



# DOMINICAN REPUBLIC PUBLIC EXPENDITURE REVIEW

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## DOMINICAN REPUBLIC

### GOVERNMENT FISCAL YEAR

January, 1 – December, 31

### CURRENCY EQUIVALENTS

Currency Unit: Dominican Peso (RD\$)  
(Exchange Rate Effective as of 5/20/2020)  
US\$1.00 = RD\$55.45

## Abbreviations and Acronyms

ADESS	Administrator of Social Subsidies ( <i>Administradora de Subsidios Sociales</i> )
AFP	Pension Fund Administrator ( <i>Administradora de Fondos de Pensiones</i> )
ARS	Health Risk Administrators ( <i>Administradoras de Riesgos de Salud</i> )
ASPIRE	Atlas of Social Protection Indicators of Resilience and Equity
BCRD	Central Bank of the Dominican Republic ( <i>Banco Central de la República Dominicana</i> )
BEEP	Student Progress Bonus ( <i>Bono Escolar Estudiando Progreso</i> )
BIA	Benefit-Incidence Analysis
CAFI	Attention Center for Family and Children ( <i>Centro de Atención a la Infancia y la Familia</i> )
CAID	Attention Center for Disability ( <i>Centro de Atención Integral para la Discapacidad</i> )
	Center for the Integral Attention of Early Childhood ( <i>Centro de Atención Integral a la Primera Infancia</i> )
CAIPI	
CND	Drugs National Council
CNPS	Social Protection National Council
CNSS	Social Security National Council
COE	Emergency Operations Center
CONADIS	Disability National Council
CONANI	Children and Youth National Council
CONAPE	Elderly National Council
CORAA	Aqueduct and Sewer Corporation
Covid-19	Coronavirus disease SARS-CoV-2
CTC	Community Technology Centers
DIGEPEP	General Directorate of Special Programs of the Presidency
DIGEPRES	General Directorate of Budgeting
DR	Dominican Republic
ECD	Infants Centers
ECLAC	Economic Commission for Latin America ( <i>CEPAL</i> in Spanish)
ENCFT	Continuous National Labor Survey
END	National Development Strategy
FONPER	Equity Fund for Reformed Institutions
GCPS	Social Policy Coordination Cabinet ( <i>Gabinete de Coordinación de Políticas Sociales</i> )
GDP	Gross Domestic Product
GLP	Liquefied Gas Petroleum
GNI	Gross National Income
IAD	Agrarian Dominican Institute
ICV	Quality of Life Index

IDECOOP	Institute for Cooperative Development and Credit
ILAE	School Attendance Incentive
INABIE	National Institute for Student Welfare
INAIPI	National Institute for the Integral Attention for Childhood Development
INAVI	Aid and Housing Institute
INDOTEL	Dominican Telecommunication Institute
INDRHI	National Institute of Hydraulic Resources
INESPRE	Institute for the Stabilization of Prices
INFOTEP	National Professional Technical Training Institute
INVI	National Institute of Housing
ISSFFAA	Institute of Social Security of Armed Forces
JCE	Central Electoral Council
MAP	Ministry of Public Administration
MEPYD	Ministry of Economy, Planning, and Development
MH	Ministry of Finance
MICM	Ministry of Industry and Commerce and Small and Medium Enterprises
MINERD	Ministry of Education
MIREX	Ministry of Foreign Affairs
MISPAS	Ministry of Health and Social Assistance
MM	Ministry of Women
MT	Ministry of Labor
NNA	Children and Adolescents
ODS	Sustainable Development Goals
OECD	Organisation for Economic Co-operation and Development
ONE	National Office of Statistics
OPRET	Office for the Reorganization of Land Transportation
PAE	School Feeding Program
PEISE	Strategic Sectorial Plan for the Economic and Social Inclusion
PIB	Gross Domestic Product
PNPSP	National Pluriannual Plan of the Public Sector
PNUD	United Nation Development Program
POA	Operational Annual Plan
PPA	Power Purchase Agreement
PPP	Purchasing Power Parity
PRISS	Social Security Collection and Informatic Board ( <i>Patronato de Recaudo e Informatica de la Seguridad Social</i> )
PROCOMUNIDAD	Promotion Fund for Community Initiatives
PROMESECAL	Essential Medicines Program / Logistics Support Center
PROSOLI	Progressing with Solidarity
PROVEE	Program for the Protection of the Elderly in Extreme Poverty
PSA	Adaptative Social Protection
PTMC	Conditional Cash Transfer Program
PV	Elderly Protection Program
RD	Dominican Republic
SDSS	Social Security Dominican System
SENASA	National Health Insurance
SFS	Family Health Insurance
SIGEF	Integrated Financial Management System

SIPEN	Superintendence of Pensions
SISALRIL	Superintendence for Health and Labor Risk
SISDOM	Dominican Social Indicator System
SIUBEN	Single System of Beneficiaries
SNPMRD	National System for Disaster Prevention, Mitigation, and Response
SNSS	Health National Service System
SP	Social Protection
SVDS	Life, Disability and Survival Insurance

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## Executive Summary

**This Public Expenditure Review (PER) for the Dominican Republic (DR) is designed to inform the government’s fiscal expenditure policies and advance its economic and social development priorities.** Following 25 years of strong economic growth on average and declining poverty rates, the Covid-19 pandemic has triggered a deep recession in the DR, and poverty levels are rising for the first time in decades. Annual GDP is estimated to have contracted by 6.7 percent during 2020, and preliminary employment data suggest that the labor-force participation rate fell from 64.9 percent in the third quarter of 2019 to 59.7 percent in the third quarter of 2020. While measures to address the recession are being implemented, the government has announced that it will return to a sustainable fiscal stance. Meanwhile, policymakers are committed to improving service delivery and accelerating job creation in the formal sector. The analysis presented in this PER is designed to underpin the government’s efforts to achieve its policy priorities, which include mitigating the effect of the crisis on employment and poverty, positioning the private sector for a robust recovery, and maintaining sustainable debt dynamics.

**The PER was requested by the government in December 2019, but its scope has been extensively revised to reflect the rapid evolution of the Covid-19 crisis.** The analysis builds on the country’s previous World Bank PER, which was completed in October 2019. The previous PER covered fiscal policy, electricity, education, and health spending. At the request of the government, this PER initially aimed to focus on fiscal risks of state-owned enterprises and public-private partnerships, public spending in the water and sanitation services and social protection sectors while preparing a separate policy note on the cross-cutting challenges posed by high rates of adolescent pregnancy. As the pandemic disrupted the DR’s economy and radically altered the government’s fiscal position, an introductory chapter was added to situate fiscal policy in the context of recent macroeconomic developments. The team also added a policy note on prospective reforms to tax policy and administration offering suggestions on measures that could contribute to stabilizing the debt-to-GDP ratio. As social distancing and remote work highlighted the critical importance of digital services, a second policy note on developments in the telecommunications sector and opportunities to expand digital services was also added. A third policy note was added on Covid-19-related social expenditures, which expands on the analysis presented in the chapter on SP by detailing how social safety nets were quickly scaled up in the context of the pandemic. This note also offers guidance on how regulatory reforms can continue to strengthen social protection systems as the crisis subsides.

**This PER finds that institutional fragmentation poses a critical challenge to economic policymaking in the Dominican Republic (DR).** Inadequate coordination between public agencies undermines the effectiveness and efficiency of service delivery and reinforces the monopolistic structure of key economic sectors.<sup>1</sup> These findings are consistent with the analysis presented in the previous PER, completed in 2019, which emphasized the importance of efficiency gains in a context of constrained revenue mobilization and limited borrowing space. Institutional fragmentation aggravates the three most pressing economic policy issues facing the DR: (i) an unsustainable debt trajectory, (ii) slow rates of job creation in the formal sector, and (iii) gaps in both the social protection system and the delivery of basic services. The drafting of a revised medium-term development strategy by the newly elected administration offers an opportunity to address these issues. The following executive summary presents the strategic conclusions of the PER and describes the findings of each chapter and associated policy note.

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<sup>1</sup> Institutional fragmentation occurs when multiple public agencies, programs, or policies have overlapping mandates and/or beneficiaries. Inadequate interagency coordination is a related challenge, as the proliferation of institutions with similar roles intensifies the need for coordinated action while increases its difficulty.



## A. Reestablishing Sustainable Long-Term Debt Dynamics

**Ensuring debt sustainability will be a key priority in the aftermath of the fiscal stimulus policies adopted in response to the COVID-19 pandemic, but it should be done carefully to avoid harming the poor or the recovery.** As the pandemic unfolded, an abrupt decline in economic activity, coupled with a surge in emergency spending drove the nonfinancial public sector (NFPS) debt-to-GDP ratio from 40.4 percent in 2019 to an estimated 55.5 percent in 2020.<sup>2</sup> Prior to the pandemic, interest payments on NFPS debt had increased steadily as a share of GDP, rising from 1.8 percent in 2009 to 2.7 percent in 2019 and reaching an estimated 3.7 percent in 2020. A strong countercyclical fiscal stance, consisting of emergency spending and tax reliefs, was the most appropriate policy to mitigate the economic impact of the crisis on poor and vulnerable households and the economy. Some of these policies will need to remain in place over the medium term to support the economic recovery (i.e. to avoid a sharp withdrawal of the fiscal impulse) and continue to aid poorest households. Years of responsible fiscal management provided fiscal space for additional borrowing, but the post-crisis recovery will have to be accompanied by efforts to consolidate fiscal accounts and start rebuilding buffers to confront potential future shocks.<sup>3</sup> Stabilizing the NFPS debt-to-GDP ratio over time requires running primary balances in the future – to a degree that depends on the evolution of growth and interest rates.<sup>4</sup> In 2020 the primary deficit is estimated to have reached 4.1 percent of GDP while GDP contracted, implying that even if growth returns to 4 percent and real interest rates can be maintained at 4.1 percent on average, a substantial fiscal adjustment will be necessary to bend down the trajectory of the debt-to-GDP ratio. Policymakers have four complementary options for restoring sustainable debt dynamics: (i) accelerate GDP growth to shrink the debt stock in relative terms; (ii) reduce non-interest public expenditures; (iii) develop a debt-management program that can help lower average interest rates on the public debt stock without shortening maturities; and (iv) increase fiscal revenue to narrow the deficit and strengthen the government’s capacity to meet its future obligations.

**A strategy to stabilize the debt-to-GDP ratio could enhance market confidence in government securities and the viability of investment projects.** Adopting a fiscal responsibility law that commits the government to maintaining a countercyclical policy stance could send a powerful signal to financial markets. Consistently adhering to the law’s provisions would reinforce the credibility of the fiscal adjustment while strengthening overall fiscal management and minimizing the risk of policy slippages as the post-crisis recovery takes hold. As the DR’s credit rating is sensitive to the impact of large-scale natural disasters, rebuilding buffers to confront future disasters and increasing the utilization of instrument to finance or transfer these risks to markets will further bolster investor confidence.

**A sustained post-pandemic growth recovery will require reforms to enhance competition, improve the business climate, and encourage integration into global value chains (including positioning the country for a potential wave of “near-shoring”).** The DR’s formal sector is relatively small, and large incumbent firms dominate key markets, distorting prices and slowing productivity growth. Regulatory barriers are a major obstacle to both the formalization of domestic firms and the entry of foreign investors, but the exceptional circumstances of the COVID-19 crisis offer an opportunity to overcome opposition from vested interests and rapidly advance the structural reform agenda. While reforming the business climate

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<sup>2</sup> A significant, but necessary, exchange-rate depreciation also contributed to worsen the debt-to-GDP ratio.

<sup>3</sup> While the DR enjoys ample access to international bond markets, its sovereign bonds are rated three notches below investment-grade (BB- for S&P and Fitch, Ba3 for Moody’s), which implies high borrowing costs.

<sup>4</sup> The more real interest rates exceed GDP growth, the larger will be the required primary surplus to stabilize the debt-to-GDP ratio.

is an urgent priority, it is also a long-term process and must be guided by a well-designed strategy that appropriately sequences reforms and enjoys broad political support.

**Increasing the efficiency of non-interest expenditures is key for restoring debt sustainability.** Public expenditure levels must remain adequate to manage aggregate demand and address critical social needs, including the continued impact of the COVID-19 pandemic. However, there is room to reduce public spending by addressing institutional fragmentation and, in particular, consolidating programs. The 2019 PER identified opportunities for cost savings in health sector procurement and electricity generation, and this PER finds that harmonizing and consolidating social protection programs will lead to cost reductions while improving effectiveness. Reprioritizing expenditures is also essential -- as the government implements its fiscal adjustment, spending cuts should focus on areas in which the private sector is well positioned to fill the gap (e.g. on infrastructure), while protecting funding for pro-poor programs that are cost-effective. Over the medium term, there is a need to cap the growth of the public-sector wage bill to contain the deficit and create space for future countercyclical fiscal policy.

**Stronger debt management could reduce external vulnerability and reduce the average interest rate on the public debt.** Capital markets have largely financed debt accumulation, and although the public debt profile has improved, foreign-exchange risk remains substantial. The government's debt management strategy for 2016-2020<sup>5</sup> included specific targets for reducing foreign-currency debt, addressing refinancing risk by cutting short-term debt and extending the average maturity, and lowering interest-rate risk. Although the government is on track to comply with all its strategic targets, the persistently high level of foreign-currency-denominated debt exposes the government to abrupt increases in the debt stock during exchange-rate depreciations. Reducing financial risk typically requires increasing short-term costs, and these tradeoffs must be evaluated carefully. The substantial increase in the debt stock and the government's reliance on capital markets will require stronger debt and risk management, as well as proactive investor outreach. In addition, the government should continue to improve the domestic yield curve by concentrating issuances in benchmark securities, which will also facilitate the development of the domestic capital market.

**Last but not least, the recovery provides the opportunity to mobilize additional fiscal revenue via a tax reform that also increase the neutral of the system with respect to savings, investment, and labor decisions – a long overdue challenge to be confronted in the country.** The country's overly complex tax code and its uneven record to enforce the admittedly very narrow tax bases, has provided an unfair advantage to large or incumbent firms while, at the same time, weakening the efficiency and progressivity of the tax structure. Tax expenditures should be regarded as a top reform priority, as the DR's elaborate system of exemptions, deductions, tax holidays, and other incentives favors established firms, and eliminating these policies would boost revenue while encouraging competition and levelling the playing field. Tax reforms can also internalize the public health and environmental costs associated with the consumption of certain goods and services. Changes to the tax code should strive to be distributional neutral or positive, and a share of the revenue mobilized by eliminating tax exemptions should be set aside to finance well-designed compensatory fiscal transfers to offset any adverse effects on lower-income households.

## **B. Accelerating Job Creation in the Formal Sector**

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<sup>5</sup> Ministry of Finance (2016). *Estrategia de Mediano Plazo para la Gestión de la Deuda Pública 2016-2020*.

**Expanding the formal sector and maximizing its employment potential will be essential to reverse the recent increase in poverty rates.** Despite decades of robust growth in the private sector, formalization remains a key challenge. Weak enforcement of competition policy, combined with steadily mounting tax and regulatory barriers, has contributed to excessive market concentration while stymying the growth of employment-intensive small firms. Market dominance also discourages the entry of foreign firms and investors, slowing productivity growth and technology transfer while inhibiting the emergence of new industries and sectors. Addressing these issues will be vital to enable broad-based employment creation and wage growth in the formal sector, which in turn will be necessary to reverse the decline in household welfare caused by the pandemic while expanding the tax base to shore up fiscal revenue during the recovery.

**Import restrictions, infrastructure bottlenecks, and inadequate coordination among the agencies enforcing competition policy contribute to a high degree of market concentration and widespread informality.** Despite the DR's membership in major regional and global trade agreements,<sup>6</sup> trade barriers continue to protect domestic firms from international competition. Infrastructure deficiencies undermine competition in key sectors,<sup>7</sup> and the noncompetitive allocation of shared infrastructure reinforces market dominance. Moreover, gaps in the institutional framework for competition policy prevent the authorities from reliably identifying and sanctioning anticompetitive behavior. The policy note on the telecommunications sector shows how these dynamics distort competition by barring the entry of foreign firms and inhibiting the growth of domestic startups. Revising the administrative framework for competition policy to align the mandates, roles, and responsibilities of the implementing agencies would help curb the abuse of market power, while harmonizing trade policies with international standards would increase competitive pressure, lowering domestic prices and encouraging investments in productivity. As pro-competition reforms could encounter opposition from vested interests, they must be guided by a well-designed strategy that carefully sequences policy interventions and enjoys broad political support.

**Eliminating regulatory, tax, and expenditure policies that unduly favor established firms should be regarded as an urgent near-term priority.** Transitioning to a more competitive business environment by implementing pro-competition tax and expenditure policies would simultaneously advance multiple objectives: simplifying tax and regulatory policies to facilitate compliance would eliminate a key barrier to entry and encourage formalization, while alleviating bureaucratic constraints on competition would promote productivity growth, boost employment creation in the formal sector, and broaden both the personal and corporate tax bases. Over the longer term, public spending can support small and medium sized firms and startups by expanding technical and vocational education, encouraging innovation, and easing constraints on access to finance. To avoid inadvertently incentivizing rent-seeking, the costs and benefits of these policies should be carefully quantified, and their effectiveness should be regularly reevaluated. While this PER focuses on urgent priorities, further analysis could help inform the design of additional competition-enhancing expenditure policies over the medium-to-long term.

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<sup>6</sup> The DR is a member of the regional Central America – Dominican Republic Free Trade Agreement (CAFTA DR), and in February 2017 the government ratified the World Trade Organization's Trade Facilitation Agreement.

<sup>7</sup> For example, the 2019 PER found that large firms could limit the impact of frequent blackouts by operating their own generators at a cost that was prohibitive for small and medium-sized competitors.

## C. Strengthening Social Protection and Improving Basic Service Delivery

**The increase in social spending driven by the crisis has underscored the need to address longer-term challenges in social protection and the provision of essential services.** Although the DR's protracted economic expansion dramatically reduced monetary poverty rates, weaknesses in the social protection system and an inadequate supply of basic public goods have persistently undermined welfare gains. Addressing these challenges will yield a permanent improvement in the effectiveness of public spending, accelerating progress on social development indicators while supporting the government's return to sustainable debt dynamics.

**Harmonizing policies and interventions will be necessary to increase the efficiency of social protection spending.** In the years prior to the crisis, the institutional fragmentation of the DR's social protection sector contributed to the proliferation of numerous interventions, often with overlapping objectives and beneficiary groups. Improving coordination among the authorities responsible for designing and implementing social protection policies will be necessary to streamline interventions around the most effective models. In this context, consolidating the administrative framework for social protection under a single law supported by unified targeting mechanisms could greatly enhance the impact of social spending.

**Improving the quality and reliability of water and sanitation services is also an important challenge for the DR.** The water and sanitation sector is locked in a vicious cycle, as underinvestment in capital assets and maintenance contributes to an erratic water supply, which undermines willingness to pay, and low billing and collection rates in turn destabilize the financial position of service providers, further reducing investment. Establishing a social contract governing the provision of WSS could help restore trust between service providers and the public, allowing providers to improve service delivery while reducing nontechnical losses and fostering a culture of payment. Over time, subsidies could be narrowed to finance capital expenditures exclusively, while tariffs could cover all operations and maintenance costs.

## D. Findings of Individual Chapters and Policy Notes

### *Chapter One: Economic Recovery and Fiscal Sustainability*

**This chapter discusses the structure of the economy and the fiscal adjustment needed to stabilize the debt-to-GDP ratio.** Consolidated public debt levels are estimated to have increased by 16.3 percentage points of GDP during 2020,<sup>8</sup> as the fiscal deficit widened to 7.7 percent of GDP and the primary deficit is estimated at 4.1 percent. Assuming real interest rates remain at 4.1 percent while the GDP growth rate returns to 4 percent, a primary balance will be needed to stabilize the debt-to-GDP ratio. Achieving this balance over the medium term would require a fiscal adjustment of about 4.0 percentage points of GDP, which could be even higher if real interest rates increase or if growth falls short of expectations. While the flexibility of some emergency programs may allow them to be scaled back quickly, the transition to a post-COVID-19 recovery must be carefully managed to enable a resurgent private sector to take the place of government interventions.

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<sup>8</sup> The estimated debt level is based on budget projections published in November 2020, preliminary data published in January 2021 suggest that the increase will be 1.6 percentage points of GDP lower.

## ***Chapter Two: Fiscal Risks from State-Owned Enterprises and Public-Private Partnerships***

**This chapter finds that state-owned enterprises (SOEs) and public-private partnerships (PPPs) are an increasingly important source of fiscal risk.** On-budget investment spending fell from an average of 3.2 percent of GDP during 2014-17 to about 2.5 percent in 2018-19.<sup>9</sup> While capital transfers to SOEs also contribute to the accumulation of public assets, capital transfers have fallen over time as the government has gradually reduced overall investment in the electricity sector. Across all sectors, fiscal transfers continue to finance about 50 percent of SOE investment, while the other half is financed through external loans guaranteed by the central government. As of end-June 2020, there were 31 active PPPs in the DR with a total value of US\$3.1 billion or 3.5 percent of 2019 GDP.<sup>10</sup>

**Contingent liabilities pose a significant threat to the fiscal consolidation effort.** Together, the risks stemming from SOEs, PPPs, and contingent liabilities linked to pension programs, natural disasters, and rising oil prices equal 7.8 percent of the DR's projected GDP for 2021. While the pension system is responsible for the largest share of contingent liabilities, a preliminary assessment of the credit risks facing the five SOEs that account for 99 percent of short-term SOE debt indicates that the estimated average loss from contingent liabilities could amount to 0.3 percent of 2020 GDP or more. While PPPs offer opportunities for the government to enhance service provision and improve management efficiency, they often generate contingent liabilities through guarantees extended by the public sector. According to a preliminary estimate, contingent liabilities from PPPs in the DR could amount to as much as US\$1.1 billion, or 1.2 percent of 2019 GDP. While this level is manageable, the government is monitoring the situation closely.

## ***Chapter Three: The Water and Sanitation Services Sector***

**The water and sanitation services chapter covers service delivery, financing and the benefit impact of these services.** This chapter describes the DR's water and sanitation services (WSS) sector as a patchwork of national and provincial SOEs, which lack strategic leadership and suffer from deficiencies in their governance framework. WSS providers rely on fiscal transfers to cover virtually all of their capital investments and between 19 and 66 percent of their recurrent operating costs. The sector's institutional fragmentation, lack of leadership and regulatory framework coupled with a reliance on transfers from the central government weaken incentives for SOEs to improve their efficiency or enhance service quality. Water rationing is common, and more than half of all households report an inconsistent water supply, while technical losses, unmetered consumption, illegal connections, and low billing rates undermine the solvency of WSS providers. In addition, more than two-thirds of households use onsite sanitation systems, and limited oversight results in large volumes of raw septage from septic tanks and latrines contaminating groundwater, surface waters, and neighborhoods.

**The WSS sector is locked in a vicious cycle in which low billing and collection rates contribute to poor service quality, which in turn undermines households' willingness to pay.** Faced with frequent service interruptions, Dominican households cope by using storage systems and purchasing bottled water, the cost of which erodes their confidence in public providers and discourages them from accepting the higher

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<sup>9</sup> This refers to capital expenditures as defined in the IMF's Fiscal Sector Statistics Manual.

<sup>10</sup> This chapter uses the definition of a PPP provided by the PPP Fiscal Risk Assessment Model (PFRAM): "A long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance." The DR's government distinguishes between concessions, power-purchasing agreements, and PPPs.

tariffs that could be used to improve service delivery. In this context, improving service delivery will require sustained efforts to rebuild trust between providers and clients. The PER details short-, medium-, and long-term policy recommendations for increasing accountability among providers, strengthening sectoral leadership, reforming the legal and regulatory environment, reducing technical and commercial losses, launching a national program to improve WSS service delivery, linking government transfers to provider performance, and crowding in private-sector participation.

#### **Chapter Four: Social Protection**

**The social protection (SP) chapter presents the existing programs, financing of these programs, and their impact.** This chapter finds that although SP programs have improved the living conditions of the poorest households and helped reduce monetary poverty and inequality, a high degree of fragmentation diminishes the effectiveness of the SP system. In 2018, the incidence of monetary poverty was 22.7 percent of the population, but it would have been 8.2 percentage points higher in the absence of SP programs. Contributory social security and social assistance programs represented 3.3 and 4.8 percentage points, respectively, of the decline in the poverty rate versus the counterfactual. Moreover, a cost-benefit analysis reveals that each Dominican peso (RD\$) spent on the country's main SP programs reduced the overall poverty gap by RD\$0.20-0.25 in 2018. Almost 80 percent of extremely poor households experienced an improvement in their living conditions between the 2012 and 2018 rounds of the national household survey, yet almost half of the population remains vulnerable to poverty, and the impact of the COVID-19 pandemic could dramatically worsen poverty indicators.

**Consolidating the array of SP interventions into a coherent system underpinned by a clear allocation of institutional roles and responsibilities could enhance the impact of SP spending.** The SP sector encompasses more than 100 public institutions implementing an estimated 227 initiatives. In 2018, the government spent about 7.3 percent of GDP on the SP sector, with almost half going to social security, 21 percent to social assistance, 22 percent to general subsidies, and less than 10 percent to all other programs. The coverage rates of SP programs among households in the bottom 20 percent of the income distribution vary substantially, ranging from 40 percent for cash transfers (*Comer es Primero*) to almost 70 percent for child nutrition (*Alimentación Escolar*). Despite their demonstrably positive effects on poverty and inequality, the complexity and diffusion of SP programs weakens their effectiveness. As the fiscal envelope narrows, policymakers should strive to: (i) create a comprehensive regulatory framework for SP; (ii) establish a governance structure with well-defined coordination and oversight functions; (iii) reprioritize expenditures to increase value for money and ensure adequate financing for labor-market programs, adaptive SP initiatives, and social care services; (iv) accurately target vulnerable households and ensure the inclusion of marginalized groups; (v) eliminate redundant programs and scale up successful initiatives; and (vi) establish strategic leadership for the SP sector.

