase in intentional homicides. However, robberies dropped by 4.9% and home burglaries by 13.1% over the same period (SDG 16 Peace, justice and strong institutions).

While Paraná has launched several initiatives to tackle its sustainable development challenges, an overarching SDG strategy is yet to be established

- Paraná has implemented a maternal and child health programme aiming to reduce infant and maternal mortality rates. Additionally, the State Plan for the Rights of the Elderly has been introduced to provide dental care support, intergenerational education and financial management training for this share of the population. Yet, in smaller municipalities, limited resources and infrastructure occasionally still lead to a lack of comprehensive healthcare for the elderly.
- Paraná has introduced a programme that increases the daily number of hours spent in school for over 100 000 students. It has also put in place an initiative to teach them about the importance of human rights through 100 workshops and lectures. Despite these efforts, the state lacks targeted educational strategies that respond to students' diverse learning needs and socio-economic backgrounds, which could help increase high school completion rates.
- With an average satisfaction rate of 44% between 2008 and 2018, public approval for efforts to preserve the environment was relatively low. In response to the findings from the 2021 OECD report and to preserve biodiversity, Paraná has set up an ecosystem-based adaptation plan that foresees nature-based solutions to combat climate change. The state also supports responsible forest practices and seedling distributions in its Atlantic Forest biome. ().
- To improve public safety in the state, Paraná has invested in security infrastructure and worked to strengthen the relationship between the police and local communities. For example, it has developed targeted initiatives such as postgraduate programmes for professionals in the security sector. However, there is a structural need to incorporate factors correlated with crime and violence, such as inequalities within Paraná's public safety strategies.
- While Paraná has advanced sectoral efforts to foster sustainable development, it still lacks a comprehensive sustainable development plan, which, by state decree, it is mandated to elaborate. This plan should also consider interlinkages between different policy areas. Nevertheless, Paraná has started formulating a strategic vision for 2053 aligned with the underlying SDG principles. This vision aims to support municipalities in tackling sustainable development challenges in areas such as the circular economy, smart living (e.g. fostering an interconnected and sustainable way of living that addresses climate change and urban mobility) and industry 5.0 (e.g. automating processes as a response to the ageing population), although it is still in a preliminary stage of development.

Paraná has made some progress on implementing the 2021 OECD recommendations but further action is needed, particularly on policies and financing

- **Policies and strategies**: Paraná has leveraged the SDGs as a framework to reduce socio-economic disparities within and across municipalities. This includes strengthening synergies between its strategies for lagging municipalities and regional development banks (e.g. the Regional Development Bank of the Extreme South [BRDE] and Fomento Paraná) to enhance access to financing for urban development in small and medium-sized municipalities. However, Paraná could further support municipalities in aligning their planning tools with the SDGs (e.g. Municipal Multi-year Plans [PPAs] and Municipal Comprehensive Plans).
- **Multi-level governance**: The state is expanding its collaboration with the federal government through a dedicated dialogue with the Brazilian Presidency on localising the SDGs. Paraná has also reinforced its institutional framework to implement the SDGs by creating a General Superintendence of Economic and Social Development (SGDES). In addition, the state has created a programme called Promotion of Integrated Local Sustainable Development Goals(POLIS) to support municipalities in aligning their planning tools (e.g. PPAs and Municipal Comprehensive Plans) with the SDGs. Nevertheless, municipalities continue to lack the capacities for effective SDG implementation.

- **Financing and budgeting**: Paraná has made limited progress on mainstreaming the SDGs in municipal budgetary tools, despite the alignment of the 2024-27 State Multi-year Plan (PPA) with the SDGs. The state has introduced a new approach to evaluating municipal public accounts. However, further support is needed for municipalities to embed the SDGs in public budgets, notably in managing trade-offs and leveraging synergies when allocating resources for different sustainable development priorities. Paraná still has to align its budgetary tools (e.g. Budget Guidelines Law and Annual Budget Law) with the SDGs.
- **Data and information**: The state has enhanced its co-operation with the national statistical institute (IBGE) to collect additional and harmonised data to measure the distance to achieving the SDGs at the state and municipal levels. However, Paraná still needs to bridge the remaining data gaps, especially on SDGs 10 (Reduced inequality), 12 (Responsible consumption and production) and 14 (Life below water).
- **Engagement**: Paraná has engaged representatives from both private and state-owned companies in its participatory planning processes such as the PPA. Yet, there is a need to increase awareness about state priorities to encourage private and state-owned enterprise investments in SDG-related initiatives. Additionally, while the state has established programmes to enhance the skills of public servants to better engage with citizens (e.g. through courses on SDGs and social participation), Paraná needs to further prioritise citizen engagement as a central pillar for planning, including in the 2053 Strategic Vision.

Key recommendations

Multi-level governance

- **Enhance co-ordination with municipalities and national government to implement the SDGs, particularly in the areas where Paraná is facing challenges**. To assist municipalities in their efforts to align their planning tools (e.g. PPAs and Municipal Comprehensive Plans) with the 2030 Agenda, Paraná could further use its existing SDG governance framework (e.g. SGDES), particularly the new POLIS programme, to establish guidelines and a roadmap for municipalities to streamline local governance processes. This could help ensure a more efficient use of scarce resources, particularly on health (SDG 3), education (SDG 4), and safety (SDG 16). The state could also use POLIS to enhance collaboration between neighbouring municipalities in Paraná through its 19 Regional Associations of Municipalities, facilitating the exchange of best practices in the areas of health, education and safety.

Policies and strategies

- **Tackle the state's sustainable development challenges, such as health, education, environmental preservation and safety, through the SDG framework**. In order to do so, Paraná could implement the following measures:
  - Establish age-friendly safety measures to improve senior citizens' well-being and social inclusion, including making public spaces more accessible and secure for the elderly population to reduce the risk of accidents. This can include solutions like well-lit areas and clearly marked pathways. To respond to the ongoing demographic shift in Paraná, transportation systems could also be upgraded and become a spending priority in order to accommodate the needs of a growing number of senior citizens and facilitate their access to public health institutions, notably in larger cities such as Curitiba, Londrina and Maringá marked by higher population density and more complex mobility infrastructure. These upgrades could be jointly financed by municipalities and the federal government, including through combining funding from the state budget, public-private partnerships, and, if applicable, federal subsidies.

  - Strengthen the public health system to tackle maternal, infant and child mortality further by engaging the private sector to set up clinics in underserved municipalities. Tax breaks and subsidies could provide related financing while contributing to expanding access to essential health services and promoting vocational training and employment opportunities in the health sector.
  - Update curriculum standards of state schools to incorporate modern skillsets to help increase high school completion rates.
  - Improve street lighting and infrastructure in areas identified as "crime hotspots" to deter criminal activities, particularly in metropolitan regions (e.g. Curitiba, Londrina, Maringá, among others), and increase citizen safety.
  - Foster environmental protection and nature conservation by strengthening reforestation programmes, especially in areas of the Atlantic Forest biome.
- **Advance the development and implementation of the 2053 Strategic Vision and elaborate a comprehensive sustainable development plan for the state of Paraná**. To move forward with the development of the 2053 Strategic Vision, Paraná could use the SDGs as a common framework to enhance the interconnectedness of its policies to address its territorial development challenges. At the same time, designing roadmaps that outline envisioned progress on key health, education and safety challenges up to 2053 could offer clear directions and benchmarks to monitor sustainable development progress in Paraná. The process of developing the strategic vision could also inform the elaboration of the sustainable development plan that the state is mandated to deliver.

Financing and budgeting

- **Support municipalities in securing funding for the implementation of the SDGs by establishing budget priorities in the PPA that reflect persistent, sustainable development challenges**. This could involve identifying and earmarking specific SDG priorities within the PPA for projects and initiatives that tackle long-standing, sustainable development challenges, such as health, education and safety. Paraná should also complement its conventional budget with innovative financing mechanisms, such as SDG bonds and blended finance, to mobilise financial resources for the SDGs. By adopting a blended finance approach, the state could provide financial support (e.g. grants or low-interest loans from the BRDE and Fomento Paraná) to attract private sector investments and foster innovation in achieving specific SDGs. Additionally, the BRDE and Fomento Paraná could help crowd in private investment and adopt target credit enhancement and de-risking mechanisms (e.g. guarantees) by making the risk-return profile of bonds more appealing to private investors. Furthermore, the state should provide guidance to the municipalities to allocate budgets through their Budget Guidelines Law and Annual Budget Law to address the state's main challenges of health, education and safety.

Stakeholder engagement

- **Engage key territorial stakeholders from the private sector and civil society in designing and updating the state's sustainable development policies and strategies (e.g. sustainable development plan and 2053 Strategic Vision)**. The state could implement a participatory planning approach to design the state's sustainable development plan and the 2053 Strategic Vision. This could include facilitating dialogue between municipal policy makers and local communities in collaboration with state universities and civil society organisations (e.g. Youth Action Hub and the National SDGs Movement in Paraná). Paraná could further involve the private sector in the implementation of the SDGs by promoting alignment with environmental, social and governance principles. This would encourage businesses to integrate sustainability frameworks in their operations, ensuring a coherent approach towards achieving the SDGs.

1 Introduction

Context

This report follows up on a first report on "A territorial approach to the Sustainable Development Goals in Paraná, Brazil" (OECD, 2021[1]). The 2021 publication provided guidance to the state of Paraná on using the United Nations (UN) Sustainable Development Goals (SDGs) to reduce territorial disparities within and across municipalities and strengthen co-ordination between Paraná, municipalities and federal government. It also advised on how to mainstream the SDGs in municipal budgetary tools, improve data collection and enhance monitoring of the SDGs. Furthermore, the report suggested how to engage the private sector and civil society in the state of Paraná in the implementation of the UN 2030 Agenda. It concluded with seven policy recommendations to further leverage a territorial approach to the SDGs in Paraná. In the wake of the 2021 report, this new policy paper takes a fresh look at persistent sustainable development challenges in Paraná and delves into the policies and programmes that the state of Paraná has developed to address these challenges. Building on this analysis, it assesses progress on the implementation of the 2021 OECD recommendations and charts new ways forward for the state.

Main findings of the 2021 OECD report

This section provides an overview of the key findings from the 2021 OECD report. It highlights the role of SDGs in addressing territorial disparities and reducing poverty. Moreover, the section showcases Paraná's advancement in the realm of the SDGs, drawing attention to its achievements in renewable energy, air quality and water, alongside challenges in health, education and safety. When examining the governance structure, the section underscores the multi-level governance framework established for implementing the SDGs across levels of government while also recognising the contributions of civil society and private entities to this endeavour.

The SDGs as a policy tool to address territorial disparities

Achieving the 2030 Agenda and using the SDGs to reduce territorial disparities and poverty are key political priorities for the state of Paraná. The state (Box 1.1) is confronted with longstanding development challenges, notably in the areas of health, education and safety. It also grapples with the impact of global megatrends such as climate change, demographic pressures and digitalisation. In response to these challenges, Paraná has been steering its public policies towards sustainable development since the 1990s, which included creating an organisational committee to align municipal and state government programmes with the thematic axes based on the UN Agenda 21[1] priorities. More recently, Paraná has been working on the localisation of the 2030 Agenda by implementing a cross-cutting strategy with municipalities. A key element of this plan foresees the implementation of the SDGs as a tool to reduce territorial disparities and promote the exchange of good practices among municipalities at different levels of development. For instance, as part of its cross-cutting strategy, Paraná has set up a multi-stakeholder governance framework for the SDGs, guidelines and financial contributions targeted towards the municipalities. However, Paraná

is yet to develop a statewide sustainable development plan, which could help further reduce territorial disparities across its 22 administrative regions (OECD, 2021[1]).

Box 1.1. The state of Paraná, Brazil

Located in the south of Brazil, Paraná is the fifth most populated state in the country (more than 11 million inhabitants in 2022), representing the fifth l largest economy among Brazilian states in 2021, generating 6.4% of the national gross domestic product (GDP) (IBGE, 2024[2]). Paraná's economic development builds on the agro-industrial sector and related industrial activity. In 2023, Paraná was the fifth-largest exporting state in Brazil (IPARDES, 2023[3]). While there are several large-scale companies in the state, the majority of employment comes from a diverse range of small and medium-sized enterprises (SMEs). Innovative companies are often located in the metropolitan area of Curitiba and are typically foreign-owned and -operated.

Figure 1.1. Location of the state of Paraná, Brazil

Sources: Invest Paraná (2020[4]), Localização do Paraná [Location of Paraná], http://www.investparana.org.br/ (accessed on 26 February 2024).

Measuring the distance to the SDGs in the state of Paraná

The OECD localised indicator framework for measuring distance to the SDGs, complemented by data provided by the state of Paraná, provides insights into performance in key policy areas that are crucial to responding to global changes and trends. These areas include demographic shifts, environmental protection, climate change, the need to transition to a low-carbon economy and technological advancements.

Paraná's strengths lie primarily in renewable energy, air quality and water but it still faces challenges in health, education and safety. While Paraná's performance on the SDGs trails the OECD average, the state outperforms most regions in Brazil. Paraná is particularly strong in renewable energy, air quality, water preservation and coastal protection. Ninety-four percent of the electricity production in the state comes from renewable sources, over double the average of OECD regions (41%) (OECD, 2021[1]). The state offers better air quality, with only 14% of Paraná's population exposed to a level of small particulate matter (PM2.5) above 10 micrograms per cubic metre (μg/m³),[2] below the average in OECD regions (59%). Water resources remained stable and even slightly increased between 1992 and 2015, and Paraná's share of protected coastal areas is more than double the average of OECD regions (51% compared to 20% in 2017) (OECD, 2021[1]). Despite these strengths, Paraná still faces challenges across several dimensions of the 2030 Agenda, particularly health, education and safety. In terms of health indicators, infant and child mortality rates in Paraná were twice the OECD average and the number of hospital beds per resident nears the lowest third of OECD regions. Educational achievements were also lower than the average of OECD regions. Safety demands further attention in Paraná. Compared to OECD regions, the state ranked among 10% of regions with the highest homicide rates (21.2 homicides per 100 000 people in 2018). Compared to other states in Brazil, Paraná's strengths are education (SDG 4 Quality Education), labour market and economic performance (SDG 8 Decent work and economic growth and SDG 9 Industry, innovation and infrastructure) and air quality (SDG 11 Sustainable cities and communities), where Paraná outperformed on average more than 70% of states in Brazil (OECD, 2021[1]).

Multi-level governance and stakeholder engagement for the SDGs in Paraná

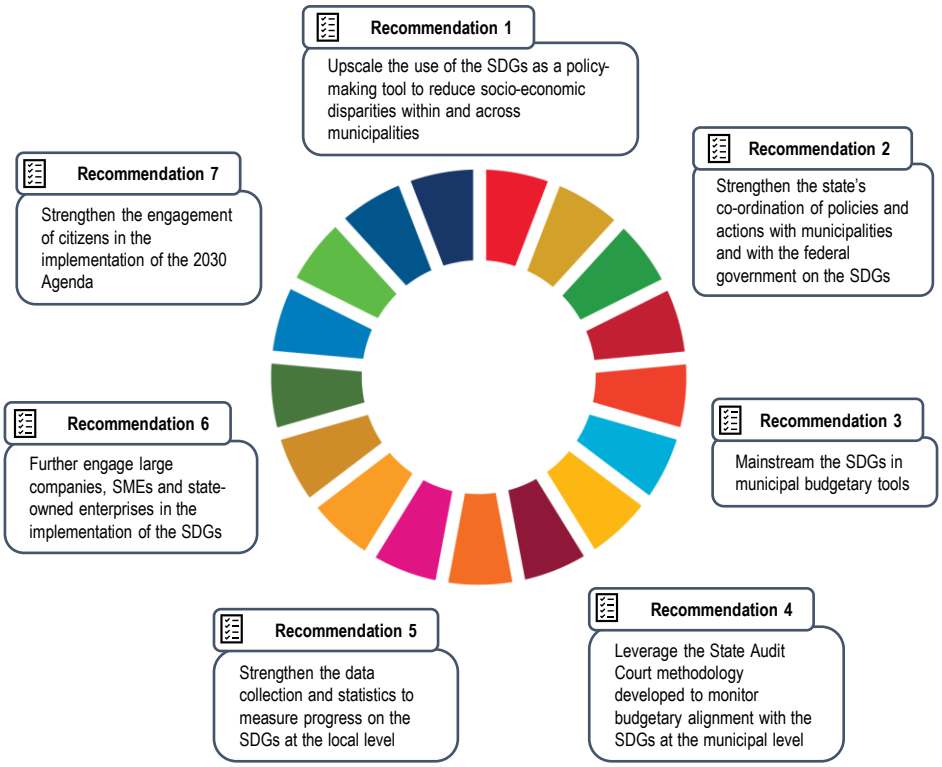
Paraná has put in place a multi-actor governance framework for implementing the SDGs at the state and municipal levels. The state of Paraná developed strong partnerships with federal institutions to produce SDG data and indicators (SDG 17 Partnerships for the goals), notably with the Brazilian Institute of Geography and Statistics (IBGE) and the Institute of Applied Economic Research (IPEA). At the state level, the State Audit Court of Paraná (TCE-PR) and the Court of Justice of the State of Paraná (TJ-PR) are two important actors in fostering innovation (SDG 9) and promoting just, peaceful and inclusive societies (SDG 16 Peace, justice and strong institutions). In addition, the state of Paraná provides financial support to municipalities to help them implement the SDGs (SDG 11 Sustainable cities and communities), including through partnerships with financial institutions. However, the lack of capacity at the local level (e.g. financial and human resources) remains a challenge (OECD, 2021[1]).

Civil society and some private companies contribute to the SDGs in Paraná. Civil society, particularly youth, plays a key role in raising awareness of the SDGs in Paraná. However, there is a need to broaden stakeholder engagement for a more effective implementation of the SDGs. Some businesses, ranging from SMEs to state-owned companies, have aligned their business plans and strategies to the SDGs but the private sector is still grappling with challenges related to logistical infrastructure and red tape, which slow down the adoption of SDG-focused initiatives. To foster broader participation and awareness, the state has initiated a set of activities, including the SDGs Good Practices Portal (*Portal de Boas Práticas ODS*). This web portal showcases policies and actions implemented by the state of Paraná that support one or more SDGs. Open to the public, it aims to disseminate and replicate good practices and initiatives on the SDGs by all stakeholders in order to improve quality of life in the state (OECD, 2021[1]).

Policy recommendations and action plan

The 2021 OECD report offered seven policy recommendations to support the implementation of the SDGs in Paraná. The recommendations range from enhancing the alignment of planning tools with the SDGs to mainstreaming the SDGs in municipal budgetary tools and strengthening the engagement of the private sector and citizens to implement the SDGs (Figure 1.2).

Figure 1.2. Summary of the OECD recommendations, 2021



Source: OECD (2021[1]), "A territorial approach to the Sustainable Development Goals in Paraná, Brazil", https://doi.org/10.1787/a24b52a5-en.

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WHO (2021), "What are the WHO air quality guidelines", World Health Organization, https://www.who.int/news-room/feature-stories/detail/what-are-the-who-air-quality-guidelines. [5]

Notes

[1] Agenda 21 is a comprehensive plan of action to be taken globally, nationally and locally by organizations of the United Nations System, Governments, and Major Groups in every area in which human impacts on the environment. https://sustainabledevelopment.un.org/outcomedocuments/agenda21

[2] Ten μg/m³ annual average exposure to PM 2.5 were the existing WHO air quality guidelines in 2021, when this report was published. They have since then been revised to 5 μg/m³ (WHO, 2021[6]).

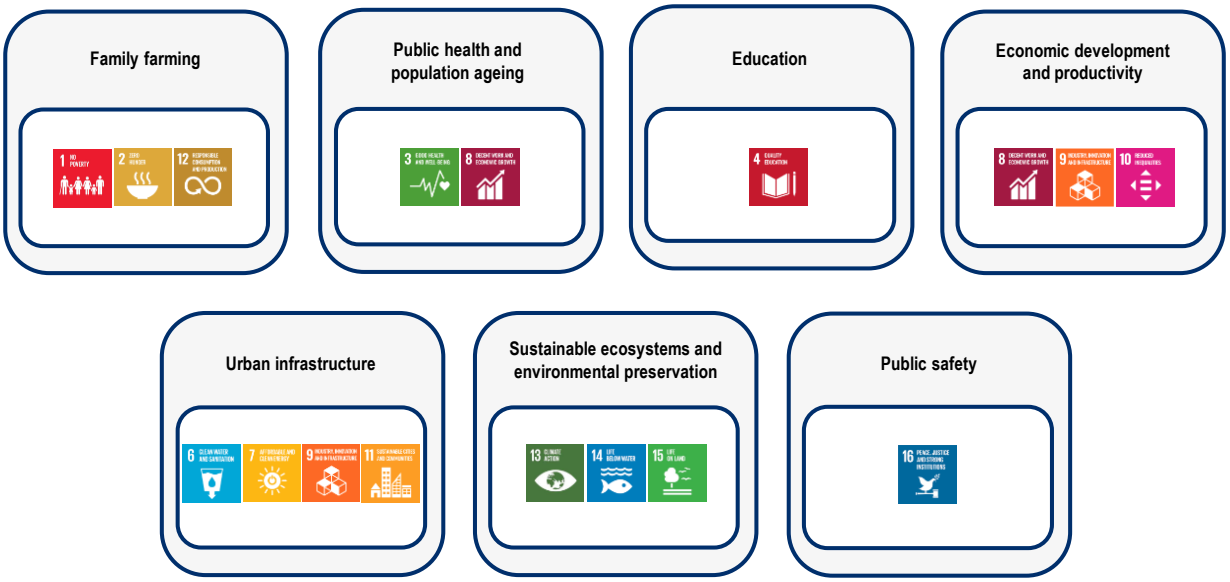
2 Overcoming persistent sustainable development challenges in Paraná

This chapter provides an in-depth analysis of Sustainable Development Goals (SDG) indicators in the state of Paraná, Brazil. Its goal is to identify possible solutions to address the state's main sustainable development challenges. To that end, it highlights the evolution of key policy areas over the years, including agriculture, health, education, economic development, environmental preservation and safety. It then examines the state's territorial development priorities to address those challenges: strengthening family farming, addressing population ageing, improving urban infrastructure and environmental preservation. The chapter also presents Paraná's main strategies and approach to collaborating with selected pilot municipalities to implement the SDGs.

Paraná's journey to achieving the SDGs

This chapter discusses the state of Paraná's strengths and weaknesses related to the United Nations (UN) Sustainable Development Goals (SDGs) and outlines the progress achieved in the past few years across several policy areas. It focuses on the policy areas identified as challenges in the 2021 OECD report (e.g. health, education and safety) and those emerging as the state's new challenges and strategic priorities (e.g. family farming, population ageing, sustainable urban infrastructure and environmental preservation). Based on this overview, it analyses Paraná's strategic priorities and the actions it has put in place. The structure of the chapter follows the five critical dimensions or "5Ps" of the 2030 Agenda (i.e. People, Prosperity, Planet, Peace and Partnerships). This chapter also presents an overview and analysis of policy initiatives that the state of Paraná has put in place to tackle the above-mentioned sustainable development challenges in Paraná (see Chapter 1).

Figure 2.1. Paraná's priority policy areas to respond to persistent sustainability challenges



Source: Based on OECD missions in March 2022 and May 2023.

People

Food and agriculture (SDG 2)

Family farming plays a key role in Paraná's economy and job creation but is often associated with low incomes. Efficient and diversified food production systems and the implementation of resilient agricultural practices are important factors in fighting poverty (SDG 1 No poverty), ending hunger and ensuring food security by 2030 (SDG 2 Zero hunger), as well as fostering responsible consumption and production (SDG 12 Responsible consumption and production) (OECD, 2022[1]). The agricultural sector in the state of Paraná is primarily composed of small family farms, with 75% (636 648) of individuals employed in agricultural establishments being family members of the producer, highlighting deep-rooted familial ties within the agricultural sector (IBGE, 2017[2]). Additionally, approximately 160 000 rural farms (52% of all rural farms) generate an average monthly income below 2 minimum wages, making it difficult for them to enjoy quality of life and make further investments into their farms (e.g. the acquisition of new technical equipment and technologies for improved harvest yields) (Government of Paraná, 2022[3]). The state's family agriculture sector[1] drives a significant share of organic food production. According to the Paraná

Secretary of State for Agriculture and Supply (SEAB), organic family farms accounted for 70% of the state's total organic food production in 2022. In 2022, Paraná was home to around 3 773 organic farms, accounting for 15.5% of the total number of organic farms in Brazil, trailing only the state of Minas Gerais (MAPA, 2023[4]).

Table 2.1. Indicators used to assess the dimension People in the state of Paraná

SDG	Indicator	Source
	Share of rural farms covering an area of less than 10 hectares	Government of Paraná
	Share of rural workforce employed by family farms	Government of Paraná
	Share of organic family farms in total organic food production	SEAB
	Number of organic farms	SEAB
	Infant mortality rate (number of deaths of children 1 year old or younger per 1 000 live births)	IPARDES
	Under-5 mortality rate (deaths per 1 000 live births)	IPARDES
	Hospital beds rate (hospital beds per 10 000 people)	IPARDES
	Maternal mortality (death per 100 000 live births)	IBGE
	Percentage of the population from 15 to 19 years old enrolled in public or private institutions	IBGE
	Percentage of early leavers from education and training for the 18 to 24 year-old population	OECD Regional Database
	Enrolment in secondary education	IPARDES
	Enrolment rates in non-vocational high schools	IPARDES
	Enrolment rates in vocational high schools	IPARDES

Strengthening family farming

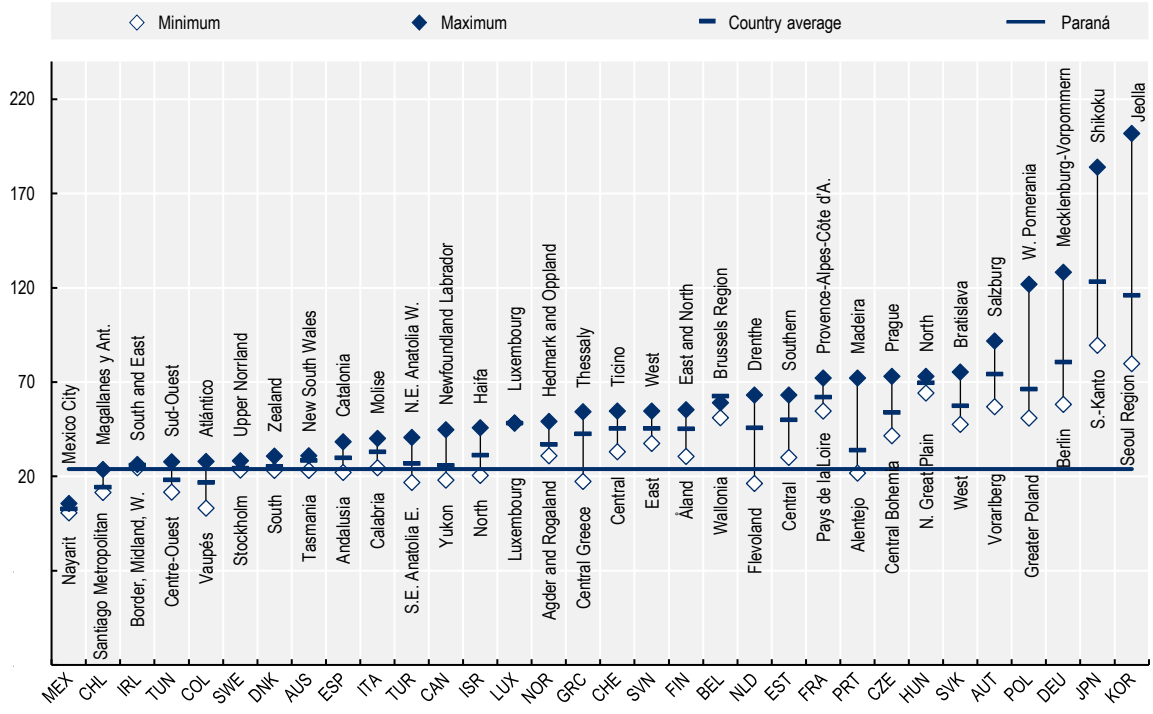
The development of family farming in the state benefits from public procurement regulations, financial support and direct purchasing initiatives. The Cooperatives' Law and the Support Programme for Family Farming co-operatives of Paraná (Coopera Paraná in particular) play a crucial role in enhancing the income and quality of life of family farmers. They generate employment opportunities and income in rural areas while promoting sustainable development by encouraging more ecofriendly production methods within family farming. Coopera Paraná offers financial support for socio-productive investments, such as infrastructure, machinery and equipment, and provides technical and administrative guidance to family farmers to improve their overall management skills. It thereby combines both positive impacts on SDG 9 Industry, innovation and infrastructure and on SDG 4 Quality education. The state has also implemented a direct purchasing strategy to procure products directly from family farms. These products are then distributed to various social assistance facilities, including community restaurants and kitchens, food banks, philanthropic hospitals, social assistance reference centres, community centres and institutional shelter units, which helps contribute to the achievement of SDG 10 Reduced inequalities. According to SEAB, in 2022, Paraná's Direct Purchase Programme (*Compra Direta Paraná*) spent the equivalent of nearly EUR 4 million on family farming products. While this initiative has benefitted over 50 000 families at risk of social vulnerability in the state, the annual volume of EUR 4 million is nevertheless modest (Government of Paraná, 2023[5]). As a result, undertaking investments in land and property remains challenging due to the lack of financial means, which affects the quality of life of many of those families active in the family farming sector (IBGE, 2017[2]).