#### **Policy Notes**

##### *COVID-19 Social Protection Policies*

**The effectiveness of the national SP targeting, and delivery mechanisms enabled the authorities to rapidly scale up interventions in response to COVID-19, but new programs were launched in an ad hoc manner that skirted existing procedures and systems.** The government introduced special programs to compensate firms for wage costs, which mitigated the increase in unemployment during the crisis. However, programs were administered in an ad hoc manner without the benefit of established procedures and systems. Formalizing these new programs within the framework of a consolidated SP

system will also offer an opportunity to design an exit strategy for emergency support and design a planning process for encouraging greater private-sector involvement as the government's role diminishes.

### *Adolescent Pregnancy*

**Despite its steadily improving economic indicators, the DR faces persistently high rates of adolescent pregnancy, and addressing this challenge will require sustained engagement across multiple areas of the SP system.** The DR's adolescent pregnancy rates are among the highest in the region and well above the average for its income group. Adolescent pregnancy is a critical SP issue, but it also has complex health, education, and economic implications. Reducing the incidence of adolescent pregnancy will require an integrated approach that includes improved sexual and reproductive health education, expanded social programs, and increased access to modern contraceptive methods. A Presidential Decree could define the role of each public agency involved in addressing adolescent pregnancy, which would help overcome the fragmentation of public policy in this critical area.

### *Digital Infrastructure and Telecommunications Markets*

**Information technology and digital services are vital to increase connectivity with international markets and improve public service delivery.** While developments in the telecommunications sector have important implications for fiscal policy in the DR, they extend well beyond the scope of a PER and are therefore explored in a dedicated policy note. The analysis finds critical gaps in the digital infrastructure and telecommunications markets and identifies a series of regulatory bottlenecks that limit the effective market functioning in key markets as the main obstacle to improved service delivery. While market concentration in the telecommunications sector is driven in part by inherent structural factors, including high investment costs and network effects, the market outcomes observed in the DR are reinforced by policy decisions that protect incumbents and hinder the entry of new firms. More effective sectoral regulation will require rules that enable equal access to network infrastructure and prevent incumbent firms from favoring their own operations. In addition, consistently implementing the DR's competition laws and policies will be vital to prevent anticompetitive practices in the sector. Echoing the conclusions of other analytical work prepared for this PER, the policy note recommends measures to improve coordination among the public institutions tasked with implementing effective sectoral regulation coupled with competition policy.

### *Tax Policy*

**Raising public service delivery to regional standards while maintaining sustainable fiscal balances will require a substantial increase in domestic revenue mobilization.** In 2018, fiscal revenue in the DR equaled just 13.2 percent of GDP, slightly over half the average for Latin America and the Caribbean and one of the lowest levels among comparable countries worldwide. The tax base is extremely narrow, with extensive tax exemptions, zero-ratings, and high deductions and allowances in the major tax categories. Tax expenditures amounted to an estimated 4.8 percent of GDP in 2020, of which value-added tax exemptions alone accounted for 2.5 percent. Streamlining these exemptions would yield important gains, and a share of the increased revenue could be used to finance fiscal transfers that would offset any negative welfare effects on lower-income households. Because the narrow tax base and extensive exemptions reduce fiscal revenue potential, while the complexity of the tax system and low tax morale undermine collection efforts, a revenue-mobilization strategy should prioritize reforms aimed at broadening the base by rationalizing tax expenditures and ensure that they provide targeted support.

Streamlining tax incentives and strengthening revenue administration could reduce tax evasion and eliminate a key barrier to formalization.

**Table ES.1: Matrix of Challenges and Policy Options**

Challenges	Policy Options	Timeframe
<b>Economic Recovery and Fiscal Sustainability</b>		
The COVID-19 crisis threatens corporate continuity.	Continue providing liquidity support to enable private firms to honor employment contracts during the crisis while allowing structurally insolvent firms to exit the market.	ST
Many households face substantial income losses.	Scale back COVID-19 cash-transfer programs gradually to mitigate the ongoing shock to consumer spending.	ST
The regulatory framework favors well-established firms.	Review and reform tax laws and product-market regulations to level the competitive playing field and encourage productive firms to grow and innovate.	ST/MT
Dominican firms are not well integrated in global value chains.	Adopt policies to deepen the integration of Dominican firms into regional and global value chains through stronger enforcement of competition policy and trade facilitation.	MT/LT
Deficits that emerged during the pandemic have destabilized the fiscal balances.	Update the national debt-management strategy to reflect evolving cost/risk tradeoffs.	ST
	Improve expenditure efficiency by reallocating resources within the limited scope of the discretionary budget.	ST
Interest payments on international bonds are large and growing.	Assess options for designing and implementing a fiscal rule to anchor the reestablishment of sustainable debt dynamics.	ST/MT
Transfers to SOEs undermine fiscal sustainability.	Improve the structure, finances, and governance of the SOEs and reduce their fiscal impact.	ST/MT
Natural disasters are a major source of macroeconomic risk.	Evaluate and adopt strategies to hedge against catastrophic risk, such as creating a contingency fund, contracting risk insurance through a vehicle such as the Caribbean Catastrophe Risk Insurance Facility (CCRIF), and/or investing in resilience-related infrastructure.	ST/MT
<b>Fiscal Risks from SOEs and PPPs</b>		
There is no formal framework for monitoring fiscal risks emanating from SOEs and PPPs.	Adopt a formal framework for issuing guarantees to SOEs and for assessing and managing the fiscal risks associated with PPPs.	ST



SOEs are loss-making and poorly capitalized.	Strengthen the governance framework for SOEs by aligning tariffs with costs and by improving their capital adequacy ratios.	MT
Limited reporting on contingent liabilities of SOEs poses a fiscal risk.	Mandate regular reporting on contingent liabilities to strengthen public financial management and advance the government's fiscal consolidation efforts.	MT
<b>Water Supply and Sanitation</b>		
Gaps in data collection inhibit performance monitoring.	Establish harmonized indicators, protocols for performance data collection, and requirements for regularly collecting and publishing technically verified data.	ST
	Create an entity to lead the development of harmonized performance indicators and coordinate and monitor data collection.	ST
Technical and commercial losses are not controlled.	Invest in metering infrastructure and water audits.	ST
WSS providers lack financial transparency and accountability.	Standardize financial reporting, accounting, and auditing practices, and implement a requirement for annual audits.	ST
Operational inefficiencies among WSS service providers negatively impact service quality.	Link government subsidies to performance levels.	ST
	Launch a national results-based program that focuses on reducing water loss, measuring performance, and improving the quality of services.	MT/LT
The WSS sector's legal framework is ambiguous.	Either approve the draft WSS law or remove it from the legislative agenda.	ST
Trust between the public and WSS service providers has broken down.	Implement service-delivery demonstration projects focused on creating ring-fenced district-metered areas to reduce nonrevenue water and improve the continuity and quality of services.	ST/MT
WSS service providers are excessively dependent on fiscal transfers.	Reform the tariff structure to align prices more closely with costs.	LT
The private sector's ability to contribute to WSS service provision is limited.	Provide an enabling legal, regulatory, and operational environment for private-sector participation in the WSS sector.	MT/LT
The overall governance of the WSS sector is weak.	Assign leadership responsibilities for the sector to a single entity and provide it with the skills and staff necessary to fulfill its mandate.	MT/LT

<b>Social Protection</b>		
Harmonize the legal and regulatory framework of the sector.	Establish a single national law that regulates the entire SP sector and require that all SP-related initiatives adhere to the proposed national SP law.	ST
Improve the coordination of SP policies and programs.	Create one single government authority (preferably a ministry) responsible for managing the country's non-contributory SP system.	ST
Facilitate the adaptability of SP programs to respond to shocks.	Create adaptive SP programs.	MT
Increase the efficiency and effectiveness of social assistance programs.	Improve the design and implementation of select SP programs to target poor and vulnerable households.	MT
Improve mechanisms for targeting and identifying beneficiaries of SP programs.	Transform SIUBEN into a social information system that integrates the single registry of beneficiaries of all contributory and non-contributory SP programs.	MT
Align criteria to identify the poor and vulnerable population.	Update SIUBEN's targeting model to align it with the country's official measurement of poverty, which is based in income.	ST
Strengthen sector performance.	Establish a comprehensive and integrated monitoring and evaluation system for the entire SP sector.	LT
Improve monitoring and evaluation.	Create an SP intelligence unit responsible for integrating data from public information systems.	ST
Increase accountability.	Strengthen the social audit by institutionalizing the implementation of periodic community score cards for all initiatives of the National Social Protection System.	MT
Improve long-term planning in the SP sector.	Formulate a national SP plan based on a comprehensive vision of SP.	LT
<b>Policy Note: The Administration of COVID-19 Social Protection Programs</b>		
COVID-19 SP programs are temporary and fiscally unsustainable.	Prepare an exit strategy to phase out COVID-19 SP programs.	ST
The services delivered through these programs are inadequately monitored.	Improve the authorities' capacity to monitor beneficiaries and underserved populations and to adapt programs to the changing needs of the population.	ST
The beneficiary identification registry is incomplete.	Adopt a broader and more flexible identification registry for beneficiaries of COVID-19 SP programs.	ST
Social beneficiary registries are fragmented.	Prepare a unified social beneficiary registry.	MT
COVID-19 social protection programs lack operational manuals and procedural handbooks.	Systematically prepare program procedures, operations manuals and handbooks to improve accountability and transparency.	ST

<b>Policy Note: Adolescent Pregnancy</b>		
Programs are fragmented, and agencies have overlapping policy mandates.	Issue a Presidential Decree defining the role of each public agency involved in addressing adolescent pregnancy.	ST
The risk of adolescent pregnancy can be reduced through participation in targeted social programs, but the availability of these program is limited.	Expand the supply of social programs that are associated with a lower probability of adolescent pregnancy.	ST
Adolescents have limited access to information on sexual and productive health.	Implement a comprehensive strategy to bolster sexual and reproductive health education, particularly at early adolescence.	MT
Adolescents have insufficient access to public hospitals and clinics.	Strengthen the provision of comprehensive reproductive health services for adolescents in public hospitals and clinics.	MT
<b>Policy Note: Competition in Telecommunications and Digital Services</b>		
<b>Ex ante regulatory interventions to enhance contestability</b>		
A licenses and concessions regime paired with burdensome qualifying procedures to provide telecommunication services restrict can market entry	Adopt a clear general authorization regime subject to minimal administrative requirements	ST
No regulated wholesale/retail roaming tariffs gives dominant operators the ability and incentive to charge higher tariffs to foreign operators	Promote roaming agreements and require MNOs with significant market power in the mobile sector to host MVNOs	MT
Restricted access to spectrum-assignment tenders for currently licensed operators may affect overall access and competition dynamics in mobile telecommunications	Introduce a secondary spectrum market.	MT
	Grant preferential access to spectrum to new and smaller operators in a nondiscriminatory manner.	MT
Administrative barriers for deployment of infrastructure, mainly at the municipal level, limit market entry/expansion	Promote an effective harmonization and coordination of the licenses for the deployment of fixed network infrastructure	ST
Lack of effective infrastructure sharing between telecom operators due to ineffective tariff regulation limit third party access	Introduce asymmetric principles in the existing regulation on passive infrastructure sharing and effective enforcement of the mechanisms for conflict resolution	ST

Access to essential infrastructure mandated to operators without SMP	Eliminate non-dominant operators' obligations to provide access to their network infrastructure	MT
Lack of effective ex ante regulation of interconnection rates could lead to club effects & on/off net discrimination	Consider the adoption of a long-run incremental cost methodology to mitigate the club effects between on-net/off-net calls	ST
<b>Ex post competition policy enforcement mechanisms</b>		
Prohibition of lawful conducts for operators without SMP requires revisions	Limit the prohibition of abusive conducts to operators with significant market power	ST
Limited coordination between sectoral regulation and effective ex post enforcement against anticompetitive practices may hamper market dynamics	Strengthen the institutional framework and further develop the rules, guidelines, and administrative capacities necessary to effectively prevent, investigate, and prosecute anticompetitive practices.	ST
A cross-sectoral merger-review system is absent to prevent anticompetitive practices and outcomes in the telecommunications sector	Introduce a cross-sectoral merger-review system.	ST
<b>Policy Note: Tax Policy and Administration</b>		
Large tax expenditures adversely impact governance, economic activity, and the income distribution.	Streamline tax expenditures of the main taxes	MT
A narrow tax base constrains fiscal revenue and distorts the tax burden.	Widen the tax base and increase the efficiency of corporate income tax, personal income tax, and value-added tax.	MT
International profit shifting offers growing opportunities for tax avoidance.	Implement international good practices to prevent profit shifting and effectively tax e-commerce.	MT
Property tax revenues are low by regional standards.	Enhance the design of property taxes to increase collection rates.	MT
Overall revenue administration is improving, but vulnerabilities remain.	Continue strengthening revenue administration by introducing compliance risk management strategies	MT

Source: World Bank

## I. Macroeconomic Context

### A. Summary and Recommendations

**1. This chapter examines the impact of the Covid-19 crisis on the Dominican Republic (DR) and the government’s policy response in the context of recent macroeconomic and fiscal developments.**<sup>11</sup> Prior to the crisis, the DR experienced an average annual GDP growth rate of over 5 percent for more than 25 years, with modest procyclical fiscal deficits and a slowly rising public-debt-to-GDP ratio. Growth accelerated in the years leading up to the crisis, and between 2015 and 2019 the annual GDP growth rate averaged 6.1 percent. The DR’s robust and sustained expansion supported broad-based improvements in living standards, and poverty rates fell. However, during this period large incumbent firms increasingly came to dominate their respective sectors, the contribution of trade to GDP declined, informality remained pervasive, and the share of the population at risk of falling into poverty continued to be among the highest in the Latin America and the Caribbean (LAC) region.

**2. The Covid-19 crisis has profoundly impacted the DR’s economy.** Annual GDP is estimated to have contracted by 6.7 percent in 2020, while the fiscal deficit widened to 7.7 percent of GDP, far above the 2.2 percent projected in the original 2020 budget. Meanwhile, the pandemic has exposed the challenge posed by deep regional inequalities and pervasive vulnerability, which were previously masked by the country’s strong growth performance and declining poverty rates. In addition, widespread informality has hindered the government’s fiscal response, as efforts to stabilize domestic employment have largely been restricted to the narrow formal sector, while fiscal support designed to mitigate the firm-level impact of the crisis has inadvertently reinforced the market power of large incumbents, tightening preexisting constraints on competition.

**3. The fiscal and monetary policies adopted in response to the crisis are affecting both the speed and quality of the DR’s economic recovery, as well as the sustainability of the public debt.** In the near term, expansionary fiscal policies will be necessary to attenuate the macroeconomic impact of the pandemic, but as the crisis wears on, responsible fiscal management will become increasingly important to safeguard public debt sustainability. The public sector debt-to-GDP ratio reached 50.5 percent in 2019, and it is estimated to have reached 67 percent in 2020.<sup>12</sup> Restoring sustainable debt dynamics will require a major fiscal adjustment, the exact size of which will be, primarily, determined by both real interest rates on public debt and the average GDP growth rate over the medium term. Meanwhile, the composition of the fiscal response will influence both the level and quality of economic growth. As the crisis abates, the government will need to scale back its fiscal interventions at a pace consistent with stabilizing the debt-to-GDP ratio. Ultimately, the success with which the authorities engage a resurgent private sector to supplant the diminished role of public spending will determine the speed and durability of the recovery.

**4. The recommendations presented in this report are designed to balance support for a swift recovery with the imperative to maintain sustainable debt dynamics while addressing structural issues.** The policy recommendations are divided into two categories: (i) catalyzing an inclusive economic recovery and (ii) safeguarding fiscal sustainability. They are organized according to their implementation timeframe, which reflects both the exigencies of the crisis and the limited capacity of macroeconomic institutions. The policies described below should be complemented by ongoing measures to contain the

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<sup>11</sup> World Bank (2019), Dominican Republic Public Expenditure Review 2012-18, Washington, DC, unpublished.

<sup>12</sup> The estimated debt level is based on budget projections published in November 2020, preliminary data published in January 2021 suggest that the increase will be 1.6 percentage points of GDP lower.

spread of Covid-19 and minimize its impact on public health. Additional recommendations focusing on public expenditure efficiency, distributional equity, and measures to reform the water and sanitation and social protection sectors are presented in subsequent chapters.

## 1. Catalyzing an Inclusive Economic Recovery

### *Short Term*

- Continue providing liquidity support to allow private firms to honor employment contracts during the crisis while allowing structurally insolvent firms to exit the market.
- Scale back Covid-19 cash-transfer programs gradually to mitigate the ongoing shock to consumer spending.

### *Short-to-Medium Term*

- Review and reform tax laws and product-market regulations to level the competitive playing field and encourage productive firms to grow and innovate.

### *Medium-to-Long Term*

- Adopt policies to deepen the integration of Dominican firms with regional and global value chains.

## 2. Safeguarding Fiscal Sustainability

### *Short Term*

- Update the national debt-management strategy to reflect evolving cost/risk tradeoffs.
- Improve expenditure efficiency by reallocating resources within the limited scope of the discretionary budget.

### *Short-to-Medium Term*

- Assess options for designing and implementing a fiscal policy rule to anchor the reestablishment of sustainable debt dynamics.
- Improve the structure, finances, and governance of the state-owned enterprises and reduce their fiscal impact.
- Evaluate and adopt strategies to hedge against catastrophic risk, such as creating a contingency fund, contracting risk insurance through a vehicle such as the Caribbean Catastrophe Risk Insurance Facility (CCRIF), and/or investing in resilience-related infrastructure.

### *Medium-to-Long Term*

- Design and implement a strategy for improving the performance of the tax system by building on previous efforts to broaden the tax base and address gaps in revenue administration while streamlining and reducing tax expenditures.<sup>13</sup>

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<sup>13</sup> For further details on revenue reforms, see World Bank (forthcoming), The Dominican Republic Tax System Review, Policy Note.

## B. Medium-Term Context

**5. The previous Public Expenditure Review (PER-1) covered the 2012-2018 period, providing a baseline assessment of macroeconomic conditions just prior to the onset of the Covid-19 pandemic.** The crisis follows an extended period of rapid economic growth marked by low volatility and sustainable debt dynamics. The country's GDP grew at an average rate of 5.3 percent per year between 1993 and 2019, one of the fastest rates in the region, and decades of sustained expansion yielded broad-based gains in employment creation and poverty reduction. The introduction of an inflation-targeting regime enabled the accumulation of foreign-exchange reserves in a context of low inflation and gradual exchange-rate depreciation. However, even during the DR's prolonged expansion, the government struggled to maintain stable fiscal balances, and the debt trajectory has increase significantly over the past 15 years.

**6. Over the past three decades, economic growth in the DR has been significantly more stable than in many other Latin American countries despite a series of endogenous and exogenous shocks.** The volatility of GDP growth declined dramatically between 1993 and 2018, and the coefficient of variation remained lower than in peer countries even as the DR suffered repeated natural disasters.<sup>14</sup> Ten hurricanes have struck the DR in the last 50 years, the worst of which incurred economic losses exceeding 14 percent of annual GDP.<sup>15</sup> Nevertheless, GDP growth remained broadly stable. The average fiscal deficit widened from 1.3 percent of GDP during 1997-2003 to an average of 2.7 percent during 2004-18.<sup>16</sup> However, these averages mask considerable annual fluctuations, and between 2003 and 2018 the fiscal deficit ranged from 1.1 percent of GDP to 6.9 percent. Fiscal policy was mildly procyclical between 2007 and 2018, and during 2017-19 the authorities narrowed the deficit in an effort to stabilize the debt-to-GDP ratio. However, the DR's consolidated overall public debt stock, excluding outstanding debt issued by the Central Bank of the Dominican Republic (*Banco Central de la República Dominicana*, BCRD), rose from 36.6 percent of GDP in 2010 to 50.5 percent in 2019.

**7. Decades of sustained growth have driven down poverty rates and supported the growth of the middle class, but a significant share of the population remains at risk of falling into poverty.** Between 2013 and 2016 alone, the poverty rate declined by about 10 percentage points, and the middle class expanded by a similar amount, but the returns to growth were unevenly distributed across regions and between rural and urban areas. A World Bank analysis using the commitment to equity (CEQ) methodology determined that fiscal policy reduced the market-income Gini coefficient from 0.46 to 0.38 in 2018.<sup>17</sup> This finding indicates that taxes, indirect subsidies, and transfers (including the monetized value of public education and healthcare) tend to disproportionately benefit lower-income households. The positive impact of economic growth and progressive fiscal policy notwithstanding, an estimated 41 percent of Dominicans remained vulnerable to poverty in 2018, among the largest shares in Latin America.

**8. The persistent vulnerability of Dominican households despite decades of sustained economic expansion reflects the modest impact of productivity growth on wages.** Productivity gains have greatly

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<sup>14</sup> The DR is among the world's most disaster-exposed countries. Germanwatch Global Climate Risk Index (2014).

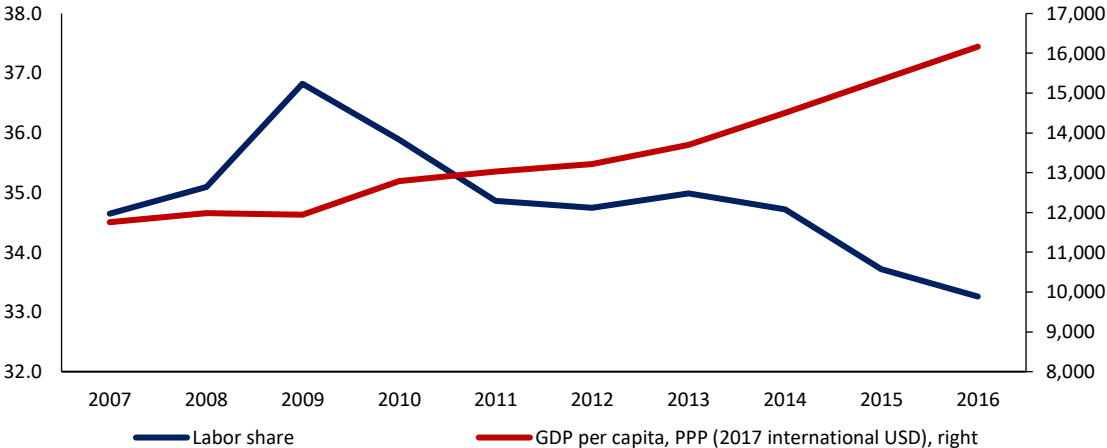
<sup>15</sup> ECLAC. See <https://repositorio.cepal.org/handle/11362/25344>.

<sup>16</sup> The DR suffered a major domestic banking crisis in 2003. Expenditures increased by almost 3 percentage points of GDP on average between 1997-2002 and 2003-2018.

<sup>17</sup>See: World Bank (forthcoming). "Poverty and Distributional Impacts of Fiscal Policy in Dominican Republic." This study does not take account of the distributional impact of capital transfers. The benefit incidence analysis presented in chapters 3 and 4 include the capital transfers while the commitment to equity methodology does not include these transfers. Therefore, while the results reported in this study are comparable in direction they are not of the same order of magnitude as those reported in chapters 3 and 4.

contributed to the DR’s economic success, but these gains are entirely due to innovation and technological upgrading within firms, while the efficiency with which resources are allocated between firms has deteriorated. This pattern likely reflects a combination of regulatory distortions in the labor market, a weak competition framework, credit constraints, and other factors that prevent the reallocation of inputs towards more productive uses. Moreover, foreign direct investment (FDI) appears to drive innovation among large firms, but these innovations are not efficiently disseminated throughout the economy, and productivity growth remains concentrated in a narrow range of sectors (Box I.1). Consequently, both employment levels and real wage rates have not increased in line with output, and employee compensation as a share of value added has fallen steadily in recent years (Figure I-1). The pandemic will further limit job creation, especially in sectors where productivity gains have been weak, which may cause a significant deterioration in real wages.

**Figure I.1. GDP per Capita and Employee Compensation as a Share of Value Added (Labor share), 2007-2016**



Source: World Bank staff calculations based on data from the BCRD and the World Development Indicators.

**9. The government has made substantial efforts to enhance the business environment, but the DR continues to perform relatively poorly on the Doing Business Index.** Important gains have been made in streamlining the business registration process, establishing commercial court divisions, strengthening protections for minority shareholders, and improving the framework for resolving insolvency. However, structural challenges remain in key areas, including levelling the playing field for new entrants, small firms, and local suppliers; updating tax policy and business regulations; and reforming competition policy. Action in these areas would spur employment growth and alleviate job losses incurred during the pandemic. Meanwhile, complementary fiscal reforms aimed at expanding the tax base by reducing exemptions and increasing the progressivity of the tax system could support the structural reorientation of the economy, enhance allocative efficiency, accelerate job creation in the formal sector, and address longstanding risks to the sustainability of growth.

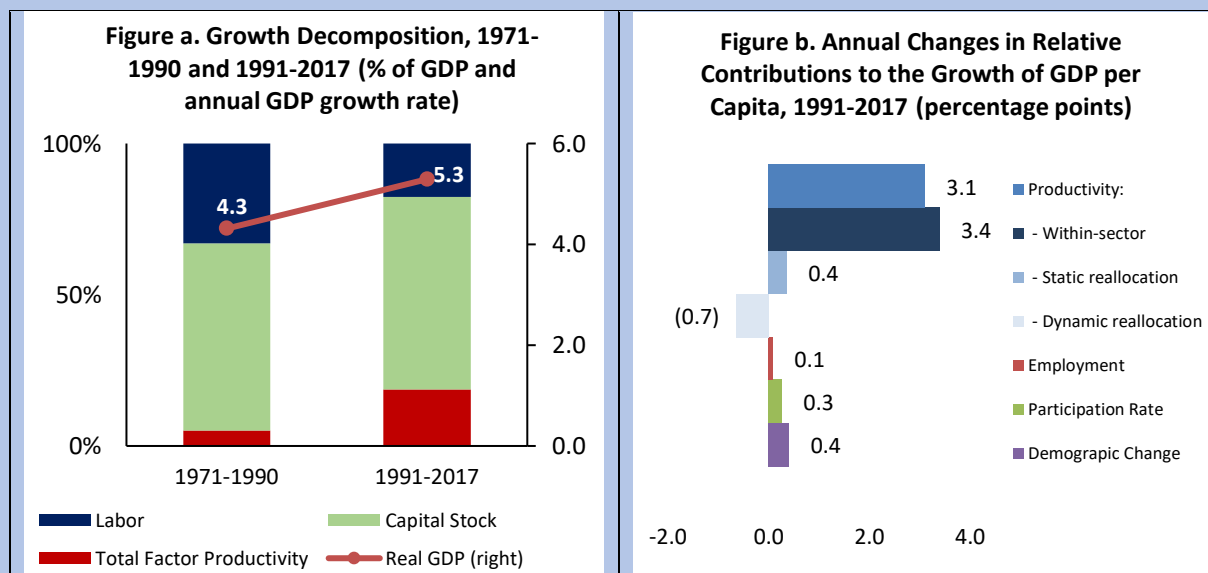
**10. The value added by firms in the DR is primarily determined by linkages between domestic sectors rather than by international integration.** Foreign inputs contribute just under 14 percent of total value added, significantly less than in most peer economies (Figure I.2). FDI increased from 1.5 percent of GDP in 1993 to 3.2 percent in 2019, but the volume of trade relative to GDP declined during the period (Figure I.3). Moreover, FDI has been heavily focused on large firms (Figure I.4), while small and medium-



size firms are responsible for the bulk of employment growth in the DR. The outsized importance of linkages between domestic sectors may amplify market distortions, lowering productivity growth.

### Box I.1. Growth Decomposition

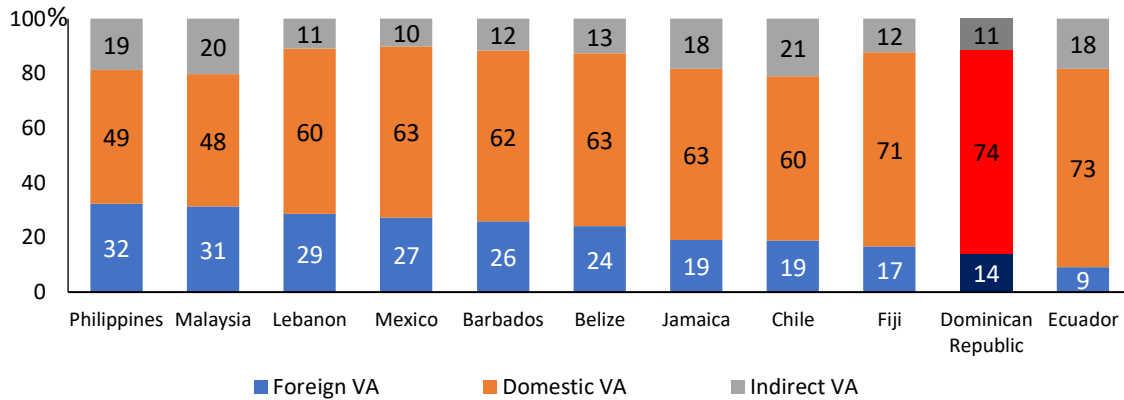
The DR's economic growth model underwent a substantial realignment following the introduction of structural reforms in the early 1990s. These measures increased the efficiency of the import tariff and tax structures, eliminated certain policy-induced price distortions, reduced asymmetries in the incentives provided to industries and sectors, and bolstered fiscal equilibrium. Productivity accelerated in the wake of the reforms, but the contribution of labor to output growth declined. Within-sector innovation drove productivity growth, while the allocation of factors across sectors became less efficient.



Source: World Bank staff calculations based on the World Bank World Development Indicators and Enterprise Surveys.

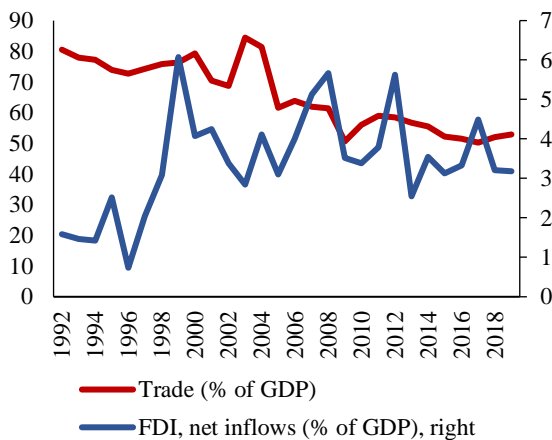
**11. The government's initial policy response appears to be alleviating the short-term economic impact of the crisis while also exacerbating the DR's underlying structural challenges.** For decades, growth in the DR has been driven by FDI and within-firm productivity gains in the capital-intensive formal sector, where industries are often dominated by large firms that wield monopolistic market power. Meanwhile, employment creation has occurred primarily in the informal sector, attenuating the link between productivity and wage growth while excluding a large share of workers from formal-sector benefits and weakening the impact of unemployment insurance and other labor-based fiscal stabilizers. While the government has mounted an effective effort to shore up household consumption through unconditional transfers and other social protection mechanisms, its economic policy response has focused primarily on the formal sector, delivering a disproportionate share of benefits to powerful incumbents at the expense of smaller competitors while largely failing to maintain firm continuity in the employment-intensive informal sector. Going forward, the authorities must reorganize their Covid-19 interventions to alleviate competitive distortions in the formal sector while expanding the reach of fiscal support policies by eliminating regulatory disincentives that inhibit formalization.

**Figure I.2. Foreign, Domestic, and Indirect Contributions to Total Value Added (%)**

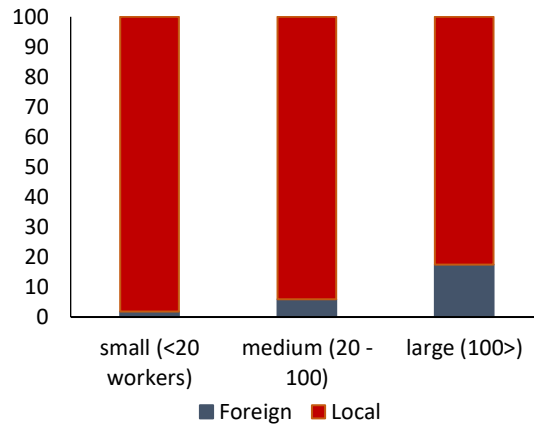


Source: UNCTAD; World Bank staff calculations.

**Figure I.3. Trade and FDI Flows (% of GDP)**



**Figure I.4. Foreign and Domestic Ownership by Firm Size, 2016 (%)**



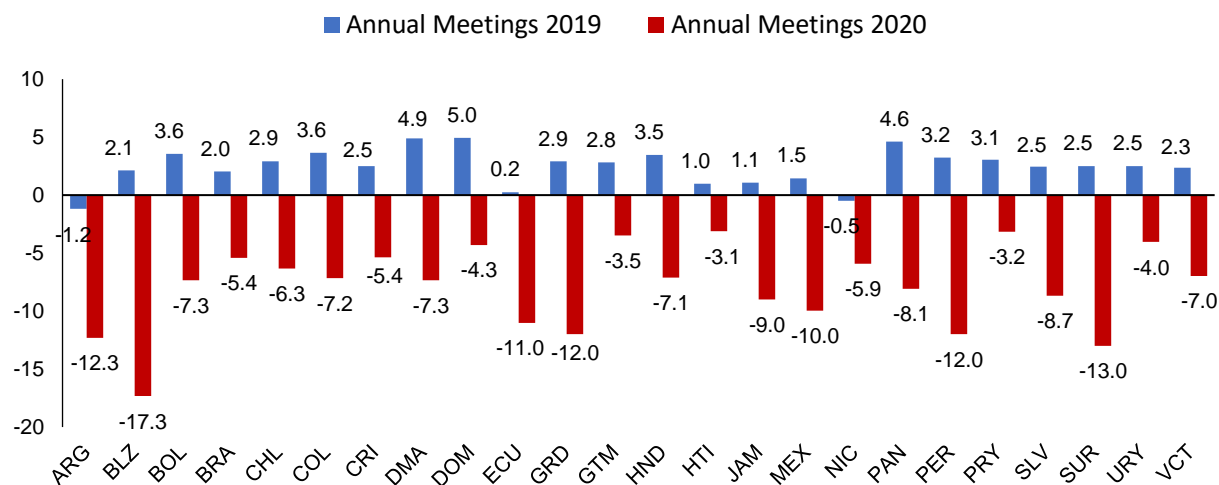
Source: World Bank staff calculations based on the World Bank World Development Indicators and Enterprise Surveys.

**12. Unifying interventions under a single, harmonized framework would increase the effectiveness of the government’s fiscal and macroeconomic policies.** The chapters and policy notes prepared as part of this PER document how a myriad of uncoordinated policies administered by a fragmented set of institutions undermines the effectiveness of revenue administration and expenditure management while distorting competition in the private sector. Large, well-established firms with greater organizational resources are better able to navigate the DR’s complex policy environment, which gives them a significant advantage over smaller competitors and new entrants, including both foreign firms and domestic startups. The burden of regulatory compliance discourages formalization, restricting the ambit of fiscal policies to a narrow and unrepresentative formal sector. Consolidating and streamlining public-sector interventions would reduce the administrative burden imposed on both firms and the public sector, enabling the government to more effectively leverage its shrinking fiscal envelope to counter the impact of the crisis and support a robust and sustainable recovery.

### C. The Impact of the Covid-19 Pandemic

**13. The Covid-19 pandemic has prompted extensive lockdown measures, disrupted international markets and supply chains, and prompted precautionary behavioral changes among consumers, delivering simultaneous shocks to both supply and demand.** In October 2020, the DR's annual GDP growth forecast for 2020 was a 4.3 percent contraction; by December 2020, the revised forecast was a 6.7 percent contraction. The forecast shortfall of 11.1 percentage point of GDP compared to the last pre-crisis projection is slightly better than the LAC average of 12.5 percent and broadly in line with the Caribbean average of 11.9 percent (Figure I.5).<sup>18</sup> The government's fiscal position is deteriorated by 5.2 percentage points of GDP, from a deficit of 2.5 percent of GDP in 2019 to a deficit of 7.7 percent,<sup>19</sup> as tax revenues fall far short of budget projections, while health and social expenditures rise. The surge in fiscal transfers and health-related spending is designed to be temporary, but the rigidity of the budget leaves little scope to offset the fiscal impact of the response measures. While the depth and duration of pandemic and associated economic shocks remain uncertain, swift and coordinated policy action could accelerate the economic recovery and protect fiscal sustainability.

**Figure I.5. Projected Growth Rates for 2020 in the LAC Region, Original and Revised (%)**



Source: Macro-Poverty Outlook (MPO) for October Annual meetings in 2019 and 2020. World Bank.

**14. A sound monetary framework is expected to mitigate the impact of the crisis.** The inflation-targeting monetary and exchange-rate regime adopted by the BCRD should continue to support external competitiveness.<sup>20</sup> Meanwhile, domestic debt markets are becoming more sophisticated, and the BCRD and Ministry of Finance have developed a joint strategy for managing government liabilities held by the central bank.<sup>21</sup>

<sup>18</sup> These regional estimates exclude Guyana, as its growth projections are dominated by developments in the oil sector.

<sup>19</sup> These figures are based on the latest press releases by the DR's government on 2020 fiscal results.

<sup>20</sup> The IMF classifies the DR's exchange rate as a managed float, and its exchange-rate policies have become more flexible over time.

<sup>21</sup> The BCRD has established an agreement with the Ministry of Finance to jointly manage the public debt issued and held by the BCRD on behalf of the government in response to the 2003/04 banking crisis. See: <https://m.diariolibre.com/economia/hacienda-y-bcrd-buscan-crear-fideicomiso-para-desmontar-en-20-anos-una-deuda-de-rd-64864-mil-millones-IA18909724>

**15. Covid-19 has impacted the Dominican economy through both external and domestic channels, leading to a projected deterioration in the current-account balance in 2020.** Prior to the crisis, the DR's tourism sector accounted for 8.6 percent of GDP and more than 206,000 jobs, or 4.8 percent of total employment; when indirect jobs are included, the number of tourism-related workers rises to 678,000, or 15.9 percent of total employment.<sup>22</sup> In April, the flow of international tourists came to an abrupt halt, and the future of the sector is uncertain. Declining labor income is being partially offset by rising inbound remittances, which increased by 16 percent year on year in 2020, reaching US\$8.2 billion, or 10.4 percent of GDP. Remittance inflows are bolstering consumer spending and mitigating the impact of the crisis on poverty rates. The crisis has had a broadly balanced effect on merchandise trade, as a decline in the volume of exports has been partially offset by falling import volumes and lower oil prices. However, social-distancing measures and precautionary behavior have led to a contraction in domestic demand and supply, and workers in both the formal and informal sectors will likely experience protracted income losses as the crisis continues. In the absence of mitigating measures, the estimated 47 percent contraction in tourism and 17 percent contraction in construction output during January-September 2020 could cause significant job losses in both the formal and informal sectors.<sup>23</sup>

#### **D. The Policy Response to Covid-19**

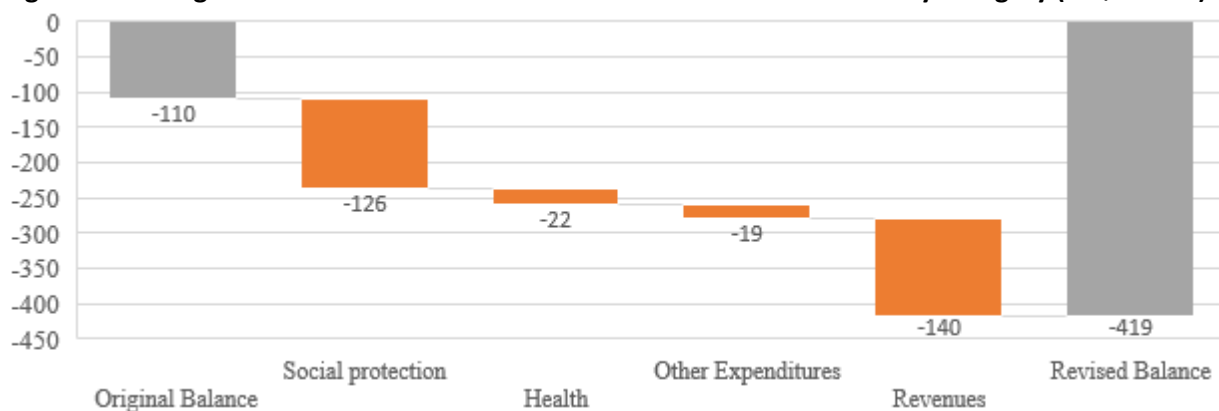
**16. Due in part to the relatively narrow scope of the formal sector, the government's economic response has been delivered primarily through social services.** While the authorities provided substantial direct assistance to businesses, most crisis-related fiscal spending was delivered through the rapid expansion of social support, as the authorities developed new programs to protect self-employed workers and scaled up existing programs to deliver emergency cash transfers to vulnerable households and supplementary income assistance to workers who were laid off or had their working hours reduced. The underdevelopment of the DR's information and communications technology (ICT) sector limited opportunities for remote work and slowed the compensatory growth of e-commerce, deepening the effect of the crisis on employment and economic activity (Box I.2 and Annex I.1). Temporary tax relief to the private sector eased liquidity constraints among formal firms but compounded the adverse impact of the economic slowdown on fiscal revenue (Figure I.6). Moreover, tax breaks and other forms of assistance provided to the formal sector exacerbated the DR's preexisting challenges with informality and market dominance, as a large share of government support went to large incumbent firms, while many informal businesses were excluded. Both the relative size and composition of the DR's fiscal response were similar to those of other countries in the region (Figures I.7).

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<sup>22</sup> World Bank 2018 Systematic Country Diagnostic.

<sup>23</sup> These figures are preliminary estimates by the BCRD.

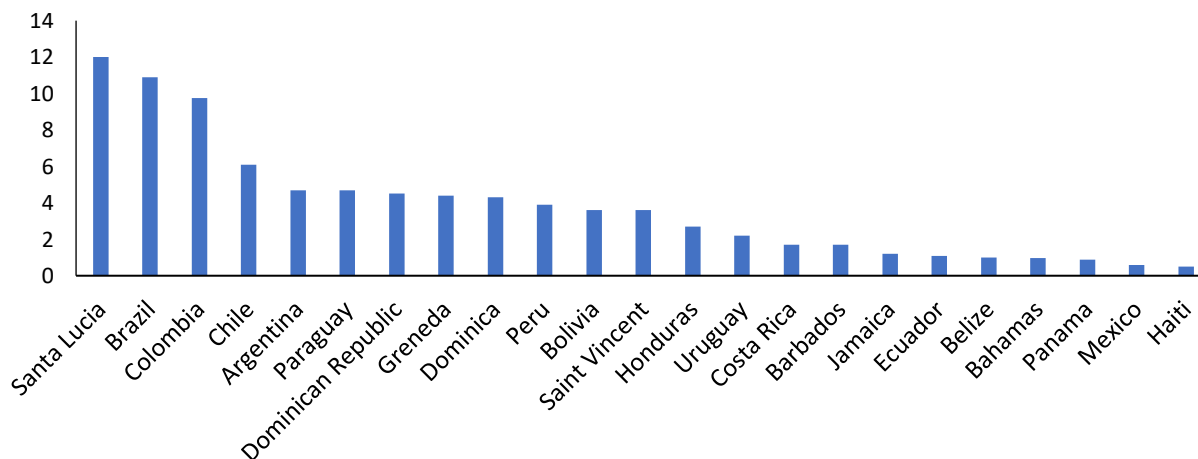
**Figure I.6. Change in the DR’s Central Government Fiscal Balance for 2020 by Category (RD\$ billion)**



Source: Government of the Dominican Republic, Ministry of Finance, November 2020, from 2020 complementary budget as published by DIGEPRES from the Ministry of Finance.<sup>24</sup>

Note: The revised balance published in November accounts for 9.3 percent of GDP. In January the Minister of Finance released information that the actual balance was 7.7 percent of GDP due to lower expenditure and higher tax receipts. <https://www.hacienda.gob/gobierno-reduce-deficit-fiscal-en77-mil-milliones>.

**Figure I.7. Fiscal Stimulus in Selected LAC Countries (% of 2019 GDP)**



Source: World Bank (2020). “The Cost of Staying Healthy,” *Semiannual Report of the Latin America and the Caribbean Region*, Washington.

<sup>24</sup> <https://www.digepres.gob.do/presupuesto/gobierno-general-nacional/>

### Box I.2. Information and Communications Technology in the DR<sup>25</sup>

The DR's ICT sector remains underdeveloped by the standards of peer countries. In 2016, the World Economic Forum ranked the DR's level of overall digital readiness at 98<sup>th</sup> out of 139 countries worldwide. The DR ranked below structural peers such as Ecuador (82<sup>nd</sup>), Albania (84<sup>th</sup>), Serbia (75<sup>th</sup>), and the Philippines (77<sup>th</sup>) and far below aspirational comparators such as Costa Rica (44<sup>th</sup>), Chile (38<sup>th</sup>), and Malaysia (31<sup>st</sup>).<sup>26</sup> The country's e-commerce subsector performs marginally better, ranking 91<sup>st</sup> on UNCTAD's 2019 E-commerce Index, above Ecuador (102<sup>nd</sup>) and the Philippines (92<sup>nd</sup>).

Computer usage rates among households in the DR are close to or above those of comparable countries, but rates of mobile phone penetration and access to e-government services are much lower. Smartphone penetration is about 25 percent, and only about half of the Dominican population has regular, adequate access to the internet. The country also faces a persistently large rural-urban disparity in fixed internet access and prices. Among the poorest households, the average cost of fixed internet service is equal to 79 percent of household earnings, and in 26 municipalities no households have registered fixed internet accounts. Nationwide, just 14.4 percent of households have internet access, with rates ranging from as high as 22.1 percent in urban Santo Domingo to as low as 5 percent in remote rural areas. Overall, the DR's ICT connectivity indicators are below the regional average for Latin America.<sup>27</sup>

Despite of these challenges, DR is making great efforts to accelerate its digital transformation. The *República Digital* strategy sets forth the government's bold vision for achieving social and economic transformation through rapid technological advancement. From rural elementary schools to major urban hospitals, the government and its international partners are actively investing in ICT upgrades. Initiatives like One Computer are designed to improve learning outcomes and strengthen digital literacy by giving every child access to a laptop at school. The government has also announced a plan to build 5,000 free Wi-Fi spots in public parks, squares, and hospitals. Creating a system of electronic signatures could facilitate transactions ranging from tax payments to bus fares, while digitalizing medical histories could improve the quality of healthcare, and e-government systems could increase the transparency of government processes. Moreover, the expansion of digital payments and marketing platforms could enhance the efficiency of the country's vital small and medium enterprises.<sup>28</sup>

To realize its objectives for digital connectivity, the DR must reform the ICT sector to make service provision more competitive. The reform process will require robust leadership underpinned by a sustainable long-term plan for digital development encompassing sectoral regulation, infrastructure, service coverage, affordability, digital literacy, and the rural/urban gap in coverage and prices. The authorities should complement these reforms by encouraging digital entrepreneurship through the creation and expansion of digital platforms for e-commerce, financial technology, and related services. In addition, the authorities should prioritize e-government systems that have the greatest potential to positively impact the everyday lives of citizens and the routine operations of Dominican businesses, including vehicle registration, customs clearance, employment management, and recordkeeping, and a single agency must be designated as the lead promoter and implementation coordinator for e-government initiatives. Sustained public and private investment will be vital to the success of the *República Digital* strategy, and the authorities must actively mobilize the private sector and civil society around a shared vision for ICT development.

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<sup>25</sup> Constraints to digital service delivery are further explored in World Bank (forthcoming) Dominican Republic Leveraging information technology to accelerate economic growth and enhance service delivery, Washington, DC, Policy Note.

<sup>26</sup> WEF, 2016. The index measures the strength of the legal environment, the development of ICT infrastructure, the affordability of services, the presence of ICT skills, and the usage of ICT systems.

<sup>27</sup> Measuring the Information Society, ITU, 2012. ENHOGAR.

<sup>28</sup> The Business Year. 2017. "República Digital: The Dominican Tech Revolution". <https://www.thebusinessyear.com/dominican-republic-2017/republica-digital-a-dominican-tech-revolution/focus>

**17. The inflation-targeting regime, supported by adequate international reserves, enabled a gradual easing of monetary policy that bolstered the liquidity of firms and households.** The headline interest rate remained at 4.5 percent from August 2019 until March 2020, when it was reduced to 3.5 percent in response to the Covid-19 crisis; in September, the rate was cut further to 3.0 percent. In addition, the BCRD provided liquidity by lowering the required-reserve ratio.<sup>29</sup> The DR's banking system is well-capitalized, with high levels of liquidity and low levels of nonperforming loans. Following the monetary stimulus in March, bank lending accelerated in April. Ample foreign-exchange reserves enabled interventions to support a gradual depreciation of the exchange rate as capital inflows slowed during 2020. The headline inflation rate rose to 5.26 percent in November 2020 but remains close to the target of 4 percent +/-1 percent.

## **E. Fiscal and Monetary Policy Constraints**

**18. Preexisting institutional and policy constraints hindered the response to the Covid-19 crisis.** The limited institutional capacity of government agencies inhibited efforts to rapidly scale up public health programs and economic interventions.<sup>30</sup> Meanwhile, expenditure rigidities narrowed the scope for reallocating budgetary resources, while tax revenue fell by about 2 percent of GDP. Continued access to international bond markets allowed the government to temporarily finance its policy response through new borrowing. Going forward, revenue-side measures will likely be a major component of the government's fiscal response. As revenue policy is beyond the purview of a PER, a complementary policy note on revenue mobilization has been prepared separately.<sup>31</sup>

**19. Expenditure rigidities are a longstanding challenge to budgetary policy in the DR.** The previous PER found that the public-sector wage bill, pensions, and interest payments had all increased as a share of total spending during 2014-18. For example, public spending on debt-service payments rose from 1.8 percent of GDP in 2009 to 2.7 percent in 2019 and an estimated 3.7 percent in 2020. The DR pays higher interest rates on its public debt than do most of its peers, and debt service represent a larger share of total public spending. Consequently, the DR's budget is more rigid than those of peer countries, which inhibits the ability of policymakers to reallocate resources in response to a crisis (Box I.3).

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<sup>29</sup> <https://www.bancentral.gov.do/a/d/4810-banco-central-y-junta-monetaria-amplian-medidas-que-aumentan-el-flujo-de-recursos-a-los-hogares-y-las-empresas-e-incentivan-la-reduccion-de-las-tasas-de-interes>

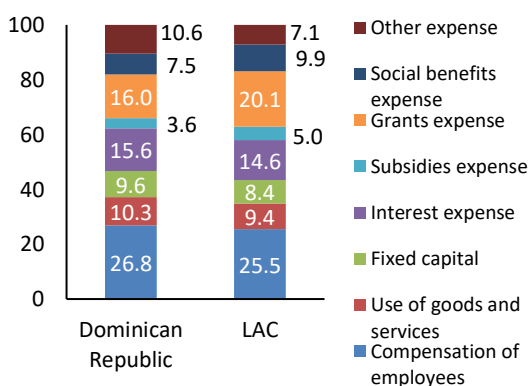
<sup>30</sup> World Bank (2021, forthcoming), Analysis of social protection programs implemented under the Covid-19 response in the Dominican Republic, Policy Note, unpublished.

<sup>31</sup> World Bank (forthcoming), The Dominican Republic Tax System Review, Policy Note.

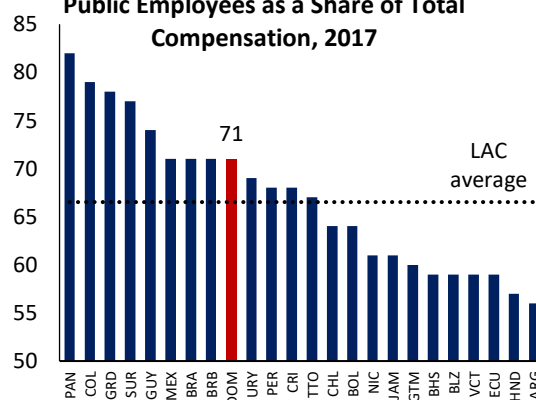
### Box I.3. Budgetary Rigidity in the DR

Budgetary rigidities are institutional, legal, contractual, or sociopolitical constraints that limit the government’s ability to adjust the size and structure of expenditures in the near term. Budgetary rigidities can arise from demographic factors such as an aging population, from economic conditions affecting unemployment benefits or nondiscretionary social spending, from the political and contractual circumstances around public wages and pensions, from legal commitments to certain expenditure categories, or from other factors. The DR’s expenditure structure is comparable to those of its Latin American peers, though public-sector wages and interest payments make up a slightly above-average share of total spending. While public employment is not exceptionally large, 71 percent of the DR’s wage bill is rigid, well above the LAC average of 67 percent. The share of interest payments in total spending is also higher than in peer group countries, intensifying expenditure rigidity.