Paraná has implemented some initiatives in support of family farming, such as Coopera Paraná and the Direct Purchase Programme, which contribute to SDG 2 (Zero hunger) and SDG 12 (Responsible consumption and production). However, the current level of annual investment highlights the need to expand these initiatives to impact the investment capabilities and income levels of family farms.

Health (SDG 3)

Health is a key policy area in which the state of Paraná is facing considerable challenges. The state continues to lag behind the average of OECD regions in health indicators. In 2022, infant mortality (10.32 deaths per 1 000 live births) was nearly twice the average of OECD regions (5.9 deaths per 1 000 live births), also higher than in 2020 (9.30) and 2021 (9.46). Child mortality reached 12.45 deaths per 1 000 live births (IPARDES, 2024[6]), above the average of OECD regions for child mortality (11.8 deaths per 10 000 people under 5 years of age). In addition, the number of hospital beds per 10 000 people (23.0 in 2022) in Paraná ranks among the bottom third compared to OECD regions (Figure 2.2) (IPARDES, 2024[6]). Paraná also registered a maternal mortality rate of 52.6 deaths per 100 000 live births in 2020, compared to a national average of 74.7 deaths (IBGE, 2023[7]). By 2022, maternal mortality in Paraná had gone down to 42.7 (IPARDES, 2024[6]).

Figure 2.2. Hospital beds rate (hospital beds per 10 000 people), 2015



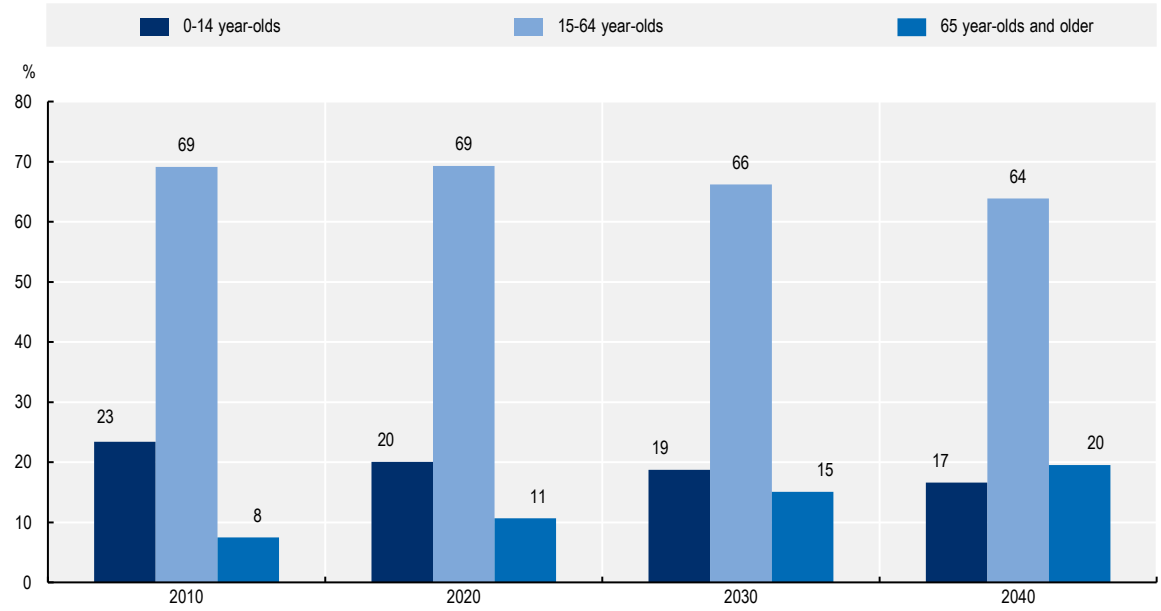
Note: Netherlands (2002); Australia (2012); Belgium, Italy, Slovenia (2013); Estonia, Finland, France, Ireland, Türkiye (2014); Austria, Chile, Colombia, Germany, Hungary, Israel, Mexico, Norway, Switzerland (2016), Paraná (2022).
Source: OECD (2023[8]), *OECD Regional Statistics*, https://doi.org/10.1787/region-data-en.

Paraná will be facing the challenges of an ageing population. Paraná's population growth and urbanisation rates are expected to change significantly in the coming decades, with potential implications for inequalities and future labour market conditions in the state. According to demographic forecasts, Paraná's population growth rates are expected to drop from an annual growth rate of 0.78% between 2010 and 2020 to 0.57% between 2020 and 2030, further declining to 0.28% in the following decade (IPARDES, 2019[9]). While the population of Paraná grew by 9.6% between 2010 and 2022, reaching 11.44 million, the share of people under 30 fell by about 8% over the same period (IBGE, 2023[10]). By 2040, elderly people (i.e. individuals aged 65 or above) are expected to outnumber those under 14 years of age, which means that preparations must be made to ensure a minimum level of comfort and safety for this segment of the population (e.g. enhancing healthcare facilities, developing age-friendly urban infrastructure and providing accessible

public transport) (Figure 2.3). This trend is particularly pronounced in the coastal municipalities of Pontal do Paraná (+160%), Matinhos (+132%) as well as Fazenda Rio Grande, located south of the state capital Curitiba (+156%) (IPARDES, 2024[6]). Paraná's population development is also forecasted to reflect the national pattern. In Brazil, the percentage of the population aged 65 and above was roughly only half of the OECD average in 2021 but it is projected that nearly 22% of the population in Brazil will be aged 65 and above by the year 2050 (OECD, 2023[11]). In comparison, in OECD countries, the proportion of people aged 65 and above is expected to persistently rise in the forthcoming decades, going up from 18% in 2021 to an estimated 27% by the year 2050 (OECD, 2023[11]).

Figure 2.3. Population forecast for the state of Paraná

Share of population per age group



Source: IPARDES (2019[9]), "Projeção da População dos Municípios do Paraná para o Período 2018 a 2040 [Projection of the population of the municipalities of Paraná for the period 2018 to 2040]", http://www.ipardes.pr.gov.br/sites/ipardes/arquivos_restritos/files/documento/2019-09/nota_tecnica_populacao_projetada.pdf.
Note: Total values might exceed 100% due to rounding.

Improving public health and responding to an ageing population

The state of Paraná has put in place initiatives to support maternal and child health. To tackle maternal, infant and child mortality, the state has implemented the Maternal and Child Care Pathway (MCPI) across all of its 399 municipalities. This initiative focuses on providing quality care for pregnant women and those in the postpartum period while monitoring children's development up to age two. Key actions include early support for pregnant women, ensuring a minimum of seven prenatal check-ups, conducting necessary tests throughout the pregnancy, assessing gestational risk and offering specialised care for high-risk cases. The programme also includes training for healthcare professionals. Over 2 500 participants of the around 64 500 health care professionals in Paraná (as of 2022) received training in 2022 and 2023 (Government of Paraná, 2023[12]). However, this number is relatively small considering that the state of Paraná has a population of more than 11 million people. While these initiatives show the state's commitment to improving maternal and child health (SDG 3 Good health and well-being), it is important to strengthen the long-term impact of these initiatives on mortality rates and the overall well-being of the

population. There is a need to engage in regular and comprehensive assessments to ensure that the programme remains responsive to evolving healthcare needs and challenges.

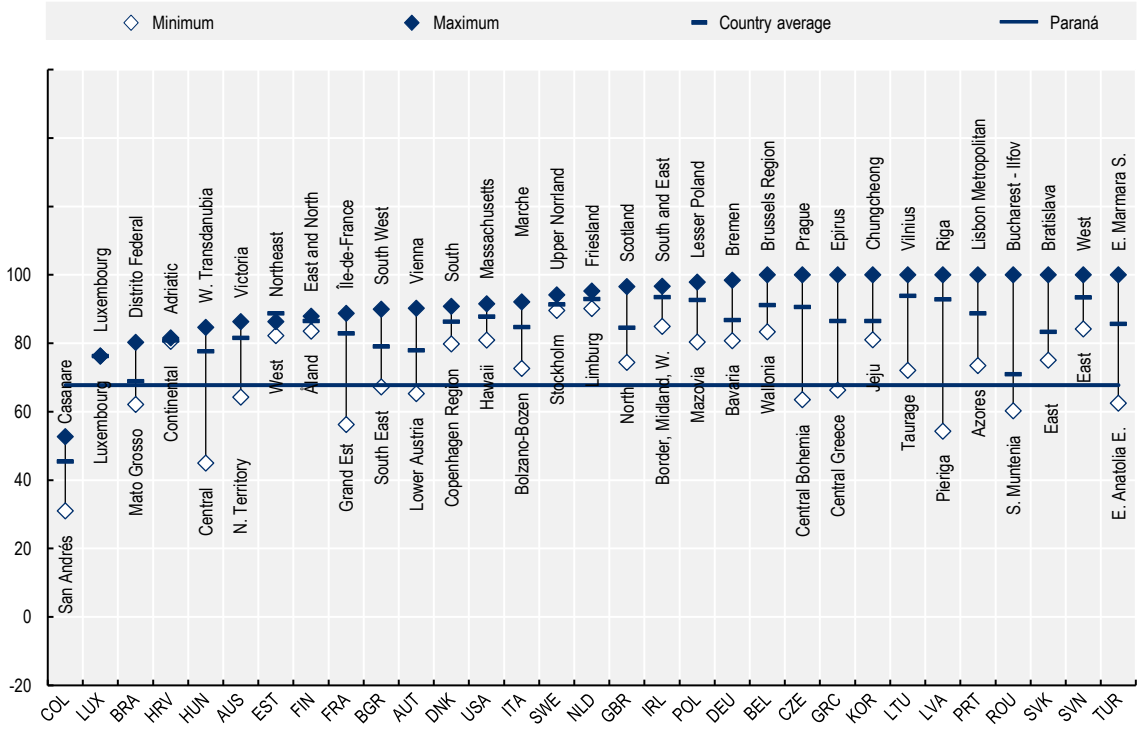
The government is also implementing public policies targeting specifically the elderly. One main action is the implementation of the 2nd State Plan for the Rights of the Elderly in Paraná (2020-2023), which aimed at enhancing the rights of the elderly population in line with the Elderly Statute and the National Policy for the Elderly (PNI). Co-ordinated by the Department of Justice, Family and Work, the plan encompasses various actions, such as scheduled appointments at regional pharmacies, pharmaceutical consultations for the elderly, access to dental care and expanded services in healthcare facilities, including the provision of dental prostheses. Additionally, the government has created the Secretary of State for Women, Racial Equality, and Older Persons (SEMIPI). Collaborating with the State Council for the Rights of the Elderly, SEMIPI co-ordinates the State Plan for the Rights of the Elderly (2020-2023). The secretary's actions span policy areas such as health, education, work, combatting rights violations, leisure and mobility, promoting healthy ageing, reducing inequalities and ensuring peace and justice, all with a focus on the elderly. Programmes include dental care, intergenerational educational projects, financial autonomy campaigns and community centres. Recent projects like the *Condomínio do Idoso* initiative (Senior Citizen Housing) and *Cidade do Idoso* (Elderly City) provide a range of services to an ageing population, including physical activities, specialised healthcare, a community kitchen, literacy programmes, computer classes, dance, music, as well as social and cultural integration.

Furthermore, SEMIPI is responsible for guaranteeing and protecting the legal and social entitlements of individuals, particularly focusing on women, racially marginalised groups and older persons, for example through the State Elderly Rights Fund, a specific fund supporting projects and services that gather contributions from individuals and corporations through a portion of the income tax. The Secretary of State for Tourism has also developed the Travel +60 (*Viaja +60*) project to promote social inclusion for the elderly by fostering tourism activities. While the government's initiatives target elderly care, aligning with the objectives of SDG 3 (Good health and well-being) and SDG 11 (Sustainable cities and communities), some gaps between existing policies and the requirements of elderly individuals still exist. This is notably the case in smaller municipalities, where limited resources and infrastructure occasionally lead to a lack of comprehensive healthcare for the elderly. In particular, it is challenging to achieve the provision of home safety, mobility solutions and specific medical needs for the elderly in these areas.

Education (SDG 4)

Challenges also persist in the field of education. In 2015, around 68% of Paraná's population aged 15 to 19 years old were enrolled in public or private educational institutions (Figure 2.4). This rate is similar to the average of Brazilian states (69%) but 14 percentage points lower than the average of OECD regions (82%). In 2022, enrolment in secondary education (428 566 students) was about 1.0% lower than in 2017 (433 331). Enrolment rates in non-vocational high schools decreased by 15.5 %between 2017 and 2021, while vocational high school[2] enrolment registered a 1.4 % decrease over the same period. As for the enrolment numbers in adult and youth education, there was a decline of 33.8% from 2017 to 2021 (INEP, 2022[13]). In 2022, 97% of people aged 13-15 and 92.1% of 17-19 year-olds had completed at least primary education, compared to a national average of 97.2% and 89.8% respectively. These values show slight improvements compared to 2016 (95.3% and 86.5% respectively) and 2019 period (96.4% and 88.9%). In terms of high school completion rates among the 20-22 year-olds, Paraná exhibited similar values (73.4%) to the national average (73.0%) (IBGE, 2023[14]).

Figure 2.4. Percent of population from 15 to 19 years old enrolled in public or private institutions, 2015



Source: OECD (2023[8]), *OECD Regional Statistics*, https://doi.org/10.1787/region-data-en.

Upgrading the quality of education

The government has been addressing challenges around education by making investments to improve its quality. For example, in 2021, it launched the Quality Education for All programme, which includes revising school curricula, training educators and implementing innovative teaching projects. In 2022, the government introduced the Full-time Education programme to extend students' school hours, benefitting over 100 000 students statewide. In addition, it established the Human Rights Education initiative to promote a culture of human rights in schools, organising more than 100 lectures and workshops on human rights for educators and students (Government of Paraná, 2024[15]). Between 2017 and 2021, Paraná surged from 7th to 1st rank according to the Index of Development of Basic Education (IDEB)[3] of secondary education among the state education networks throughout the country (Government of Paraná, 2022[16]). While the initiatives and programmes demonstrate an initiative-taking approach to enhancing educational outcomes, tailoring educational strategies to cater to the varied learning styles and socio-economic backgrounds of students in Paraná could help improve the effectiveness of these programmes, ensuring that all students, regardless of their circumstances, have equitable access to quality education and opportunities for personal and professional growth. Furthermore, the Port of Paranaguá has launched programmes on topics such as environmental education, access to health services and initiatives to promote economic growth in local communities. These programmes involve activities such as raising environmental awareness, providing healthcare services and capacity building. Despite these positive steps, various challenges remain to be addressed by the region close to the port (e.g. environmental preservation and livelihoods of Indigenous communities).

Planet

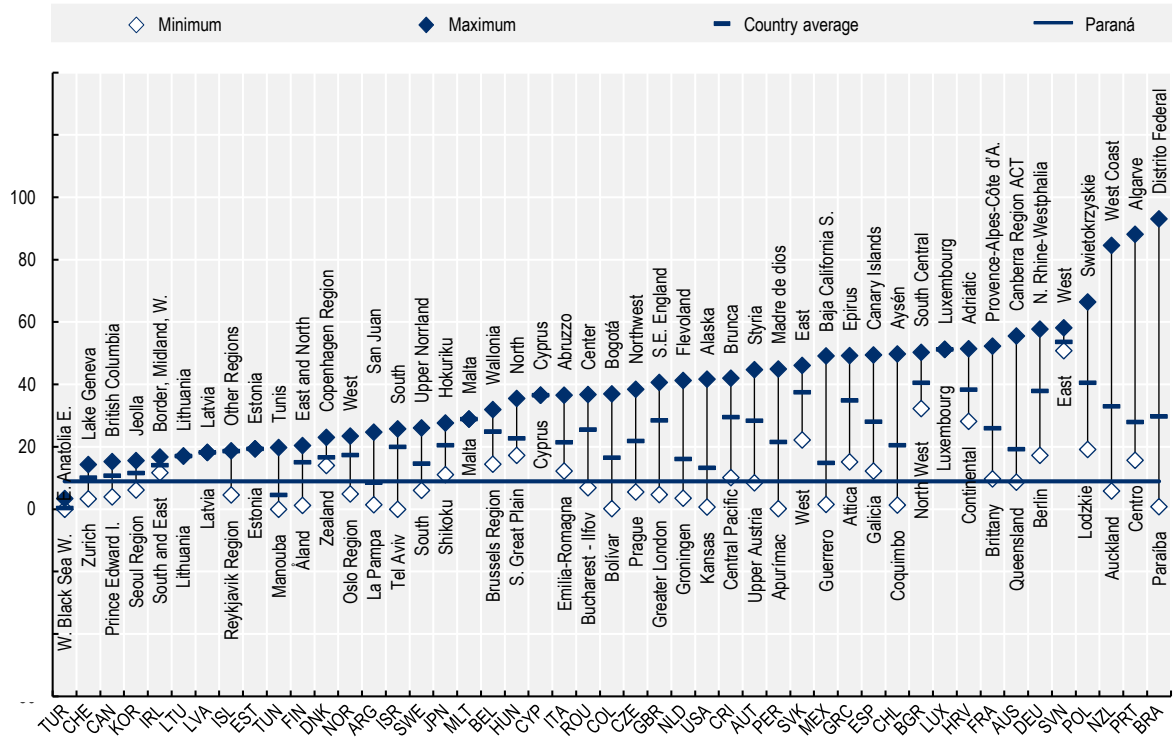
Environmental preservation (SDG 13)

Deforestation and biodiversity protection are challenges in Paraná. In 2017, less than 9% of the territory of Paraná had a protected area status compared to an average of 19% in OECD regions and 30% in Brazilian states (Figure 2.5). Paraná ranks among the bottom 30% of OECD regions with the highest tree cover loss over the past decades (-1.07% between 1992 and 2015), although the comparison with Brazilian states shows a more positive picture, with Paraná ranking in the top 40% of states with the lowest degree of tree cover loss (OECD, 2021[17]). In 2022, Paraná reduced its deforested area by 42% compared to 2021. Nevertheless, its deforested area in 2022 (4 069 hectares) almost doubled compared to 2019 (2 171 hectares) (MapBiomas, 2023[18]) Nevertheless, the state is lagging behind most OECD regions in terms of public satisfaction with efforts to preserve the environment. Between 2008 and 2018, around 44% of the population stated that they were satisfied with efforts to preserve the environment, placing Paraná among the bottom 30% of OECD regions in this regard. In the national context, Paraná performed in the average, as the average for Brazilian regions was 43%, and 56% of Brazilian states scored higher than Paraná.

Table 2.2. Indicators used to assess the dimension Planet in the state of Paraná

SDG	Indicator	Source
	Percentage of the population satisfied with efforts to preserve the environment	OECD based on Gallup World Poll (2019)
	Change in tree cover (from 1992 to 2015, percentage points)	OECD Environment Database
	Development of deforestation	MapBiomas
	Terrestrial protected areas as a percentage of the total area	OECD based on World Database on Protected Areas (WDPA)

Figure 2.5. Share of terrestrial protected areas as percentage of total area, 2017



Source: OECD (2023[8]), *OECD Regional Statistics*, https://doi.org/10.1787/region-data-en.

Ensuring sustainable ecosystems and environmental preservation

Paraná is implementing policies to foster sustainable ecosystems and environmental protection. One of its main objectives is to contribute to more sustainable ecosystems, maintain biodiversity and reduce economic vulnerabilities linked to environmental degradation. The state is particularly focused on preserving the Atlantic Forest, a biome shared with 16 other Brazilian states (IAT, 2020[19]; IBGE, 2019[20]), which requires joint efforts and multi-level co-ordination (SDG 15 Life on land). Examples of actions to contribute to the preservation of the Atlantic Forest biome include distributing seedlings of native species and strengthening the enforcement of sustainable economic projects, such as ecotourism initiatives and responsible forestry practices. The decrease in deforestation mentioned earlier could partly be attributed to actions to prevent illegal deforestation through environmental police enforcement and engagement in reforestation and afforestation projects. In addition, as part of the State Plan for Climate Action 2024-2050, Paraná has developed the Ecosystem-Based Adaptation Plan, published in 2023 (Government of Paraná, 2023[21]). This plan foresees nature-based solutions and ecosystem preservation to combat the negative impacts of climate change, notably through the conservation of natural areas and the restoration of degraded areas. Paraná's strategic efforts to reduce deforestation and enhance biodiversity through initiatives like the Ecosystem-Based Adaptation Plan and the focus on the Atlantic Forest biome are important steps towards sustainable environmental stewardship. Still, the low level of satisfaction of the population with efforts to preserve the environment underscores the importance of fostering community engagement and awareness to align these efforts with the needs and expectations of the local population. Building stronger connections between environmental policies and the community's support could amplify the impact of these initiatives, ensuring a more cohesive and effective approach to preserving Paraná's natural heritage.

Paraná has established environmental protection awards for the private sector. To further promote actions to preserve biodiversity and address climate change, the state launched the 2023 edition of the *Climate Paraná Seal*, created in 2018, for public or private organisations that voluntarily decide to measure, disclose and reduce their carbon footprint in order to combat climate change (SDG 13 Climate action). In addition, in 2021, the state government launched the Public-Private Committee on Environmental, Social, and Governance (ESG). This initiative brings together representatives from public and private companies and state secretaries to discuss challenges and opportunities for sustainable development in the state, highlighting existing international good practices and creating new sustainability-related projects (SDG 17 Partnerships for the goals). While Paraná has started to target the synergies between the private sector and climate change, the development of a clear and comprehensive ESG strategy linked to the SDGs is still missing. Strengthening the private sector's involvement through ESG in implementing the SDGs could be a pathway leading to innovative solutions and investments that complement public initiatives for sustainable development in the state.

Prosperity

Economic development (SDG 8)

Paraná is one of the economically strongest states in Brazil. In 2021, Paraná contributed 8.7% to the national gross domestic product (GDP) (IBGE, 2024[22]) Its growth rate follows an upward trajectory, with GDP increasing by 1.4% in 2022 compared to 2021 (IPARDES, 2023[23]), compared to 2.4% on average in the OECD area over the same period (OECD, 2023[24]). The largest contributor to GDP in Paraná is the services sector, accounting for 48.8% of value added in the first quarter of 2023, followed by agriculture (12.9%) and manufacturing (24.6%) (IPARDES, 2023[23]). Favourable factors for economic development in Paraná include the state's geographic location (i.e. proximity to major ports and key South American trade routes) and its current youth premium (i.e. the high share of the population under 15 over the total working age population), as youth will become part of the workforce in the coming years. Still, GDP per capita varies considerably between municipalities in Paraná, as demonstrated by the 23 municipalities selected for the implementation of the 2021 OECD recommendations (see spotlight on implementing the SDGs in selected municipalities).

Table 2.3. Indicators used to assess the dimension Prosperity in the state of Paraná

SDG	Indicator	Source
	Contribution to national GDP (%)	IBGE
	GDP growth (%)	IPARDES
	Percentage of the population satisfied with roads and highways	OECD based on Gallup World Poll (2019)
	Percentage of the population satisfied with affordability of housing	OECD based on Gallup World Poll (2019)
	Percentage of the population satisfied with the quality of public transportation systems	OECD based on Gallup World Poll (2019)

Increasing productivity and fostering economic growth

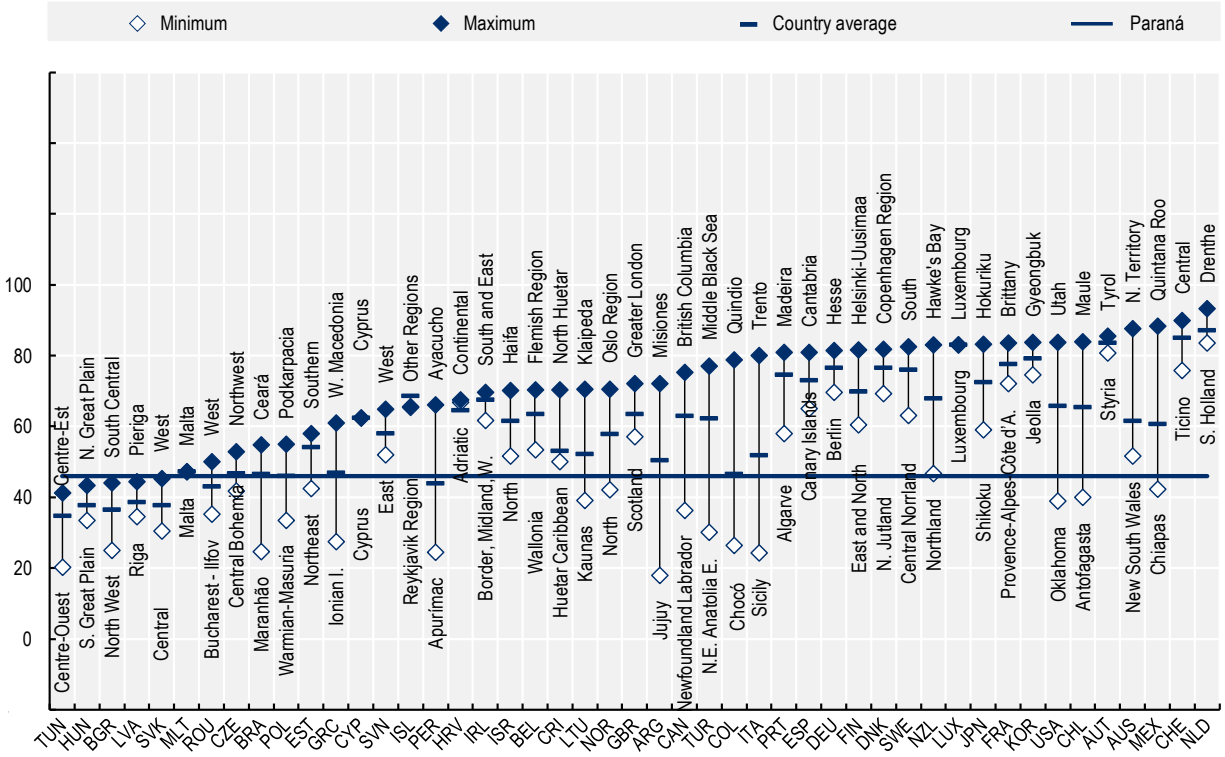
To bolster productivity and economic growth while contributing to reducing regional inequalities, the state government has established the Productive Paraná (*Paraná Produtivo*) initiative. The first phase of the initiative consisted of organising regional workshops to mobilise public and private stakeholders in 202 municipalities. The goal was to align local government programmes with regional needs and develop integrated regional development plans focusing on improving productivity, targeting the less developed regions of the state. The second phase aims to implement governance structures to monitor and evaluate the execution of public policies and programmes across all 399 municipalities in Paraná (Government of

Paraná, 2023[25]). Additionally, through fiscal incentives and business advisory services, Paraná has attracted BRL 6.2 billion (EUR 1.7 billion) in private investments in the first semester of 2023, notably through the Competitive Paraná (*Paraná Competitivo*) programme, managed by Invest Paraná, the government's business agency. Industries that benefitted from the programme include sustainable energy and manufacturing, generating an estimated 12 000 new jobs in 24 municipalities across Paraná in the first half of 2023 in areas such as renewable energy, tire production and appliance manufacturing (Government of Paraná, 2023[26]). However, addressing socio-economic territorial disparities, in particular between urban agglomerations and remote rural areas, also requires better integration of SDG 10 (Reduced inequalities) and SDG 12 (Responsible consumption and production) within Paraná's economic policies, notably enhancing access to economic opportunities for marginalised communities, promoting gender equality in the workforce and ensuring that industrial growth does not compromise environmental integrity.

Infrastructure (SDG 9)

Paraná's metropolitan regions are growing faster than the national average, leading to a higher demand for urban services and infrastructure. The preliminary results of the 2022 Brazilian census show that the population of all 8 metropolitan regions of Paraná[4] has grown faster than the national average (6.5%) compared to 2010, ranging from 8.86% (Metropolitan Region of Londrina) to 18.89% (Metropolitan Region of Maringá) (IBGE, 2023[10]). As a result of the population increase in metropolitan regions, the state now has 22 municipalities with a population of more than 100 000 people (IPARDES, 2023[27]). This growth is expected to create a higher demand for urban services and infrastructure (SDG 11 Sustainable cities and communities). This trend may strain the delivery of municipal public services such as public transportation and basic services, put pressure on the housing market and increase inequalities (e.g. income inequalities between urban and non-urban areas, unequal access to quality education and healthcare disparities) (IBGE, 2023[10]). Satisfaction rates with housing affordability (44.5% on average between 2008 and 2018) and the quality of public transportation systems (53.3% on average between 2008 and 2018) are below the OECD average (52.7% and 59.7% respectively). There is still space for improvement regarding the state's road transport system (OECD, 2021[17]). Between 2008 and 2018, 46% of Paraná people were satisfied with roads and highways, which is close to the national average but much lower than in 80% of OECD regions, where the average satisfaction rate was around 63% (Figure 2.6).

Figure 2.6. Percentage of the population satisfied with roads and highways, 2008-18



Source: OECD (2023[8]), *OECD Regional Statistics*, https://doi.org/10.1787/region-data-en.

Improving sustainable and urban infrastructure

Various projects are currently underway to improve Paraná's urban infrastructure. The government is implementing the New Asphalt, New Life project, which aims to improve urban infrastructure (SDG 9 Industry, innovation and infrastructure) and extend paving to cities across the state, with a particular focus on smaller municipalities (SDG 11 Sustainable cities and communities). The primary goal is to complete the construction of pavements in 155 communities, incorporating channels to retain and manage rainwater (SDG 6 Clean water and sanitation). The project aims to improve accessibility (SDG 11), thereby fostering local economic growth (SDG 8 Decent work and economic growth) through better transportation of people and goods. High-quality roads also play a crucial role in providing easier access to schools (SDG 4 Quality education) and healthcare services (SDG 3 Good health and well-being). Additionally, they can enhance road safety, thereby reducing accidents (SDG 16 Peace, justice and strong institutions). In addition, as part of its 2024-27 Multi-year Plan (PPA), Paraná is planning to enhance infrastructure and mobility by promoting urban sustainability, facilitating integrated metropolitan development, expanding affordable housing and enhancing infrastructure and logistics (Box 2.1). Moreover, the government has established the Paraná Tourism + Infra (*Paraná Turismo+Infra*) programme to develop new tourism infrastructure, designing tourist itineraries (e.g. tourist routes), revitalising public spaces (e.g. parks and public toilets) and interconnecting tourist facilities (e.g. welcome centres, bars and restaurants), contributing to SDGs 8 and 11. It has also developed the Paraná + Safety (*Paraná + Seguro*) programme, enhancing safety infrastructure through measures such as installing security cameras in key touristic areas, particularly addressing women's safety in line with SDG 5 (Gender equality). While Paraná's programmes, such as the New Asphalt, New Life project and the *Paraná Turismo+Infra* programme, show a commitment to enhancing infrastructure and promoting sustainable urban growth, the rapid population growth in metropolitan areas highlights a pressing need for comprehensive urban planning with a focus on reducing

inequalities and fostering urban residents' well-being. Ensuring sustainable urban transport systems in Paraná's municipalities still requires offering alternatives to the use of private cars that are competitive in terms of convenience and flexibility as well as costs, particularly by better integrating urban public transport systems and cycling. Additionally, there is potential to improve sustainable urban development through the integration of smart city technology, which can help optimise traffic flows to streamline public service delivery, thus addressing the multifaceted challenges posed by rapid urbanisation. Better incorporating such digital innovations in urban management is essential not only for improving community well-being but also for advancing towards a more inclusive and sustainable urban future.

Box 2.1. Paraná's 2024-27 Multi-year Plan (PPA) and its alignment with the SDGs

The Multi-year Plan (PPA) serves as the cornerstone of public administration planning, outlining policy priorities over a four-year span and informing the development of both the Budget Guidelines Law (LDO) and the Annual Budget Law (LOA). In 2023, Paraná refined its PPA methodology for 2024-27 to enhance budget distribution efficiency, integrating deliverables that resonate with specific policies and the SDGs. The state adopted an eight-step process to synchronise the new PPA with the SDGs, encompassing guideline establishment, public consultation, sector analysis, programme formulation, budgetary planning, action implementation, public scrutiny and legislative proposal. This systematic approach, supported by the Secretary of State for Planning (SEPL)'s continuous monitoring, aids in tracking outcomes and metrics, solidifying the SDGs' pivotal role in guiding state policies. The 2024-27 PPA addresses all SDGs, with the exception of SDG 15 (Life on land), which lacks corresponding deliverables.

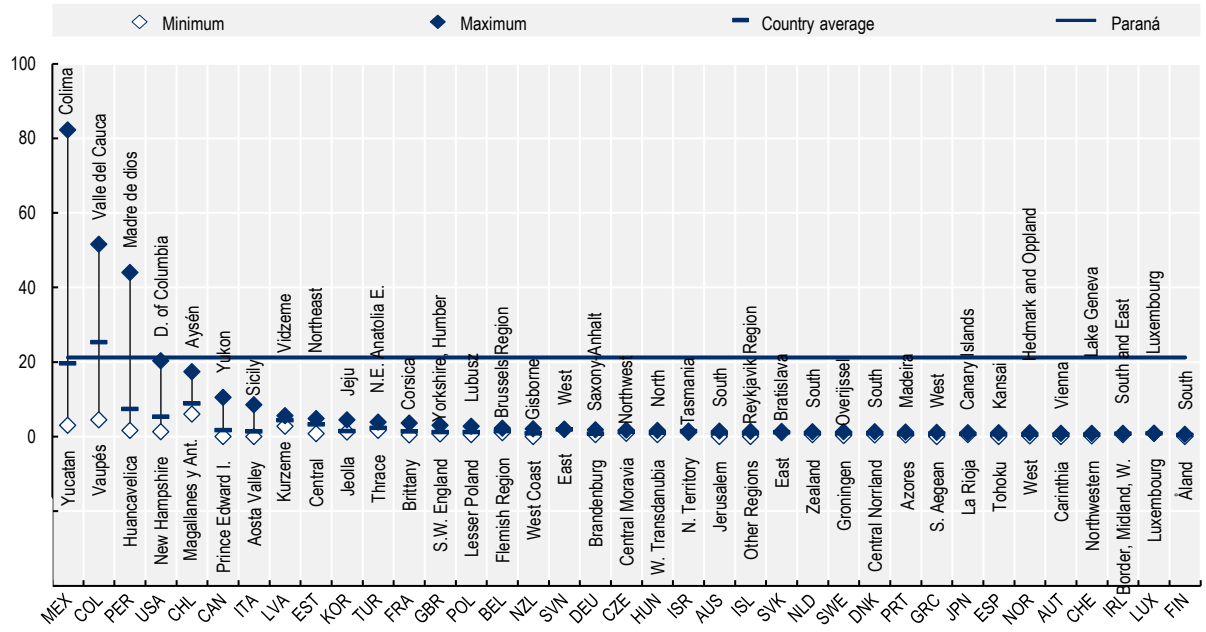
Source: Government of Paraná (2023[28]), *Plano Plurianual 2024-2027 (2024-2027 Multi-year Plan)*, https://www.planejamento.pr.gov.br/PlanejaParana/Plano-Plurianual-2024-2027. Government of Paraná (2023[29]), *Guia de elaboração do Plano Plurianual 2024-2027* [Guide to design the 2024-27 PPA aligned with the SDGs].https://www.planejamento.pr.gov.br/sites/default/arquivos_restritos/files/documento/2023-04/guia_elaboracao_ppa_2024_2027.pdf Accessed in April 2023.

Peace and Partnership

Safety (SDG 16)

Safety is an area of concern in Paraná. In 2022, the state of Paraná registered 22.38 homicides per 100 000 people, which falls in the 10% of OECD regions with the highest homicide rates (Figure 2.7) (IPARDES, 2024[6]). Intentional homicides went up from 1 993 in 2021 to 2 116, but fell back to 1 9 22 in 2023 (Government of Paraná, 2024[30]). In addition, assaults resulting in death surged by 30.7% in 2022 (2 180) compared to 2021 (1 666) (FBSP, 2023[31]). These figures are also reflected in the public perception of safety in the state. Between 2008 and 2018, only 38% of people in Paraná felt safe walking alone at night around the area where they live, compared to 67% in OECD regions on average (OECD, 2021[17]). Nevertheless, Paraná made progress in other safety-related indicators. Robberies, for example, saw a 4.9% drop in 2022 compared to the previous year and home burglaries went down by 13.1%. The number of street muggings fell by 5.8%. This decline in crime rates coincides with increased state investment in public safety, highlighting the importance the state government attributes to this policy area. For instance, Paraná's public security budget increased by 17.8% in 2022 compared to 2021.

Figure 2.7. Homicides per 100 000 persons, 2016



Note: Netherlands (2009); Slovenia (2012); Italy, Türkiye (2013); New Zealand, Peru, Sweden (2014); Iceland, Israel, Japan, Korea, Latvia (2015); Germany,, Paraná (2022)
Source: OECD (2023[8]), *OECD Regional Statistics*, https://doi.org/10.1787/region-data-en.

Table 2.4. Indicators used to assess the dimensions Peace and Partnership in the state of Paraná

SDG	Indicator	Source
	Homicides per 100 000 persons	IPARDES
	Assaults resulting in death	Brazilian Public Security Forum
	Percentage of the population that feel safe walking alone at night around the area they live	OECD based on Gallup World Poll (2019)
	Robberies	Brazilian Public Security Forum
	Home burglaries	Brazilian Public Security Forum
	Street muggings	Brazilian Public Security Forum

Enhancing public safety

The state of Paraná has put in place several policies to improve public safety. In 2021, the government launched the Safe Paraná programme to support the police force in installing new security cameras and enhancing police intelligence operations. In 2022, the government introduced the Community-focused Military Police programme, designed to foster closer relationships between the police and communities. This initiative led to the establishment of 100 new military police detachments across the state. Approximately 1 400 security professionals completed a postgraduate programme in Security Management and Contemporary Public Security Scenarios, while another 4 800 professionals participated in professional development courses in Community Policing, Conflict Mediation and Criminal Analysis (Government of Paraná, 2022[32]). In 2023, the government launched the Falcon Project to support public security operations in the state in the fight against organised crime through helicopters equipped with advanced technology, including night vision goggles, infrared cameras and high-performance searchlights, representing an investment of approximately BRL 114 million (EUR 20 million) (Government of Paraná, 2023[33]). Despite Paraná's measures to bolster public safety through the Safe Paraná and Community-focused Military Police programmes, there is a need to address the origins of crime and violence within

Paraná's current public safety strategies and consider SDG 16 (Peace, justice and strong institutions) in existing policies and programmes.

The 2053 Strategic Vision

Paraná is developing a 2053 Strategic Vision, coinciding with the bicentenary year of the state's establishment, aiming to assist municipalities in addressing their sustainable development challenges (Figure 2.8). Moving forward, the state is using the SDGs as a framework to envision a future beyond 2030 and promote more resilient, inclusive and sustainable municipalities. Considering that the impact of global megatrends (e.g. demography, climate change, economic transformation and digitalisation) will differ from municipality to municipality, exacerbating risks of increasing the already large and persistent regional disparities, the state focuses on six pillars of action to achieve its long-term vision:

- **Circular economy:** transitioning to a circular economy with a focus on sustainable resource use, conscious consumption and improved manufacturing methods.
- **Smart living:** fostering a smart, interconnected and sustainable way of living, addressing climate change, urban mobility and quality of life while respecting planetary boundaries and natural resources.
- **Living from 8 to 80:** providing a multidimensional perspective on well-being and prosperity, including education, reducing inequalities and fostering environmental awareness.
- **Transition to industry 5.0:** automating processes as a response to the ageing population.
- **Care and living in society:** improving healthcare services, as well as promoting healthy lifestyles and disease prevention.
- **Climate and natural resources:** addressing climate change and its impacts, with a specific focus on energy and mobility.

Figure 2.8. Paraná's 2053 Strategic Vision

Source: SGDES (forthcoming[34]), *2053 Paraná's Strategic Vision*, Superintendência Geral de Desenvolvimento Econômico e Social.

Spotlight on implementing the SDGs in selected municipalities

Paraná has selected a group of 23 pilot municipalities for the implementation of the SDGs as part of the OECD project on "Implementing A Territorial Approach to the SDGs in Paraná, Brazil". In particular, the state has grouped municipalities into clusters of 20 to 25 pilot municipalities to assess the status of SDG implementation, identify their primary challenges and establish priorities for guiding state actions and investments. As a first stage, in 2022, the state of Paraná selected 23 pilot municipalities at different stages of socio-economic development to identify their main challenges and opportunities. The selection of the pilots was based on a methodology using six criteria (Box 2.2). As part of the selection process, the methodology was applied to all 399 municipalities in Paraná. After the initial test phase with the selected group of pilot municipalities, it is expected that the state will be able to scale up the methodology and select further municipalities to roll out the strategy.

The selected municipalities exhibit different levels of development. The 23 municipalities showcase the diverse socio-economic landscape of Paraná, including both densely populated urban areas and agricultural hubs (Table 2.5). For example, the capital Curitiba is a major urban centre primarily driven by the services sector. Other cities like Araucária and Campo Largo are industrial hubs, home to the petrochemical industry as well as ceramic and porcelain manufacturing. Municipalities like Fernandes Pinheiro, Ipiranga and Prudentópolis represent a large share of the state's agricultural sector, notably grain production. Others like Nova Olímpia, São Manoel do Paraná and Tamarana serve as regional hubs for commerce and services. Conversely, municipalities such as Ampére, Campo do Tenente and General Carneiro rely on a mix of agriculture (e.g. soybeans and beans) and local services (regional commerce, health and education). Furthermore, smaller municipalities (e.g. Atalaia and Godoy Moreira) still rely heavily on agriculture. Cruzeiro do Oeste, Peabiru and Reserva do Iguaçu share similar economic challenges, with a GDP per capita below the state average of BRL 47 422 (EUR 9 449) in 2021 (IPARDES, 2024[6]). Their populations are predominantly rural (IPARDES, 2019[9]; IBGE, 2023[10]).

Box 2.2. Paraná's methodology to select the pilot municipalities

Paraná has designed a methodology to select pilot municipalities and better support them in the implementation of the SDGs. The objective was to better understand the socio-economic development at the local level to refine the state's strategy for implementing the SDGs further and apply it in various municipalities. To that end, the state has selected 23 municipalities to implement the 2021 OECD policy recommendations.

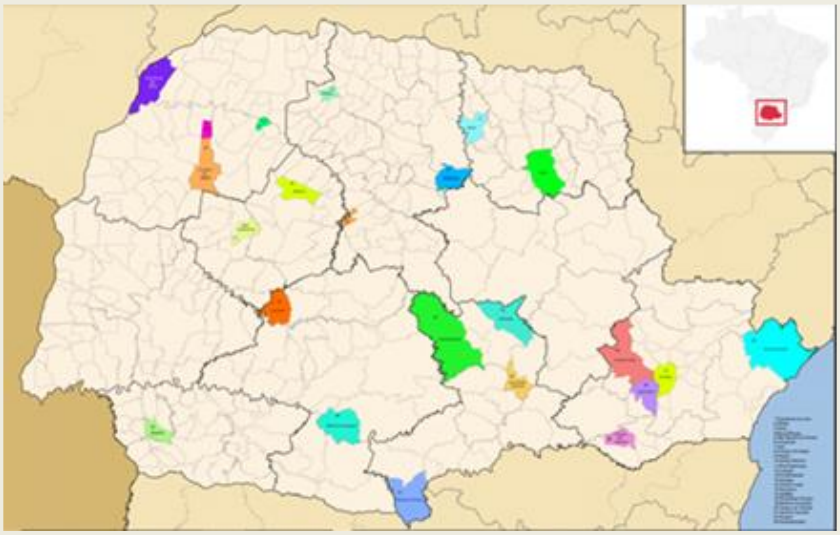
The pilot selection process in Paraná used six criteria to consider a wide range of characteristics and differences among municipalities:

- Classification of municipalities by population size.
- Municipalities that signed the Commitment to the Sustainable Development Goals (until 28 October 2021).
- Municipalities that participated in the first phase of the OECD project in Paraná.
- Progress made in 16 selected indicators measuring achievements in different SDGs, such as SDG 1 (No poverty), SDG 3 (Good health and well-being), SDG 4 (Quality education), SDG 5 (Gender quality), SDG 8 (Decent work and economic growth) and SDG 16 (Peace, justice and strong institutions).
- Calculation of the Herfindahl-Hirschman Index (HHI) that measures the market concentration in a municipality.[1]

- Application of the HHI and generation of lists with results for top- and bottom-ranked municipalities within each municipal association.

The application of this methodology led to a sample of 23 municipalities of varied sizes, heterogeneous in terms of socio-economic and environmental challenges. The government ensured that each of the 19 municipal associations in the state had at least one representative (Figure 2.9).

Figure 2.9. Location of selected pilot municipalities



Note: The methodology for Figure 2.9 was jointly prepared by CELEPAR and IPARDES with the support of PARANACIDADE.
1. The Municipal Herfindahl-Hirschman Index (HHI-M) is a measure of market concentration within a municipality. It is calculated by summing the squares of the market shares of all companies operating in that municipality. In the fourth criterion, the IHH index was applied to all municipalities. For the sixth criterion, municipalities were selected based on the highest and lowest IHH indexes within each association. This resulted in the selection of two municipalities with the highest IHH indexes and two with the lowest IHH indexes for the 76-municipality list. The same process was repeated for the 38-municipality list to ensure geographic diversity, encompassing municipalities of various sizes, development levels, and stages of SDG implementation within each association.
Source: For figure: Developed by the Government of Paraná in May 2023; For box: Government of Paraná (2021[35]), *Metodologia de Priorização de Municípios-Piloto [Methodology for Prioritising Pilot Municipalities]*.

Poverty rates vary significantly across municipalities, with the poorest municipalities registering rates more than double those of the state capital. In 2021, Curitiba reported a relative poverty rate[5] of 11.9%, considerably lower than the 22.7% observed in municipalities located in the north-central region (where Fernandes Pinheiro, Ipiranga and Prudentópolis are located) and the Norte Pioneiro (where Assaí, Ibati and Querência do Norte are located) (Fundação Getúlio Vargas, 2022[36]). Health disparities are also evident, particularly in infant mortality rates in 2022, which range from less than 4 deaths per 1 000 live births in Cruzeiro de Oeste to close to 60 in Atalaia. The number of hospital beds per 1 000 people further underscores this variation, ranging from 0.4 in Araucária and 1.3 in Cruzeiro do Oeste to 3.6 in Assaí and 6.1 in Campo Largo (IPARDES, 2024[6]). These disparities highlight the need for focused interventions to alleviate poverty (SDG 1 No poverty), enhance health infrastructure (SDG 3 Good health and well-being) in the most affected areas and reduce inequalities (SDG 10 Reduced inequalities).

Table 2.5. Overview of the 23 selected pilot municipalities

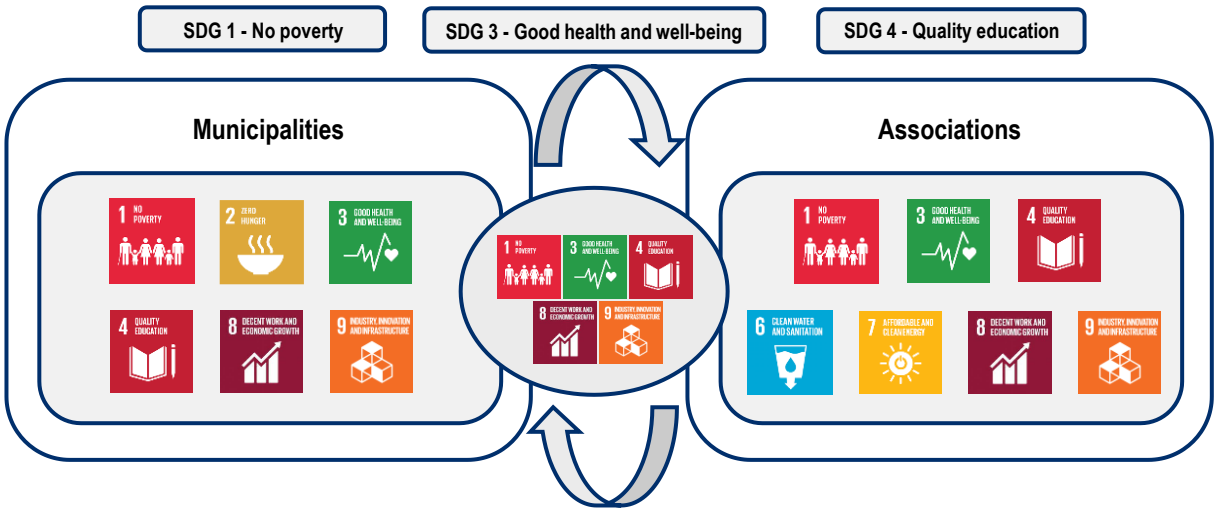
Municipality	Association of municipalities	HDI-M (2010)	Total SDGs addressed	HHI-M	Estimated population in 2022
Ampére	AMSOP	0.709	12	0.23	19 620
Araucária	ASSOMEC	0.74	3	0.08	151 666
Assaí	AMUNOP	0.728	9	0.16	13 797
Atalaia	AMUSEP	0.736	12	0.24	3 980
Boa Esperança	COMCAM	0.72	12	0.24	4 558
Campo do Tenente	AMSULEP	0.686	6	0.1	7 508
Campo Largo	ASSOMEC	0.745	8	0.15	136 327
Cruzeiro do Oeste	AMERIOS	0.717	7	0.12	23 831
Curitiba	ASSOMEC	0.823	8	0.16	1 773 718
Fernandes Pinheiro	AMCESPAR	0.645	10	0.17	6 255
General Carneiro	AMSULPAR	0.652	4	0.07	11 062
Godoy Moreira	AMUVI	0.675	3	0.07	2 977
Guaraqueçaba	AMLIPA	0.587	2	0.05	7 430
Ibaiti	AMUNORPI	0.71	11	0.21	28 830
Ipiranga	AMCG	0.652	11	0.2	14 142
Laranjal	AMOCENTRO	0.585	4	0.06	5 600
Nova Olímpia	AMERIOS	0.71	7	0.12	5 600
Peabiru	COMCAM	0.723	5	0.1	13 346
Prudentópolis	AMCESPAR	0.676	3	0.07	49 393
Querência do Norte	AMUNPAR	0.688	4	0.08	10 685
Reserva do Iguaçu	CANTUQUIRIGUACU	0.648	4	0.07	6 553
São Manoel do Paraná	AMENORTE	0.725	10	0.18	2 138
Tamarana	AMEPAR	0.621	4	0.07	10 707

Note: The state of Paraná has 19 regional associations of municipalities that cover the 399 municipalities in the state (https://www.parana.pr.gov.br/Pagina/Associacoes-de-Municipios-do-Parana).
HDI-M: Municipality Human Development Index; HHI-M: Municipal Herfindahl-Hirschman Index.
Source: Prepared by CELEPAR and IPARDES with the support of PARANACIDADE.

Between 2010 and 2022, there was significant population growth in the Curitiba Metropolitan Area. Since the last census in 2010, the population in the 23 pilot municipalities increased by about 3.4%. Notably, the municipalities of Araucária and Campo Largo, located in the metropolitan area of the state capital Curitiba, registered the highest jumps, with population growth of 27% and 21% respectively. In contrast, Curitiba's population remained stable (+1.2%). Other municipalities with considerable population growth include Cruzeiro do Oeste (+17%), located in the Northwest, and Ampére (+13%) in the West of Paraná. Conversely, 9 out of the 23 pilot municipalities experienced a population decline. This was notably the case in the municipalities of General Carneiro in the south of Paraná (-19%) and Assaí (-16%) in the north. Over just over a decade, such considerable changes have had far-reaching impacts on public service provision, infrastructure maintenance and the labour market, including challenges such as a shortage of skilled workers in municipalities with shrinking populations. The dynamic demographic landscape highlights the pressure on urban infrastructures and the need for adaptive policies to manage population growth in certain areas while reacting to population decline in others.