**Figure a. Composition of central Government Expenditures, 2018**



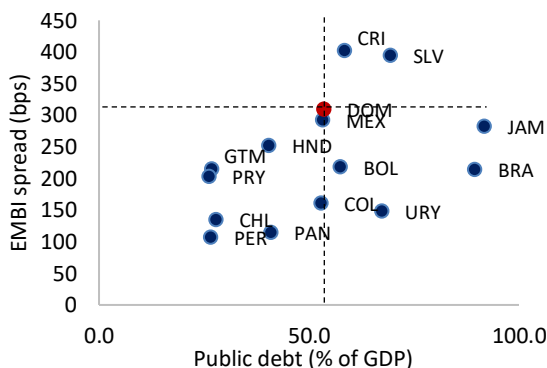
**Figure b. Structural Compensation of Public Employees as a Share of Total Compensation, 2017**



**Figure c. Percentage by Which Public Employment Exceeds Structural Employment**



**Figure d. Public Debt Stock versus EMBI Spread, end-2019**



Source: IMF Government Finance Statistics; Economic Commission for Latin America (CEPAL); Bloomberg; and World Bank. 2020. “Budget Rigidity in Latin America and the Caribbean: Causes, Consequences, and Policy Implications”. Washington, DC.



## F. Conclusion

**20. The Covid-19 crisis has had a deeply negative impact on the DR, yet the government has mounted a swift and largely successful response effort despite its institutional and policy constraints.** The tourism sector is likely to recover gradually over time, as the global travel industry adapts to the circumstances of the pandemic. Meanwhile, domestic activity will remain subdued as diminished income levels, economic uncertainty, and precautionary behaviors prevent a return to pre-crisis levels of consumer spending. In this context, the government’s efforts to bolster consumption through cash transfers, unemployment assistance, and other forms of income support will be critical to shore up employment and maintain firm continuity in both the formal and informal sectors.

**21. While the initial response has successfully mitigated the economic impact of the crisis, it threatens to exacerbate the underlying structural challenges posed by informality and market dominance.** The DR’s narrow tax base is an important constraint on revenue mobilization, but it also sharply restricts the impact of tax-based fiscal stimulus to a small fraction of firms. These firms tend to be large incumbents that exercise significant market power, and tax expenditures tend to entrench their dominance at the expense of smaller competitors, domestic startups, and international investors. Measures to promote formalization will be crucial to broaden the impact of tax relief and other interventions targeting the formal private sector, alleviating competitive distortions while laying the foundation for more robust revenue mobilization as the economy recovers.

**22. A major fiscal adjustment will be necessary to stabilize the debt-to-GDP ratio.** Debt levels increased by an estimated 16 percentage points of GDP during 2020, as the fiscal deficit reached 7.7 percent of GDP and the primary deficit hit 4.1 percent. Assuming real interest rates are kept to 4.1 percent while the GDP growth rate returns to 4 percent, a primary balance of 0.0 percent of GDP will be needed to stabilize the debt-to-GDP ratio. Achieving this surplus will require a fiscal adjustment equal to 4.1 percent of GDP, and the necessary adjustment will be even higher if real interest rates increase or if growth falls short of expectations (Table I.1). While the flexibility of some emergency programs may allow them to be quickly scaled back, the transition to a post-Covid-19 recovery must be carefully managed to enable a resurgent private sector to take the place of government interventions. Altering the composition in expenditures in the context of phasing out emergency support measures could enhance the efficiency of government spending, which would help mitigate the impact of the fiscal adjustment on public-service provision.

**Table I.1. The Primary Balance that Stabilizes the Public-Debt-to-GDP Ratio at 67 Percent of GDP<sup>32</sup>**

	Economic Growth Rate		
	2%	4%	6%
Real interest rate at 4.1% <sup>a</sup>	1.4	0.1	-1.2
Real interest rate at 3.6%	1.1	-0.3	-1.5
Real interest rate at 3.1%	0.7	-0.6	-1.8

Source: World Bank staff assessment.

a) Real interest rate in 2020 based on average interest paid on public debt of 7.56% and average inflation 3.5%.

<sup>32</sup> The debt-stabilizing primary balance is calculated using the following formula:

$$b_t^* = \left( \frac{r_t - g_t}{1 + g_t} \right) \cdot d_{t-1}$$

where:  $b_t^*$  – debt stabilizing primary balance;  $r_t$  – real interest rate;  $g_t$  – growth rate, and  $d_{t-1}$  – debt stock in the previous period

**23. Across sectors and policy areas, institutional fragmentation undermines the effectiveness and efficiency of public spending.**<sup>33</sup> The government’s economic response has been implemented by multiple institutions with overlapping mandates. Consolidating and harmonizing the wide array of fiscal stimulus programs would facilitate the government’s efforts to draw down its interventions and stabilize the debt-to-GDP ratio while continuing to provide targeted support to vulnerable households and key sectors. As the economy recovers, a more cohesive approach to fiscal policy will help alleviate regulatory constraints on competition and accelerate total factor productivity growth.

## **G. Summary of Policy Messages**

**24. As the pandemic continues, the government’s most pressing challenge will be to lay the foundation for a robust and inclusive economic recovery while maintaining stable fiscal balances.** Public support to the private sector must account for both the fiscal risks involved and the threat of policy capture by established firms. Interventions designed to enable firms and sectors to weather the crisis must be structured to minimize competitive distortions and avoid moral hazard, and both their economic effects and fiscal implications must be closely monitored. Short-term liquidity support to public utilities must be complemented by structural reforms to improve their financial and operational efficiency.<sup>34</sup>

**25. Interventions that involve providing direct financial assistance to firms must avoid creating or encouraging market dominance, and explicit provisions should be put in place to enable the exit of unproductive firms.** In parallel with financial support, the government should implement reforms to level the playing field and help productive firms grow and innovate. Specifically, special tax regimes and regulatory policies should be adjusted to encourage productivity growth among small and medium enterprises. In recent years, tax incentives and regulatory policies favoring entrenched firms have inhibited market entry and slowed productivity growth.<sup>35</sup> Reforms designed to spur competition in product markets would facilitate the post-crisis recovery and strengthen the foundation for long-term productivity growth. Policies designed to accelerate productivity growth should be complemented by measures to encourage the integration of Dominican firms into global value chains.

**26. Adopting a fiscal rule or a binding policy target could lower real interest rates on public debt, easing expenditure constraints by lowering the burden of debt service.** The DR continues to access international bond markets, but it faces a significant risk premium. The interest rate on government debt in the DR was 3.70 percent above the US rate in December 2020,<sup>36</sup> slightly higher than the Latin America average of 3.67 percent.<sup>37</sup> To obtain lower real interest rates on public debt, the government must adopt institutional arrangements that boost market confidence, such as a fiscal responsibility law that anchors the deficit to a long-term debt target and limits the discretion of policymakers. The international experience suggests that the passage of a fiscal responsibility law could significantly reduce the DR’s risk premium, expanding the envelope for social spending to alleviate the effects of the crisis and public investment to bolster long-term growth.

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<sup>33</sup> Institutional fragmentation refers to the myriad of public sector programs and policies with overlapping mandates and beneficiaries.

<sup>34</sup> Chapter 3 and World Bank 2019, Public Expenditure Review 2012-18, Chapter 2 “Making Electricity More Reliable and Financially Sustainable”, Washington, DC.

<sup>35</sup> World Bank (forthcoming), “The Dominican Republic Tax System Review,” Policy Note, Unpublished draft, Washington DC.

<sup>36</sup> <https://www.bancentral.gov.do/a/d/2585-entorno-internacional>

<sup>37</sup> These figures are based on JP Morgan’s Emerging Market Bond Index (EMBI).

**27. Even after the fiscal consolidation, effective debt management will become increasingly important.** The Ministry of Finance should continue to improve the domestic yield curve by concentrating its debt issuances in benchmark securities, which will also foster the development of the domestic capital market. The implementation of the debt-management strategy for 2016-2020, which calls for lengthening maturities and reducing the share of foreign-currency-denominated debt, has helped keep the debt trajectory sustainable. However, this strategy must be revised to reflect evolving cost/risk considerations, the radically altered macroeconomic environment, and the continued development of the domestic financial sector. Going forward, the debt-management strategy should be updated yearly to account for changes in domestic and external financial markets, diversify borrowing sources, and improve communication with investors.

## H. Appendix

### Annex I: E-Readiness Benchmarking

**Table I.2. E-Readiness Benchmarking**

E-Readiness	Score	Comparator Scores						
	Dominican Republic	Costa Rica	Chile	Ecuador	Albania	Serbia	Philippines	Malaysia
	Rank Value	Rank Value	Rank Value	Rank Value	Rank Value	Rank Value	Rank Value	Rank Value
<b>Overall Digital Readiness Index</b>	<b>98</b> 3.6	<b>44</b> 4.5	<b>38</b> 4.6	<b>82</b> 3.9	<b>84</b> 3.9	<b>75</b> 4.0	<b>77</b> 4.0	<b>31</b> 4.9
<b>Pillar 1: Business Environment</b>	<b>87</b> 3.8	<b>69</b> 4.0	<b>32</b> 4.7	<b>105</b> 3.6	<b>88</b> 3.8	<b>103</b> 3.7	<b>89</b> 3.8	<b>21</b> 5.1
1.01 Laws relating to ICTs	<b>85</b> 3.6	<b>58</b> 4.1	<b>40</b> 4.5	<b>62</b> 4.0	<b>111</b> 3.1	<b>89</b> 3.6	<b>81</b> 3.7	<b>106</b> 3.2
1.02 Efficiency of legal system in settling disputes	<b>99</b> 3.2	<b>79</b> 3.5	<b>47</b> 4.0	<b>108</b> 3.1	<b>120</b> 2.8	<b>124</b> 2.7	<b>87</b> 3.3	<b>61</b> 3.8
1.03 Intellectual property protection	<b>86</b> 3.6	<b>44</b> 4.3	<b>49</b> 4.2	<b>77</b> 3.8	<b>110</b> 3.2	<b>128</b> 3.0	<b>71</b> 3.9	<b>89</b> 3.6
1.04 Software piracy rate (as % of software installed)	<b>76</b> 75	<b>51</b> 59	<b>51</b> 59	<b>65</b> 68	<b>76</b> 75	<b>67</b> 69	<b>67</b> 69	n/a n/a
1.05 Number of procedures to enforce a contract	<b>42</b> 34	<b>94</b> 40	<b>58</b> 36	<b>89</b> 39	<b>89</b> 39	<b>58</b> 36	<b>69</b> 37	<b>95</b> 620
1.06 Number of days to enforce a contract	<b>45</b> 460	<b>117</b> 852	<b>50</b> 480	<b>83</b> 588	<b>66</b> 525	<b>98</b> 635	<b>116</b> 842	<b>95</b> 620
1.07 Total tax rate (%)	<b>90</b> 42.4	<b>120</b> 58.0	<b>32</b> 28.9	<b>52</b> 33.0	<b>66</b> 36.5	<b>77</b> 39.7	<b>92</b> 42.9	<b>103</b> 48.3
1.08 Number of days to start a business	<b>85</b> 15	<b>105</b> 24	<b>28</b> 6	<b>130</b> 51	<b>28</b> 6	<b>72</b> 39.7	<b>114</b> 29	<b>54</b> 9
1.09 Number of procedures to start a business	<b>74</b> 7	<b>105</b> 9	<b>74</b> 7	<b>125</b> 12	<b>54</b> 6	<b>54</b> 6	<b>138</b> 16	<b>41</b> 5

1.10 Intensity of local competition	<b>44</b> 5.3	<b>55</b> 5.2	<b>22</b> 5.6	<b>76</b> 5.0	<b>133</b> 4.0	<b>124</b> 4.3	<b>56</b> 5.2	<b>113</b> 4.5
1.11 Availability of latest technologies	<b>63</b> 4.9	<b>64</b> 4.9	<b>33</b> 5.6	<b>80</b> 4.5	<b>115</b> 3.9	<b>107</b> 4.0	<b>78</b> 4.6	<b>113</b> 4.0
<b>Pillar 2: IT Readiness</b>	<b>103</b> 4.0	<b>38</b> 5.5	<b>65</b> 4.9	<b>71</b> 4.8	<b>68</b> 4.8	<b>48</b> 5.2	<b>92</b> 4.4	<b>73</b> 4.8
<b>Sub-pillar 1: Infrastructure</b>								
2.01 Electricity availability, kWh/capita	<b>84</b> 1719.6	<b>79</b> 2174.7	<b>52</b> 4157.1	<b>88</b> 1485.1	<b>74</b> 2401.8	<b>40</b> 5475.5	<b>103</b> 771.4	<b>135</b> 58.9
2.02 Mobile network coverage (% of population)	<b>88</b> 98.5	<b>1</b> 100.0	<b>104</b> 95.0	<b>99</b> 96.9	<b>49</b> 99.8	<b>54</b> 99.8	<b>67</b> 99.0	<b>137</b> 20.0
2.03 International internet bandwidth (kb/s per user)	<b>84</b> 24.9	<b>55</b> 48.2	<b>40</b> 73.1	<b>65</b> 36.9	<b>74</b> 32.1	<b>26</b> 112.4	<b>79</b> 27.7	<b>133</b> 1.9
2.04 Secure Internet servers per million population	<b>77</b> 28.3	<b>52</b> 99.4	<b>47</b> 127.6	<b>73</b> 34.5	<b>80</b> 23.8	<b>69</b> 43.8	<b>96</b> 10.9	<b>131</b> 1.3
<b>Sub-pillar 2: Affordability</b>								
2.05 Prepaid mobile cellular tariffs, PPP\$/min	<b>119</b> 0.47	<b>17</b> 0.09	<b>93</b> 0.32	<b>104</b> 0.36	<b>134</b> 0.71	<b>64</b> 0.23	<b>110</b> 0.40	<b>123</b> 0.50
2.06 Fixed broadband internet tariffs, PPP\$/month	<b>98</b> 44.63	<b>22</b> 20.75	<b>92</b> 43.12	<b>77</b> 36.13	<b>7</b> 14.98	<b>76</b> 36.05	<b>104</b> 54.59	<b>124</b> 108.35
2.07 Internet and telephony sectors competition index, 0-2 (best)	<b>95</b> 1.71	<b>103</b> 1.44	<b>1</b> 2.00	<b>1</b> 2.00	<b>80</b> 1.86	<b>1</b> 2.00	<b>1</b> 2.00	<b>114</b> 1.20
<b>Sub-pillar 3: Skills</b>								
2.08 Quality of education system	<b>125</b> 2.6	<b>28</b> 4.5	<b>86</b> 3.4	<b>71</b> 3.6	<b>29</b> 4.5	<b>110</b> 3.1	<b>31</b> 4.5	<b>109</b> 3.1
2.09 Quality of math and science education	<b>137</b> 2.2	<b>55</b> 4.3	<b>107</b> 3.3	<b>85</b> 3.8	<b>28</b> 4.8	<b>48</b> 4.4	<b>67</b> 4.1	<b>110</b> 3.2
2.10 Quality of management schools	<b>103</b> 3.7	<b>27</b> 5.1	<b>21</b> 5.3	<b>65</b> 4.3	<b>61</b> 4.3	<b>116</b> 3.4	<b>40</b> 4.7	<b>109</b> 3.6
2.11 Secondary education gross enrollment rate (%)	<b>93</b> 78.4	<b>10</b> 120.3	<b>40</b> 100.5	<b>31</b> 104.2	<b>59</b> 96.4	<b>64</b> 94.3	<b>78</b> 88.4	<b>100</b> 71.1
2.12 Tertiary education gross enrollment rate (%)	<b>56</b> 47.5	<b>51</b> 53.0	<b>9</b> 83.8	<b>65</b> 40.5	<b>38</b> 62.7	<b>44</b> 58.1	<b>73</b> 35.8	<b>70</b> 38.5
2.13 Adult literacy rate (%)	<b>67</b> 91.8	<b>33</b> 97.8	<b>36</b> 97.3	<b>57</b> 94.5	<b>35</b> 97.6	<b>28</b> 98.1	<b>41</b> 96.3	<b>54</b> 94.6
<b>Pillar 3. ICT Usage (1/3 Individual usage + 1/3 Business usage +</b>	<b>97</b> 3.4	<b>46</b> 4.3	<b>39</b> 4.5	<b>82</b> 3.7	<b>86</b> 3.6	<b>79</b> 3.7	<b>66</b> 3.9	<b>30</b> 5.1

1/3 Government usage)								
<b>Sub-pillar 1: Individual usage</b>								
3.01 Mobile phone subscriptions per 100 population	<b>117</b> 78.9	<b>33</b> 143.8	<b>39</b> 133.3	<b>92</b> 103.9	<b>88</b> 105.5	<b>52</b> 122.1	<b>75</b> 111.2	<b>23</b> 148.8
3.02 Percentage of individuals using the Internet	<b>68</b> 49.6	<b>69</b> 49.4	<b>36</b> 72.4	<b>82</b> 43.0	<b>57</b> 60.1	<b>65</b> 53.5	<b>89</b> 39.7	<b>45</b> 67.5
3.03 Percentage of households with computer	<b>92</b> 26.2	<b>65</b> 52.3	<b>57</b> 60.3	<b>80</b> 38.0	<b>94</b> 23.5	<b>50</b> 65.6	<b>99</b> 20.5	<b>49</b> 66.5
3.04 Households with Internet access (%)	<b>96</b> 21.1	<b>57</b> 55.1	<b>60</b> 53.9	<b>81</b> 32.0	<b>57</b> 60.1	<b>62</b> 51.8	<b>89</b> 39.7	<b>48</b> 65.5
3.05 Fixed broadband Internet subscriptions per 100 population	<b>81</b> 5.7	<b>65</b> 10.5	<b>58</b> 14.1	<b>74</b> 8.3	<b>78</b> 6.6	<b>53</b> 15.6	<b>38</b> 23.2	<b>68</b> 10.1
3.06 Mobile broadband Internet subscriptions per 100 population	<b>86</b> 30.1	<b>19</b> 87.2	<b>57</b> 50.5	<b>85</b> 30.9	<b>88</b> 105.5	<b>36</b> 66.4	<b>91</b> 28.0	<b>47</b> 58.3
3.07 Use of virtual social networks	<b>83</b> 5.4	<b>55</b> 5.8	<b>37</b> 5.9	<b>114</b> 4.8	<b>50</b> 5.8	<b>68</b> 5.6	<b>27</b> 6.1	<b>22</b> 6.2
<b>Sub-pillar 2: Business usage</b>								
3.08 Firm-level technology absorption	<b>75</b> 4.5	<b>44</b> 5.0	<b>38</b> 5.2	<b>76</b> 4.5	<b>112</b> 4.1	<b>127</b> 3.8	<b>40</b> 5.1	<b>23</b> 5.6
3.09 ICT use for business-to-business transactions	<b>73</b> 4.6	<b>46</b> 5.1	<b>37</b> 5.2	<b>75</b> 4.6	<b>113</b> 4.0	<b>86</b> 4.5	<b>58</b> 4.8	<b>21</b> 5.7
3.10 Business-to-consumer Internet use	<b>80</b> 4.2	<b>53</b> 4.7	<b>38</b> 5.1	<b>88</b> 4.1	<b>78</b> 4.2	<b>97</b> 4.0	<b>51</b> 4.8	<b>6</b> 5.9
3.11 Extent of staff training	<b>103</b> 3.6	<b>31</b> 4.5	<b>52</b> 4.1	<b>94</b> 3.7	<b>37</b> 4.3	<b>134</b> 3.0	<b>26</b> 4.7	<b>3</b> 5.5
3.12 E-commerce index	<b>91</b> 60.4	<b>71</b> 64.1	<b>50</b> 67.0	<b>102</b> 39.9	<b>64</b> 54.4	<b>41</b> 76.2	<b>92</b> 48.6	<b>34</b> 81.9
<b>Sub-pillar 3: Public sector usage</b>								
3.13 E-government Development Index	<b>82</b> 0.6782	<b>56</b> 0.7576	<b>34</b> 0.8259	<b>74</b> 0.7015	<b>59</b> 0.8001	<b>58</b> 0.828	<b>77</b> 0.7544	<b>47</b> 0.7513
3.14 Government Online Service Index, 0–1 (best)	<b>83</b> 0.39	<b>43</b> 0.61	<b>16</b> 0.82	<b>66</b> 0.48	<b>72</b> 0.45	<b>81</b> 0.39	<b>66</b> 0.48	<b>31</b> 0.68
3.15 Government success in ICT promotion	<b>97</b> 3.6	<b>77</b> 3.9	<b>61</b> 4.1	<b>71</b> 4.0	<b>98</b> 3.6	<b>117</b> 3.3	<b>70</b> 4.0	<b>5</b> 5.8
3.16 Internet access in schools	<b>108</b> 3.5	<b>53</b> 4.7	<b>49</b> 4.8	<b>76</b> 4.1	<b>45</b> 4.8	<b>89</b> 3.9	<b>58</b> 4.5	<b>26</b> 5.5

Source: WEF/Survey: The Global Information Technology Report 2016; UNCTAD B2C E-commerce Index 2019 (Figures from “2019 Index Value” and “2018 Index rank”) (for Indicator 3.12); 2020 UN E-Government Survey (for Indicator 3.13).

## II. Fiscal policy aspects of SOEs and PPPs

### A. Summary and recommendations

**28. In 2018, the Dominican Republic (DR) adopted a framework for monitoring, quantifying, and managing fiscal risks with support from the IMF, the World Bank and the Inter-American Development Bank (IDB).** The government publishes an annual Report on Fiscal Risks (*Informe de Riesgos Fiscales*<sup>38</sup>), which focuses on (i) the impact of oil-price changes on fiscal revenues and the operational balance of state-owned enterprises (SOEs), (ii) the actuarial deficit of the public pension scheme, and (iii) the costs incurred by natural disasters such as earthquakes and hurricanes. Based on the result of this analysis, the DR's budget earmarks at least 1 percent of budgetary revenue to cover the costs of natural disasters, and this amount may be increased by up to 0.5 percent of GDP.<sup>39</sup>

**29. Identifying and controlling fiscal risk is inherently challenging.** Standard frameworks for fiscal risk management tend to focus on explicit and direct government liabilities—i.e., public debt. Contingent liabilities arising from SOEs, public-private partnerships (PPPs), and the obligations of off-budget entities are typically not included in the official fiscal indicators, leaving them outside the control of the fiscal authorities. Failing to properly disclose and prepare for such “hidden” fiscal risks can leave a country vulnerable to unexpected shocks that can cause severe fiscal distress.

**30. The Dominican government has made significant progress in enhancing its oversight of contingent liabilities arising from SOEs and PPPs.** The Directorate of the Budget (DIGEPRES) of the Ministry of Finance (MoF) is tasked with supervising SOEs,<sup>40</sup> and SOE budgets are approved by MoF.<sup>41</sup> Investment expenditures are analyzed to verify their consistency with the national investment program and the available funds, and a quarterly reporting process is in place to address delays and cost overruns. The MoF collects all SOE financial statements and publishes annual consolidated budget and budget outturns reports for all SOEs.<sup>42</sup> Dominican SOEs, especially the water and electricity utilities, remain heavily dependent on government transfers to finance both recurrent expenditures and investments. DIGEPRES is also charged with approving PPPs.<sup>43</sup>

**31. To ensure the DR's long-term fiscal stability, the government must continue building its capacity to identify and quantify fiscal risks.** This chapter will analyze the risks stemming from SOEs based on data already collected by the MoF, and it will describe the fiscal risks that have already been identified and quantified by the government. This information will then be used to conduct impact assessments under the government's existing medium-term fiscal framework (MTFF) and preliminary scenario analyses for fiscal and debt sustainability. The chapter will present recommendations for strengthening the identification and quantification of fiscal risks arising from SOEs and PPPs, including the establishment of a clear distinction between external and domestic SOE debt and debt that is or is not guaranteed by the

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<sup>38</sup> Available at <https://www.digepres.gob.do/wp-content/uploads/2019/10/Informe-de-Riesgos-Fiscales-2020-.pdf>

<sup>39</sup> See *Ley Orgánica de Presupuesto No. 423-06, en su artículo 33*.

<sup>40</sup> *Ibid.* Art. 64.

<sup>41</sup> Decreto-núm.-207-19, June 7, 2019.

<sup>42</sup> <https://www.digepres.gob.do/presupuesto/empresas-publicas/>

<sup>43</sup> This chapter uses the definition of a PPP provided by the PPP Fiscal Risk Assessment Model (PFRAM) “A long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance.” The DR's government distinguishes between concessions, power-purchasing agreements, and PPPs.

central government. The analysis presented in the chapter treats all SOE debt as either explicitly or implicitly guaranteed by the government, as it is assumed the government would either directly pay creditors or transfer resources to SOEs to enable them to remain current on their outstanding debt.

### Policy recommendations

#### Short term:

- The government should adopt a formal framework for issuing guarantees to SOEs and for managing the risks associated with PPPs.

#### Medium term:

- Strengthen the governance framework for SOEs by aligning tariffs with costs and by improving their capital adequacy ratios.
- Adopt a standard system for assessing the fiscal risks arising from PPPs.
- Regular reporting on contingent liabilities to strengthen public financial management and advance the government's fiscal consolidation efforts.