The main sustainable development priorities of the pilot municipalities are fighting poverty (SDG 1 No poverty), enhancing access to health services (SDG 3 Good health and well-being) and improving education (SDG 4 Quality education) (Figure 2.10). These priorities emerged from an OECD survey conducted between March 2022 and May 2023 with the selected municipalities and associations, reflecting the main challenges faced by local governments. The challenges are multifaceted. According to the Sustainable City Development Index (IDSC-BR), which assesses 100 indicators to define a city's performance in achieving the SDGs, 237 municipalities in Paraná (59%) have made low overall progress towards the SDGs (i.e. underperformed in a significant number of sustainability indicators) (SDSN, 2023[37]). Within the group of pilot municipalities, only eight achieved a moderate level of development (Ampére, Araucária, Campo Largo, Curitiba, Cruzeiro do Oeste, Guaraqueçaba, Ipiranga and Prudentópolis).

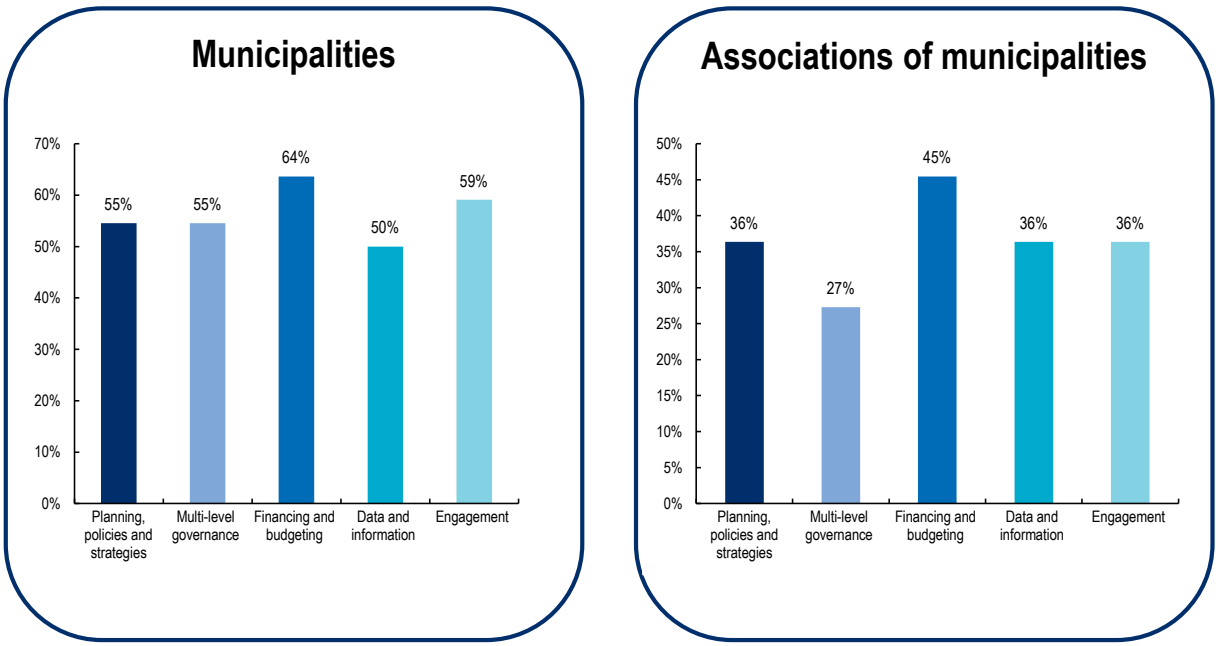
Figure 2.10. SDGs prioritised by municipalities and associations of municipalities in Paraná



Source: Based on responses to the questionnaire between March 2022 and May 2023.

Municipalities consider financing and stakeholder engagement to be the two most critical issues for implementing the SDGs in Paraná Over 50% of municipalities in Paraná reported policies, multi-level governance, financing, data, and stakeholder engagement to be key dimensions affecting SDG localisation (Figure 2.11). However, municipalities in Paraná face challenges when it comes to implementing the goals, particularly linked to their financial, human and technical capacity. According to the survey results from 2022 and 2023, the main challenges relate to the lack of awareness or knowledge about the SDGs among public servants, the lack of engagement and multi-level participation, and the lack of funding, data and capacity. Given that more than 87% of the selected municipalities have populations under 50 000 inhabitants (20 out of 23) in 2022 (IPARDES, 2023[27]), these local governments often have fewer resources and staff to dedicate to SDG efforts compared to larger cities like Araucária and Curitiba. Although the 2030 Agenda offers an opportunity for municipalities to improve local economic sustainable development, the SDGs have so far not played a significant role in their urban development. For example, only Araucária and Curitiba have aligned their planning and budgetary tools with the SDGs. This highlights a crucial gap between the potential of the SDGs to drive sustainable urban development and the actual implementation in municipalities. It underscores municipalities' need for increased capacity building, awareness raising among public servants and the establishment of mechanisms to enhance stakeholder engagement and secure the necessary funding to localise the SDGs.

Figure 2.11. Dimensions affecting the implementation of the SDGs in selected pilot municipalities



Source: Based on surveys conducted with pilot municipalities and associations of municipalities between March 2022 and May 2023.

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Notes

[1] Family farming pertains to agricultural activities predominantly carried out using family or community labour and resources. To be categorised as such, the production must meet specific criteria: it must take place on rural properties of up to 4 fiscal modules (in Paraná, this equates to a maximum of 24.2 hectares), have at least 50% of family labour and predominantly be financed by family or community resources (Federative Republic of Brazil, 2006[39]).

[2] Vocational education and training (VET) ensures skills development in a wide range of occupational fields, through school-based and work-based learning. It plays a key role in ensuring lower school dropout rates and facilitates the school-to-work transition (OECD, 2023[40]).

[3] The IDEB is the main indicator of the quality of education in Brazil and is released every two years. Its evaluation considers the school performance index (approval) and the average performance in the examinations applied by governmental agency INEP. In the case of the state and federal networks, the SAEB (Basic Education Evaluation System) is a set of external evaluations that allows INEP to carry out a diagnosis of Brazilian basic education.

[4] Metropolitan regions consist of “municipalities that, regardless of their administrative affiliation, are part of the same socio-economic community, aiming at providing common interest services” (Government of Brazil, 1967[41]). Paraná has eight legally established metropolitan regions (e.g. Apucarana, Campo Mourão, Cascavel, Curitiba, Londrina, Maringá, Toledo and Umuarama) (Government of Paraná, 2024[42]).

[5] FGV’s definition of poverty line is BRL 497 per month or USD 5.5 per day. https://cps.fgv.br/pesquisas/mapa-da-nova-pobreza

3 Advancing the SDGs in Paraná: Progress and ways forward

This chapter analyses the progress that the state of Paraná has made in implementing the 2021 OECD recommendations and points out where further action is needed. This chapter offers potential next steps, including action plans and international examples to enhance the territorial approach to the United Nations Sustainable Development Goals (SDGs) in Paraná. The recommendations range from designing a statewide sustainable development plan and integrating the SDGs in the new 2053 Strategic Vision for improving the quality and efficiency of public services to guarantee effective implementation of the SDGs. They also call for strengthening the capacity to advance data collection and information, and the engagement of stakeholders by supporting citizen-centred initiatives and partnerships for the SDGs.

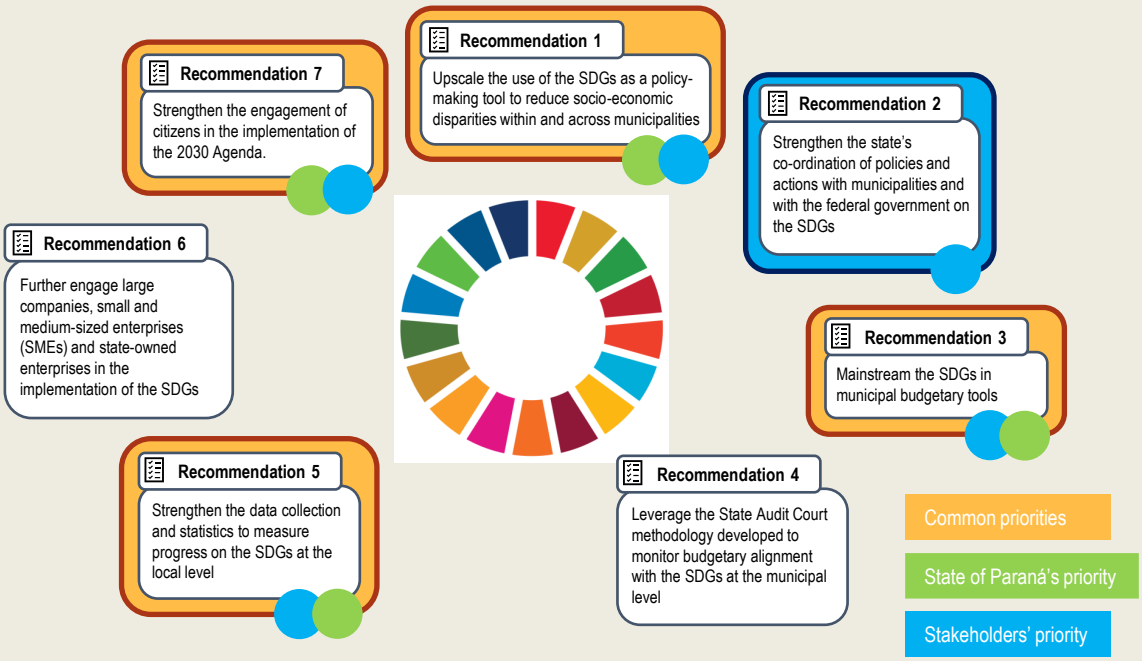
Monitoring Paraná's progress in implementing the 2021 OECD recommendations

The following section provides an analysis of Paraná's advancements in implementing the recommendations from the 2021 OECD report "A territorial approach to the Sustainable Development Goals in Paraná, Brazil" (OECD, 2021[1]). It builds on a self-assessment conducted by participants of two OECD study missions to Paraná, further taking into account information gathered from surveys, interviews and desk research carried out by the OECD. Additional details on how the state has prioritised the OECD recommendations are available in Box 3.1 and Annex A. Following the analysis of progress on each of the recommendations from the 2021 report, this chapter offers complementary ways forward, including action plans and examples of international experience that can help address the remaining sustainable development challenges of the state of Paraná (see Figure 3.1).

Box 3.1. How Paraná has prioritised the implementation of OECD recommendations in the short term

Paraná has identified four OECD priority recommendations to be implemented by the state until 2024 (see green circles in Figure 3.1). In parallel, stakeholders (e.g. representatives from national, state and municipal institutions, private sector, academia and civil society) were invited to select five recommendations as a key priority (see blue circles in Figure 3.1) to be implemented in the short term. When comparing them with the priorities selected by the state, results showed that four recommendations related to policies and strategies, budgeting and financing, data and information and engagement are common priorities for surveyed stakeholders and the state (see recommendations highlighted in orange in Figure 3.1).

Figure 3.1. Identification of essential recommendations



Note: SDGs = United Nations Sustainable Development Goals.
Source: Elaborated based on questionnaire answers given between March 2022 and May 2023.

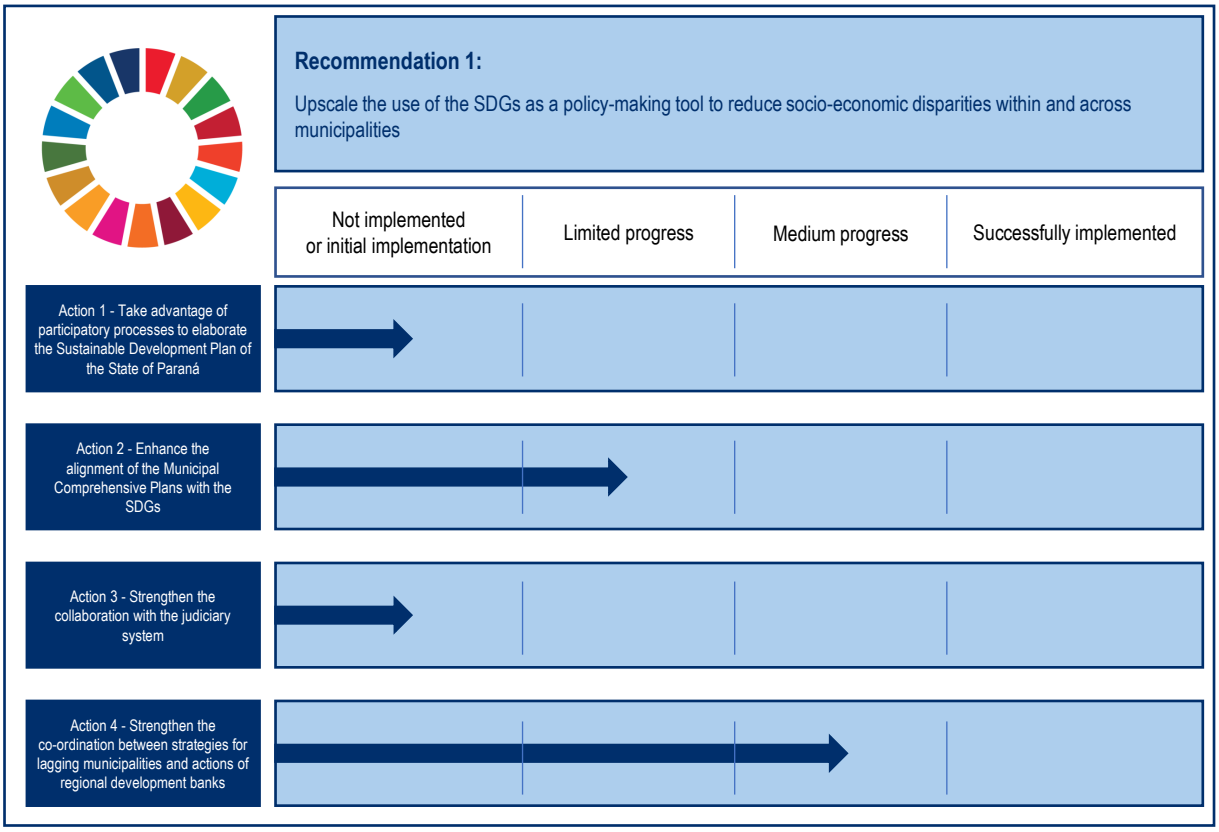
The results indicate a strong alignment between the recommendations identified by the state and the stakeholders. It is worth noting that although the state did not select it as a key short-term recommendation, stakeholders emphasised the importance of strengthening the state's co-ordination of policies and actions with municipalities and the federal government concerning the United Nations Sustainable Development Goals (SDGs).

Planning, policies and strategies

Paraná's progress on the 2021 Recommendation 1

This recommendation advised the state and municipalities to further harness the SDGs in aligning municipal priorities to tackle inequalities and poverty, including through closer collaboration with regional development banks in support of lagging regions (Figure 3.2) (OECD, 2021[1]).

Figure 3.2. Progress on 2021 recommendation and related actions to upscale the use of the SDGs as a policy-making tool



Note: Actions proposed to implement the 2021 OECD recommendation "Upscaling the use of the SDGs as a policy-making tool to reduce socio-economic disparities within and across municipalities".
Source: OECD (2021[1]), "A territorial approach to the Sustainable Development Goals in Paraná, Brazil", https://doi.org/10.1787/a24b52a5-en.

Action 1

While Paraná has aligned plans to the SDGs, the elaboration of a sustainable development plan has not yet started. The state has advanced policies and strategies, such as the Sustainable Development Plan for the Coastline of Paraná. It has yet to elaborate the Sustainable Development Plan of Paraná, which it must draft according to a state decree[1], targeting the entire state. Together with the 2053 Strategic Vision, the development of this plan could provide a long-term vision for the state in line with the SDGs and based on existing strategies, initiatives and actions to advance the implementation of the United Nations 2030 Agenda in Paraná. As part of its elaboration, the government plans to organise public hearings, involving citizens from urban and rural areas in the planning process. Still, the state faces challenges in connecting more systematically existing public policies and harmonising official plans, strategies and initiatives, among them and to the SDGs. This disconnect can result in suboptimal resource utilisation, inconsistent decision making and potential gaps in service delivery.

Action 2

The state government has supported municipalities in aligning their policies and strategies with the 2030 Agenda but progress achieved in this action remains limited. As mentioned above, the state has successfully engaged all of its 399 municipalities in the implementation of the SDGs through a pact and additional actions are underway. For example, the Association of Municipalities of Paraná is actively helping disseminate knowledge on SDG-related municipal actions across all 399 municipalities through awareness-raising campaigns. The National Front of Mayors is working with the Sustainable Development Solutions Network launched by the United Nations on actions to support municipalities in Paraná, including through awareness-raising activities for mayors and public servants, assistance in drafting municipal laws aligned with the SDGs, and monitoring and evaluating the distance of municipalities to the SDGs. Nonetheless, these initiatives could be further enhanced by organising workshops and providing guidance on how to better align existing planning tools, policies and strategies with the SDGs. The 19 regional associations of municipalities in Paraná are also beginning to support the state in localising the SDGs by helping municipalities align their budgetary and planning tools with the SDGs. However, collaboration remains sparse among municipalities that host important public companies, such as the State Administration of Antonina, home to the Port of Paranaguá.

Action 3

Paraná still needs to enhance its collaboration with the judiciary system to promote social inclusion and equity through the SDGs. The state needs to work more closely with the judicial system to further develop inclusive policies, ensuring equal access to justice and addressing systemic discrimination within the legal system (e.g. additional support for equal educational opportunities and safeguarding the rights of minority groups within the legal system). Additionally, the state is missing further initiatives to protect the civil rights of vulnerable groups, including persons with disabilities, women, children and adolescents, with a focus on combating discrimination and violence. For instance, the Secretary of State for Women, Racial Equality and Older Persons is implementing the *Caravana Paraná Unido pelas Mulheres* (Paraná United Caravan for Women) programme. It aims to facilitate dialogue between local communities, municipal, state and federal authorities through the provision of guidance, training and co-financing on how municipalities can promote gender equality. Its primary objectives include women's empowerment and leadership and the reduction of gender inequalities. The programme's first phase features ten workshops across various cities (e.g. Arapongas, Campo Mourão, Cascavel, Curitiba, Francisco Beltrão, Guarapuava, Irati, Maringá, Ponta Grossa and Santo Antônio da Platina), focusing on governance models. The governance model entails the creation of Women's Policy Bodies (OPMs) that serve as executive bodies embedded within state and municipal government structures. These OPMs play a critical role in formulating, co-ordinating and implementing public policies focused on women's rights, gender equality and the active involvement

of women in political matters at different administrative levels (SDG 5 Gender equality). Also, the state is not fully tapping into existing Court of Justice of the State of Paraná's (TJ-PR) programmes (e.g. access to justice, racial equality, defence of the rights of persons with disabilities, defence of women's rights and defence of children's and adolescents' rights) and state councils that foster social inclusion, equity and human rights. For instance, the State Council for the Promotion of Racial Equality has undergone revisions to enhance its effectiveness by allowing council members to actively shape the State Policy for the Promotion of Racial Equality. The aim is to direct state efforts and resources toward lagging regions in the state.

Action 4

Paraná is strengthening its collaboration with regional development banks. The Brazilian Southern Region Development Bank (BRDE) and the Development Agency of Paraná S.A. (Fomento Paraná) have been designing new lines of credit linked to implementing the SDGs since 2021. For instance, the BRDE created a taxonomy in 2023 to align projects with the SDGs and is also raising international funds from the Inter-American Development Bank, the New Development Bank and the World Bank to support municipalities in implementing the SDGs. Since 2021, Fomento Paraná has introduced new funding options for municipalities that create jobs and align with the SDGs, such as co-working spaces, green buildings and alternative energy generation plants for municipalities. A key action adopted by Fomento Paraná to tackle territorial disparities is to offer preferential interest rates for municipalities with a lower level of socio-economic development according to the IPARDES Municipal Performance Index that evaluates socio-economic municipal development (IPARDES, 2023[2]). In addition, Fomento Paraná has found that 92% of its credit portfolio operations effectively contribute to the implementation of the SDGs, including a variety of credit lines aimed at supporting private sector initiatives, notably through microcredits that benefit the most vulnerable populations (Fomento Paraná, 2022[3]). Despite these initiatives, a joint effort between these financial institutions and social services organisation PARANACIDADE to support the lagging municipalities remains absent. For example, such a partnership could improve access to funding for urban development in small and medium-sized municipalities and promote awareness-raising campaigns and capacity-building programmes.

Ways forward

Figure 3.3. Action plan to implement 2024 OECD Recommendation 1 to tackle the state's sustainable development challenges through the SDG framework – Part I

Recommendation 1

Tackle the state's sustainable development challenges, such as health, education, environmental preservation and safety, through the SDG framework

Considering the challenges and priorities identified in Chapter 2 and the progress that the state made in implementing Recommendation 1 from 2021, Paraná could take additional steps to address its main sustainable development challenges and sustainable development priorities of environmental preservation, addressing population ageing, enhancing urban infrastructure and supporting family farming, e.g. through investments in public transport and walkable infrastructure, constructions of new schools and healthcare centres. Furthermore, using the SDGs as a cross-cutting guiding framework to identify synergies and trade-offs could ensure that state secretaries allocate resources more efficiently while also anticipating future expenses related to modifications of bus lanes or the addition of cycle paths.

Actions

Cross-cutting actions:

- *Urban Infrastructure, Environment and Health*: **Enhance urban living conditions and public health through sustainable urban development initiatives** (cross-cutting SDGs 3, 9, 11, 13) by:
  - Implementing green infrastructure projects in metropolitan areas like Curitiba, Londrina, and Maringá, focusing on parks, green spaces and sustainable transportation to promote physical activity and mental well-being (SDGs 3, 11).
  - Integrating climate-resilient urban planning measures, such as sustainable drainage systems, to address the challenges of extreme weather events and reduce the health risks associated with climate change (SDGs 11, 13).
  - Promoting active transportation, such as cycling and walking, by investing in urban infrastructure improvements in municipalities (e.g. bike lanes and pedestrian-friendly pathways in Curitiba), thereby contributing to both environmental sustainability and public health (SDGs 3, 11, 13).
  - Mitigate health risks associated with climate change (SDGs 3, 13, 15) by developing a public health strategy to address climate-induced health challenges, focusing on vector-borne diseases (e.g. Dengue fever, Chikungunya and Zika virus) and heat-related illnesses (e.g. dehydration and skin conditions) (SDG 3).
- *Education, Family Farming and Environmental Protection*: **Foster sustainable agricultural practices through education and capacity-building initiatives** (cross-cutting SDGs 2, 4, 8, 15) by:
  - Establishing school-based agricultural education programmes that integrate sustainable farming practices and promote agroecological techniques, connecting students with the principles of family farming, biodiversity conservation and the importance of protecting natural resources (SDGs 4, 8, 15).
  - Developing partnerships between educational institutions and family farming associations to create experiential learning opportunities, encouraging students' involvement in practical farming activities as part of their curriculum (SDGs 4, 8, 17).
  - Implementing awareness campaigns in collaboration with agricultural communities to promote climate-resilient farming practices, reducing environmental stressors on health (cross-cutting SDGs 2, 3, 6, 13, 14, 15).
  - Encouraging family farmers to adopt eco-friendly approaches, such as agroforestry and organic farming, by providing incentives and support through the State Secretary of Agriculture (SDGs 2, 6, 14, 15).
- *Safety and Population Ageing:* **Establish age-friendly safety measures to improve the well-being and social inclusion of senior citizens** (cross-cutting SDGs 3, 11, 16) by:
  - Making public spaces more accessible and secure for the elderly population to reduce the risk of accidents. This can include solutions like well-lit areas and clearly marked pathways. (SDGs 3, 11, 16).
  - Providing specialised training to emergency responders and healthcare professionals to address the safety concerns and medical needs of the ageing population (SDGs 3, 16).

Figure 3.4. Action plan to implement 2024 OECD Recommendation 1 to tackle the state's sustainable development challenges through the SDG framework – Part II

Sectoral actions:

Health: **Strengthen the public health system** (SDG 3) by:

- Expanding preventive care programmes, especially in remote municipalities, with a focus on improving access to vaccines and addressing common non-communicable diseases.
- Strengthening the public health system to further tackle maternal, infant and child mortality by engaging the private sector to set up clinics in underserved municipalities. Tax breaks and subsidies could provide related financing while contributing to expanding access to essential health services and promoting vocational training and employment opportunities in the health sector (SDGs 4, 8).
- Conducting community-based awareness campaigns on the importance of antenatal care, breastfeeding and the dangers of common childhood diseases, particularly in the areas with the highest rate of infant mortality in Paraná (SDG 4).

Education: **Improve access and quality of education** (SDG 4), by:

- Updating curriculum standards of state schools to incorporate modern skillsets to help increase high school completion rates (SDGs 4, 8).
- Implementing teacher training programmes to enhance teaching methodologies in state schools, with a particular focus on basic education (SDGs 4, 8).
- Ensuring equitable access to digital tools and resources for students in rural areas and smaller municipalities like Atalaia, Boa Esperança and Godoy Moreira to reduce school dropout rates (SDGs 8, 10).

Safety: **Enhance community safety** (SDG 16) by:

- Improving street lighting and infrastructure in areas identified as "crime hotspots" to deter criminal activities, particularly in metropolitan regions (e.g. Curitiba, Londrina, Maringá, among others) and increase citizens' safety (SDG 3).
- Strengthening judicial systems through the TJ-PR to ensure speedy trials by setting up rapid response teams to address emergencies, ensuring that they are equipped and trained to oversee several types of situations effectively.
- Running community awareness programmes on citizens' rights and responsibilities through the State Secretary of Justice and encouraging community engagement and collaboration between law enforcement agents, local businesses and residents to build a sense of community and shared responsibility (SDGs 11, 16, 17).

Environmental Preservation: **Foster environmental protection and nature conservation** (SDG 15) by:

- Fostering environmental protection and nature conservation by strengthening reforestation programmes, especially in areas of the Atlantic Forest biome (SDG 15).
- Encouraging businesses and state-owned companies (e.g. Administration of Ports Paranaguá) to adopt green technologies and sustainable practices through incentives (e.g. tax credits, grants and subsidies).
- Implementing policies to curb industrial pollution (e.g. introducing stringent emission standards for factories, promoting cleaner production technologies and incentivising waste reduction and recycling initiatives), particularly in the metropolitan area of Curitiba (SDGs 9, 12), thereby contributing to the achievement of SDG 12 Responsible consumption and production.

Figure 3.5. Action plan to implement 2024 OECD Recommendation 1 to tackle the state's sustainable development challenges through the SDG framework – Part III

Population Ageing: **Address the challenges of an ageing population** (SDGs 1, 3, 4, 10, 11 and 16) by:

- Retrofitting public spaces and transportation systems to be senior-friendly – this includes ramps, seating arrangements and signs – notably in larger cities like Curitiba, Londrina and Maringá marked by higher population density and more complex mobility infrastructure, thus improving their inclusion in public life (SDGs 3, 10), reducing reliance on private vehicles and cutting emissions in the long term (SDG 13). To respond to the ongoing demographic shift in Paraná, transportation systems could also be upgraded and become a spending priority in order to accommodate the needs of a growing number of senior citizens and facilitate their access to public health institutions. These upgrades could be jointly financed by municipalities and the federal government, including through combining funding from the state budget, public-private partnerships and, if applicable, federal subsidies.
- Offering incentives for companies to hire senior professionals (e.g. tax breaks for businesses employing professionals over 60 years of age and grant schemes for training and development of senior employees), particularly state-owned companies (e.g. Sanepar), thus improving relevant skills needed in the labour market (SDG 4), increasing the share of employment (SDG 8) overall and reducing the risk of poverty for the elderly (SDGs 1, 10)
- Launching programmes that encourage active participation of senior citizens in community activities, particularly within state universities. This could include mentorship programmes for youth or career counselling where senior citizens could share their experiences to benefit the community (SDGs 4, 8).

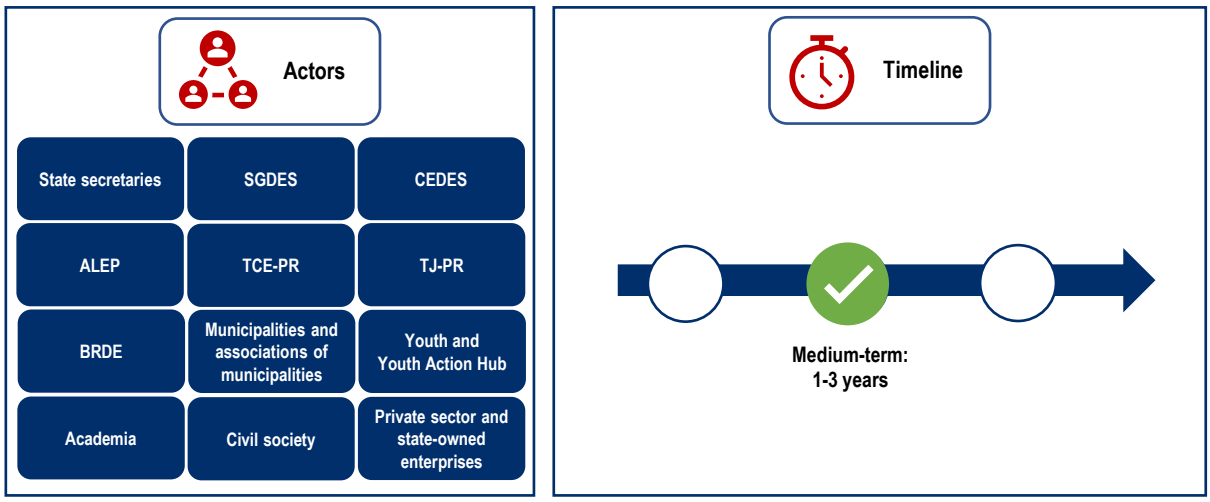
Urban Infrastructure: **Enhance urban infrastructure** *(SDG 11)* by:

- Launching urban renewal projects focusing on public transport, green spaces and waste management (e.g. upgrading metro and bus facilities, developing urban parks and recreational areas, and introducing advanced recycling centres), thus promoting walking for the elderly (SDG 10) and cycling for students (SDG 11) also contributing to action against climate change (SDG 13).
- Incorporating smart city solutions (e.g. advanced traffic management systems, real-time public transportation tracking and IoT-enabled waste management) for better governance and service delivery in municipalities located far from the metropolitan area of Curitiba, thereby improving traffic flows (SDG 11), reducing commuting times and simplifying access to public services (SDG 16).
- Enhancing digital connectivity by ensuring that all municipalities have access to high-speed Internet, thereby facilitating e-governance, online education and telemedicine. This can be done by expanding broadband infrastructure in underserved areas and securing public-private partnerships for sustained funding and expertise.

Family farming: **Support family farming and sustainable agriculture** (SDG 2) by:

- Granting simple access to micro-credits for farmers through the BRDE and Fomento Paraná and ensure secure land tenure for family farmers to encourage long-term investments and sustainable land use (SDG 8).
- Offering training programmes on organic farming, thereby contributing to the application of sustainable farming practices (e.g. SEAB) (SDG 4).
- Promoting climate-resilient farming practices that help family farmers cope with extreme weather events and develop strategies for managing droughts and floods through water storage and conservation measures in response to climate change impacts, which can help maintain production and income levels in view of climate change impacts (SDGs 8, 13).
- Supporting processing and value-added activities to increase the competitiveness of family farm products and invest in rural infrastructure, including roads and transportation, to facilitate the movement of agricultural products and develop sustainable water management systems and irrigation to enhance productivity (SDGs 6, 8, 13).

Figure 3.6. Action plan to implement 2024 OECD Recommendation 1 to tackle the state's sustainable development challenges through the SDG framework – Part IV



Relevant international experiences

Province of Córdoba, Argentina

The province of Córdoba, Argentina, has adopted the SDGs as a holistic framework to promote social inclusion and well-being, and to address its territorial development challenges in an integrated way. To harness the 2030 Agenda as a policy-making tool, Córdoba has developed a matrix to identify synergies across the SDGs. In 2019, the province brought together a wide range of territorial stakeholders (from the government, academia, civil society and the private sector) to develop strategies to adapt the 2030 Agenda to the provincial reality. This localisation process of the SDGs has taken place in three stages: first, adapting the SDGs to the local context; second, linking priority goals to the 2030 Agenda and establishing relationships between them; and third, devising action plans and designing concrete initiatives. Through a matrix relationship analysis conducted in collaboration with territorial stakeholders, the province of Córdoba has been able to identify the most critical areas for the achievement of the 2030 Agenda. Córdoba's policies have focused on the following four strategic axes: i) gender and employment; ii) education for employment; iii) housing and access to essential services; and iv) bridging the digital divide.

Region of Southern Denmark, Denmark

The region of Southern Denmark's regional development strategy, Southern Denmark of the Future 2020-2023, provides a holistic framework for regional development based on the SDGs. In this region, the SDGs provided an opportunity to design a new strategy building on the earlier regional strategy called The Good Life, which had a strong focus on well-being. To address environmental challenges, the region included a set of initiatives related to green transition, climate and resources in the new strategy, focusing on resource optimisation, including the circular economy, and utilisation of alternative materials to minimise environmental impacts.

Figure 3.7. Action plan to implement 2024 OECD Recommendation 2 to advance the development of the 2053 Strategic Vision and elaborate a comprehensive sustainable development plan – Part I

Recommendation 2

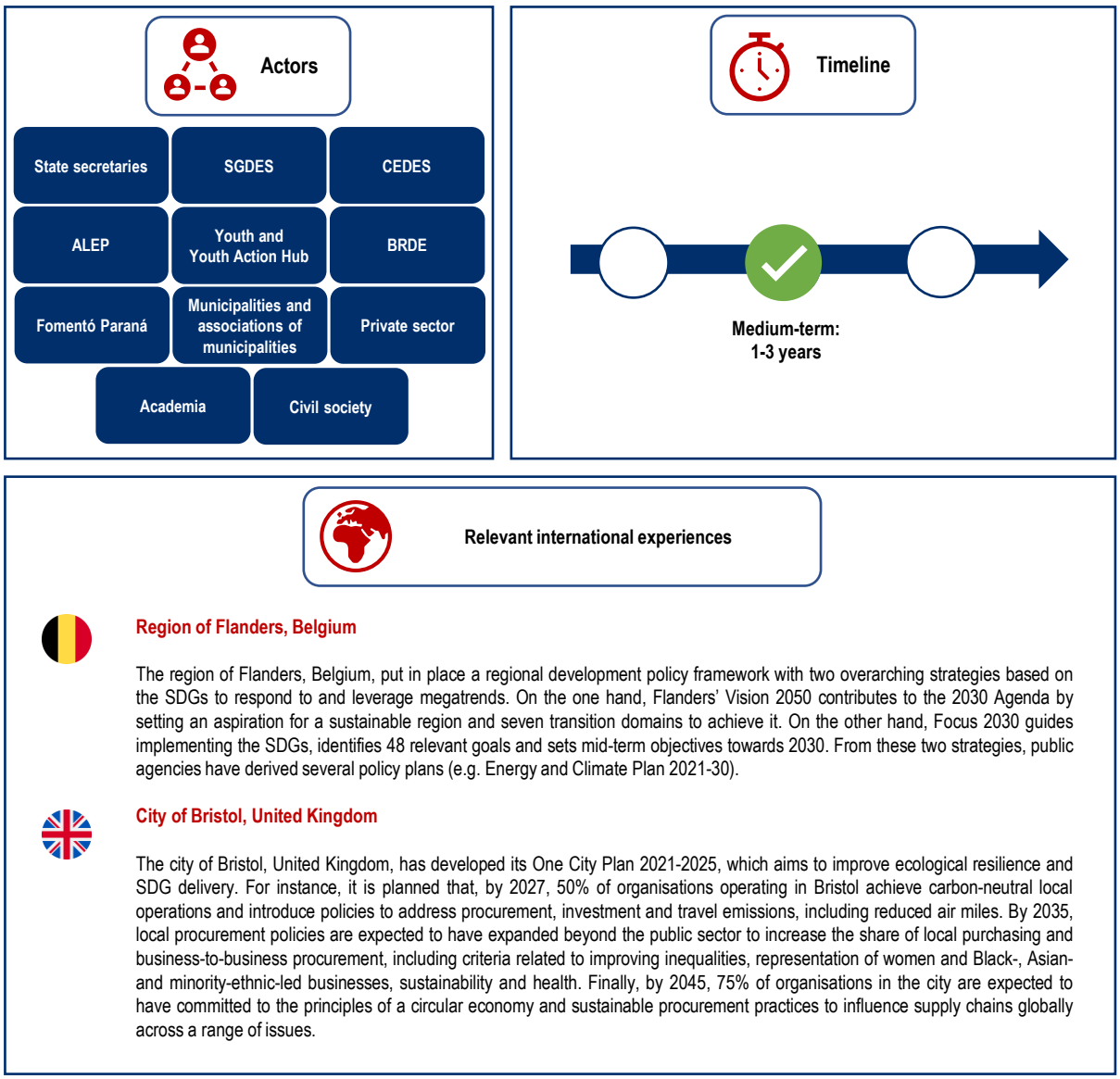
Advance the development and implementation of the 2053 Strategic Vision and elaborate a comprehensive Sustainable Development Plan of the State of Paraná

To move forward with the development of the 2053 Strategic Vision, Paraná could use the SDGs as a common framework to enhance the interconnectedness of its policies and address its territorial development challenges. At the same time, designing roadmaps that outline envisioned progress on key challenges around health, education and safety up to 2053 could offer clear directions and benchmarks to monitor sustainable development progress in Paraná. The process of developing the strategic vision could also inform the elaboration of the sustainable development plan that the state is mandated to deliver.

Actions

- **Enhance the interconnectedness of policies within the 2053 vision by using the SDGs as a common framework.** The 2053 Strategic Vision should reflect Paraná's sustainable development priorities. It should also include guidelines on how to track the progress of its implementation over time. As part of the vision's development process, the state should revise existing sectoral plans, particularly those from the State Secretaries of Health, Education, Public Safety, Cities, Agriculture and Provision, and Planning, to align them to the SDGs and the new vision.
- **Develop roadmaps outlining envisioned progress on key challenges (e.g. health, education, safety) towards 2053.** These roadmaps could include the specific challenge targeted, progress made thus far and remaining gaps in addressing the challenge, including suggested adjustments or future actions needed. Furthermore, these roadmaps should incorporate projections, illustrating potential societal impacts if these challenges are left unaddressed. Paraná should periodically revise these roadmaps, ideally every two-three years, enabling prompt adjustments in the planning and budgeting tools used by state secretaries, such as the LOA, LDO and PPA.
- **Revise existing sectoral plans (e.g. health, education and safety) and planning and budgeting tools (PPA, LDO and LOA) to align them to the new vision and the 2030 Agenda, developing a coherent, sustainable development policy framework.** This could include training programmes on strategic foresight and scenario planning for policy makers and planners involved in state development planning. This training can equip them with the skills to effectively anticipate and navigate future challenges, ensuring that sectoral plans and budgeting tools are not only aligned with the new vision and the 2030 Agenda but are also resilient to future uncertainties. Such programmes could cover methodologies in foresight analysis, trend monitoring and the application of these insights in policy formulation and adjustment.
- **Prepare the sustainable development plan to guide policy actions for the implementation of the SDGs in the state.** In addition to taking advantage of participatory processes (e.g. stakeholder workshops or public consultations), this could build on existing plans, initiatives, actions and the forward-looking 2053 Strategic Vision to advance the implementation of the 2030 Agenda in Paraná.

Figure 3.8. Action plan to implement 2024 OECD Recommendation 2 to advance the development of the 2053 Strategic Vision and elaborate a comprehensive sustainable development plan – Part II

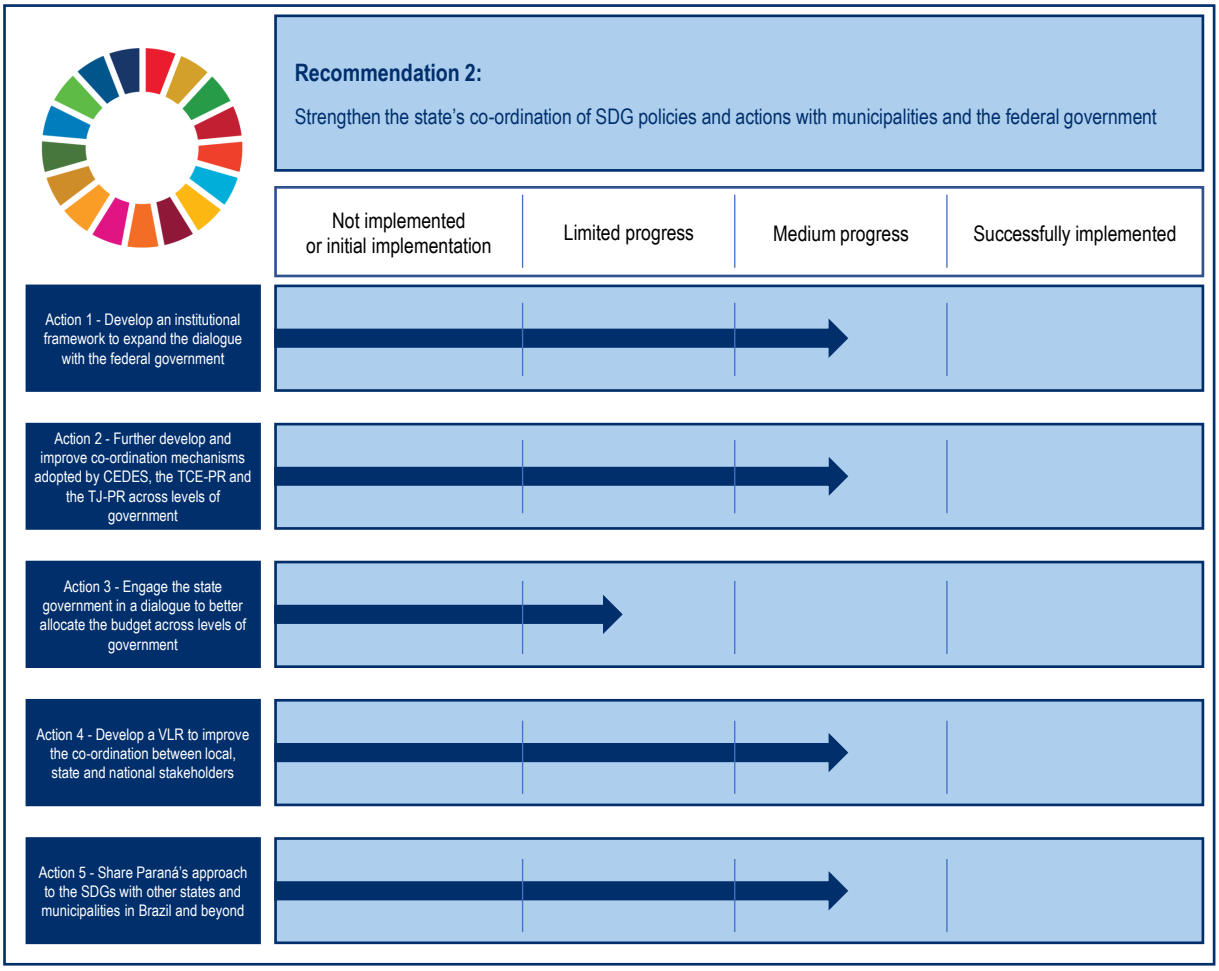


Multi-level governance

Paraná's progress on the 2021 Recommendation 2

The recommendation concerns the need to strengthen the state's role in co-ordinating the SDG-related policies and actions with municipalities and the federal government (Figure 3.9). It points out how the state of Paraná could use the SDGs as a tool to engage different levels of government in sustainable development policies, including through Voluntary Local Reviews (VLRs).

Figure 3.9. Progress on 2021 recommendation and related actions to strengthen the state's co-ordination of SDG policies and actions



Note: Actions proposed to implement the 2021 OECD recommendation "Strengthening the state's co-ordination of SDGs policies and actions with municipalities and the federal government".
Source: OECD (2021[1]), "A territorial approach to the Sustainable Development Goals in Paraná, Brazil", https://doi.org/10.1787/a24b52a5-en.

Action 1

Paraná has strengthened its institutional framework to achieve the SDGs by creating the General Superintendence of Economic and Social Development (SGDES). This entity collaborates with the State Council for Economic and Social Development (CEDES) of the state of Paraná in their efforts to implement

the 2030 Agenda (Box 3.2). The SGDES supports the government in developing key projects for communication and co-ordination between governmental and non-governmental entities in line with the 2030 Agenda, working in collaboration with CEDES.[2] It produces technical studies associated with the 2030 Agenda, creates decision-making tools for public officials and promotes the implementation of the SDGs in municipalities. The SGDES has been expanding the dialogue with the federal government, particularly by engaging with the General Secretary of the Presidency of the Republic,[3] to get more involved in the National Commission for the Sustainable Development Goals reinstated in September 2023. Despite those advancements, CEDES has never organised a formal gathering with all its members and most interactions occur on a bilateral basis. Still, the governor nominated two out of the three required independent experts in sustainable development or representatives from civil society organisations actively involved in the SDGs to join CEDES in 2022.

Box 3.2. A new institutional framework: CEDES and SGDES roles in implementing the SDGs

Paraná has designed a specific multi-level governance framework to implement the SDGs. In 2016, the state assigned the role of co-ordinating the implementation of the SDGs to the State Council for Economic and Social Development (CEDES) as the primary body responsible for the state governance of the 2030 Agenda. The council is a multi-sectoral collegiate body led by the state governor and consists of all state secretaries, along with three independent experts in sustainable development or individuals from civil society groups actively involved in the SDGs.

Established in February 2022, the General Superintendence of Economic and Sustainable Development (SGDES) aims to enhance the institutional framework for implementing the SDGs. Its primary objective is to assist the government in improving the co-ordination and alignment of policies related to the SDGs, with the goal of promoting comprehensive economic, social and environmental development in the state of Paraná. Specific objectives of the SGDES include:

- To participate in the development, approval and monitoring of priority projects of the state government focusing on the SDGs and environmental, social and governance (ESG) strategies.
- To propose, encourage and promote public policies and priorities involving federal, state and municipal governments, the private sector, academia and civil society, in line with the 2030 Agenda and in conjunction with CEDES.
- To facilitate government relations with civil society representatives and collaboration among various sectors of society when necessary, aiming to improve state public policies jointly with the Office of Political and Institutional Affairs.

Source: Government of Paraná (2019[4]), *State Decree No. 1482/2019*, https://www.cedes.pr.gov.br/Pagina/Legislacao; Government of Paraná (2023[5]), *State Decrees Nos. 80/2023 and 10 364/2022*, https://www.sgdes.pr.gov.br/Pagina/Legislacao; OECD (2021[1]), "A territorial approach to the Sustainable Development Goals in Paraná, Brazil", https://doi.org/10.1787/a24b52a5-en.

Action 2

A bilateral collaboration the SGDES and the State Audit Court of Paraná (TCE-PR) for the implementation of the SDGs has been established but the state has yet to advance its collaboration with TJ-PR. The government put in place a new co-operation agreement with the TCE-PR in October 2023. The project aims to accelerate the localisation of the SDGs in the state of Paraná as part of the *Paraná de Olho nos ODS* (Paraná Keeping an Eye on the SDGs) strategy through, for instance, raising awareness of the importance of implementing the SDGs at the local level and providing capacity building to public servants in managing policies aligned with the SDGs. The co-operation targets primarily government officials from

municipal levels and civil society representatives in public policy councils, as well as civil society, academia and the private sector. The project shall be completed over a period of six months. However, co-ordination mechanisms across government levels and stakeholders (e.g. private sector, academia and civil society) still need to be developed and expanded to avoid duplication and overlap in SDG support efforts. For instance, the state has an opportunity to enhance co-operation with the TJ-PR by leveraging the judiciary's expertise in resolving legal issues related to sustainability, drawing on its experience in facilitating partnerships to promote sustainable projects and using its network of legal professionals to effectively raise awareness and ensure legal compliance related to the 2030 Agenda.

Action 3

Despite the collaboration between the TCE-PR and state secretaries, the execution of this action has been slow-paced. The TCE-PR has faced some setbacks in using its methodology to engage the state government to improve budget allocation across levels of government (state secretaries, other state courts and municipalities) and with other stakeholders (academia, private sector and civil society). As the methodology's application is currently undergoing a review process, the court is collaborating bilaterally with the Secretary of State for Planning to help raise awareness among managers on how public actions align with SDG goals, reinforcing the need for efficient state budget allocation and monitoring. This collaboration helped shape the 2024-27 Multi-year Plan (PPA), which aligns with the SDGs and notably integrates 38 SDG indicators to monitor policy actions. The PPA also contains "milestones" for tracking progress on the SDGs and on the implementation of cross-cutting policies targeting children and adolescents (86 specific milestones), gender equality (25) and racial equality (23). For 2023-24, the TCE-PR has set guidelines to encourage public institutions to align their planning and projects to the SDGs. These guidelines cover a range of activities, including training for public servants conducted in collaboration with the TCE-PR School of Management and assessing municipalities' governance maturity as an integral component of their SDG implementation efforts. Furthermore, the TCE-PR has developed a mid-term strategy and an implementation plan using the SDGs as a framework to design outputs. This includes, for instance, the 2027 Strategic Plan and the Management Plan for 2023-24, which provide guidelines for policy improvement and results-oriented management for TCE-PR public officials (TCE-PR, 2021[6]; 2022[7]).

Action 4

Paraná has strengthened its co-operation with municipalities through the VLR. In March 2023, the state started to develop its VLR to improve co-ordination between local, state and federal stakeholders and integrate local and regional experiences working with the 2030 Agenda. The VLR is being developed in two stages. The first stage has been the development of the VLR at the state level, which is expected to be completed by April 2024. The second will involve the participation of municipalities and the federal government in the development of new strategies to address the gaps and challenges identified and in updating existing policies and plans accordingly, which will take place throughout 2024. The development of its VLR could help bolster Paraná's efforts to advance the SDGs. For example, the VLR enhances transparency and accountability by revealing achievements and areas in need of investment. It identifies sectors like health and education that require additional resources and highlights the growing demand for sustainable products and services within the private sector. The VLR is considered as an accountability report that provides useful information and updates to state secretaries.

Action 5

Paraná has shared its good practices with other states in Brazil and beyond, but further actions are needed to improve engagement with the federal government and other Brazilian states. Paraná has made progress in sharing its SDG approach with other states (e.g. Rio de Janeiro and Pará) and municipalities

(e.g. through the National Front of Mayors and the National Confederation of Municipalities) in Brazil and internationally. This includes collaborating with the United Nations Institute for Training and Research to enhance the capacity of its municipalities and actively participating in the Brazilian Network for Sustainable Development. This engagement is particularly important in developing and improving co-ordination mechanisms across levels of government and avoiding the duplication/overlaps of actions to implement the SDGs (e.g. integration of planning tools and budget allocation). Still, there is a need for the state government to deepen its participation in dialogue across various levels of government, including the federal government, state secretaries, other state entities and municipalities in order to identify gaps and opportunities for improvement in the implementation of the SDGs, share experiences and best practices, and foster co-operation and policy alignment.

Ways forward

Figure 3.10. Action plan to implement 2024 OECD Recommendation 3 to enhance co-ordination with municipalities and national government to implement the SDGs – Part I

Recommendation 3

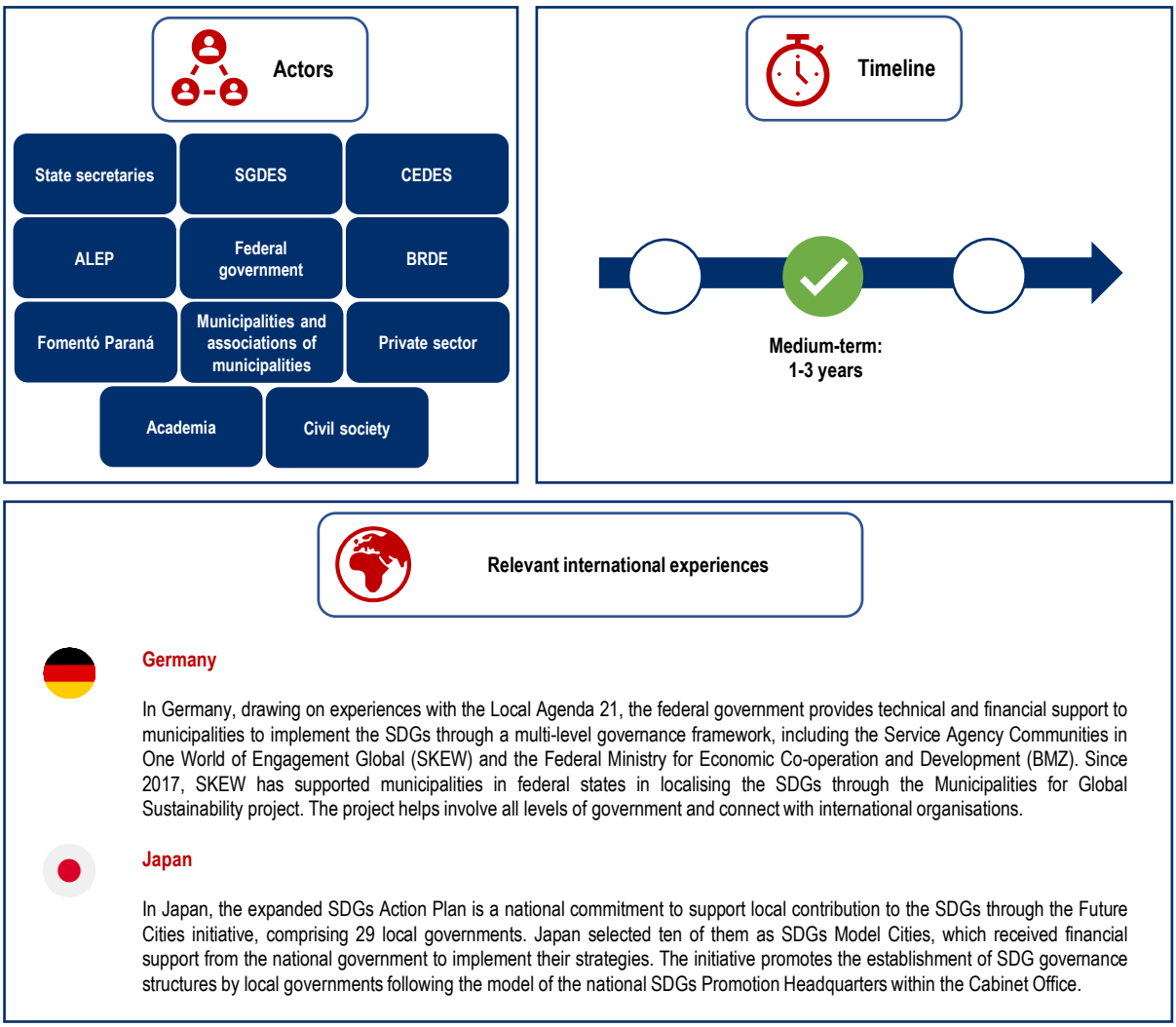
Enhance co-ordination with municipalities and national government to implement the SDGs, particularly in the areas where Paraná is facing challenges

Municipalities in Paraná continue to lack financial, human and technical capacities for effective SDG implementation. To assist municipalities in their efforts to align their planning tools (e.g. PPA and municipal comprehensive plans) with the Agenda 2030, Paraná could further use its existing SDGs' governance framework (e.g. SGDES), particularly the new POLIS programme, to establish guidelines and a roadmap for municipalities to streamline local governance processes. This could help ensure a more efficient use of scarce resources, particularly on health (SDG 3), education (SDG 4) and safety (SDG 16). The state could also use POLIS to enhance collaboration between neighbouring municipalities in Paraná through its 19 Regional Associations of Municipalities, facilitating the exchange of best practices in the areas of health, education and safety.