## B. Institutional setting

**32. The legal framework of SOEs in the DR is clearly defined.** For the purpose of this report, SOEs (*empresas publica no financieras*) are defined as “economic units created with the aim of producing non-financial goods and services for the market, have legal status and their own capital.”<sup>44</sup> The MoF reports the financial accounts of 18 SOEs, including nine in the water sector, one in the electricity sector, and eight in other sectors (Box II.1). The nine SOEs in the water sector include the National Institute for Water Supply and Sewerage (*Instituto Nacional de Aguas Potables y Alcantarillados*, INAPA) and eight provincial-level service providers known as Aqueduct and Sewerage Corporations (*Corporaciones de Acueducto y Alcantarillado*, CORAAs). SOEs in the electricity sector include the Dominican Corporation of State Electric Companies (*Corporación Dominicana de Empresas Eléctricas Estatales*, CDEEE), the Dominican Hydroelectric Generation Company (*Empresa de Generación Hidroeléctrica Dominicana*, EGEHID), The Dominican Electricity Transmission Company (*Empresa de Trasmisión Eléctrica Dominicana*, ETED), and three regional distribution companies (EDENORTE, EDESUR, and EDEESTE).<sup>45</sup> The other nine SOEs are involved in radio and television broadcasting, sugar production, postal services, tourism, port management, housing, and the national lottery. A full list of SOEs is included in Annex II.2.

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<sup>44</sup> *Ley Orgánica de Presupuesto No. 423-06*, art. 4.

<sup>45</sup> The financial accounts of the electricity SOEs are consolidated into the accounts of CDEEE, which is the sector's holding company. This complicates the analysis, as both the generation and transmission companies regularly produce operating surpluses, while the CDEEE and the three distribution companies have historically run deficits. See “Dominican Republic: Public Expenditure Review, 2012-18,” October 2019, for a detailed discussion of the institutional context and operational and financial performance of the electricity SOEs.



### Box II.1. SOE Policy Priorities in the Dominican Republic

**The Minister of Finance is solely responsible for approving the budgets of SOEs, and the MoF has created a specialized unit to oversee SOE budgets and business plans.**<sup>46</sup> The central government is barred from providing transfers, loans, or disbursements to any entity that lacks an annual plan approved by the Minister of Finance. The MoF reports on the financial accounts of 18 SOEs, nine of which operate in the water sector, while the other nine are active in the electricity sector, radio and television, sugar, postal services, tourism, port management, housing, and the national lottery. The nine SOEs in the water sector include the National Institute for Water Supply and Sewerage (*Instituto Nacional de Aguas Potables y Alcantarillados*, INAPA) and eight provincial service providers known as Aqueduct and Sewerage Corporations (*Corporaciones de Acueducto y Alcantarillado*, CORAAs). A thorough review of the status of the SOEs the electricity and water sectors is provided in the respective sections of this Public Expenditure Review. Further analysis could shed light on the challenges facing SOEs in other sectors, but data constraints will need to be addressed, as the reports published online are incomplete and inconsistent, with limited accessibility.

**To ensure that public enterprises advance their intended objectives without imposing an unjustified burden on the budget, policymakers must regularly review the rationale for each SOE's existence, its current scope of activity, and whether it delivers adequate value for money.**<sup>47</sup> The DR does not yet ensure the transparent disclosure of all SOE financial reports or provide regular updates on the status of performance indicators. In addition, the MoF could strengthen its role in performance monitoring by mandating external audits of SOE finances. The MoF is responsible for ensuring the timeliness and public accessibility of SOE financial statements and for verifying auditor's independence and effectiveness.

**A sound framework for SOEs must include strong financial oversight, well-defined governance arrangements, and transparent performance assessments.**<sup>48</sup> The MoF plays a key role in overseeing the ownership models of each enterprise. To enhance accountability, the qualifications of SOE Board Members, the criteria for their selection and appointment, and the composition of shareholder meetings should be published on the MoF website. Improving public oversight of management structures and processes is vital to improve SOE performance and ensure that each SOE accomplishes its core mission.

Source: World Bank staff estimates

**33. In this report, PPPs (*alianzas público-privada*) are defined as long-term contracts between a private party and a government entity for the provision of a public asset or service in which the private party bears significant managerial responsibility and remuneration is linked to performance.**<sup>49</sup> According to this definition, which is consistent with the legal framework governing PPPs in the DR, the country has 31 active PPPs with a total investment portfolio valued at US\$3.1 billion.<sup>50</sup> Most PPPs operate in the electricity sector and are fully privately owned, with a government stake limited to 10 percent of the value of their assets.

<sup>46</sup> Under Presidential Decree Number 207-19, the MoF was tasked with approving the budgets of nonfinancial public enterprises. To ensure consistency with the State's General Budget, the MoF approved Resolution 190-2019, which delineates procedures for approving the annual expenditure plans of public enterprises.

<sup>47</sup> IMF. Fiscal Monitor 2020, Chapter 3, State-Owned Enterprises: The Other Government

<sup>48</sup> Ibid.

<sup>49</sup> See the PPP Fiscal Risk Assessment Model (PFRAM). <https://www.imf.org/external/np/fad/publicinvestment/pdf/PFRAM.pdf>

<sup>50</sup> Ley de Alianzas Público-Privadas, Ley No. 47-20; Capítulo I, Artículo 4. Under the law, "active" PPPs have reached financial closure and have an ongoing contract or concession.

## C. Methodology

**34. A fiscal risk assessment employs a set of diagnostic tools to determine the vulnerability of the public finances to direct and contingent liabilities.** The assessment identifies these liabilities, evaluates them in terms of their probability and anticipated impact, and maps them onto a fiscal risk matrix. The assessment's findings can inform the design of customized reform measures that reflect local governance arrangements and fiscal policies, as well as strategies to monitor and mitigate specific fiscal risks. This chapter draws on the World Bank's Integrated State-Owned Enterprise Diagnostics (iSOED), the IMF's fiscal risk assessment framework and specialized tools such as the IMF's P-FRAM for PPPs.<sup>51</sup>

**35. Fiscal risks materialize when fiscal outcomes deviate from the trajectory that was anticipated when the budget was prepared.** An extreme deviation could severely impact the government's finances and impair its ability to use fiscal policy to stabilize economic volatility and support long-term growth. Following the global financial crisis, governments around the world have intensified their efforts to comprehensively identify and manage fiscal risks. International financial institutions, credit-rating agencies, and investors have also begun to put more emphasis on improved fiscal risk management.

**36. The fiscal risk matrix presented below offers a useful conceptual framework for identifying all forms of liabilities, whether explicit or implicit, direct or contingent.** Explicit liabilities impose a legal obligation on the government, while implicit liabilities hinge on expectations about the government's future behavior. Even though the government is not legally required to honor implicit liabilities, it may face intense pressure to do so regardless of the adverse fiscal impact. Direct liabilities are predictable obligations that will be incurred under circumstances defined ex ante, while contingent liabilities are triggered by unpredictable shocks (Table II.1).

**37. The government of the DR has already developed a methodology for assessing various fiscal risks. Each year, the government publishes a quantitative report on fiscal risks.** The 2020 report includes:<sup>52</sup> (i) liability associated with current pensioners, considering the future expense for social benefits, the present value of which is estimated at 5.5 percent of 2019 GDP; (ii) higher-than-expected operating costs for electricity companies due to rising oil prices, which are estimated at an additional US\$12.7 million for each dollar increase in the price of oil per barrel; and (iii) annual losses from hurricanes and earthquakes, which are projected at 0.4 percent and 0.3 percent of 2018 GDP, respectively.

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<sup>51</sup> See: iSOED 2019, IMF 2016a, and IMF 2016b.

<sup>52</sup> Available at <https://www.digepres.gob.do/wp-content/uploads/2019/10/Informe-de-Riesgos-Fiscales-2020-.pdf>

**Table II.1. Fiscal Risk Matrix for Central Government Liabilities**

	<b>Direct liabilities</b>	<b>Contingent liabilities</b>
<b>Explicit liabilities</b>	<ul style="list-style-type: none"> <li>• Foreign and domestic sovereign debt</li> <li>• Budgetary expenditures in the current fiscal year and legally binding future obligations (e.g., civil-servant salaries and pensions)</li> </ul>	<ul style="list-style-type: none"> <li>• Guarantees on loans and other obligations of subnational governments and SOEs</li> <li>• Guarantees related to trade and exchange-rate risks</li> <li>• Guarantees for private investors in PPPs</li> <li>• State insurance schemes (e.g., deposit insurance, private pension funds, crop insurance, flood insurance, war-risk insurance)</li> <li>• Unexpected outlays to cover legal settlements and court-ordered payments</li> <li>• Reconstruction of public assets</li> </ul>
<b>Implicit liabilities</b>	<ul style="list-style-type: none"> <li>• Public pension costs that the government is not legally required to bear</li> <li>• Social security costs that the government not legally required to bear</li> <li>• Healthcare costs that the government is not legally required to bear</li> <li>• Future recurrent costs incurred by public investments</li> </ul>	<ul style="list-style-type: none"> <li>• Defaults by subnational governments and SOEs on nonguaranteed debt and other obligations</li> <li>• Liability clearance in entities being privatized</li> <li>• Bank failures requiring redress beyond state insurance</li> <li>• Failures of nonguaranteed pension funds or other social security systems</li> <li>• Environmental recovery and disaster relief</li> </ul>

Source: Polackova-Brixi, Hana and Alan Schick (1998), *Government at Risk*, World Bank.

**38. This chapter complements the government’s existing analysis by presenting a thorough assessment of the fiscal risks arising from SOEs and PPPs.** The chapter examines the consolidated financial statements and balance sheets of SOEs to assess their overall profitability and solvency over time and to quantify the extent of their explicit and implicit fiscal ties to the government. The assessment utilizes a credit-risk scorecard to estimate the credit risk of SOEs for which financial data are available. The scorecard allows for a preliminary evaluation of the probability of distress among SOEs, and an assessment of the overall and expected losses incurred by the government from SOEs. Further details on the analytical methodology are presented in Annex II.1.<sup>53</sup>

**39. Fiscal risks arising from PPPs are estimated using international benchmarks.** As the available information does not allow for an in-depth quantification of fiscal risks from PPPs, the assessment of fiscal risks will assume that the government’s PPP-related contingent liabilities are equal to the average for comparator countries. The present value of direct and potential future fiscal costs incurred due to PPP distress or cancellation is assumed to be 35 percent of the PPP capital stock.<sup>54</sup>

<sup>53</sup> See: “Assessing and Managing Credit Risk from Contingent Liabilities”, The World Bank, August 2019. Available at <https://www.worldbank.org/en/programs/debt-toolkit/fiscal-risk#liabilities>.

<sup>54</sup> See: “Review of the Debt Sustainability Framework for Low-Income Countries”, IMF and World Bank, 2017.

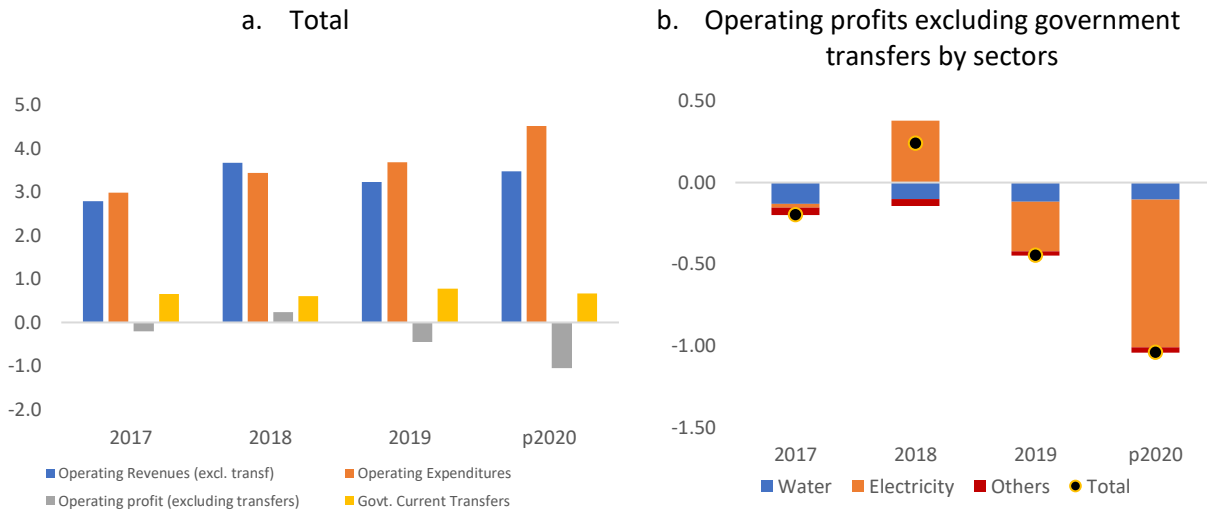


## D. Quantifying Fiscal Risks Arising from SOEs and PPPs

### 1. State-Owned Enterprises

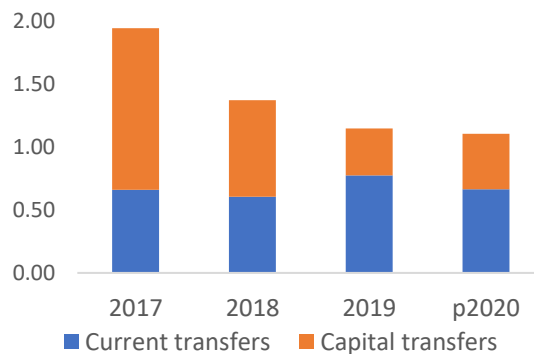
**40. Dominican SOEs are heavily dependent on transfers from the central government.** Current transfers from the central government are necessary to avoid operating deficits among SOEs, which have occurred frequently in recent years. The electricity sector's financial performance hinges on the price of oil, while the water utilities and other SOEs regularly post operating losses regardless of prevailing economic conditions. The SOE budget for 2020, which was formulated prior to the COVID-19 crisis, indicated a reduction in current transfers, especially in the electricity sector, despite an increase in operating expenses due to higher costs for personnel and intermediate inputs (Figure II.1). While budgetary adjustments were made in response to the COVID-19 crisis, overall transfers should remain unchanged from their budgeted amounts at a level consistent with previous years.

**Figure II.1. SOE Operating Costs, Revenues, and Fiscal Transfers**  
(% of GDP)



Source: MoF reports and World Bank staff estimates.

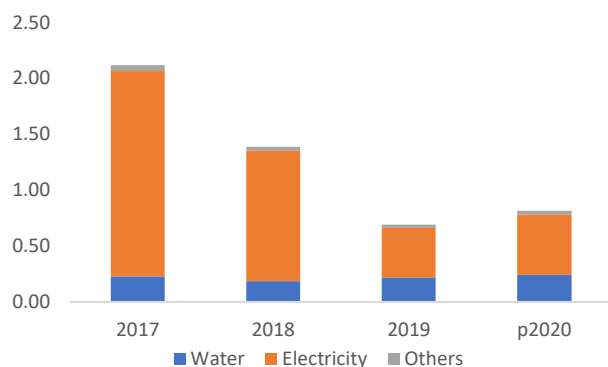
**Figure II.2. Total Fiscal Transfers to SOEs**  
(% of GDP)



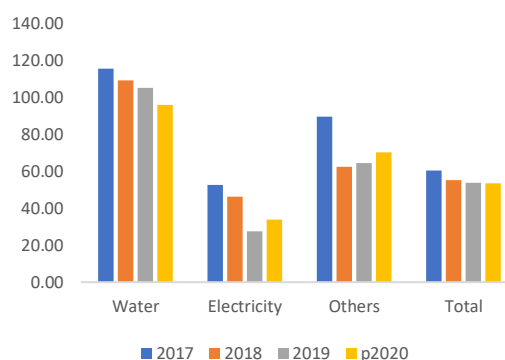
Source: World Bank staff estimates

**41. Transfers from the government are an essential component of SOE budgets and are necessary to finance both current and capital expenditures.** While current transfers have remained broadly stable, capital transfers have decreased over time, reflecting a gradual reduction in overall investment in the electricity sector (Figures II.2 and II.3). In 2017-19, SOE investment in the water sector is entirely financed by capital grants received from the central government. Across all sectors, fiscal transfers finance 54 percent of SOE investment (Figure II.4).

**Figure II.3. SOEs Investment (% of GDP)**

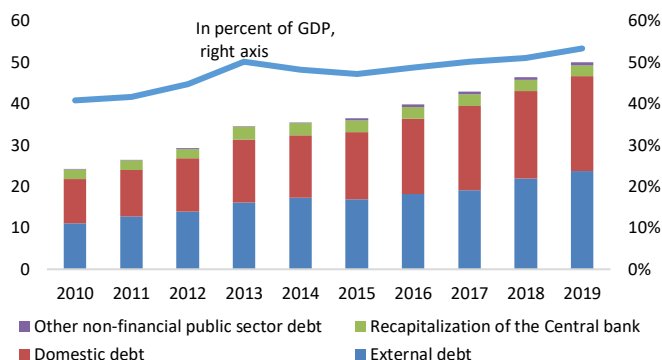


**Figure II.4. Capital Transfers to SOEs (% of total SOE investment)**



Sources : Ministerio de Hacienda and World Bank staff estimates.

**Figure II.5. PPG Debt by Type (US\$ billions)**



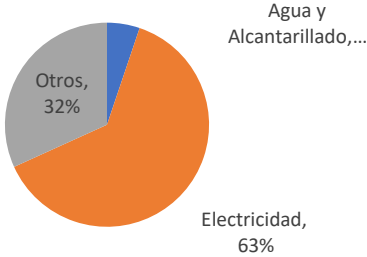
Source: Dirección General de Crédito Público

**42. SOE debt is included in the DR's accounts of public and publicly guaranteed (PPG) debt.** The country's total PPG debt stock reached 53.3 percent at end-2019. External debt of the central government represents the largest share (26.3 percent of 2019 GDP), followed by domestic debt issued by the central government and the central bank (25.9 percent of 2019 GDP). SOE debt, which totaled US\$732.8 million at end-2019 (0.8 percent of 2019 GDP), is composed almost entirely of domestic debt owed to commercial banks (Figure II.5). SOE debt is serviced by the central government and therefore constitutes a direct, explicit liability.

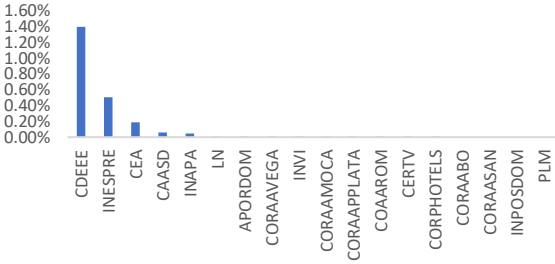
**43. SOE financial statements include additional short-term debt amounting to 2.2 percent of 2019 GDP.** This debt, which is entirely comprised of accounts payable (80 percent) and short-term loans (20 percent), is substantially larger than the PPG debt reported in the official debt statistics. SOEs in the electricity sector account for 63 percent of this additional debt, and the remaining 37 percent is

distributed among the SOEs of the water sector (5 percent of the total) and the other SOEs (Figure II.6). The CDEEE, the Institute for Price Stabilization (*Instituto de Estabilizacion de Precios*, INESPRES), the State Sugar Council (*Consejo Estatal de Azucar*, CEA), and the two largest water utilities (CAASD and INAPA) account for 99 percent of this additional short-term debt (Figure II.7).

**Figure II.6. SOE Debt by Sector, 2019**  
(%)



**Figure II.7. SOE Debt by Enterprise, 2019**  
(% of GDP)



Source: Ministerio de Hacienda and World Bank staff estimates.

**44. A heatmap showing indicators of SOE profitability, liquidity, and solvency can shed light on their financial risks.** An analysis of SOE financial statements shows generally low levels of profitability, excluding transfers from the government. Reflecting their dependence on government transfers, SOEs do not generate sufficient own-source revenues to finance their operations. Some SOEs have a limited capacity to service the debt on their balance sheets, as cashflow generation, excluding fiscal transfers, remains poor. Most SOEs have ample available liquidity (as measured by short-term assets) compared to their short-term liabilities. However, some SOEs, including CDEEE, have low liquidity, which intensifies the risks associated with their limited capacity to service short-term liabilities (Table II.2).

**Table II.2. Profitability, Liquidity, and Solvency Indicators for SOEs  
(2017-2019 average)**

Sectors	SOE	Indicators					
		Profitability		Liquidity		Solvency	
		EBITDA margin 1/	Profitability ratio 2/	Liquidity ratio 3/	Cashflow adequacy ratio 4/	Debt coverage ratio 4/	Solvency ratio
Water Supply and Sanitation	CAASD	-116.5%	-379.6%	2.14	-156.60	36631%	0.00
Water Supply and Sanitation	COAAROM	-71.4%	-97.3%	21.54	-13.74	860%	4.92
Water Supply and Sanitation	CORAABO	-42.3%	-262.4%	..	..	..	..
Water Supply and Sanitation	CORAAMOCA	-29.7%	-73.5%	0.61	-7.20	1320%	0.00
Water Supply and Sanitation	CORAAPPLATA	-71.5%	-112.3%	28.93	..	..	0.05
Water Supply and Sanitation	CORAASAN	-22.6%	-64.3%	4.05	-77.13	29188%	0.00
Water Supply and Sanitation	CORAAVEGA	-45.3%	-140.7%	4.14	-22.85	5431%	25.36
Water Supply and Sanitation	INAPA	-244.0%	-618.4%	1.80	-33.82	6426%	0.00
Electricity	CDEEE	4.2%	-40.4%	0.46	-0.57	476%	0.17
Other	APORDOM	-1.0%	-3.5%	1.33	0.92	92%	0.66
Other	CEA	0.1%	-11.2%	0.72	-513.37	60658%	-0.13
Other	CERTV	-61.3%	-79.1%	9.16	..	..	0.02
Other	CORPHOTELS	25.9%	8.7%	9.33	..	..	0.03
Other	INESPRES	-3969.5%	-4048.0%	0.00	-343.85	3735%	0.00
Other	INPOSDOM	-178.2%	-179.0%	0.15	-1661.01	-29901%	4.08
Other	INVI	-98.8%	-490.2%	0.89	-23.69	13023%	0.00
Other	LN	-10.9%	-18.7%	6.65	-35.51	4447%	0.08
Other	PLM	-110.1%	-143.1%	..	-50.97	14%	..

Source: SOEs financial statements and staff estimates.

1/ EBITDA (Operating Profit + Depreciation + Amortization)-to-revenue ratio, excluding transfers from the central government, in percent.

2/ Profits-to-operating revenue ratio, excluding transfers from the government, in percent.

3/ Current assets-to-current liabilities ratio.

4/ EBITDA (excluding transfers from the central government)-to-debt service ratio, in percent.

5/ Cashflow from operations-to-debt service ratio.

**45. The five SOEs with the largest debt liabilities all have elevated risk profiles.**<sup>55</sup> In addition to their large debt burdens, these five SOEs have low level of profitability and weak liquidity indicators (Table II-3). Low levels of liquid assets, coupled with a limited capacity to generate cashflow, pose a significant risk to the central government, which is likely expected to transfer resources to SOEs to enable them to meet their financial obligations.

<sup>55</sup> Credit risk is defined as low, moderate, elevated, high, and in distress based on a simple average of the indicators of profitability, solvency, and liquidity. This methodology, which is described in Annex I, can be extended by considering qualitative aspects of the business profiles of SOEs.



**Table II.3. Credit Risk among SOEs**

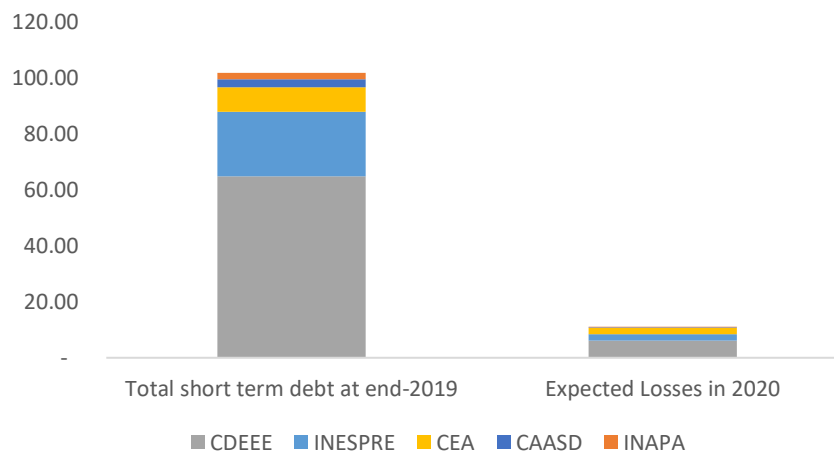
SOEs	Credit Risk	Probabilities of distress
INESPRE	Elevated	9.6%
CAASD	Elevated	9.6%
INAPA	Elevated	9.6%
CDEEE	Elevated	9.6%
CEA	High	26.9%

Source: World Bank staff estimates

**46. Based on their credit ratings, the probability of distress can be estimated for the five SOEs with the largest debt burdens.** Financial distress does not necessarily entail default, and distress among SOEs has different implications for governments than for commercial creditors. A government may suffer a financial loss on (explicitly or implicitly) guaranteed SOE debt due to an episode of financial distress in which the SOE does not default on its obligations to its commercial creditors. This is the case when the government makes an annual debt-service payment to the lender on behalf of the SOE or transfers resources to enable the SOE to meet its debt-service obligations. Based on this definition of financial distress, the probability of distress can be estimated for the five SOEs to quantify the risk of financial losses to the government (Table II.3).

**47. SOE short-term debt represents a contingent liability equal to about 2.3 percent of 2020 GDP, with an expected loss to the government of about 0.3 percent of 2020 GDP.** At an estimated RD\$100.7 billion (Figure II.8), the nominal value of SOE short-term debt represents the maximum loss that the government could face in the event that SOEs are not able to service their short-term liabilities. This short-term debt is in addition of the SOE debt already reported in the stock of PPG debt. The expected loss, which is far smaller, is calculated by weighting the short-term debts of the five SOEs by their respective probabilities of distress reported in Table II.3. However, because the expected loss corresponds to the mean value of the credit-loss distribution, it could easily be exceeded.