Actions

- **Assisting municipalities in improving their financial, human and technical capabilities to efficiently implement the SDGs:**
  - Identifying key challenges and reallocating budgetary resources through tools like the LOA, LDO and PPA to address these challenges effectively.
  - Enhancing collaboration among neighbouring municipalities in Paraná through the 19 Regional Associations of Municipalities. The associations could facilitate the sharing of best practices and co-ordinate joint infrastructure projects. This collaboration can help mobilise resources, both financial and human, to address common needs and priorities, e.g. by developing joint financing mechanisms with the BRDE and Fomento Paraná. The Association of Municipalities of Paraná, for instance, could also help to create a community of practice of municipalities to share practices. This would benefit municipalities by facilitating peer-to-peer learning on effective financial management strategies and providing training sessions for staff to enhance their technical competency on the SDGs.
- **Improve the state governance framework to implement the 2030 Agenda by establishing an SDG performance management system for municipalities.** This could be achieved through the BI tool Paraná Keeping an Eye on the SDGs developed by the state, which offers means to track progress, ensuring consistent reporting and fostering collaboration with local stakeholders to achieve desired outcomes.
- **Additionally, the governance framework could include non-binding "municipal SDGs charters", which would serve as a complement to the agreements signed by municipalities with the state government in their commitment to the 2030 Agenda.** Municipal SDG charters can serve as guidelines for aligning local policies with the SDGs based on local needs. These charters should outline how municipalities can effectively collaborate with the private sector, civil society and academia to develop local initiatives that align with the 2030 Agenda. They should also emphasise how municipal actions contribute to the state's sustainable development priorities. These guidelines should clarify the roles and responsibilities of state and municipal entities and other stakeholders involved in SDG implementation. This will help public managers and stakeholders better understand their roles within the SDG governance framework, including the functions of state secretaries, CEDES and the SGDES.
  - Continue to provide support to municipalities in their work towards achieving the 2030 Agenda.
  - Consider expanding the number of pilot municipalities selected for special assistance to further promote SDG implementation at the local level. Paraná should consider the specific needs and characteristics of each municipality. For example, the initial group of 23 selected municipalities is focusing on addressing poverty, enhancing healthcare access and improving education. To effectively categorise municipalities into similar subgroups, the state could conduct a thorough assessment considering a range of factors like gross domestic product per capita, the human development index and environmental sustainability.
  - Prepare an action plan tailored to the needs of each group of municipalities, setting targets in the short, mid and long terms, considering the necessity to align municipal planning and budgeting instruments (LDO, LOA and PPA) and the revision of the municipal comprehensive plans. During the implementation phase, it will be essential to pair this effort with ongoing monitoring to assess progress toward achieving the SDGs. This monitoring can build on tools such as the indicator framework developed by IPARDES.
  - Promote regular interactions among municipalities, CEDES, the TCE-PR, the TJ-PR and ALEP, facilitated by the SDGES. These interactions could take the form of roundtables, workshops and seminars to encourage peer-to-peer learning.
  - Conduct a thorough review of Paraná's approach on localising the SDGs after completing an SDG progress evaluation with the initial group of 23 selected municipalities. This will ensure that the lessons leant are applied to subsequent groups. Transparency should be a guiding principle throughout this process, with results and updates made accessible through tools like Paraná Keeping an Eye on the SDGs.

Figure 3.11. Action plan to implement 2024 OECD Recommendation 2 to enhance co-ordination with municipalities and national government to implement the SDGs – Part II

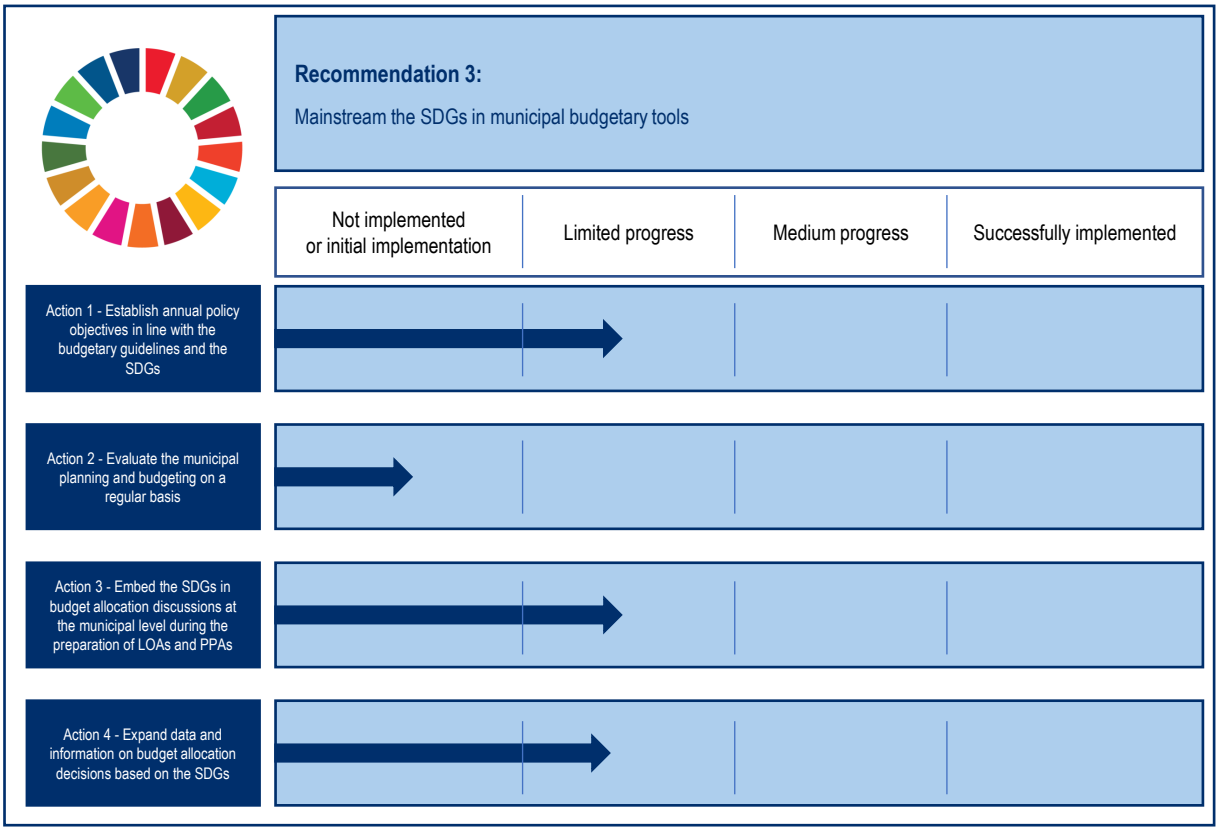


Financing and budgeting

Paraná's progress on the 2021 Recommendation 3

This recommendation advises Paraná to mainstream the SDGs in municipal budgetary tools. Besides aligning policies in the PPAs with the SDGs, it proposes using the review process for municipal comprehensive plans and budget tools more extensively to help municipalities align them with the 2030 Agenda (Figure 3.12). Governmental institutions at the state and municipal levels should consider and analyse the contributions of their policies and programmes to the SDGs when establishing policy goals in accordance with the municipal PPA, the Budget Guidelines Law (LDO) and the Annual Budget Law (LOA).

Figure 3.12. Progress on the 2021 recommendation and related actions to mainstream the SDGs in municipal budgetary tools



Note: Actions proposed to implement the 2021 OECD recommendation "Mainstreaming the SDGs in municipal budgetary tools".
Source: OECD (2021[1]), "A territorial approach to the Sustainable Development Goals in Paraná, Brazil", https://doi.org/10.1787/a24b52a5-en.

Action 1

Paraná still needs to establish annual policy objectives that are in line with the budgetary guidelines and the SDGs (e.g. LOA and LDO). This should involve key local stakeholders in determining budget priorities through a participatory approach as it was done, for example, for the public hearings held during the preparation of the 2024-27 PPA or through workshops and online voting tools. The state needs not only to strengthen awareness raising and capacity-building activities but also identify and implement priority actions to target the main challenges (e.g. allocating dedicated funds to public health campaigns,

enhancing budgetary allocations for education infrastructure and investing in community safety initiatives) linked to the SDGs in its budgeting tools.

Action 2

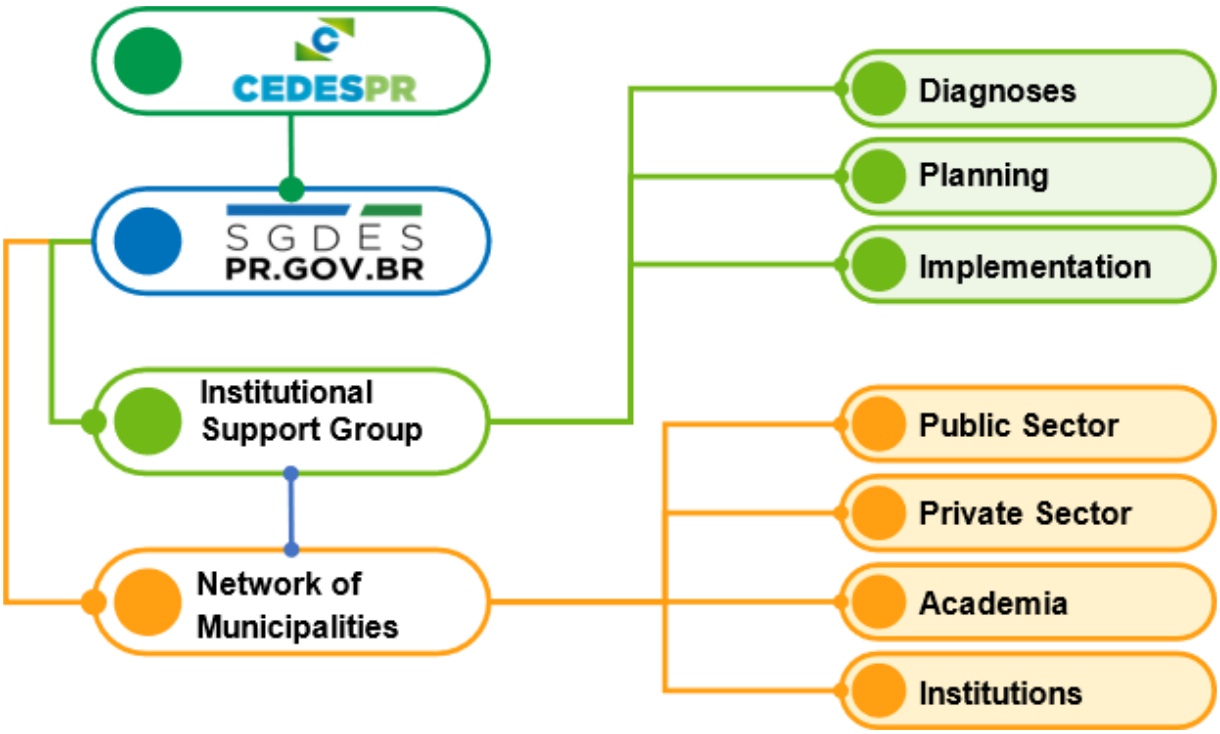
Paraná has provided training and guidance to its state secretaries but municipalities still lack support to regularly evaluate their planning and budgeting to identify gaps and challenges (e.g. LDO, LOA and PPA). At the state level, the government has provided training and technical guidance regarding the 2030 Agenda to the state working group tasked with reviewing the budget-planning process and setting guidelines for the 2024-27 PPA. This resulted in the identification of cross-cutting policies across five programmatic axes (economic and sustainable development; basic rights and well-being; administrative efficiency; social inclusion, human rights and citizenship; infrastructure and mobility) and the inclusion of SDG indicators in all axes (e.g. percentage of the population below the international extreme poverty line by gender, age, occupation status and geographic location – urban/rural; and percentage of the population below the national poverty line, by gender and age). These indicators have the potential to help the PPA monitoring system (SIGAME) generate regular progress reports and perform cost-effectiveness analysis of policies, both at the beginning of each year and at the end of the four-year cycle. At the municipal level, Paraná still needs to promote joint efforts between the TCE-PR and SGDES to support CEDES in establishing a monitoring and reporting system for all municipalities to understand the impacts of resources assigned to each SDG and facilitate the implementation of the SDGs by municipalities. Also, Paraná needs to advance on using the *Paraná de Olho nos ODS* business intelligence (BI) tool ("Paraná keeping an eye on SDGs") as a tool for municipalities to monitor the implementation of the SDGs. In particular, the state needs to consider the challenges of data availability and the need to update the tool regularly, for which the Paraná Information and Communication Technology Company (Celepar), IPARDES and SGDES would need to perform further evaluation as part of its ongoing review process. In addition, the TCE-PR has introduced an innovative approach for evaluating municipal public accounts known as the Municipal Government Accounts Assessment Programme (ProGov). These accounts are subject to approval or rejection by municipal legislative bodies. The ProGov system allows for assessing outcomes in public policies like health, education, social assistance, transparency and financial management. The TCE-PR is using this tool to gauge the readiness of municipal governance for SDG implementation.

Action 3

Local governments are not taking full advantage of the revision processes of the municipal comprehensive plans to align them and their budgeting tools with the SDGs. While some municipalities have already aligned their municipal comprehensive plan to the SDGs (e.g. Araucária), others are revising or preparing new municipal comprehensive plans using the SDGs as a framework (e.g. Assaí, Campo do Tenente, Laranjal and Prudentópolis). Additionally, the state has developed the Promotion of Integrated Local Sustainable Development Goals Programme (POLIS), which aims to support municipalities in aligning their planning tools (e.g. PPA and Municipal Comprehensive Plan) to the SDGs. This alignment of local planning with the SDGs addresses environmental, social and economic dimensions, which is supported by a working group of key institutions (e.g. SGDES, Secretary of State for Planning and SEMIR, a network of municipalities) and the active participation from local communities, municipalities, universities and the private sector (Figure 3.13).

However, further support to municipalities from the state is necessary to embed the SDGs in budget allocation decisions at the municipal level. Municipalities still face difficulties balancing trade-offs and leveraging synergies when determining where to allocate resources to advance the implementation of the SDGs. For instance, deciding between short-term costly infrastructure investments, allocating funds to education and health, and committing resources to environmental protection, can be challenging.

Figure 3.13. Institutional framework Promotion of the Integrated Local Sustainable Development Goals Programme (POLIS)



Source: SGDES (forthcoming[8]), Promotion of Integrated Local Sustainable Development Goals Programme (POLIS).

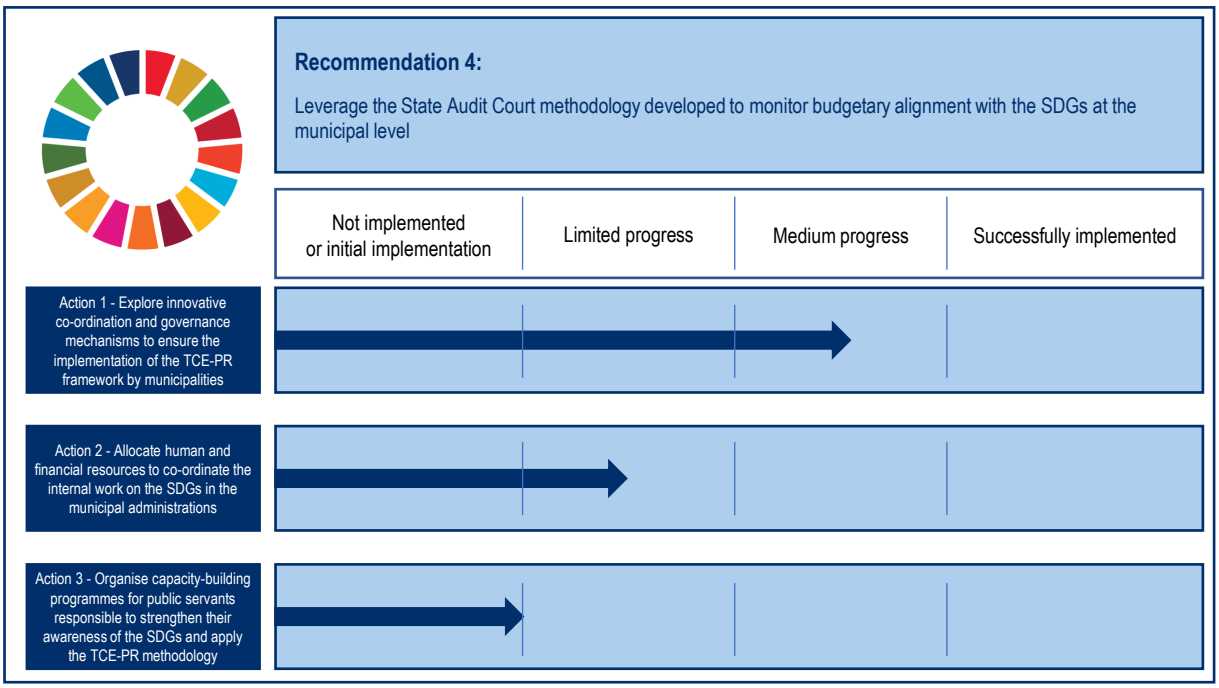
Action 4

Improving transparency in budget allocations is necessary to increase awareness of public spending on SDG-related initiatives. Paraná could enhance communication and collaboration between the courts (TCE-PR and TJ-PR), the state government and the Legislative Assembly of Paraná (ALEP). CEDES and the SGDES could organise specific awareness-raising events for municipalities to explain how the state budget is allocated and aligned with the SDGs. There is a need to better co-ordinate the dialogue between the courts, ALEP and state secretaries during the preparation and implementation of the annual budget. For example, with the collaboration of the SGDES and the Secretary of State for Planning, CEDES could co-ordinate the dialogue between the courts, ALEP and state secretaries during the preparation and implementation of the annual budgetary law.

Paraná's progress on the 2021 Recommendation 4

This recommendation concerns leveraging the TCE-PR methodology[4] developed to monitor budgetary alignment with the SDGs at the municipal level (Figure 3.14). Applying the methodology would allow municipalities to oversee their public spending and identify how their public investments contribute to the SDGs. It could furthermore provide guidance for revising their decision-making processes and budget-planning instruments (LOA and PPA) to achieve the SDGs by fostering inter-sectoral collaboration and dialogue between secretaries and defining specific performance indicators for challenging policy areas (e.g. health, education and safety). Such evidence could help them better connect their current public policies and budget to the specific targets of the SDGs and help evaluate whether and how the planned allocations are contributing to their achievement.

Figure 3.14. Progress on the 2021 recommendation and related actions to leverage the State Audit Court methodology at the municipal level



Note: Actions proposed to implement the 2021 OECD recommendation "Leveraging the State Audit Court methodology developed to monitor budgetary alignment with the SDGs at the municipal level".
Source: OECD (2021[1]), "A territorial approach to the Sustainable Development Goals in Paraná, Brazil", https://doi.org/10.1787/a24b52a5-en.

Action 1

Since 2021, the TCE-PR, the Secretary of State for Planning and municipalities have been working on improving the methodology to align the PPA with the SDGs. The TCE-PR, SGDES and the Secretary of State for Planning have sent several sectoral reports on the implementation of the SDGs based on its methodology to state secretaries. It has also been sharing the methodology and promoting awareness-raising meetings with municipalities through regional associations. This effort is part of a short-term partnership with the National Front of Mayors. In addition, the TCE-PR has conducted an online course for public servants in collaboration with its School of Management. Municipalities have faced difficulties in adopting the methodology due to distinct reasons, including limited access to technology, challenges in retaining trained personnel, differences in accounting standards between the state and municipalities, insufficient access to relevant data and resistance to departing from traditional budgeting practices. The new PPA for 2024-27 offers a solution to these challenges by ensuring that all initiatives clearly pinpoint which SDGs they support. As municipalities are struggling to effectively adopt the TCE-PR methodology, Paraná has decided to postpone its implementation at the municipal level until an internal evaluation has been completed. Nonetheless, the methodology was applied in two government plans (2019 and 2023) and in actions such as the Ame-se (Love Yourself) programme and the Paraná Produtivo (Productive Paraná) programme to ensure their alignment with the SDGs. The Ame-se programme aims to promote the empowerment and well-being of women in Paraná by raising awareness about services and actions for women through a website, a radio programme and social media (Government of Paraná, 2023[9]). The Paraná Produtivo initiative aims to increase economic development in underperforming municipalities (see Chapter 2). As part of the programme, the state has developed plans to attract more investment for municipalities and a tool for citizens, businesses and academia to explore regional information (e.g. demography, infrastructure, health, education, income, labour market and agriculture) (Government

of Paraná, 2023[10]). Additionally, the TCE-PR is using ProGov (see Recommendation 3, Action 2) to evaluate municipal public expenditures in key areas such as education and health, and better support municipalities in identifying synergies among SDGs. The TCE-PR still needs to consider integrating regular feedback mechanisms, implementing user-friendly data-gathering tools and organising periodic training sessions for local stakeholders to collect targeted input to improve the methodology.

Action 2

Assigning the human and financial resources necessary to leverage the TCE-PR methodology at the municipal level remains a recurring challenge in Paraná. This is especially daunting when it comes to co-ordinating internal efforts to allocate human and financial resources needed to co-ordinate the internal work on the SDGs in the municipal administration, including direct support from the TCE-PR to municipalities. However, despite encountering challenges in implementing its methodology at the municipal level, the TCE-PR continues to offer guidance to municipalities and the state to revise decision-making processes and budget-planning tools (such as the LOA and PPA) to align with the 2030 Agenda. As an example of its efforts, the TCE-PR is actively encouraging the creation of strategic projects (e.g. participatory budget process and budget social control tools such as the It's Your Business programme, a TCE-PR initiative for public participation in the oversight of the public budget) aimed at overseeing municipal budgets. It also conducts training programmes to educate stakeholders on how to monitor whether budget expenditures contribute to the SDGs. In addition, the Annual Inspection Plan, which is the guiding document for the TCE-PR's oversight activities at the state and municipal levels, encompasses 36 guidelines tied to the SDGs. The introduction of a new monitoring platform by the TCE-PR, including information panels with dashboards containing essential data on budget spending for municipal accountability reporting and the allocation of inspection responsibilities based on public policies, is aligned with the SDGs (i.e. ProGov). This helps municipal administrations identify and improve public management areas that are critical for achieving the SDGs. These initiatives support municipalities in better linking ongoing public policies with SDG targets and assessing if and how foreseen budget allocations support their implementation. Furthermore, the state government and the TCE-PR have joined forces to assess the progress of the state government's implementation of the 2030 Agenda using indicators. While the partnership involving CEDES, the SGDES, TCE-PR and TJ-PR has the potential to enhance co-ordination with municipalities by sharing information and data for a deeper understanding of municipal needs, the issue of better allocating human and financial resources remains a challenge for Paraná. The state still needs to strengthen the capacity of municipalities concerning the 2030 Agenda to increase their ability to align state planning and budgetary tools with the SDGs.

Action 3

Progress has been modest in terms of developing capacity-building programmes to enhance awareness about the SDGs among municipal public servants and train them to apply the TCE-PR methodology. The implementation of the TCE-PR methodology by municipalities has been temporarily suspended due to its complexity. As mentioned earlier, it is under reassessment and adjustment to make it more accessible and usable at the local level. Therefore, the TCE-PR has decided to implement ProGov (see Recommendation 3, Action 2) instead for the time being. In the meantime, the state continues to organise jointly with the TCE-PR capacity-building programmes specifically aimed at public servants responsible for planning and budgetary processes. Training activities still need to further empower local public servants to evaluate municipal strategies concerning the 2030 Agenda, make necessary modifications in municipal planning and enhance their capabilities to synchronise state planning and budgetary tools with the SDGs.

Ways forward

Figure 3.15. Action plan to implement 2024 OECD Recommendation 4 to support municipalities in securing funding for the implementation of the SDGs – Part I

Recommendation 4

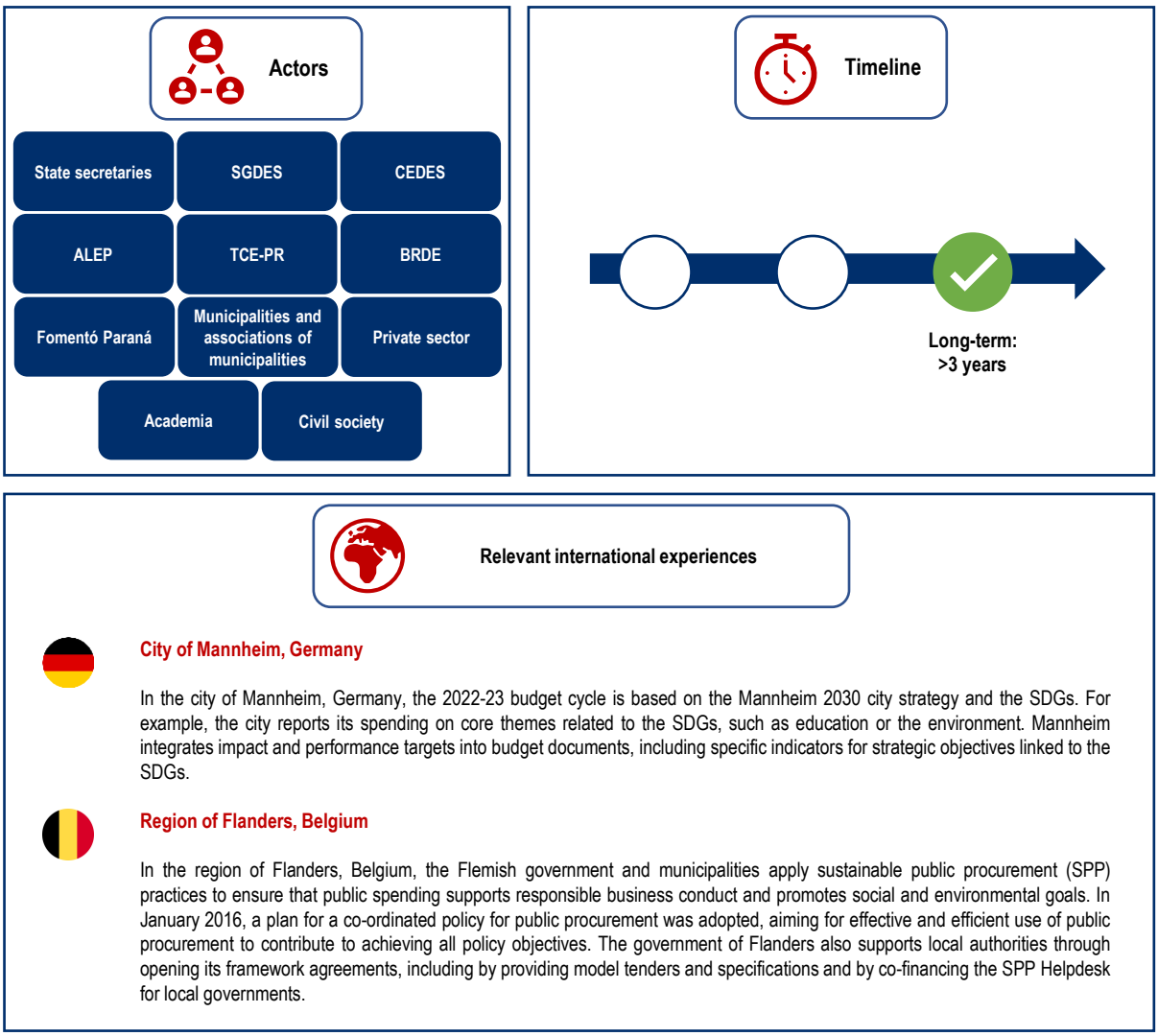
Support municipalities in securing funding for the implementation of the SDGs by establishing budget priorities in the Multi-year Plan (PPA) that reflect persistent sustainable development challenges

To move forward with the 2021 OECD recommendation to mainstream the SDGs in municipal budgetary tools, the state needs to ensure municipalities will have enough budgetary provisions for implementing the sustainable development plan to achieve the SDGs by 2030 and for a vision extending to 2053, presenting several challenges for Paraná. This could involve identifying and earmarking specific SDG priorities within the PPA for projects and initiatives that tackle long-standing sustainable development challenges, such as health, education and safety. To mobilise financial resources for the SDGs, Paraná should also complement its conventional budget with innovative financing mechanisms such as SDG bonds and blended finance. By adopting a blended finance approach, the state could provide financial support (e.g. grants or low-interest loans from the BRDE and Fomento Paraná) to attract private sector investments and foster innovation in achieving specific SDGs. Furthermore, the state should provide guidance to the municipalities to allocate budgets through their Budget Guidelines Law (LDO) and Annual Budget Law (LOA) to address the state's main challenges of health, education and safety.

Actions

- **To align budget allocations with the SDGs, Paraná should integrate conventional budget sources like the LDO and LOA with innovative financing mechanisms such as SDG bonds and blended finance.** By adopting a blended finance approach, the state could strategically combine public funds to attract private sector investments by enhancing financial sustainability and fostering innovation in achieving specific SDGs. This approach could expand the financial resources available to address ongoing challenges and emerging policy priorities. Blended finance could help bridge funding gaps and ensure that the implementation of the 2053 Strategic Vision is both sustainable and fiscally responsible (e.g. green bonds and social impact bonds that align with SDGs, ensuring long-term returns and reducing fiscal risks). Additionally, the BRDE and Fomento Paraná could help crowd in private investment and adopt target credit enhancement and de-risk mechanisms (e.g. guarantees) by making the risk-return profile of bonds more appealing to private investors. By merging these financial sources, the state could foster a multi-year flow of resources to consistently support initiatives that align with the federal, state and municipal multi-year planning tool (PPA).
- **Strengthen financial planning and management mechanisms at the state and municipal levels:**
  - To strengthen long-term financial planning up to 2030 and 2053, the state should consider establishing a Dedicated Long-Term Planning and Budgeting Unit. This unit would focus on analysing short- and mid-term planning and budgeting tools, such as state and municipal LOA, LDO, PPA and municipal comprehensive plans, to assess their alignment with the sustainable development plan and the 2053 Strategic Vision. The unit's role would also include providing regular recommendations for budget allocation adjustments to ensure relevance and responsiveness. Additionally, it could enhance fiscal transparency by contributing to a dedicated page in the BI tool Paraná Keeping an Eye on the SDGs, mapping the investments and government expenditure on the implementation of the SDGs over time. The state could also set up a centralised information management system with all investment-related government data to facilitate the exchange of information between state secretaries, thereby contributing to consistent reporting and building public trust.
  - Additionally, the state could consider establishing a Future Fund fed by annual revenues. This fund would allow state and municipal secretaries to pool resources to address common challenges and ensure that complementary resources are available for the implementation of the SDGs and the 2053 Strategic Vision, even during times of crisis. By setting aside contingency reserves, the state could more easily navigate unexpected challenges and maintain a consistent budget to make progress toward its long-term goals.
- **Allocate budgetary resources by carefully considering policy priorities, trade-offs and synergies across economic, social and environmental sectors. For example:**
  - Prioritising the improvement of social and economic conditions in family farming aligned with the state's ongoing focus on the agricultural sector could contribute to Paraná's economic growth. However, it is important to balance this pursuit of decent work and economic growth (SDG 8 Decent work and economic growth) with environmental considerations. In some municipalities, agricultural policies may inadvertently contribute to issues like deforestation and river and marine pollution, impacting life on land (SDG 15) and below water (SDG 14) if not closely monitored. Therefore, budget allocation decisions should consider these interrelated factors.
  - Supporting municipalities in allocating a larger portion of the budget to sectors where trade-offs could improve the efficacy of targeted public policies such as health, education and safety. This approach aims to strike a balance between economic growth and sustainability. For example, as economic expansion in the 202 municipalities that are part of Productive Paraná may lead to higher greenhouse gas emissions and potentially challenging climate action targets (SDG 13) and decrease of health conditions of their population (SDG 3), allocating resources to climate mitigation efforts becomes crucial. Similarly, as the state focuses on sustainable urbanisation (SDG 11) with projects like New Asphalt, New Life, it should consider strategies to mitigate any adverse impacts on natural landscapes, ensuring a harmonious approach to development.
  - Allocating a portion of the budget to support projects that promote sustainable urbanisation, reforestation and eco-friendly agricultural practices could help tackle trade-offs and persistent challenges such as high poverty rates, environmental degradation and the threats of climate change. It is crucial to strike a balance between development ambitions and sustainable practices in Paraná. To address this, the state could set aside funds for training municipal government officials to better understand and manage SDG trade-offs within their respective municipalities.

Figure 3.16. Action plan to implement 2024 OECD Recommendation 4 to support municipalities in securing funding for the implementation of the SDGs – Part II

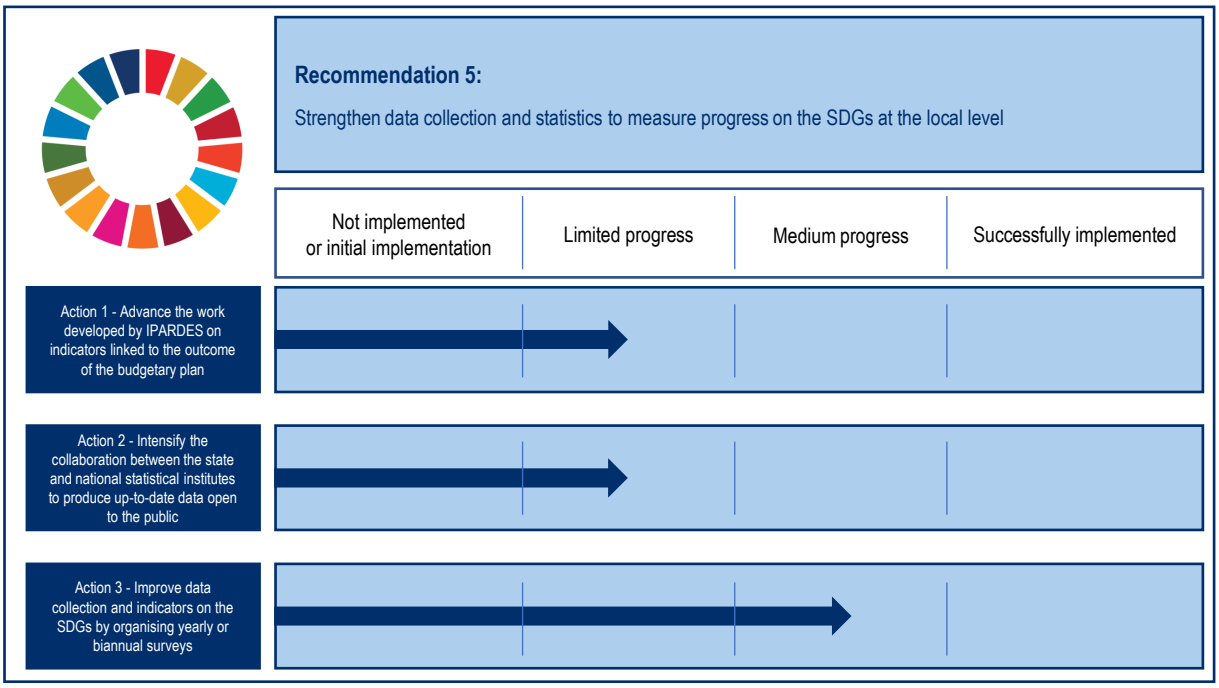


Data and information

Paraná's progress on the 2021 Recommendation 5

This recommendation refers to the need to strengthen data collection and statistics on the SDGs at the local level. The SDGs are an opportunity to overcome the state's strong reliance on census data. This recommendation also calls for expanding data coverage for municipalities, including the state's BI tool developed by the state (Paraná Keeping an Eye on the SDGs), and collaborating on indicators with the federal and state statistical institutes. The implementation of this recommendation could also support decision makers in the state government in identifying priorities for action (Figure 3.17).

Figure 3.17. Progress on the 2021 recommendation and related actions to strengthen the data collection and statistics to measure progress on the SDGs



Note: Actions proposed to implement the 2021 OECD recommendation "Strengthening data collection and statistics to measure progress on the SDGs at the local level".
Source: OECD (2021[1]), "A territorial approach to the Sustainable Development Goals in Paraná, Brazil", https://doi.org/10.1787/a24b52a5-en.

Action 1

Paraná has advanced on the use of indicators in the new 2024-27 PPA linked to the SDGs but data collection for SDG indicators needs to be improved further. In particular, this effort relates to expanding the state's indicator framework and measuring the distance of the state and municipalities to the SDGs (see Chapters 1 and 2). This includes the integration of data collected by official sources such as state secretaries, universities and municipalities and validated by IPARDES into the state's BI tool Paraná Keeping an Eye on the SDGs, helping reduce state dependence on the decennial census. For instance, the Secretary of State for Public Safety has statistical data that could be used to feed into the BI tool Paraná Keeping an Eye on the SDGs and be integrated as indicators for SDG 16 Peace, justice and strong institutions. The Secretary of State for Health has access to locally based information systems that offer indicators for assessing the effectiveness of public policies related to SDG 3 Good health and well-being.

Additionally, there is a need for capacity-building initiatives to enhance data collection processes in the state, ensuring that relevant data from various sources are effectively integrated into Paraná's SDG monitoring framework. This could involve training data collectors on specific requirements to produce SDG data and co-ordinating with the relevant state secretaries to streamline the data-sharing process with IPARDES. While the databases offer information to municipalities, existing visualisation tools are missing user-friendly interfaces. For instance, the data lack specific tags or labels that identify the targeted SDGs, making accessing SDG-related information challenging.

Municipalities have also developed strategies to collect data and indicators to monitor their progress on achieving the SDGs. For example, the municipality of Curitiba monitors its government plan using the indicators available on the SDGs Curitiba Portal.[5] Araucária regularly collects data to evaluate its budget instruments (PPA, LDO and LOA) and provides analysis reports on the implementation of the SDGs in the municipality. These reports include information about advancements and setbacks in specific goals for policy makers' review and consideration. Araucária also uses a public management system that offers real-time, transparent data to local administration staff, including on the implementation of the SDGs.

Action 2

Paraná needs to further expand its collaboration with the federal government to better measure the distance to the SDGs. This includes better engaging with strategic partners (e.g. federal institutions, national associations, state-owned companies, the private sector and regional banks) and strengthening current collaborations with national statistical institutes (the Brazilian Institute of Geography and Statistics, IBGE, and the Institute for Applied Economic Research, Ipea). For instance, IPARDES could benefit from the ongoing work developed by the IBGE and Ipea on indicators at the national level to identify how public policies contribute to the SDGs by using administrative data. The national government has made progress in the development of its SDG monitoring. In 2023, the Secretariat of Government of the Presidency of the Republic developed the Goals Project and recreated the National Commission for Sustainable Development Goals. This commission is responsible for the development of SDG indicators in collaboration with the IBGE, Ipea and the Oswaldo Cruz Foundation (Fiocruz). The commission's work involves proposing strategies, tools, actions, programmes and public policies to contribute to the SDGs' implementation. It also includes the production and analysis of disaggregated data, taking into account factors such as race, gender, ethnicity, class and geographical location (Federative Republic of Brazil, 2023[11]). Fiocruz has conducted a mapping of health-related indicators aligned with the SDGs, which still needs to be disaggregated at the state level with specific territorial breakdown. Since 2018, entity Itaipú Binacional has been supporting municipalities in implementing and monitoring the SDGs (e.g. by developing a set of indicators at the local level, providing capacity-building support for public servants and carrying out awareness-raising campaigns). Currently, it is expanding its support from 54 municipalities in Paraná to all 399. The project is expected to also include 35 municipalities in Mato Grosso do Sul, which will foster collaboration between municipalities from both states, including by sharing experiences and data.

At the state and municipal levels, Paraná strengthened its collaboration with public entities, the private sector and civil society organisations. For instance, financial institutions (e.g. the BRDE and Fomento Paraná) are collecting data and linking the provided funding and credit lines to the SDGs, enabling the identification of the SDGs that receive the highest level of funding. The state is collaborating with the National Front of Mayors, which has partnered with the Sustainable Cities Program, to explore how municipalities could use the Sustainable Cities Index. In addition, BPW Curitiba, an association of businesswomen dedicated to supporting women's careers, collects data on good practices related to the SDGs among the 100 member companies. Additionally, it is conducting awareness-raising efforts to encourage and enhance the implementation of these practices within the companies and among their employees. The Federation of Paraná's Industries (Fiep System) maintains and complements the SDGs Portal, a web platform developed by the Fiep, with information from Brazilian states and municipalities,

including their status per goal, an indicator search tool on the implementation of the SDGs, and comparisons between different locations. This includes collecting data such as socio-economic and environmental indicators. State sanitation company Sanepar has decided to prioritise 5 out of the 17 SDGs. The company has established process indicators and data collection procedures to integrate the SDGs into the company's multi-year strategic planning. By strengthening the partnerships with these institutions, the state could better understand the government's performance and local and regional needs.

Paraná needs to improve its process of collecting data from different secretaries in a common platform, particularly in terms of harmonising the type of data collected and made available to the public. For instance, recent data from IPARDES show that the infant mortality rate has surged back up following the outbreak of the COVID-19 pandemic (see Chapter 2), reversing a trend of almost 20 years of consistent decline. Given the challenges confronted by the state, it is essential to make progress in collecting current data and ensuring their accessibility to the public. This is especially important for SDGs 10 (Reduced inequality), SDG 12 (Responsible consumption and production) and SDG 14 (Life below water), as these areas have the most significant data gaps. This entails enhancing collaboration between IPARDES and state secretaries to ensure that official data are regularly updated. With regard to its monitoring of SDG progress, IPARDES started to use the OECD methodology in 2022 to measure the state's distance to achieving the SDGs. However, there is room for additional enhancements to fully implement the methodology, ensuring its effective utilisation in aiding decision makers within the state government to identify priorities for action.

Action 3

Although the state still needs to improve data collection and indicators on the SDGs, some state universities are helping Paraná advance on this front (Box 3.3). However, universities currently lack collaborative efforts with each other to better co-ordinate and align their actions. There is a need to exchange the data collected, enhance interdisciplinary research and share resources more efficiently. For example, the Secretary of State for Science, Technology and Higher Education (SETI) still needs to strengthen collaboration between state universities using the New Arrangements for Research and Innovation (NAPIs) to identify synergies on data collection and research and development in strategic areas for Paraná to implement the SDGs (e.g. NAPI on bioinformatics and high-performance computing, which aims to contribute to technological advancements in agriculture, life science and health and NAPI on biogas, focusing on transforming animal waste and agro-industrial residues into biogas and biomethane for sustainable energy solutions). NAPI initiatives encompass more than 30 ongoing projects across various themes (e.g. agriculture, health, industry, environment and energy) and geographic locations in all state universities, which can also help better use existing resources and improve the efficiency of public spending in key SDGs (see Chapter 1).

Box 3.3. The role of state universities in advancing data collection in Paraná

The **University of the State of Paraná** has conducted a survey to prepare the university's sustainability report involving research professors and extension staff across all its campuses. The survey showed that more than 10% of research projects across all of its campuses contribute to SDG 10 (Reducing inequalities. For instance, at the Apucarana campus, SDG 4 (Quality education) stands out among the research and outreach projects developed, having been identified in 20% of the projects, followed by SDG 10.

The **State University of Maringá** allocates resources for research linked to the SDGs, collects corelated data to support the monitoring of SDG progress and enables the creation of assessments

and diagnoses in partnership with the municipalities of the Association of Municipalities of North of Paraná (Amusep).

The **State University of Londrina**, the **State University of Mid-West Paraná** and the **State University of Western Paraná** regularly gather indicators to assess the extent to which their activities (e.g. research and teaching) contribute to the SDGs. The universities maintain an automated and up-to-date information system, which facilitates the regular monitoring of the activities they undertake.

The **State University of Northern Paraná** uses a group of environmental indicators that are updated monthly, including annual calculations of greenhouse gas emissions (SDG 13 Climate action).

The **State University of Ponta Grossa** engages in actions across all SDGs and has collected data from its scientific articles, outreach projects and research projects, revealing that most of its initiatives centre around SDG 3 (Health and well-being) and SDG 4 (Quality education).

Source: UEPG (2022[12]), *Sustainable Development Goals Report: 2030 Agenda*; UEL (2022[13]), *Catálago de Ações Sustentáveis UEL 2022 (Sustainable Actions Report UEL 2022)*; UNESPAR (2023[14]), *Report of Follow-up of the SDGs*.

Ways forward

Figure 3.18. Action plan to implement 2024 OECD Recommendation 5 to enhance the monitoring of SDG progress in the state of Paraná – Part I

Recommendation 5

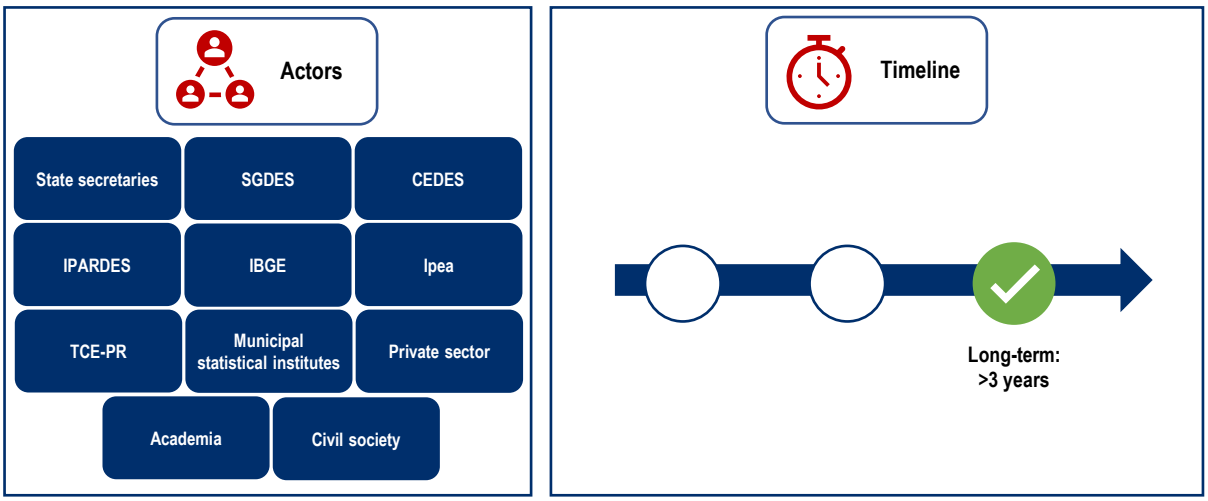
Enhance the monitoring of SDG progress in the state of Paraná

Paraná has developed an SDG indicator framework, with the support of IPARDES. Moving forward with the implementation of the 2021 OECD recommendation to strengthen data collection and statistics to measure progress on the SDGs at the local level, Paraná could improve its monitoring of SDG implementation by identifying additional indicators and enhancing its capacity in this regard. For example, the OECD's localised framework offers more than 100 indicators that are relevant to the SDGs and could be applied at the regional or municipal level. These indicators are aggregated to provide an index score for each of the 17 SDGs. By adopting an internationally comparable methodology, Paraná could align its indicators with internationally recognised standards, fill gaps in local-level indicators and make targeted improvements in areas that require more comprehensive monitoring.

Actions

- **Define key performance indicators for Everyday for Future and the Climate Plan.** The key performance indicators (KPIs) should include quantifiable and measurable target values for the different fields of actions, including in the short term (e.g. annual goals) in order to improve the accountability of the policies implemented as part of the strategies. KPIs should be used to monitor the implementation of policies contributing to sustainable development and adjust them if the deviation from the target value becomes too large, i.e. to move from analysis to policy.
- **Benefit from adopting an internationally comparable methodology to define and measure additional indicators for monitoring the SDGs.** This approach can help the state refine its indicators at the local level. Moreover, integrating indicators from various relevant databases, such as those related to health, education, public safety, agriculture, information and science, among others, can provide a more comprehensive and interconnected view of sustainable development progress in Paraná. This tailored approach can help the state address specific challenges and track its performance more effectively.
- **Foster the sharing of knowledge and data among national, state and municipal entities**, including organisations like the IBGE, Ipea, IPARDES, state secretaries and municipal statistical officers. This could be achieved through:
  - Setting up expert groups (e.g. statisticians, city and state managers working with indicators, and TCE-PR public servants working on TCE-PR methodology), establishing peer review mechanisms between national, state and municipal institutions (e.g. IBGE, Ipea and IPARDES) and improving the BI tool Paraná Keeping an Eye on the SDGs. Paraná should continue its efforts to close data gaps and build capacities for collecting data. It is crucial to ensure that databases remain updated and integrate the latest data relevant to the measurement of the SDGs.
  - Engaging state entities in the monitoring and evaluation of SDG progress in Paraná. For instance, the State Controller's Officer (CGE), responsible for public auditing, corruption prevention and ombudsman services, oversees the Public Expenditure Observatory, which is a hub to develop strategic information aimed at enhancing the oversight and monitoring of government actions. The observatory combines different state datasets, which could help support strategic decision making. The Secretary of Agriculture and Provisioning (SEAB) collects data that could be valuable to monitor SDG 2 (Zero hunger), particularly in the areas of agriculture and livestock. This includes data on the gross value of production, agricultural crop analysis and forecasting, characteristics of rural establishments (e.g. area and type of operation), details on agricultural production (e.g. quantities produced) and specific data about livestock (e.g. animal counts and milk production).
- **Leverage the indicator system developed by IPARDES to build a visualisation tool that can guide policy decisions.** This could be done using the BI tool Paraná Keeping an Eye on the SDGs or a new specific web tool to be developed by the state. For instance, Paraná could consider integrating data and indicators across various scales and explore the possibility of real-time data updates (where feasible, e.g. sensor data) to ensure that the tool provides the most up-to-date information to inform policy decisions. This could also include periodic reporting on main state challenges and priorities, highlighting the progress of Paraná in relation to the SDGs to provide insights into areas of achievement and those requiring further attention. Such an approach could help the state to tackle local development challenges more effectively, such as those related to health, education and safety, at the appropriate scale.

Figure 3.19. Action plan to implement 2024 OECD Recommendation 5 to enhance the monitoring of SDG progress in the state of Paraná – Part II



Relevant international experiences

City of Bonn, Germany

The city of Bonn, Germany, has been reporting on sustainability indicators since the early 2000s, starting with a report covering 20 indicators for 2002-04. The first sustainability report was produced in 2005, followed by additional regular updates. Based on this experience, Bonn published its first voluntary local review (VLR) in 2020, which links the city's long-standing indicator-based reporting with goals in the city's Sustainability Strategy adopted in 2019. The second edition predefined indicator set of 56 "SDG indicators for municipalities" in different thematic areas (e.g. climate change, sustainable mobility, lifelong learning and culture, social justice and future-proof society, sustainable housing and neighbourhoods, decent work and sustainable economy, sustainable consumption and healthy living).