**Figure II.8. Total SOE Debt and Annual Estimated Loss (RD\$ billions)**



Source: Ministerio de Hacienda and World Bank staff estimates

**48. These preliminary estimates are a first step toward quantifying the contingent liabilities arising from SOEs, which could greatly exceed the estimated expected loss.** The average expected loss does not account for the possibility of additional losses due to high-cost/low-probability events that could cause a larger share of contingent liabilities to materialize. When these unexpected losses are accounted for, the government's total average losses amount to 0.4 percent of 2020 GDP.<sup>56</sup> In addition, if higher probabilities of distress are assigned, the average annual loss would amount to 0.5 percent of 2020 GDP, while the loss under a stress scenario would reach 0.8 percent. This analysis is based on indicative risk profile of SOEs derived from financial indicators, and a more comprehensive risk assessment should also examine their managerial capacity, governing legal framework, and degree of operational autonomy. In addition, the estimated probabilities of distress reflect assumed credit ratings based on the simplifying assumption that low-risk SOEs would obtain credit ratings equal to the DR's sovereign rating.

## 2. Public-Private Partnerships

**49. As of end-June 2020, there were 31 active PPPs in the DR with a total value of US\$3.1 billion, or 3.5 percent of 2019 GDP.** According to the World Bank's Private Participation in Infrastructure Database,<sup>57</sup> about three-fourth of the DR's PPPs are in the electricity sector, and a majority are greenfield investments in power generation. The remaining fourth are in the transport sector, with major projects involving road, airport, and seaport infrastructure. An estimated 50 percent of the value of the DR's PPPs is financed through debt. Only a minority of PPPs involve direct government equity participation, which limits the explicit contingent liabilities that derive from their ownership structure.<sup>58</sup>

**50. PPPs offer opportunities for the government to enhance service provision and improve management efficiency.** However, strong governance institutions are necessary to manage risks and avoid unexpected costs from PPPs. In the short term, PPPs may appear to be less expensive than traditional forms of public investment, but over time they can prove unexpectedly costly and may undermine fiscal sustainability, particularly when policymakers fail to account for their deferred costs and associated fiscal risks.

**51. PPPs can impose fiscal costs through direct and contingent liabilities.** The most common fiscal costs incurred by PPPs are in the form of tax incentives, capital subsidies (e.g., availability payments), volume-based payments for services (e.g., shadow tolls or subsidies), and payments related to risks assumed by the government (e.g., revenue, exchange-rate, and interest-rate guarantees). Explicit contingent liabilities may arise from debt guarantees used to secure PPP financing or from other guaranteed payments. Meanwhile, costs associated with PPPs could constitute implicit contingent liabilities as policymakers face strong incentives to prevent the failure of PPPs that provide important services. As part of the contractual clauses, fiscal risks may arise from payments related to regulatory

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<sup>56</sup> The unexpected loss is given by the exposure of the SOEs weighted by their annual stressed probability of distress, which is equivalent to the variance of the loss distribution. Given a possibility of distress  $p$ , the variance of the distribution of distress events (i.e., distress with probability  $p$  and non-distress with probability  $1-p$ ) equals  $p(1-p)$ . The expected and unexpected probability of distress is then  $p+p(1-p)$ . For example, the stressed probability of distress of an SOEs with elevated credit risk would amount to 9.6%(100-9.6%) ,or 8.7%, and its expected and unexpected probability of distress would be 18.3%.

<sup>57</sup> See <https://ppi.worldbank.org/en/ppi>. Among other criteria, the database classifies as PPPs all investments that have at least a 20 percent private equity stake and that receive most of their financing from the private partner.

<sup>58</sup> If a special-purpose vehicle (SPV) is created as a legal entity responsible for PPP activities, the liability of the government would be legally confined to the value of its participation in the SPV.

risks, early termination, or force majeure. Costs incurred through renegotiations, disputes, and implicit guarantees for financially distressed projects may also be passed on to the government.<sup>59</sup>

**52. According to a preliminary estimate, contingent liabilities from PPPs in the DR could amount to US\$1.1 billion or 1.2 percent of 2019 GDP.** The present value of direct and potential future fiscal costs from PPP distress or cancellation is assumed to be 35 percent of the PPPs’ capital stock.<sup>60</sup> However, this analysis cannot precisely quantify the risks related to PPPs, and it uses data from comparator countries to supplement the limited information available for the DR.

### E. Impact of Contingent Liabilities on Debt Sustainability<sup>61</sup>

**53. According to medium-term projections of the World Bank, the PPG debt of the Government of the DR is expected to stabilize thanks to fiscal consolidation efforts following the COVID-19 shock.** Consolidated public sector debt is expected to remain sustainable. It is projected to sharply rise from 53.3 percent of GDP in 2019 to 64.3 percent of GDP in 2020—spurred by the pandemic-related macroeconomic shock and the government’s reaction—but declining from 2021 gradually to 59.3 percent of GDP by 2025. The authorities are addressing the COVID-19 shock with additional temporary spending financed by expenditure reallocation and loans from IFIs. Despite the sharp deceleration of growth in 2020, medium term prospects for the country’s growth remain robust. Against the backdrop of a stable macroeconomic environment, growth is expected to converge to its potential of 5 percent from 2022 onwards. Headline inflation is expected to remain contained, at around 4 percent in the medium term, consistent with the central bank’s target. The overall deficit of the consolidated public sector is projected to rise to 8 percent of GDP in 2020, before falling to 3.6 percent of GDP in 2022 and further reduce to below 3 percent in 2025, with primary surpluses expected to return by 2023. The gross financing needs will remain somewhat elevated averaging 10 percent of GDP in 2020-21, but thanks to fiscal consolidation and prudent borrowing are projected to average 7.6 percent of GDP in 2022-2025 (Table II.4 and Figure II.9).

**Table II.4. Debt and Economic Indicators<sup>1</sup>**

	Actual			Projections					
	2009-2017 <sup>2/</sup>	2018	2019	2020	2021	2022	2023	2024	2025
Nominal gross public debt	45.9	51.1	53.3	64.3	65.5	64.9	61.9	60.5	59.3
Public gross financing needs	6.0	5.3	7.5	9.9	10.0	8.1	7.7	6.5	7.9
Real GDP growth (in percent)	5.0	7.0	5.1	-5.5	4.4	4.1	5.0	5.0	5.0
Inflation (GDP deflator, in percent)	4.4	4.1	2.5	3.3	5.6	5.5	6.2	4.0	4.0
Nominal GDP growth (in percent)	9.7	11.4	7.7	-2.4	10.2	9.8	11.5	9.2	9.2
Effective interest rate (in percent) <sup>3/</sup>	5.5	6.0	6.9	6.6	5.7	6.0	5.1	5.5	5.9

Source: World Bank staff estimates and projections.

1/ Public sector is defined as general government.

2/ Based on available data.

3/ Defined as interest payments divided by debt stock (excluding guarantees) at the end of previous year.

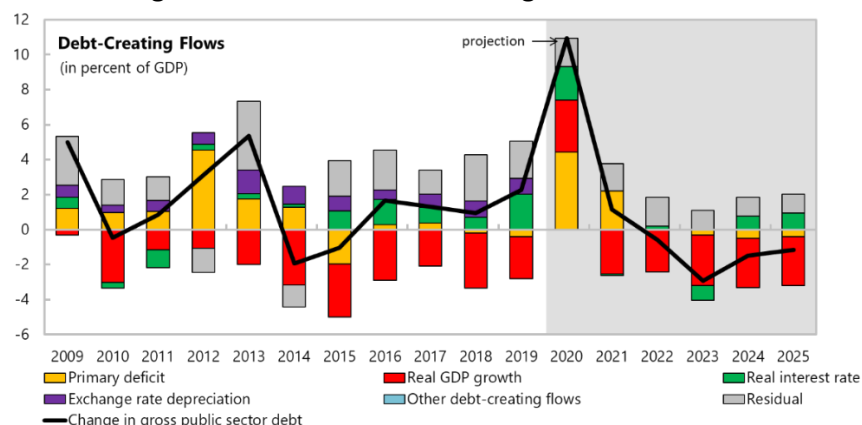
<sup>59</sup> See: IMF (2018) “How to Control the Fiscal Costs of PPPs.”

<sup>60</sup> See Review of the Debt Sustainability Framework for Low-Income Countries”, IMF and World Bank, 2017.

<sup>61</sup> Based on macroeconomic projections as of October 1, 2020. Macroeconomic projections are updated regularly. Revisions change the magnitude of the shocks but not the narrative of the analysis.

**54. Contingent liabilities identified in this analysis are estimated to amount to a total of 7.8 percent of 2020 GDP (Table II.5).** Most of this amount is due to contingent liabilities generated by the pension system, but up to one-fifth reflects expected losses on SOE debts and PPP-related fiscal risks. This amount would increase to one-third of all identified contingent liabilities if short-term-debt of SOEs, amounting to 2.2 percent of 2020 GDP, would be considered. Additional risks that could increase government financing include estimated losses from natural disasters and the impact of oil price changes on the operating costs of electricity companies. Using the sensitivity analysis conducted by the government, an increase of one-standard deviation of the average price of oil in 2020 would increase costs by 0.2 percentage point of 2021 GDP.<sup>62</sup>

**Figure II.9. Contribution to Changes in Public Debt**



Source: World Bank staff estimates and projections.

**55. The identified fiscal risks cause debt outcomes to significantly deviate from the fiscal outlook.** A debt sustainability analysis builds on the baseline scenario and simulates the contemporaneous realization of the identified CLs as an increase of expenditure as defined in Table II.5.<sup>63</sup> Under a deterministic setting, the inclusion of the identified CLs would substantially alter the debt trajectory under the baseline and pose a risk to the fiscal consolidation effort of the government. The PPG debt, excluding the PV of the future liabilities to current pensioners, is projected to peak at 67.2 percent of GDP in 2022 and to reach 63.8 percent of GDP in 2025, 3.5 percentage points of GDP above the baseline. This result assumes no further changes to the macroeconomic outlook and the cost of borrowing. Under this scenario the debt would remain more than 10 percentage points of GDP above the debt ratio in end-2019, before the impact of the COVID crisis, and would require additional fiscal consolidation efforts to return the debt below 60 percent of GDP as under the baseline. Increased gross financing needs under this scenario would further increase financing risks. The full recognition of future pension liabilities would further increase the PPG debt to almost 70 percent of GDP in 2025, a full 20 percentage points above the baseline. A more

<sup>62</sup> The government has estimated that operative costs for electricity companies would increase by an additional US\$12.7 million for each one dollar increase of the price of oil. The World Bank's Global Economic Prospects estimates oil prices would average \$41 per barrel in 2020 and \$44 per barrel in 2021, based on Oct. 2020 estimates and projections. The standard deviation of one-year future oil prices is estimated to 35.4 percent, implying a possible increase of oil prices by US\$13.5 to \$51.4 per barrel in 2020 and to US\$59.6 in 2021. Therefore, a change in oil prices equivalent to a standard deviation would increase operative costs of electricity companies by US\$170.9 million in 2020 and US\$197.8 million in 2021, equivalent to 0.2 percent in 2020 GDP and 2021 GDP.

<sup>63</sup> This analysis uses the debt sustainability framework for market access countries of the IMF, accessible at <https://www.imf.org/external/pubs/ft/dsa/mac.htm>.

protracted COVID-19 induced shock could weaken aggregate demand for longer, lower tax revenues and increase the fiscal deficit, widen the current account deficit by hampering tourism receipts, and consequently lower GDP growth.

**Table II.5. Identified fiscal risks**

Identified fiscal risks	Amount (% of GDP)	Inclusion in the DSA
Pension liabilities	5.5	Increase in the stock of debt in 2021
Annual losses from hurricane	0.4	Annual increase of government expenditure over the period 2021-2025
Annual losses from earthquake	0.3	Annual increase of government expenditure over the period 2021-2025
Oil price change <sup>1</sup>	0.2	Increase in the stock of debt in 2021
CLs from SOEs	0.3	Increase in the stock of debt in 2021
CLs from PPPs	1.2	Increase in the stock of debt in 2021

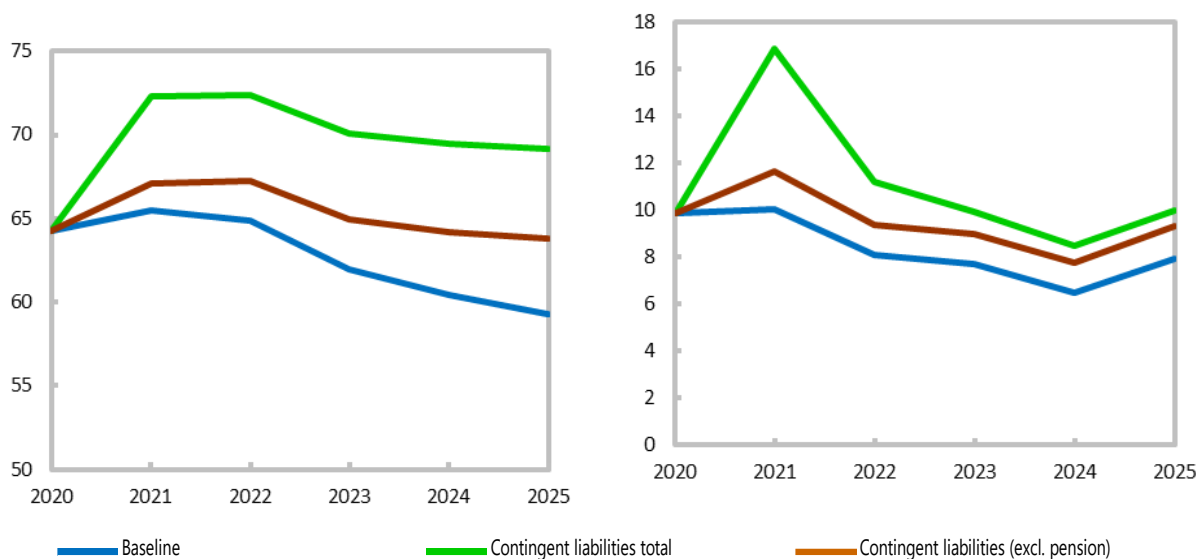
Source: Government of DR and World Bank staff estimates.

<sup>1</sup> See footnote 62 for an estimate of the impact of change in oil prices on the operating costs of electricity companies.

**Figure II.10. Impact of identified contingent liabilities**

a. Gross nominal PPG debt (In percent of GDP)

b. Public gross financing needs (In percent of GDP)



Source: Government of DR and World Bank's staff estimates and projections.

## F. Conclusions and Policy Recommendations

**56. This analysis reveals that liabilities arising from SOEs and PPPs pose a significant threat to the DR's public finances.** Short-term SOE debt, in addition to the SOE debt already included in PPG debt, amounts to 2.2 percent of 2019 GDP, representing a major implicit contingent liability for the government. The size of these liabilities is large compared to the official figures for the SOE debt stock, which amounted to just 0.8 percent of GDP in 2019. A preliminary assessment of the credit risks facing the five SOEs that

account for 99 percent of this short-term debt indicates that the estimated average loss from contingent liabilities would amount to 0.3 percent of 2020 GDP, though this amount could easily be exceeded. Contingent liabilities from PPPs are estimated at 1.2 percent of 2020 GDP. However, these estimates are preliminary, and they rely on data from comparator countries to estimate the costs associated with PPP distress or cancellation. These estimates of contingent liabilities complement the DR's existing system for identifying and quantifying fiscal risks, which produces annual estimates of: (i) the deficits of the public pension scheme, (ii) the projected impact of oil prices on the operating costs of electricity companies; and (iii) estimated annual losses due to hurricanes and earthquakes.

**57. Taken together, the estimated contingent liabilities pose a significant threat to the fiscal consolidation effort of the government.** Most of identified contingent liabilities pertain to the pension system. However, even excluding the expected future expenses of the pension system, the realization of the contingent liabilities would substantially increase the public debt burden and public gross financing needs and would require additional fiscal consolidation. Although the cost of refinancing the pension system would be spread over a number of years, the size of the potential fiscal shock provides a sobering indication of the risks that the government faces during a period when large expenditure needs already threaten the fiscal consolidation efforts that are needed to preserve debt sustainability and build resilience to future shocks.

**58. The methodology used in this analysis represents a step toward developing a more comprehensive understanding of contingent liabilities in the DR, and it highlights several urgent policy priorities.** In the near term, the government should adopt a formal framework for issuing guarantees to SOEs and for managing the risks associated with PPPs. In the medium term, policymakers should strengthen the governance framework for SOEs and their financial viability by aligning tariffs with costs and by improving their capital adequacy ratios.

**59. The government should adopt a framework for managing public guarantees of SOE liabilities.** The government finances the bulk of SOE capital spending; it explicitly or implicitly guarantees all SOE borrowing; and it provides large transfers to help SOEs meet their financial obligations. The potential costs implied by these guarantees are difficult to estimate and rarely appear in the reported budget deficit. A sound framework for managing guarantees could help enhance their transparency and improve the credit-risk analysis that underpins the determination of appropriate fees, which would help the government recover costs from guarantees. In addition to the technical analysis used to define guarantee fees, a framework for managing guarantees would also include: (i) explicit limits on their use and on the authority to grant them; (ii) a clear decision-making process for granting individual guarantees based on prevailing conditions, cost estimates, guarantee fees, and other criteria; (iii) recording and reporting requirements for guarantees; and (iv) clearly defined arrangements for honoring guarantees.<sup>64</sup>

**60. Additional reforms could further strengthen the management of contingent liabilities arising from SOEs.** SOEs in the DR depend heavily on fiscal transfers, and their debt liabilities pose a significant risk to the government. Adopting a strategy to reduce operational and financial risks and improve the profitability of SOEs would increase their financial viability and strengthen their capacity to remain current on short-term obligations. The government should adopt a system to regularly assess SOE credit risk based on relevant qualitative and quantitative indicators and reduce fiscal transfers to those that are less risky. Second, the governance framework for SOEs should be reformed to lower their credit risk, as below-

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<sup>64</sup> See L. Razlog and T Irwin. "A Framework for Managing Government Guarantees", Discussion Paper, MTI Global Practice No. 20, May 2020.

cost electricity and water tariffs require large-scale transfers to finance the operating expenditures of SOEs. Third, the financial structure of key SOEs should be improved to minimize financial risks. For example, due to large and continued losses, most SOEs have drawn down their available capital, and the recapitalization of key SOEs would strengthen their repayment capacity and help reduce financial risks.

**61. The government should adopt a standard system for assessing the fiscal risks arising from PPPs.**

In the short term, the government should focus on building its capacity to identify risks associated with PPPs in the electricity sector by estimating the probability that they could fail to make availability payments under power-purchasing agreements. This process is akin to that used to analyze the probability of distress among SOEs. Most other PPP-related risks reflect the contractual allocation of risks, especially those associated with infrastructure, demand conditions, the stock of debt contracted and implicitly or explicitly guaranteed, the potential renegotiation or breach of contracts, and force majeure. The potential losses to the government can be quantified by using the PPP Fiscal Risk Assessment Model (PFRAM).<sup>65</sup>

**62. Regular reporting on contingent liabilities would help strengthen public financial management and advance the government’s fiscal consolidation efforts.**

The government already publishes an annual analysis of fiscal risks. This analysis could be expanded to include contingent liabilities arising from SOEs and fiscal risks associated with PPPs. In addition, all guarantee and non-guaranteed SOE debt should be reported in the government’s quarterly debt bulletins and annual reports.

## **G. Appendix**

Annex II.1: Methodology for Defining the Probability of Distress and Estimated Annual Loss of SOEs

**63. The methodology to define the estimated annual loss requires three steps.** First, the definition of a credit risk profile for the relevant SOEs (e.g. those which would potentially represent the largest contingent liabilities identified through a risk matrix). Second, the definition of a distress event and the estimation of the probability of distress consistent with associated SOE risk profile. Third, the calculation of the expected loss deriving from the identified contingent liabilities (e.g. debt repayments).

*Definition of the Credit Risk Profile of SOEs through the “Scorecards” Methodology.*

**64. Credit risk refers to the risk that borrowers or counterparties fail to meet their financial obligations in accordance with agreed terms (Basel Committee on Banking Supervision, 2020).** Credit risk stems from a public corporation’s non-performance of (guaranteed or non-guaranteed) financial obligations to lenders<sup>66</sup> that result in a cost to the central government.

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<sup>65</sup> Available at <https://www.worldbank.org/en/topic/publicprivatepartnerships/brief/ppp-tools#T2>.

<sup>66</sup> In the case of (on-)lending the central government itself is the lender.

**65. Credit rating is a methodology to assess credit risk.**<sup>67</sup> Credit rating usually includes the rating or scoring of several risk factors that are specific to industries and/or financial instruments and aggregating scores to an obligor's<sup>68</sup> credit rating.<sup>69</sup>

**66. Credit ratings are risk rankings.** For the purpose of this analysis, credit ratings are defined based on the average past financial indicators of SOEs, as proxy of both past and expected performance, absent any change in the legal and regulatory environment and economic outlook. Ratings are usually expressed using letters, numbers, or a combination of both.<sup>70</sup> As rankings, credit ratings provide an assessment of an obligor's creditworthiness relative to the rated universe and are no absolute measure of risk. The assessment of creditworthiness is forward-looking, includes both an obligor's ability and willingness to meet financial obligations, and may reflect only on the likelihood of an obligor meeting its financial obligations or also include an assessment of the size of a financial loss in the event of default. Credit ratings can be assigned to issuers or issues; long-term or short-term; for local currency or foreign currency obligations; and expressed on a global or national/regional scale.

**67. Credit ratings can be linked to default frequencies and probabilities.** Historical databases can track historical credit ratings and corresponding default events. With a consistent rating process, a sufficiently large dataset, and a time horizon that spans economic cycles, long-term average default frequencies per rating category should be relatively stable and increasing with higher risk ratings. Assuming a stable future relationship between credit ratings and default frequencies, average probabilities of default by rating category may be inferred from past default frequencies.

**68. Credit scoring involves scoring and aggregating individual risk factors to arrive at an ordinal risk rating for an entity that is compared to other entities.** Rating agencies use credit scores to build a risk profile based on qualitative and quantitative indicators of company performance. Qualitative elements would include the assessment and scoring of the operational and regulatory environment, competitive position, governance and management and quasi-fiscal activities of the SOEs. Quantitative elements would focus on financial performance as measured by financial indicators of profitability, liquidity, solvency, the debt structure, the capital expenditure program and past performance in meeting financial obligations.

**69. In the analysis of contingent liabilities from SOEs of the DR, the credit scoring is based on financial indicators only and should be considered a preliminary application of the credit scoring methodology.** Available data and information of SOEs do not allow a broader assessment of both the qualitative and quantitative factors which could be included. The Government of DR is putting in place an SOE monitoring system to strengthen the management of fiscal risks and this analysis should be

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<sup>67</sup> Standard and Poor's (2014) provides a concise summary of their credit rating essentials at [https://www.spratings.com/documents/20184/760102/SPRS\\_Understanding-Ratings\\_GRE.pdf/298e606f-ce5b-4ece-9076-66810cd9b6aa](https://www.spratings.com/documents/20184/760102/SPRS_Understanding-Ratings_GRE.pdf/298e606f-ce5b-4ece-9076-66810cd9b6aa).

<sup>68</sup> In the context of this analysis, the obligors are public corporations.

<sup>69</sup> (Bachmair, 2016) discusses credit rating as a risk assessment methodology for government risk managers. (Fitch Ratings, 2020), (Moody's Investors Service, 2020), and (Standard & Poors, 2020) describe their respective definitions used for credit ratings in more detail.

<sup>70</sup> For example, a comparison of the rating scales used by the three major international rating agencies, Fitch, Moody's, and Standard & Poor's can be found here: <https://www.moneyland.ch/en/rating-agencies>. Credit rating scales often distinguish between investment grades (lower risk) and non-investment or speculative grades (higher risk) and include ratings for obligors in default.



considered as a first step in that direction. In this respect, an assessment of the managerial capacity and the regulatory environment would yield additional important information to inform a broader credit scoring.

**70. Credit risk is defined on the basis of the financial performance indicators as reported below in Table II.6, by assigning equal weights to the measures.**<sup>71</sup> For financial ratios used to assess profitability, liquidity, and solvency the illustrated rating methodology provide absolute thresholds. However, such absolute thresholds should be treated with caution. Calculated ratios depend on accounting standards used, and calculation methods.<sup>72</sup> Furthermore, their significance is highly sector specific - typical values and their spread vary greatly across sectors.<sup>73</sup> For most rating factors, including qualitative indicators, assigning scores is judgement based and requires experience of analysts and a formalized process to ensure quality and consistent application.

**71. The rating process assigns a numerical score to each rating factor and weights of rating factors are used to arrive at a weighted aggregate rating for a public corporation based on the ratings of each rating factor.** The illustrated rating methodology assigns, for simplicity, equal weights to each rating factor. Weights represent the relative importance of each rating factor in determining credit events. Weights can be assigned based on judgement; borrowing from existing methodologies; rating agency methodologies; or statistical analysis.<sup>74</sup>

**Table II.6. Financial Risk indicators and Thresholds**

Measure	Indicator	Definition	Risk level				
			Low	Moderate	Elevated	High	In Distress
Profitability	EBIDTA margin 1/	(Operating Profit + Depreciation + Amortization) / Revenue (%)	> 30%	30% - 15%	15% - 5%	< 5%	..
	Profitability ratio 2/	Profits / operating revenue	> 20%	20% - 10%	10% - 5%	< 5%	..
Liquidity	Liquidity ratio 3/	Current assets / current liabilities	> 2	2 - 1.5	1.5 - 1	< 1	..
	Cashflow adequacy ratio 4/	EBITDA / debt service	> 5	5 - 2.5	2.5 - 1	< 1	..
Solvency	Debt coverage ratio 5/	Cashflow from operations or operating balance /debt service	> 30%	30 - 13%	13 - 5%	< 5%	..
	Solvency ratio	Total debt / capital ratio	> 0.8	0.8 - 1	1 - 2.2	> 2.2	Negative capital

<sup>71</sup> The full methodology uses qualitative indicators to score the company profile and financial indicators. Note: the thresholds are indicative and derive from a study of corporate risk assessments prepared by S&P (see Corporate Methodology, S&P Global Ratings, November 19, 2013). Several sector studies are also available (for example, see Regulated Electric and Gas Utilities, Moody's Investors Services, December 23, 2013). Several governments have adopted rating methodologies to assess the risks of public enterprises and project companies under public-private partnerships (PPP) and guarantees given to these institutions. Examples include governments with a long history of risk management and high capacity, as well as governments that have recently undertaken reforms to strengthen risk management and more limited capacity.

<sup>72</sup> For example, Standard & Poor's uses four types of adjustment principles (adjusted debt principle, adjusted earnings principle, adjusted cash-flow principle, and adjusted interest principle) described here: [https://www.standardandpoors.com/en\\_US/web/guest/article/-/view/type/HTML/id/2189358](https://www.standardandpoors.com/en_US/web/guest/article/-/view/type/HTML/id/2189358).

<sup>73</sup> For example, the variance of profitability indicators across industries in the United States is illustrated here: [http://pages.stern.nyu.edu/~adamodar/New\\_Home\\_Page/datafile/margin.html](http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/margin.html).

<sup>74</sup> For example, by testing alternative specifications against historical outcomes, including credit events.

## *Definition of the Probability of Distress through Transition Matrices*

**72. Probabilities of distress (PDs) are used to further quantify credit ratings.** The outputs of the rating methodology and scorecard defined above are credit ratings which rank public corporations according to their credit risk. To calculate risk metrics such as expected and stressed losses, credit ratings are used to infer the likelihoods that public corporations experience (or remain in) distress over a given period. These likelihoods are expressed as PDs.<sup>75</sup>

**73. PDs are linked to the definition of a distress event.** A distress event can be defined in two ways:

- The public corporation defaults, the entire disbursed debt outstanding is due, the government assumes the public corporation's relevant debt liabilities and repays the (guaranteed portion of) disbursed principal outstanding plus the periodic interest payment due (if interest payments are guaranteed) at the time of default.
- The government makes an annual debt service payment to the lender on behalf of the public corporation or provides financial resources to the public corporation (e.g. in the form of a capital transfer/grant) for it to be able to meet its debt service obligations for a given year.

If distress is defined according to option 1, the possibility of distress each year is conditional upon the public corporation not having defaulted in the previous year (i.e. a public corporation can only default once, as from the time of default the government would assume all remaining obligation). Hence, the cumulative PDs are the sum of annual PDs up to and including the respective year.<sup>76</sup> As a result, the sum of PDs over any period may not exceed 100 percent. For example, if the PD for public corporations rated “in distress” for the first year is 100 percent, all future PDs for “in distress” rated entities must be 0. If distress is defined according to option 2, however, distress each year may occur irrespective of whether distress has occurred the previous year(s) (Box II.2 discusses the quantification of the respective probabilities of remaining in distress vs. recovering from previous distress events). Hence, cumulative PDs may not be arrived at through summation.

**74. PDs can be derived in various ways.** Common methods include using rules of thumb, internal historical databases, as well as third-party information. Following rules of thumb, users could distribute PDs across the rating spectrum based on judgement and intuition.<sup>77</sup> Internal historical databases can be used to calculate distress frequencies per rating and infer future probabilities for each rating.<sup>78</sup> However, few governments may have the required historical data. To overcome this limitation, third-party information on default frequencies may be used. A common example is matching internal credit ratings

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<sup>75</sup> Readers may be more familiar with the term “probability of default”. This analysis, however, uses the term distress rather than default to highlight how the impact of financial distress of public corporations may differ from the perspective of governments relative to the perspective of commercial creditors. In line with the definition of a distress event, a government may experience a financial loss on (explicitly or implicitly) guaranteed public corporation debt due to the public corporation’s financial distress without the public corporation actually defaulting on obligations to commercial creditors.

<sup>76</sup> For example, if the probability of distress is 5 percent in year 1, 4 percent in year 2, and 3 percent in year 3, respectively, the three-year cumulative probability of distress equals 12 percent (assuming distress events are defined according to option 1).

<sup>77</sup> For example, 5 percent for low risk; 20 percent for moderate risk; 40 percent for elevated risk; 60 percent for high risk; 100 percent for in distress.

<sup>78</sup> This requires adequate historical information of distress and non-distress events (the dependent variable) and credit ratings prior to distress events (the independent variables). Turkey is an example where the government had collected sufficient historical information to calibrate such a model as discussed in (Bachmair, 2016).

with ratings of credit rating agencies and using rating agencies' historical default studies to infer future probabilities of default or distress. Box II.2 describes such an approach illustrated in the analytical tool.

**75. This analysis derives PDs using the probability of defaults associated with credit ratings of a credit rating agency.** First the credit ratings obtained for each SOEs using the scorecard methodology are associated with a credit rating assigned by of Moody's.<sup>79</sup> Then, the probability of default corresponding to the credit rating is assumed as corresponding to the initial PDs in the first year of the analysis. The probability of distress of following years is then calculated as the probability of being in distress in year  $t$ , conditional on the distress or non-distress probability of year  $t-1$  as illustrated in Box II.2.

**76. PDs assume that an SOEs assessed as low risk would be rated as the sovereign.** SOEs assessed with higher credit risks are assigned lower credit ratings, which would correspond to higher probability of default. As of end-July 2020, the Dominican Republic has received the following non-investment grade ratings from the three major rating agencies. Based on these ratings, the credit ratings and PDs have been assigned to match the SOEs credit ratings as reported in Table II.7.

**Table II.7. Credit ratings by agency**

Agency	Foreign rating	Local rating	Date
Fitch	BB-	BB-	May 08 2020
S&P	BB-	BB-	Apr 16 2020
Moody's	Ba3	Ba3	Jul 20 2017

Source: Credit rating agencies

**Table II.8. Credit Ratings and Probabilities of Distress**

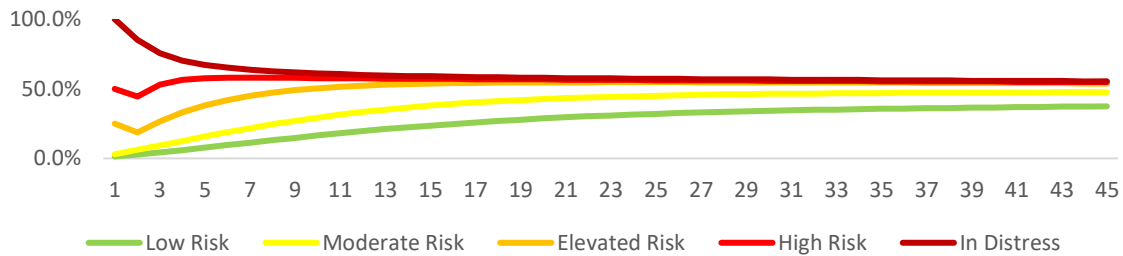
Credit risk	Moody's Rating	Initial PDs
Low	Ba3	1.36%
Moderate	B2	2.95%
Elevated	Caa2	9.59%
High	C	26.86%
In distress	D	100.00%

Source: Credit rating agencies

**77. Lastly, the methodology assumes historical distress frequencies by rating are a good indicator of future distress frequencies for the same ratings.** Hence, we use historical distress frequencies as future probabilities of distress. The resulting annual PDs are graphed below in Figure II.11.

<sup>79</sup> The analysis uses the latest complementary report available as of August 2020 which can be accessed at [https://www.moodys.com/researchdocumentcontentpage.aspx?docid=PBC\\_1112754](https://www.moodys.com/researchdocumentcontentpage.aspx?docid=PBC_1112754) with a free subscription. Other rating agencies also publish information on historical default events. An example from Standard & Poor's can be found at <https://www.spratings.com/documents/20184/774196/2018AnnualGlobalCorporateDefaultAndRatingTransitionStudy.pdf>.

**Figure II.11. Annual Probability of Distress**



Source: World Bank staff estimates

**Box II.2. Illustration of Derivation of Probabilities of Distress**

**Step 1: Migration rates**

The illustrated methodology uses Moody’s annual default studies for corporate default and recoveries.<sup>80</sup> Exhibit 29 of Moody’s study (copied to section A of worksheet “1. Migration rates”) shows average one-year alphanumeric rating migration rates for the period 1983-2017.

Numbers show the historical one-year migrations among ratings. For example, out of 100 corporations rated AAA<sup>81</sup> in a given year, approximately 87 were still rated AAA the following year. Approximately five were rated Aa1 (a downgrade of one notch), two were rated Aa2 (a downgrade of two notches), and one was rated Aa3 (a downgrade of three notches). The table shows that the likeliest outcome is for corporations’ rating to remain unchanged from one year to the next. Further, the frequency of up-/downgrades decreases with their magnitude. Each year, a number of ratings are withdrawn (WR; column W) and the frequency of withdrawals tends to increase with declining credit quality.

**Step 2: Bridge differences in distress/default definitions**

Consistent with its definition of default<sup>82</sup>, Moody’s rating migration table does not allow for the possibility of corporations migrating from a default state to a non-default state.<sup>83</sup> This is consistent with distress option 1 but not distress option 2. According to the definition of distress under option 1, a default triggers the acceleration of debt and a government payment of all (implicitly or explicitly) guaranteed debt to the creditor. Hence, a public corporation would only default once on a given debt liability.

However, according to the definition of distress under option 2, a public corporation may experience distress in any given year irrespective of whether it has experienced distress in the previous year or not. The figure below illustrates such cases for a 2-year time horizon. The figure shows a public corporation not in distress initially (year 0). In year 1, the public corporation may experience distress (at a 10 percent probability) or not (at a 90 percent

<sup>80</sup> *Ibid.*

<sup>81</sup> Moody’s ratings definitions can be found here: <https://www.moodys.com/sites/products/AboutMoodysRatingsAttachments/MoodysRatingSymbolsandDefinitions.pdf>.

<sup>82</sup> Discussed here: <https://www.moodys.com/sites/products/AboutMoodysRatingsAttachments/MoodysRatingSymbolsandDefinitions.pdf>.

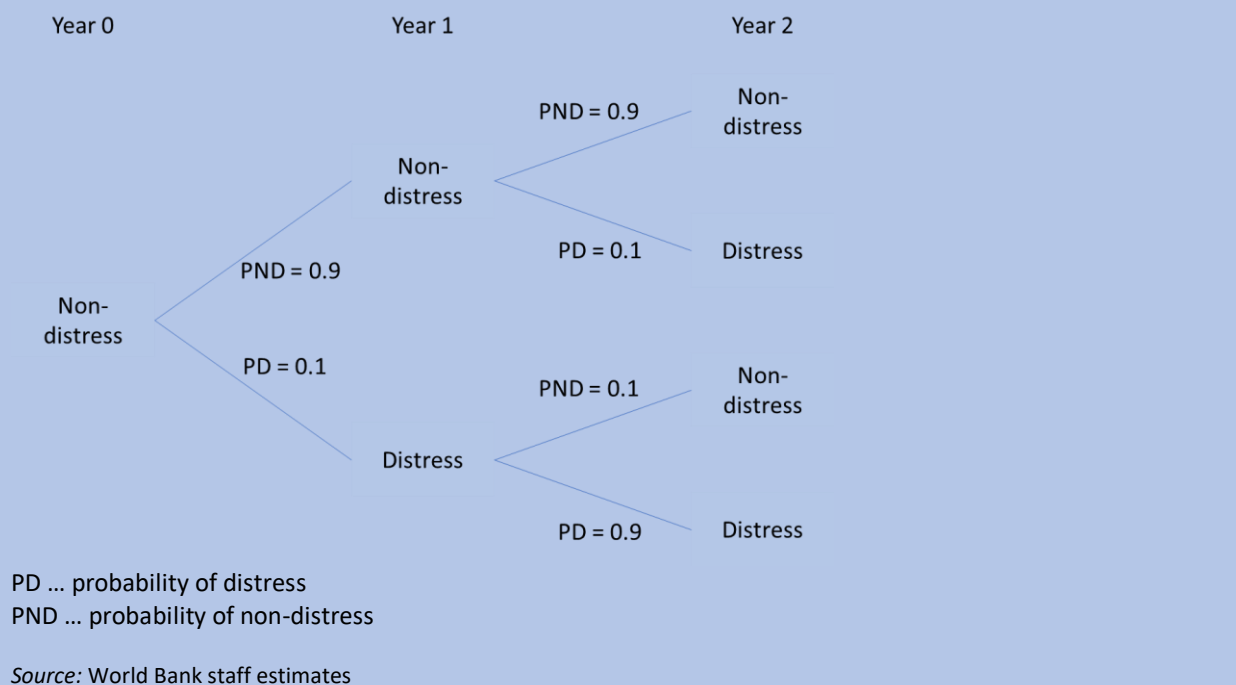
<sup>83</sup> Hence, “default” is only shown on the x-axis (listing the states ratings can migrate to) but not the y-axis (listing the states ratings can migrate from).

probability). A public corporation in distress in year 1 may again experience distress in year 2 or not.<sup>84</sup> Under distress option 2, a public corporation may migrate to a distress event in year 2<sup>85</sup> along two alternative paths:

Non-distress in year 0 -> Non-distress in year 1 -> Distress in year 2, or  
 Non-distress in year 0 -> Distress in year 1 -> Distress in year 2.<sup>86</sup>

Hence, the annual PD in year 2 equals 18 percent (0.9 x 0.1 + 0.1 x 0.9).

**Possible migration between non-distress and distress states consistent with distress option 2**



*Calculation of the Expected Loss from the Realization of Contingent Liabilities of SOEs*

**78. The expected loss (EL) is the exposure at default (EAD, equal to the debt service owed by the SOE), assuming there is no recovery of the outstanding debt service, based on the PDs.** This loss is indicative of the level of expected average loss deriving from the public enterprise debt portfolio. The actual loss could be higher (for example, equal to the total debt service).<sup>87</sup> In formulas this can be expressed as

$$EL_t = EAD_t \times PD_t$$

<sup>84</sup> The corresponding probabilities (90 percent probability of remaining in distress and 10 percent probability of recovering from a distress event) are consistent with a view that a public corporation in distress may find it difficult to recover, assuming distress events are driven by structural issues rather than short-term financial problems.

<sup>85</sup> The same logic can be used to extend the time horizon beyond 2-years. The possible migratory paths proliferate as the time period lengthens. For example, over a 3-year time period, public corporations could follow 4 distinct paths to migrate to a distress event (ND-D-D-D; ND-ND-ND-D; ND-ND-D-D; and ND-D-ND-D).

<sup>86</sup> Under distress option 1, however, the only possible migration to a distress event in year 2 is Non-distress in year 0 -> Non-distress in year 1 -> Distress in year 2.

<sup>87</sup> In the event that the distress event triggers payment in full of the outstanding debt, the actual loss would equal the outstanding debt.

## Annex II.2: List of SOEs

Acronym	Name	Sectors
CAASD	CORPORACION DEL ACUEDUCTO Y ALCANTARILLADO DE SANTO DOMINGO	Water Supply and Sanitation
CORAASAN	CORPORACION DEL ACUEDUCTO Y ALCANTARILLADO DE SANTIAGO	Water Supply and Sanitation
CORAAMOCA	CORPORACION DEL ACUEDUCTO Y ALCANTARILLADO DE MOCA	Water Supply and Sanitation
COAAROM	CORPORACION DEL ACUEDUCTO Y ALCANTARILLADO DE LA ROMANA	Water Supply and Sanitation
CORAAPPLATA	CORPORACION DEL ACUEDUCTO Y ALCANTARILLADO DE PUERTO PLATA	Water Supply and Sanitation
INAPA	INSTITUTO NACIONAL DE AGUAS POTABLES Y ALCANTARILLADOS	Water Supply and Sanitation
CORAABO	CORPORACION DEL ACUEDUCTO Y ALCANTARILLADO DE BOCA CHICA	Water Supply and Sanitation
CORAMON	CORPORACION DEL ACUEDUCTO Y ALCANTARILLADO DE MONSEÑOR NOUEL	Water Supply and Sanitation
CORAAVEGA	CORPORACION DEL ACUEDUCTO Y ALCANTARILLADO DE LA VEGA	Water Supply and Sanitation
CDEEE	CORPORACION DOMINCANA DE EMPRESAS ELECTRICAS ESTATALES (CDEEE)	Electricity
CERTV	CORPORACION ESTATAL DE RADIO Y TELEVISION (CERTV)	Other
CEA	CONSEJO ESTATAL DEL AZUCAR	Other
INESPRE	INSTITUTO DE ESTABILIZACION DE PRECIOS	Other
CORPHOTELS	CORPORACION DE FOMENTO HOTELERO Y DESARROLLO DEL TURISMO	Other
INPOSDOM	INSTITUTO POSTAL DOMINICANO	Other
APORDOM	AUTORIDAD PORTUARIA DOMINICANA	Other
LN	LOTERIA NACIONAL	Other
INVI	INSTITUTO NACIONAL DE LA VIVIENDA	Other
PLM	PROYECTO LA CRUZ DE MANZANILLO	Other

**79. The identification of contingent liabilities from state-owned enterprises (SEOs) and public-private partnerships (PPPs) is based on:**

- The Integrated State-Owned Enterprise Diagnostic (iSOD) framework of the World Bank; and
- The PPP Fiscal Risk Assessment Model (PFRAM) of the World Bank and the International Monetary Fund (IMF).

These two frameworks require SOE and PPP-level variables to assess financial risks related to SEOs and the contractual allocation of risks in PPPs.

***State-Owned Enterprises***

*Methodology*

**80. Fiscal risks can be defined as the source of potential financial pressure on the fiscal authorities.**

They can be divided between government obligations that are defined by law or legal contracts (explicit liabilities) and those that represent a moral obligation and are based on public expectations or political pressure (implicit liabilities). Fiscal risks can also be divided between regular, predictable government obligations (direct liabilities) and obligations that arise from an unpredictable event (contingent liabilities). These four different types of fiscal risks can be classified into four sources of fiscal risks:<sup>88</sup>

- ***Direct explicit liabilities***, which are legal or contractual government obligations and are the main target of conventional fiscal analysis. These liabilities include the repayment of sovereign debt, expenditures based on budget law in the current fiscal year, and long-term expenditures for legally mandated expenditure items such as civil service salaries and pensions as well as, in some countries, social security benefits;
- ***Direct implicit liabilities***, which are regular obligations that the government are not legally obliged to act on, and they often arise from the implementation of long-term fiscal policies. Given that they are implicit, these obligations are not captured in government balance sheets. For example, future pensions payable in a public pay-as-you-go scheme, unless guaranteed by law, constitute a direct implicit liability. Other forms of direct implicit liabilities include the moral obligation of the government to ensure the continuation of the delivery of key services through private contractors (e.g., PPP projects) or an expectation of the general public that the government will financially support certain programs;
- ***Contingent explicit liabilities***, which are legal obligations for the government only if a particular event occurs. These types of liabilities include government guarantees to state-owned entities (e.g., a national development bank or SOE) and state insurance schemes (e.g., deposit insurance). As the fiscal costs of contingent explicit liabilities are unknown until the event occurs, they represent a hidden subsidy, can make it difficult to perform an accurate fiscal analysis, and can drain government finances in the long term. This lack of clarity into the direct fiscal costs of contingent explicit liabilities makes financing through state-owned institutions more attractive than budgetary support, despite potentially being more costly in the long term. Contingent government obligations can immediately create moral hazard, particularly if the government

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<sup>88</sup> Schick et al. 2020. *Government at Risk*. World Bank.

guarantee covers all the underlying assets. Fiscal authorities are often legally required to cover losses and obligations of the central bank and local governments; and

- **Contingent implicit liabilities**, which are voluntary government obligations only if a particular event occurs. These types of obligations are typically not officially recognized until after the event, and the event, costs, and the required size of government outlays are uncertain. In most countries, the financial system represents the most important contingent implicit government liability. In the past, the market has expected the government to ensure the stability of the financial system, including bailing out financial institutions deemed ‘too big to fail.’ Fiscal authorities are compelled to cover the losses and obligations of state-owned and large private enterprises as well as budgetary and extra-budgetary agencies which are critical to the functioning of the market.

**81. The Fiscal Risk Matrix catalogues the four sources of government fiscal risks.** It provides a useful analytical framework to identify fiscal risks, and it can be used by the government to evaluate different approaches to assessing and mitigating its exposure to different sources of fiscal risks.

**82. The methodology used to identify contingent liabilities from SOEs includes the following three steps:**

- 1) Define the SOE Sector

**83. This step involves identifying statutory bodies, SOEs, and other entities that represent a potential government liability.** This can be done by an assessment of laws and constituency acts. If the law does not clearly identify what entities are part of the public sector, the assessment should clarify what entities should be included based on the services guaranteed by the state. For example, if bank deposits are covered by insurance, the government should consider including the deposit insurance agency if the available funds are insufficient to ensure guaranteed deposits within the applicable limit. Similarly, any company with government involvement, through one or more of its statutory bodies, could be included in the analysis of fiscal risks if the public sector has a controlling share<sup>89</sup> or if the company is providing a public service and receives financial aid from the government.

- 2) Assess the Performance of the SOE Sector

**84. Key financial information is used to define trends in the aggregated SOE sector.** The financial information is collected by the Macroeconomic Policy Unit under Ministry of Finance and should include:

- **Income statements**, including information on revenue, operational expenses, transfers to the central government, and gross capital expenditure. With this information, the authorities should be able to assess the overall financing needs of the SOE sector over time and identify trends. If provisional financial statements and quarterly statements are available, they could be used to define expected financing needs; and
- **Financial statements**, including a breakdown of total assets and liabilities, current assets and liabilities, and debt liabilities and total net capital.

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<sup>89</sup> Normally defined as ownership share of at least 50 percent.



**85. Information should be requested at least on an annual basis.** Table II-8 provides an example of how the information could be systematize in a simple form that SOEs could be required to provide on an annual basis. In addition to most recent three years, SOEs could be requested to provide the budget for the current year and expected income statements for the next two years. The expected evolution of the budget variable can, in turn be used to project changes to assets, liabilities and capital.

**Table II.9. Summary of Income and Financial Statements of SOEs**

Presupuesto y Estados de Resultados	2017	2018	2019	2020 (Presupuesto)
<b>Ingresos</b>	<b>7,875,173,148</b>	<b>7,408,498,536</b>	<b>8,344,046,590</b>	<b>9,650,249,769</b>
Ingresos operativos (1)	1,184,973,587	1,227,761,821	1,500,000,000	1,510,538,338
Transferencias	6,511,059,989	5,923,065,377	5,949,932,240	7,434,264,233
Transferencias corrientes (2)	1,724,584,163	2,056,550,529	2,002,927,648	2,286,784,233
Transferencias de capital	4,786,475,826	3,866,514,848	3,947,004,592	5,147,480,000
Otros ingresos (3)	179,139,572	257,671,338	894,114,350	705,447,198
<b>Egresos</b>	<b>8,065,081,032</b>	<b>7,411,560,308</b>	<b>8,344,046,590</b>	<b>9,650,249,769</b>
Gastos corrientes de operaciones (1)	3,536,924,513	3,000,323,780	4,343,683,990	4,438,888,058
Costo de insumos (e.g. compra de electricidad, petróleo, otros insumos)	2,278,720,738	1,409,370,576	2,215,352,495	2,555,499,991
Costo de personal	1,258,203,775	1,590,953,204	2,128,331,495	1,883,388,067
Pagos de intereses/cargos financieros (2)	10,187,015	7,292,508	8,400,000	8,000,000
Transferencias corrientes (3)	3,284,780	5,451,026	2,500,000	2,500,000
Otros gastos (4)	34,332,398	32,582,446	32,458,008	42,881,711
Inversiones de capital	4,480,352,326	4,365,910,548	3,957,004,592	5,157,980,000
Depreciación y amortización		94,178,373	95,524,123	
Ingresos operativos (1)+(2)+(3)	3,088,697,322	3,541,983,688	4,397,041,998	4,502,769,769
Gastos operativos (1)+(2)+(3)+(4)	3,584,728,706	3,045,649,760	4,387,041,998	4,492,269,769
<b>Resultado Operativo (ingresos operativos - gastos operativos)</b>	<b>-496,031,384</b>	<b>496,333,928</b>	<b>10,000,000</b>	<b>10,500,000</b>
<b>Resultado general (ingresos - egresos)</b>	<b>-189,907,884</b>	<b>-3,061,772</b>	<b>0</b>	<b>0</b>
<b>Balance General 1/</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
<b>Activos</b>	<b>34,196,998,618</b>	<b>38,512,279,203</b>	<b>42,528,632,976</b>	<b>0</b>
Activos corrientes	6,557,366,801	6,842,183,804	7,316,059,729	
Activos no corrientes	27,639,631,817	31,670,095,399	35,212,573,247	
<b>Pasivos</b>	<b>3,224,587,964</b>	<b>3,378,967,508</b>	<b>3,246,280,410</b>	<b>0</b>
Pasivos corrientes	3,207,520,931	3,295,197,192	3,162,510,094	0
Cuentas por pagar de corto plazo	2,931,633,983	2,985,155,585	2,822,378,742	
Prestamos de corto plazo	0	0	41,367,404	
Otros pasivos corrientes	275,886,948	310,041,607	298,763,948	
Pasivos no corrientes	17,067,033	83,770,316	83,770,316	0
Deuda	17,067,033	83,770,316	83,770,316	
Otros pasivos no corrientes				
<b>Patrimonio neto</b>	<b>30,972,410,653</b>	<b>35,133,311,695</b>	<b>39,282,352,564</b>	<b>0</b>
Capital	29,842,791,137	34,059,702,003	38,096,151,848	
Resultado del ejercicio (pérdidas/ganancias del período)	-112,893,386	-141,210,286	52,072,356	
Resultados acumulados	1,242,512,902	1,214,819,978	1,134,128,360	

Source: World Bank anonymous country example.

### 3) Identify the Sources of Contingent Liabilities from SOEs

**86. The Fiscal Risk Matrix is used to identify contingent liabilities.** The analysis of SOEs should focus mainly on guaranteed and non-guaranteed debt, which constitutes a contingent government liability. While contingent liabilities are not immediately reflected in budget expenditures, they could translate into significant government outlays in the event of an unexpected shock. The Fiscal Risk Matrix is used to identify the sources of and calculate contingent liabilities and determine the type of risk associated with different liabilities. Typical risks include refinancing risks (i.e., large refinancing needs); liquidity risks (e.g., sale of assets at a loss); currency risks (on external debt); interest rate risks (on variable or short-term debt); commodity price risks (related to inputs); medium/long term sustainability risks (long-term trends); political risks (related to policy reversal); and operational risks (e.g., due to poor project selection or construction risks). In addition to assess fiscal risks, the methodology can also be used to evaluate assets

(currently available or could become available in the future) that could be used to offset the identified contingent liabilities.