Municipality of Kópavogur, Iceland

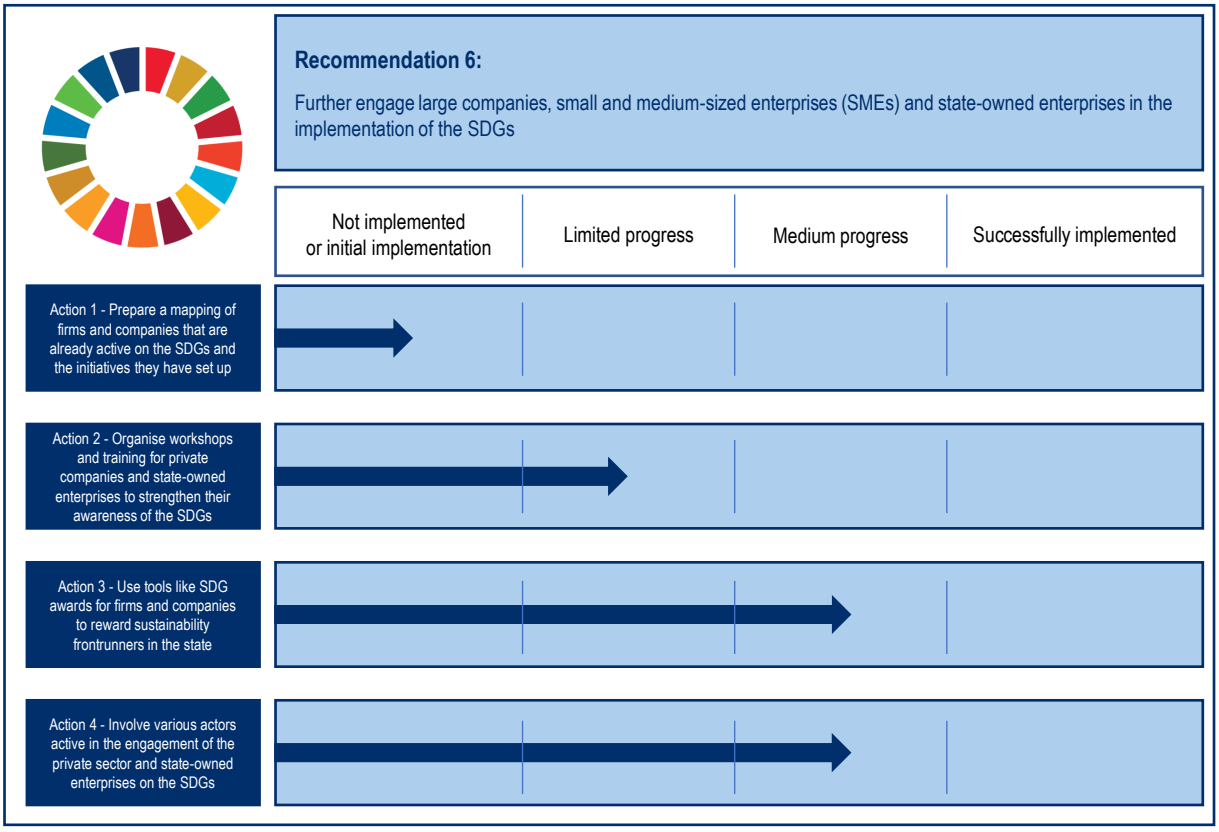
The municipality of Kópavogur, Iceland, has taken a data-driven approach to localising the SDGs. To make the data efforts of Kópavogur actionable, the municipality's Information Technology Office has developed an innovative management and information system integrating all local databases into one data warehouse. The Nightingale system can access all warehouse data in the municipality and contains, for example, Kópavogur's SDGs composite index, quality goals and measurements, the Child Friendly City Index, the platinum sustainability standard ISO37120 and the platinum smart standard ISO37122. The Nightingale software was developed as an open-source project to make it available to other municipalities.

Engagement

Paraná's progress on the 2021 Recommendation 6

This recommendation refers to how the state could engage small and medium-sized enterprises (SMEs) and large state-owned enterprises active in the SDGs as models to inspire and share knowledge with other businesses, especially SMEs, to enhance the implementation of SDGs. It also considers how the state could boost networking and co-ordination, creating synergies and engaging them in state-led SDG actions, and how it could play a guiding role in helping companies integrate SDGs into their business strategies, product development and financial processes (Figure 3.20).

Figure 3.20. Progress on the 2021 recommendation and related actions to engage large companies, SMEs and state-owned enterprises in implementing the SDGs



Note: Actions proposed to implement the 2021 OECD recommendation "Engaging further large companies, small and medium-sized enterprises (SMEs) and state-owned enterprises in implementing the SDGs".
Source: OECD (2021[1]), "A territorial approach to the Sustainable Development Goals in Paraná, Brazil", https://doi.org/10.1787/a24b52a5-en.

Action 1

The execution of this action has yet to gain traction as there is still a need to create a mapping of firms and companies that are already active on the SDGs. However, Paraná has initiated collaborations with private and state-owned companies on the SDGs, particularly with Paraná energy company Copel, Sanepar and Fiep. Once the state has advanced on this action, the collected information could be published on the Paraná Keeping an Eye on SDGs BI platform, if feasible, or in another tool to be developed by the state.

Action 2

Paraná has made progress in developing training with large private and state-owned companies, such as Sanepar, Fiep and Itaipú Binacional, and academia to engage them on the SDGs. The state has yet to organise training sessions for SMEs to strengthen their awareness of the SDGs. The state has an opportunity to further capitalise on these collaborations, tapping into the expertise of these partners to develop effective SDG training programmes.

Action 3

Private sector and civil society initiatives use tools like SDG awards and contests for companies to reward sustainability frontrunners in the state. For instance, Fiep, supported by the United Nations Global Compact, assists industries in implementing strategies aligned with the SDGs by organising specific capacity-building activities for companies and promotes the engagement of organisations, including SDG awards, training and hubs. Mãozinha Verde, a civil society organisation focused on inclusion and sustainable innovation to implement the SDGs, offers a supplier certification for private companies reducing virgin material usage. The National SDG Movement has also established an award system for companies implementing the SDGs, which is planned to be extended to Paraná in 2024.

Action 4

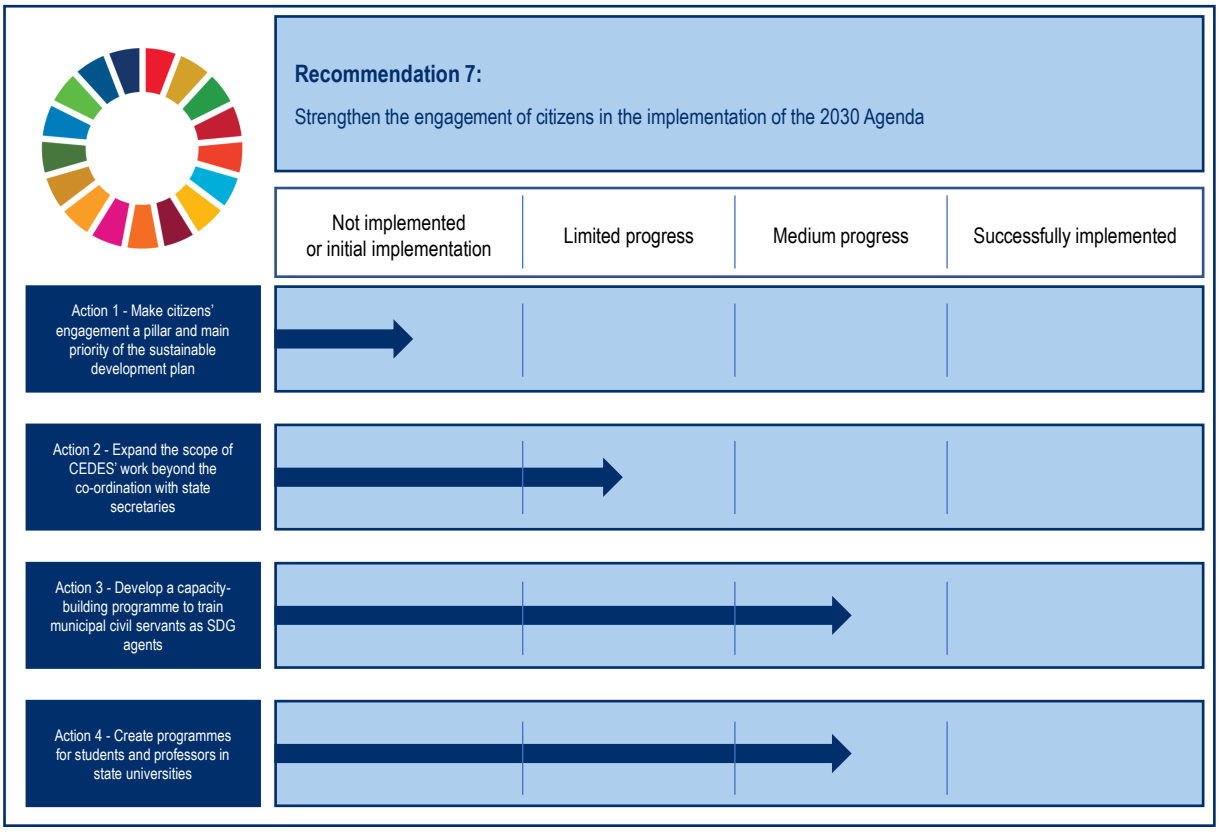
Paraná has been engaging more actively with stakeholders from large companies, state-owned companies and the private sector. As an example, SETI has initiated public calls for proposals in collaboration with Copel and Sanepar. This initiative aims to foster collaboration between businesses and academia in the implementation of the SDGs. The Secretary of State for Agriculture and Provisioning (SEAB) has developed a programme that supports small-family farmer co-operatives whose production contributes to achieving the SDGs (COOPERA-PR). It provides guidance, for instance, on how to adopt sustainable practices, enhance local biodiversity and reduce water usage through efficient irrigation. The secretary also collaborates with large and medium-sized companies and co-operatives operating in rural areas to facilitate the inclusion of family farmers in sustainable production practices. Furthermore, the TCE-PR is preparing a guide to sustainable public procurement. The Paraná Institute of Technology (Tecpar) has a specific Tecpar in Action - Enterprise Volunteering Programme to engage the private sector and civil society. The programme fosters economic value creation for society and is divided into four main actions related to education (e.g. school reinforcement, music teaching and training project), sustainability (e.g. urban gardening, waste management for positive impact and proper oil displacement), culture (e.g. storytelling, theatre, choir and children's day) and civil society (e.g. hands-on and practical actions, collection campaigns; solidarity Christmas).

Municipalities are increasingly engaging municipal-owned companies and the private sector in their work on the SDGs. For instance, the city of Curitiba has broadened the availability of SDG-related training offered by its School of Public Administration to include various stakeholders (e.g. private sector, academia and civil society), allowing a wider range of individuals and organisations to access this training. Campo Largo has established a partnership with the Energy Company of Campo Largo through projects related to SDG 7 (Affordable and clean energy), and to "lightning Campo Largo with efficiency" (*Iluminando Campo Largo com eficiência*) and "lightening knowledge with efficiency" (*Iluminando o saber com eficiência*). The Association of Municipalities of Campos Gerais has set up the Project Showcases held by the Regional Committee on the SDGs to identify which regional private companies were most engaged in SDG implementation. Additionally, Cruzeiro do Oeste has facilitated co-operation between a local penitentiary and private company FrigoAstra. This initiative aims to promote the employment of prisoners, aligning with the goals of SDG 8 (Decent work and economic growth) and SDG 16 (Peace, justice and strong institutions).

Paraná's progress on the 2021 Recommendation 7

This recommendation refers to strengthening citizens' engagement in the implementation of the 2030 Agenda. It considers how the state and municipalities could provide training to their civil servants on the SDGs, aiming to enhance citizen and civil society engagement on the 2030 Agenda. It also takes into account how Paraná could expand opportunities for youth to play an active role in raising awareness about the SDGs, e.g. by offering training and volunteer opportunities that focus on sustainability issues within local communities (Figure 3.21).

Figure 3.21. Progress on the 2021 recommendation and related actions to strengthen the engagement of citizens in the implementation of the 2030 Agenda



Note: Actions proposed to implement the 2021 OECD recommendation "Strengthening the engagement of citizens in the implementation of the 2030 Agenda".
Source: OECD (2021[1]), "A territorial approach to the Sustainable Development Goals in Paraná, Brazil", https://doi.org/10.1787/a24b52a5-en.

Action 1

The state has not progressed on this action. Although making citizens' engagement a pillar of the sustainable development plan continues to be on the agenda of the state, it still has to be developed.

Action 2

Although CEDES remains a key advisory body to the state government, limited progress has been made to expand its scope beyond its original functions. In this sense, the SGDES has been collaborating with the council to identify specific SDG data needed to enhance planning on the priority areas of the government (see Chapter 2), organising joint workshops to raise awareness about the SDGs and providing

targeted technical support to local governments to advance the implementation of the SDGs. Paraná also has yet to advance in strengthening the role of the council as a hub that connects various stakeholders from academia, civil society and the private sector in their efforts related to the SDGs. The experience of Paraná in hosting a Local2030 hub[6] could serve as an inspiration to advance this action by highlighting successful SDG integration strategies, fostering collaboration between government, private sector, civil society and academia, promoting the exchange of best practices on sustainable development and enhancing the engagement of local communities in the SDG implementation process.

Action 3

Paraná is promoting tailored capacity-building activities for public servants to better engage citizens at the local level in the implementation of the SDGs. In 2022, together with partner institutions (e.g. CEDES, Fiocruz, Abrinq Foundation, Local Lab and Aldeias Infantis), the Secretary of State for Education (SEED) organised a training course entitled "2030 Agenda – Education as the basis for sustainable development". About 150 professionals employed at SEED headquarters and in the 32 Regional Education Centres (NREs) attended the course. Its objective was to promote awareness and understanding of the 2030 Agenda within the state's basic education network, which consists of all public and private educational institutions that offer basic education in Paraná. Additionally, PARANACIDADE, Paraná's urban development agency, promotes municipal development by offering training to municipalities and conducting regular meetings with local governments. These efforts aim to raise awareness of the 2030 Agenda and better prepare municipalities to implement the SDGs and access related financing opportunities. However, to establish a capacity-building programme to train municipal civil servants as SDG agents, SEED and PARANACIDADE still need to extend their engagement with municipal public agents, including training facilitators and providing guidance on how to effectively use the SDGs as a tool to support local governments in achieving sustainable development. Additionally, SEED and PARANACIDADE still need to take further actions to raise awareness and enhance capacities related to the 2030 Agenda at the local level through these trained agents.

Action 4

Paraná collaborates with youth and the private sector to create programmes for state university students and professors and advance the engagement of citizens on the SDGs. Youth Action Hubs have increased their efforts to mobilise and empower youth across the state, equipping them to become leaders in advancing the 2030 Agenda. As part of their activities, they have collaborated with SETI to increase awareness among students by organising seminars at state universities. These seminars aim to discuss the significance of the SDGs within their respective fields of study and motivate young individuals to become future leaders in sustainability. Furthermore, the private company BRATAC, which produces natural silk, has developed a partnership named "Seda Brasil" (Silk Brazil) with the State University of Londrina and SETI. This initiative aims to enhance academic research and promote innovation projects that contribute to the implementation of the SDGs. It features courses, lectures and workshops to engage citizens in the 2030 Agenda.

With the collaboration of the SGDES, CEDES has yet to fully leverage existing initiatives set up by state secretaries to enhance citizens' engagement with the SDGs. For instance, SEAB provides a comprehensive training programme designed to equip farmers with knowledge and skills in various areas related to the SDGs. These topics include sustainable production (SDG 12), healthy food (SDG 2), hygiene and basic health (SDG 3), sanitation (SDG 6) and citizenship (SDG 16). However, despite the breadth of subjects addressed, SEAB's current educational initiatives fall short in explicitly connecting the training content to the broader objectives and targets of the 2030 Agenda, thus missing the opportunity to enhance farmers' understanding of how their practices directly contribute to achieving the SDGs. The Public Defender's officer also conducts human rights education projects designed to provide specialised assistance to the most vulnerable groups (e.g. people living in poverty, the elderly, women and people with

disabilities). These projects could serve as valuable tools for engaging citizens in discussions and actions to identify their basic needs and priorities related to the SDGs. In addition, the state is still not taking advantage of the TCE-PR's online course on the SDGs, which was initially designed for public managers but could be adapted for the public.

Ways forward

Figure 3.22. Action plan to implement 2024 OECD Recommendation 6 to engage key territorial stakeholders in designing and updating the state's sustainable development policies – Part I

Recommendation 6

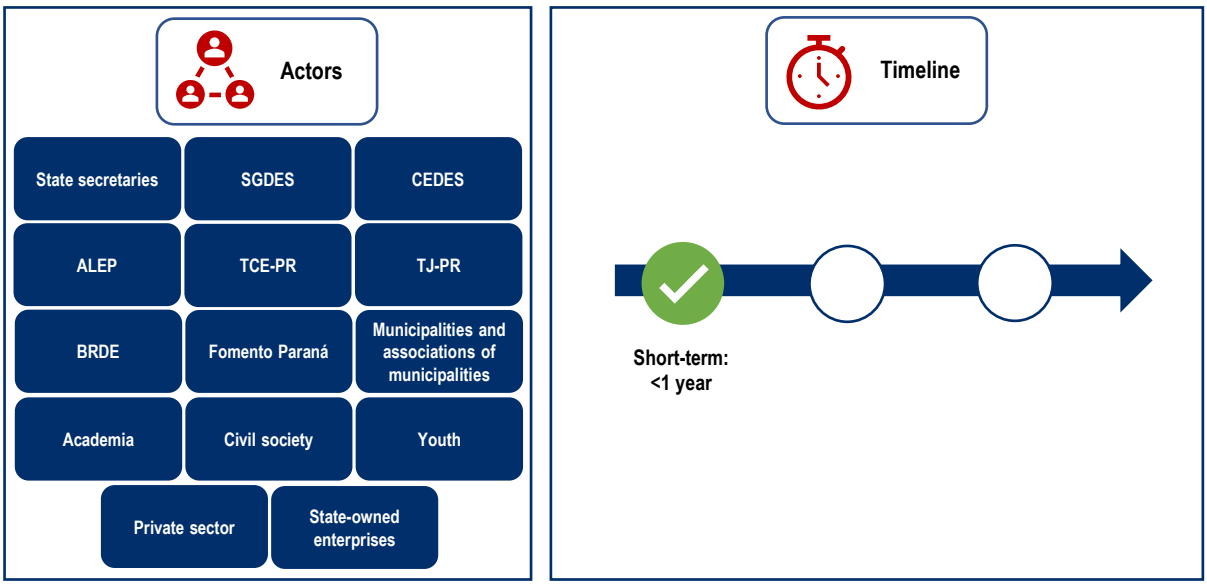
Engage key territorial stakeholders from the private sector and civil society in designing and updating the state's sustainable development policies and strategies (e.g. sustainable development plan and 2053 Strategic Vision

The state could implement a participatory planning approach to design the state's sustainable development plan and the 2053 Strategic Vision. This could include facilitating dialogue between municipal policy makers and local communities in collaboration with state universities and civil society organisations (e.g. Youth Action Hub and the National SDGs Movement in Paraná). Paraná could further involve the private sector in the implementation of the SDGs, by promoting alignment with environmental, social and governance (ESG) principles. This would encourage businesses to integrate sustainability frameworks into their operations, ensuring a coherent approach towards achieving the SDGs.

Actions

- **Implement a participatory planning approach to design the sustainable development plan and the 2053 Strategic Vision.** Paraná could involve territorial stakeholders and municipalities in the preparation of the 2053 vision and the sustainable development plan through public hearings and consultations. The state should focus on further engaging those often under-represented groups and those who may be most affected (e.g. the poor, the elderly, youth and populations with disabilities) throughout the strategic planning process. For instance, the state could create a specific input page in the BI tool Paraná Keeping an Eye on the SDGs related to the preparation of the 2053 Vision Strategy and the sustainable development plan where stakeholders could provide contributions. Additionally, the state could organise discussions with youth about the vision and benefit from activities organised by the TJ-PR to engage with the most marginalised communities.
- **Use the programmes and initiatives of Paraná's secretaries (such as SETI, SEAB, SESU, SEEE and SEDU) as platforms to increase awareness among private sector stakeholders and citizens of policy achievements and challenges in the state's SDG implementation**. For instance, with SEMIPI's support, Consepir could promote educational initiatives for public managers and local communities that address racial disparities in access to quality education and the support of local businesses within marginalised communities to bolster economic opportunities for vulnerable populations targeting public managers and local communities. Additionally, SETI, in collaboration with CEDES and the SGDES, could develop a joint survey with academic institutions to identify synergies and potential areas for collaboration among universities.
- **Leverage existing initiatives in the government to develop a communication plan.** For instance, Paranacidade has created an e-book outlining a methodology for the development of awareness-raising campaigns that could serve as inspiration for CEDES. These campaigns aim to inform and raise awareness among its employees and partners about the 2030 Agenda. Additionally, Paraná could continue working with the TJ-PR to raise awareness of the significance of social inclusion, equity and human rights through activities like lectures, workshops, courses and awareness campaigns.
- **Establish an award to reward universities, researchers and students who successfully address key state challenges in research.** These awards could recognise achievements from universities and individuals in areas such as health innovation (for pioneering sustainable health solutions), educational excellence (for integrating sustainability into educational practices) and safer communities (for initiatives that enhance public safety sustainably). Additionally, SETI, in collaboration with CEDES and the SGDES, could establish programmes aimed at students and professors in state universities that raise awareness of research efforts aligning with the SDGs and contributing to the state's objectives.
- **Facilitate dialogue between municipal policy makers and local communities in collaboration with state universities and civil society organisations** (e.g. Youth Action Hubs, the National SDGs Movement in Paraná, BPW Curitiba and Hub Mãozinha Verde).
- **Prioritise the empowerment of youth by actively involving them in decision-making processes and providing platforms for their ideas and perspectives to be heard and acted upon.** To do so, consider the establishment of municipal youth councils to ensure the inclusion of young voices in policy making, promote intergenerational dialogue and enhance youth participation in civic matters.
- **Foster strategic alliances with the private sector, particularly to explore joint initiatives, and optimise the synergies between public and private entities.** This could be done by leveraging CEDES as a central co-ordinating hub and with support from the SGDES. For instance, CEDES, with the collaboration of the SGDES, could develop a strategy that connects ESG principles with the SDGs to enhance sustainable investment practices and ensure alignment between corporate responsibility and the SDGs. This strategy should be comprehensive, transparent and measurable, integrating both ESG benchmarks and specific SDG targets. Developing such a strategy could assist the state in identifying and preventing the private sector from engaging in "SDG-washing" by ensuring that business' sustainability claims are substantiated by tangible actions, rigorous monitoring and adherence to ESG standards. To do so, CEDES, with the collaboration of the SGDES, should actively collaborate with businesses, investors, consumers, regulators and the wider public by sharing information on the implementation of the SDGs transparently and providing feedback and input on progress, challenges and potential areas for improvement in SDG-related initiatives and policies.

Figure 3.23. Action plan to implement 2024 OECD Recommendation 6 to engage key territorial stakeholders in designing and updating the state's sustainable development policies – Part II



Relevant international experiences

City of Kitakyushu, Japan

The city of Kitakyushu, Japan, set up an SDGs Club that raises awareness of the 2030 Agenda by promoting SDG activities and collaboration among its members and offers funding support for companies' SDG-related activities. The SDGs Club counts almost 1 800 actors, including 878 companies, 245 schools, 233 organisations, as well as individual citizens (as of 2022). The club also has a website (https://www.kitaq-sdgs.com/) where members can exchange information and ask to post their event announcements. The club runs a programme called Project Teams, in which members team up to launch new projects that solve local issues. Moreover, the club provides SDG management support in co-operation with the 20 member financial institutions, such as local banks and insurance companies. Club members may receive free consulting and matching services on corporate management issues upon request.

County of Viken, Norway

The county of Viken, Norway, developed an institutional mechanism for youth participation in local policy making in youth councils. These have been consultative bodies to the former county councils of Akershus, Buskerud and Østfold. In 2020, the three youth councils merged to form the Viken Youth Council, using SDGs to guide this process. The ambition of the new council is to have a large youth conference every year, where attendees engage in a dialogue between youth, politicians and the administration.

Figure 3.24. Overview of 2024 key policy recommendations

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Notes

[1] State Government Decree No. 1482 from 29 May 2019.

[2] State Government Decree No. 1311, 2 August 1983, establishes the State Council for Economic and Social Development – CEDES – as a collegiate advisory and strategic support body to the State Governor. State Government Decree No. 80, 6 January 2023, establishes the General Superintendence of Economic and Sustainable Development (SGDES) to act in an articulated and integrated way to boost integrated economic, social and environmental development.

[3] The Brazilian government has reassigned the 2030 Agenda to the General Secretary of the Presidency of the Republic and the National Commission for the SDGs in September 2023.

[4] The audit court has developed a methodology to: i) examine the link of ongoing public policies with the SDG targets; ii) evaluate budget expenditures related to the implementation of the SDGs; iii) generate evidence to improve decision-making processes related to the SDGs; and iv) analyse the official indicators related to budget-planning instruments (LOA and PPA). The methodology was based on several international references, including the OECD Recommendation of the Council on Budgetary Governance. The work undertaken by the TCE-PR revealed the preponderance of process indicators over outcome indicators (OECD, 2021[1]). This methodology is currently under review.

[5] See https://ods.curitiba.pr.gov.br/.

[6] Local2030 hubs include both local and thematic hubs. The local hubs are spaces where communities – together with the United Nations system and external partners – identify their priorities with respect to the SDGs and implement innovative solutions that address local needs. The thematic hubs develop best practices and raise awareness on issues that are key to the local implementation of the SDGs. They are designed as partnerships between thematic experts, local actors and United Nations agencies and work to showcase best practices that can be replicated globally (https://www.local2030.org/local2030hubs).

Annex A. Methodology to analyse the progress of the OECD recommendations

The OECD analyses the progress in the implementation of the OECD recommendation according to four levels: not implemented or initial implementation; limited progress; medium progress; and successfully implemented. The assessment involved desk research and OECD missions to Paraná, including interviews with territorial stakeholders. Additionally, the OECD conducted a survey that garnered 72 responses from diverse stakeholders in Paraná, spanning the public sector (including national, state and municipal levels), the business environment (both private sector and state-owned enterprises), academia and civil society.

Overall, Paraná continues using the United Nations Sustainable Development Goals (SDGs) to reduce territorial disparities across the state. According to the self-assessment, Paraná is making progress in 85% of the recommendations (6 out of 7) and modest progress in 1 of them, which needs further solid efforts to support the implementation. The self-assessment of each recommendation is presented in Table A.1 and is based on the responses to the surveys given between March 2022 and May 2023 and on OECD missions in March 2022 and May 2023.

Table A.1. Levels of implementation

Level	Description
Successfully implemented	The recommendation has been implemented comprehensively, consistently, effectively and sustainably
Medium progress	The recommendation is being implemented but it has not been fully realised yet
Limited progress	The recommendation has been partially implemented but significant work remains to be done
Not implemented or initial implementation	The recommendation has not been put into practice or no significant progress was made

Most notably, the state made progress in strengthening its co-ordination of SDG policies and actions with municipalities and the federal government. Even if none of the OECD recommendations have been fully implemented, 57% of the recommendations are ongoing (4 out of the 7), meaning that actions are needed to maintain current efforts. Still, with the implementation of about 6 out of 7 recommendations underway, it is important to note that the recommendation to leverage the State Audit Court (TCE-PR) methodology developed to monitor budgetary alignment with the SDGs at the municipal level is in the early stages of implementation, according to discussions with the TCE-PR, and will require further adjustments to scale it down to the municipal level (Table A.2).

Table A.2. Progress on recommendations

OECD recommendation	Implementation status			
	Successfully implemented	Medium progress	Limited progress	Not implemented/ initial implementation
Upscale the use of the SDGs as a policy-making tool to reduce socio-economic disparities within and across municipalities			◑	
Strengthen the state's co- ordination of policies and actions with municipalities and with the federal government on the SDGs		◕		
Mainstream the SDGs in municipal budgetary tools			◑	
Leverage the State Audit Court methodology developed to monitor budgetary alignment with the SDGs at the municipal level				◔
Strengthen data collection and statistics to measure progress on the SDGs at the local level			◑	
Further engage large companies, small and medium-sized enterprises (SMEs) and state-owned enterprises in implementing the SDGs			◑	
Strengthen the engagement of citizens in the implementation of the 2030 Agenda			◑	

Source: OECD fact-finding mission in March 2022 and May 2023, interviews and surveys with stakeholders.