**87. To effectively monitor the debt stock, debt service, and related risks, the financial information collected from SOEs need to include detailed data on guaranteed and non-guaranteed debt.** This includes information on the grace period, arrears (both principal and interest), and whether the interest rate is variable or fixed (Table II-9 and Table II-10). In addition, disbursements should be recorded separately and not netted out with repayments, and debt information should be detailed enough to project future payments.

**Table II.9. Historical Debt information of SOEs**

Información de deuda	2013	2014	2015	2016	2017	2018	2019
<u>Deuda a corto plazo (fin del periodo, en US\$)</u>							
Con Garantía del Gobierno							
Valor							
Cuentas							
RD\$							
US\$							
Otras monedas							
Préstamos							
RD\$							
US\$							
Otras monedas							
Pagos de intereses							
Cuentas							
RD\$							
US\$							
Otras monedas							
Préstamos							
RD\$							
US\$							
Otras monedas							
Sin Garantía del Gobierno							
Cuentas							
RD\$							
US\$							
Otras monedas							
Préstamos							
RD\$							
US\$							
Otras monedas							
Pagos de intereses							
Cuentas							
RD\$							
US\$							
Otras monedas							
Préstamos							
RD\$							
US\$							
Otras monedas							

Source: World Bank staff

	2013	2014	2015	2016	2017	2018	2019
<b>Deuda a largo plazo (fin del periodo, en US\$)</b>							
<b>Con Garantía del Gobierno</b>							
<b>Valor</b>							
Bonos							
RD\$							
US\$							
Otras monedas							
Préstamos							
RD\$							
US\$							
Otras monedas							
Pagos							
Bonos							
RD\$							
US\$							
Otras monedas							
Préstamos							
RD\$							
US\$							
Otras monedas							
Reembolsos							
Bonos							
RD\$							
US\$							
Otras monedas							
Préstamos							
RD\$							
US\$							
Otras monedas							
Pagos de intereses							
Bonds							
RD\$							
US\$							
Otras monedas							
Préstamos							
RD\$							
US\$							
Otras monedas							
<b>Sin Garantía del Gobierno</b>							
<b>Cuentas</b>							
RD\$							
US\$							
Otras monedas							
<b>Préstamos</b>							
RD\$							
US\$							
Otras monedas							
<b>Pagos de intereses</b>							
Cuentas							
RD\$							
US\$							
Otras monedas							
Préstamos							
RD\$							
US\$							
Otras monedas							

Source: World Bank staff

**Table II.10. Debt Outstanding of SOEs**

<b>Deuda pendiente a fin de DICIEMBRE 2019</b>	Tipo (Cuenta/Bono/Préstamo)	Nombre del acreedor/ nombre del instrumento	Residencia (domestica/extranjera)	Moneda	Obligaciones (En moneda original)	Desembolsos	Deuda pendiente
Con Garantía del Gobierno							
Ejemplo 1	cuenta	Certee	Domestica	RD\$	100	100	0
Ejemplo 2	préstamo	NNN	Extranjera	USD	100	50	50
Sin Garantía del Gobierno							
<b>Deuda pendiente a fin de DICIEMBRE 2019</b>				Tipo de interés	Ratio base	Tasa de interés (spread si es Var, en puntos base)	mero de pagos por año (en caso de estar amortizando)
Con Garantía del Gobierno	Fecha de emisión de deuda	Fecha de primer pago	Fecha de último pago	(Fijo/Var)	(en caso variable)		
Ejemplo 1	6/10/2019	6/9/2020	6/9/2020	Var	Libor	400	..
Ejemplo 2	12/15/2019	12/15/2024	12/15/2034	Fijo	..	7.20%	2
Sin Garantía del Gobierno							

Source: World Bank staff

## ***Public-Private Partnerships***

**88. PFRAM was developed by the IMF and the World Bank Group as an analytical tool to assess fiscal risks and costs from PPP projects.** It was designed to assist governments in assessing fiscal risks related to PPPs and proactively managing PPP projects. Since it was launched in April 2016, PFRAM has been used in the context of IMF and World Bank technical assistance, and it has also been used by country authorities (e.g., PPP units at the Ministry of Finance or SOEs) to better understand the medium- to long-term fiscal implications of PPPs.<sup>90</sup> PFRAM is supported by a user manual<sup>91</sup> and a simulation tool.<sup>92</sup> This section focuses on the data requirements needed to assess contingent liabilities from PPPs.

### ***Methodology***

**89. PPPs can improve public services and create conditions for better public financial management.** However, PPP projects can also pose a challenge for fiscal management since their costs are deferred and often uncertain, and the government's traditional budget process cannot be relied on to ensure the efficient use of PPPs. The PFRAM tool was created to enable national authorities to make better decisions around PPPs. While PPPs are sometimes the most cost-effective and efficient solution, they may not be the right approach to deliver any kind of infrastructure services.

**90. A PPP is a long-term contract between a public agency and a private firm for the provision of public services.** The firm typically makes an investment and provides services to citizens or the public agency. In contrast to a purely private investment, the public agency typically exercises considerable control over the design of the PPP and the nature, price, and quality of services. Moreover, in contrast to a publicly financed investment, the public agency signs a contract with a firm that assumes responsibility for providing the service.

**91. The fiscal costs of PPPs tend to be deferred or contingent.** If the government pays for the service, it normally starts paying only when the product or service has been provided (or is being supplied). If the PPP is financed with user fees, the main fiscal cost may be a deferred opportunity cost, and if the PPP project is financed by the government, the government could choose to pay for the investment directly or finance the investment through user fees. There may also be government guarantees that could result in potentially large fiscal costs. Even in the absence of explicit guarantees, the government may come under pressure to renegotiate the PPP contract if problems arise during implementation.

**92. Deferred and contingent costs are not effectively accounted for in traditional government budgets.** While traditional budgets—along with medium-term fiscal forecasts—help control predictable costs that will be incurred in the next few years, they are not good for managing costs incurred beyond the forecast horizon or the uncertain costs of guarantees. As a result, the fiscal commitments made in PPPs can escape proper scrutiny, which can increase fiscal risks, undermine the effectiveness of the budget and associated fiscal rules, and lead to the implementation of costly and inefficient projects. This is particularly a challenge in countries with already large fiscal deficits and high debt roll-over risks.

**93. While PPPs entail risks, they can have important advantages over traditional contractual arrangements.** Deferring payments until the service is available allows the government to hold the firm fully accountable for providing the service. This is usually not possible under a publicly financed project,

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<sup>90</sup> <https://www.worldbank.org/en/topic/publicprivatepartnerships/brief/ppp-tools>.

<sup>91</sup> <https://www.imf.org/external/np/fad/publicinvestment/pdf/PFRAM2.pdf>.

<sup>92</sup> <https://www.worldbank.org/en/topic/publicprivatepartnerships/brief/ppp-tools#T2>.

even when construction, operations, and other inputs are contracted out. Moreover, a well-designed PPP should expose the government to less fiscal risk than a comparable project financed directly with public resources because it allows more risks to be transferred to the private sector. There are also potential long-term fiscal implications of publicly financed projects, including recurrent operating costs. However, deferred costs tend to be greater in PPPs, making it especially important to supplement a standard short- and medium-term fiscal analysis with a careful evaluation of long-term fiscal risks.

**94. To mitigate the risks posed by PPPs, the government needs to conduct a fiscal risk assessment of the PPP.** This should be done once it has determined that the overall project benefits the society and is aligned with the country's development strategies. To identify the fiscal risks related to the PPP, the authorities need to: i) estimate the effects of the PPP on the government's cashflow; and (ii) identify the risks surrounding the cashflow and determine their effects on the government accounts.

**95. The methodology used to identify fiscal risks from PPPs includes the following two steps:**

- 1) Estimate the Effects of the PPP on the Government's Cashflow

**96. If the PPP is part of the public investment plan, the authorities need to forecast the fiscal impact of the PPP on public finances.** The authorities should start by estimating planned or predictable cash outflows and inflows over the life of the project. For a government-funded PPP, it is also important to forecast the government's payments (also called 'availability payments') The formula for determining these payments should be in the draft contract, which needs to be reviewed. Payments may depend on the availability of the service (e.g. power purchasing agreement would include a minimum payments to the provider which would be contingent on the production of electricity), but forecasts should normally be based on the assumption that the service is fully available. In a user-funded PPP, the government may still be expected to subsidize construction or the provision of services, and the authorities need to forecast any such subsidies. A PPP may also include sources of predictable fiscal cash inflows. In a user-funded PPP, for example, the government may receive a concession fee, which could be fixed or depend on the concessionaire's revenue or profits. In the absence of evidence to the contrary, it may be reasonable to assume that the government will collect all user fees if the project is financed with public resources, although the authorities need to consider the possibility that political pressure could lead to lower tariffs. Whether the project is a PPP or publicly financed project, it could boost economic activity, which in turn could increase tax revenues. While the potential increase in revenues needs be included in the overall fiscal analysis, it is difficult to reliably project revenue increases.

**97. If the PPP is undertaken by a public enterprise, the authorities need to forecast its predictable payments and receipts.** Examples of this type of PPP include bulk-water PPPs, in which a public water utility buys water that it then distributes to consumers, and independent power projects, in which a state-owned electricity utility buys energy that it then sells to consumers or electricity retailers. The government may independently make or receive predictable payments as part of the PPP, such as a subsidy to keep water prices low, and these payments should be included in the overall analysis, but the authorities need to ensure there is no double-counting of costs borne by the enterprise that are then passed on to the government.

**98. To estimate the effects of a PPP on the government's cashflow, the authorities need access to key financial data.** They need to collect data on: (i) key financing and fiscal parameters, including interest rates and overall revenue and expenditure; (ii) projected operational and maintenance costs; and (iii)

government payments and guarantees (Table II.11 and Table II.12). Information needs to be provided for each PPP, and the data need to be based on the first contractual year (e.g., the beginning of the construction or concession).

2) Identify the Fiscal Risks and Determine their Effects on Public Finances

**99. The authorities need to estimate government liabilities once all the necessary information on the PPP has been collected.** Using the PFRAM tool, the government should be able to estimate the payments it is liable for. Equipped with an understanding of the government liabilities, the authorities need to estimate the fiscal risks in case of a shock that could have an impact on the revenues, expenditures, and liabilities of the PPP.

**Table II.11. Financing and Key Parameters of a PPP**  
(During the first year of the contract)

Share of investment costs financed by debt
Interest rate on loans
Share of debt in FX (%)
Share of debt guaranteed by the government
Corporate income tax rate
Imported components of assets

Source: PFRAM User Manual.

**Table II.12. Operation and Maintenance Costs**  
(For the project’s years of useful life)

Maintenance
Operation
User fees for government
Royalties
Other payments to government
Other costs

Source: PFRAM User Manual.

### III. Water Supply and Sanitation

#### A. Summary and recommendations

**100. As an ecologically vulnerable island nation that depends heavily on coastal tourism, water is vital to the DR's continued social and economic development.** As climate change increases the frequency and severity of droughts, floods, and extreme weather events, sound management of the water and sanitation services (WSS) sector will be crucial to prevent environmental degradation and maintain human health and wellbeing. Meanwhile, the COVID-19 pandemic has underscored the public-health risks posed by an inadequate water supply, as service interruptions may exacerbate the local spread of the virus by reducing handwashing. The dependence of WSS providers on government transfers also increases the fiscal risks posed by the sector, and the pandemic is likely to contribute to a decline in own-source revenues among WSS providers, intensifying demands on the central government budget at a time when fiscal resources are already severely strained.

**101. The DR is not managing its scarce water resources sustainably.** Indicators of service quality and reliability fall short of the standards for peer countries, exacerbating the DR's vulnerability to natural disasters. High water losses increase the DR's exposure to droughts, and poorly managed wastewater and septage services intensify the threat of waterborne diseases during flooding events. The contamination of ground, surface, and ocean waters threatens public health and safety, undermines environmental management, and is inconsistent with the DR's level of economic development. The inefficiency of the WSS sector is characterized by high rates of non-revenue water that vary from 45-95 percent between providers, low billing and collection rates, high staff costs compared to international norms and peer countries, and most tariff rates are set below the cost to deliver services.

**102. The DR's WSS sector is locked in a vicious cycle in which poor service quality undermines households' willingness to pay, which when coupled with inefficiencies starve the sector of the resources necessary to improve service quality.** Chronic underinvestment in operations and maintenance contributes to discontinuous water supply and inadequate wastewater treatment. Dominican households cope with poor service quality by relying on household storage mechanisms and bottled water, which erodes their confidence in public providers and undermines their willingness to pay cost-reflective tariffs. Across the socioeconomic spectrum, households spend significantly more on bottled water than they do for public provision monthly. The poorest 40 percent of households suffer the most as they allocate a larger portion of their expenditures to water provision (mostly to bottled water) than the top 60 percent. Systemic reforms will be critical to the future of the WSS sector, but such reforms have been under discussion for the last two decades, and little progress has been made. The inaction of multiple administrations on this key issue has slowed the DR's convergence with peer countries and is exacerbating the challenges posed by climate change.

##### 1. Note on Methodology

**103. The diagnostic and recommendations presented in this chapter are based on meetings and interviews with key actors in the WSS sector and on an analysis of the limited data available on the performance and efficiency of WSS providers.** The accountability framework developed in the World Bank's 2004 World Development Report is used to identify weaknesses in the relationships between the central government and WSS providers and between WSS providers and citizens. Some recommendations are designed to enhance accountability in these relationships, while others focus on improving the



performance of WSS providers, strengthening the institutional arrangements that underpin the sector, and encouraging greater private-sector participation.

## 2. Main Messages

**104. The DR’s relatively high levels of WSS coverage mask severe deficiencies in service quality, large technical and commercial losses, and chronic fiscal imbalances among service providers.** As the central government covers almost 49 percent of operating costs and fully finances their operating deficits, WSS providers face soft budget constraints and have little or no incentive to improve performance efficiency or increase billing and collection rates. Although WSS providers are legally established as independent institutions, in practice they function as government departments.

**105. Data limitations hide the weaknesses of the WSS sector and undermine the accountability of service providers.** Because no performance data are produced at the provider level, policymakers lack the information necessary to design tailored reforms or hold providers accountable for meeting performance benchmarks. Meanwhile, the absence of standardized accounting practices and regular audits increases the opacity of financial management and contributes to a lack of accountability to both government and consumers.

**106. The WSS sector lacks strategic leadership and suffers from other deficiencies in its governance framework.** The sector is currently under the authority of the Ministry of Public Health, which is not well equipped to address its technical, infrastructural, or financial challenges. Further, since there is no regulator, the setting of tariff rates is politicized, most tariff rates are below cost-recovery levels, and the efficiency of service providers is not systematically monitored.

**107. Weaknesses in the WSS sector’s regulatory and institutional underpinnings have contributed to a culture of low expectations for service delivery that reinforces its dysfunction.** The blurred distinction between WSS providers and the government contributes to the perception that WSS services are a public “benefit” delivered by the state rather than a commercial service for which users should pay. Over 50 percent of households that are connected to a public network provided by either INAPA or CAASD report not paying their water bill. This perception of public “benefit” complicates efforts to raise tariffs, increase metering, billing and collection rates, and disconnect nonpaying customers—measures that are essential to raise the revenue necessary to cover costs and improve service quality. Consequently, the WSS sector remains locked in a vicious cycle in which the weak commercial performance of providers results in persistent underinvestment in operations and maintenance, leading to frequent service interruptions and the adoption of costly coping mechanisms, which in turn reduce households’ willingness to pay for services, further eroding the sector’s commercial viability.

## 3. Conclusions and Recommendations

**108. Raising the performance of the DR’s WSS sector to the level of its international and regional peers will require a comprehensive reform agenda with a phased approach to implementation.**

- Short-term reform measures include: (i) approving and enacting the draft WSS law or dropping it from the legislative agenda; (ii) establishing harmonized performance indicators, protocols for collecting, verifying and publishing performance data; (iii) establishing a performance unit to lead the development of harmonized indicators and to coordinate and monitor data collection; (iv) investing in metering infrastructure and water audits to

determine the quantum and sources of technical and commercial losses; (v) improving and harmonizing financial reporting, accounting, and audit practices; (vi) creating incentives to improve performance by conditioning government transfers on performance; (vii) engaging private sector through appropriately designed management or service contracts to support WSS providers, and (viii) completing a sanitation diagnostic to assess the management of fecal sludge and wastewater and develop appropriate regulatory enforcement measures.

- Medium-term measures include: (i) implementing service-delivery demonstration projects to showcase qualitative improvements and build the public's trust and confidence in WSS providers; and (ii) limiting technical and commercial losses by reducing unbilled consumption and redistributing water recovered from leak repairs.
- Long-term measures include: (i) launching a national initiative focused on reducing water losses, measuring performance, and improving service quality based on lessons learned from the implementation of demonstration projects; (ii) increasing the independence and accountability of WSS providers by redefining their de facto relationship with the government; (iii) creating the grounds for the private sector to take on risk and invest in the sector; and (iv) establishing effective sectoral leadership and creating an independent regulator.

## **B. Summary and Recommendations**

### **1. Introduction and Background**

**109. High-quality water supply and sanitation (WSS) services are essential to protect human health and build resilience to shocks, including the current COVID-19 pandemic and increasingly frequent and severe weather events associated with climate change.** Efforts to combat the spread of COVID-19 underscore the importance of reliable WSS services, as ready access to water for handwashing is essential to slow the transmission of the virus. Until reliable therapeutic or preventive options become widely available, handwashing will play a vital role in pandemic response. Meanwhile, the Dominican Republic (DR) remains highly exposed to climate-related events such as droughts, hurricanes, and flooding, and the availability, quality, and resilience of WSS services play a major role in mitigating disaster risks and enabling a swift and robust recovery. Inefficient water-supply services increase the population's vulnerability to droughts, while poorly managed wastewater and septage services allow the contamination of ground, surface, and ocean waters, exacerbating the public health risks associated with waterborne diseases, which become especially acute during flooding events and other natural disasters. In addition to its key role in public health and wellbeing, the quality of water resources has a major influence on the DR's tourism sector, which is an integral part of the national economy.

**110. Despite the vital importance of WSS services, the government has been slow to implement improvements in service quality and address emerging challenges in the water sector.** Reforms have been under discussion for the last two decades, but little progress has been made in implementing much-needed measures to improve sector leadership, regulation, transparency, accountability, and efficiency of WSS public providers. These reforms will be crucial to ensure the sustainable management of water resources, cope with increasingly sophisticated sanitation challenges, and equip the country to deal with the consequences of climate change and mitigate the impact of idiosyncratic shocks such as the COVID-19 pandemic.

**111. While this chapter covers the period prior to the emergence of the COVID-19 pandemic, its findings and recommendations are even more salient in the current context.** The pandemic is expected to cause the own-source revenues of WSS providers to decline worldwide as unemployment rises and private-sector activity slows. In the DR, weakening economic growth is expected to increase pressure on the central budget, potentially constraining the resources of WSS providers, which depend on government transfers to finance their operating costs. Even though transfers to WSS service providers represent a relatively small share of the central government's overall budget, any additional demands on the budget will intensify fiscal stress at a time when fiscal space is already severely constrained.

**112. This chapter is designed to assist the government in identifying policy options to improve the performance of the WSS sector by enhancing service provision and strengthening its long-term financial sustainability.** The chapter: (i) reviews the efficiency and effectiveness of public spending in the WSS sector; (ii) identifies the major challenges facing the sector and actions for improving the incentives and performance of service providers; (iii) provides recommendations focusing on financing, expenditure efficiency, and service quality; and (iv) seeks to increase the public's understanding of the importance of improving WSS service quality.

**113. Data constraints prevent a thorough assessment of the financial and operational efficiency of service providers.** Essential data such as the extent of commercial and physical losses, the cost and volume of non-revenue water, billing and collection rates, labor productivity, and service quality are currently not routinely collected, preventing an adequate assessment of the operational efficiency of service providers. The COVID-19 crisis has compounded underlying data constraints by hampering efforts to obtain information on the efficiency of investments, such as the frequency and extent of cost overruns, implementation delays, and procurement or capacity issues. As soon as it becomes feasible, the Directorate General of Public Investment (*Dirección General de Inversión Pública*, DGIP) in the Ministry of Economy, Planning, and Development (*Ministerio de Economía, Planificación y Desarrollo*, MEPyD) should undertake an assessment of inefficiencies in WSS capital spending and their causes.

**114. Although most households in the DR have access to basic water services, recent trends are not encouraging.** In 2017, 97 percent of the population had access to the basic water supply. However, access to piped water in rural areas increased modestly, from 59 percent in 2001 to 66 percent in 2017, reflecting an average annual growth rate of less than 0.7 percent. While the increase in access is positive, the rate of change is too low if the government aims to provide a higher quality service by 2030. During the same period, access to piped water services fell marginally in urban areas, dropping from 87 percent to 84 percent. Declining access rates in urban areas suggest that the expansion of water networks is not keeping pace with urbanization, and/or poor service quality may be driving households to embrace private solutions such as drilling their own wells. Moreover, access to water inside the home, which is particularly important to facilitate handwashing and combat the spread of COVID-19, varies with socioeconomic status. In urban areas, over 90 percent of households in the richest quintile have access to piped water inside the home, while the same is true for only 40 percent of households in the bottom 40 percent.

**115. Most Dominicans rely on private solutions to manage human excreta.** While 84 percent of the population had access to basic sanitation services in 2017, private onsite sanitation solutions represented a large share of these services. Similar to the pattern observed for piped water, access to public sewerage services in urban areas declined from 40 percent in 2000 to 27 percent in 2017, while the share of urban households relying on private solutions such as septic tanks rose from 27 percent to 60 percent during the same period. Onsite solutions are an acceptable option if the containment, collection, transportation, and treatment of septage are well managed and regulated. However, in the DR there is little control over

the onsite sanitation service delivery chain, resulting in contaminated groundwater and surface waters, and this problem is exacerbated by low levels of wastewater treatment. Dependence on private solutions to manage human excreta has resulted in varying levels of access to sanitation facilities among different socioeconomic groups. For example, 15 percent of rural households in the poorest quintile of the income distribution still defecate in the open. In addition to its considerable cost in human health and living standards, the government's lack of focus on sanitation is inconsistent with its goal of positioning the DR's level of economic development in terms of GDP per capita.

**116. Investments in infrastructure must be complemented by improvements in service quality.** A full 65 percent of urban households and 52 percent of rural households report intermittent water supply. As a result, 86 percent of urban households and 76 percent of rural households rely on coping mechanisms such as storage tanks, pumps, and cisterns to ensure the reliable availability of water for daily consumption. Moreover, households spend much more paying for bottled water than they do for public services to feel they have a potable source. Poorer households served by CAASD spend up to 12.8 percent of their monthly consumption on water services (11.7 percent is on bottled water). The share of treated wastewater and septage further underscores the poor quality of WSS services. In 2015, the DR had a total of 79 wastewater treatment plants with an installed capacity of 11.43 cubic meter per second (m<sup>3</sup>/s). However, only 50 were in operation, and those facilities functioned at only 42 percent of their aggregate design capacity, treating just 3.22 m<sup>3</sup>/s. By contrast, 62 m<sup>3</sup>/s of potable water is produced by the DR's WSS providers, of which an estimated 80 percent is returned as wastewater. This means that the country's installed wastewater treatment capacity is far below the required level. In addition, an estimated 100,000 tons of septage produced each year by septic tanks and latrines go untreated.

**117. Interruptions in water supply largely reflect highwater losses.** WSS providers in the DR estimate that they produce, on average, more than 300 liters per capita per day (lpcd). This amount should be more than sufficient to meet the country's needs and provide a continuous supply of water, given standard levels of technical losses. However, due to the near-total lack of metering throughout the country, providers are unable to measure production levels and monitor and control their technical and commercial water losses, leading to unreliable services and rationing. Meanwhile, low levels of micro-metering increase waste by end users.

**118. The low level of confidence in the public water supply has made bottled water the main source of drinking water in the country, with serious environmental consequences.** The share of the population using bottled drinking water in urban and rural areas increased from 13 percent and 0.7 percent, respectively, in 1990 to 89 percent and 68 percent in 2016. As a result, households pay two tariffs: one for bottled drinking water—deemed safe for consumption—that is paid to private producers, and another for access to the public water supply—not deemed safe for consumption—that is paid to the WSS provider. Taken together, households pay more for water in the DR than do households of cities such as Guayaquil in Ecuador or Manila in the Philippines, where publicly provided water is safe to consume. Moreover, the explosion of bottled water consumption over the last two decades has contributed to the DR's burgeoning plastic pollution problem.

## 2. Institutional Arrangements

**119. The Ministry of Health (MoH) and the National Institute for Water Supply and Sewerage (*Instituto Nacional de Aguas Potables y Alcantarillados*, INAPA) are the principal institutions responsible for policy design and implementation in the WSS sector.** The MoH formulates and executes WSS policies from a public health perspective. INAPA leads and oversees WSS service delivery across the country, and it can propose relevant policies. The various service providers are responsible for planning investments and formulating budgets within their jurisdictions. The Ministry of Finance (MoF) approves their annual operating budgets.

**120. Nine parastatal entities are responsible for delivering WSS services in the DR. INAPA serves 24 of the country's 31 provinces, representing about 40 percent of the country's population, most of whom reside in small- and medium-sized towns and rural areas.** By law, the remaining eight service providers, known as water supply and sewerage corporations (*corporaciones de acueducto y alcantarillado*, CORAAs), are each responsible for one province, with the exception of Boca Chica Water Supply and Sewerage Corporation (*Corporación de Acueducto y Alcantarillado de Boca Chica*, CORAABO), which covers the municipality of Boca Chica. Each service provider is responsible for setting tariffs, except for INAPA and the Santo Domingo Water Supply and Sewerage Corporation (*Corporación del Acueducto y Alcantarillado de Santo Domingo*, CAASD), whose tariffs must be approved by the president.

**121. The WSS sector lacks strategic leadership. This shortcoming is identified and addressed in the draft WSS law.** Strategic leadership (referred to as “rectory” and “stewardship” functions in the draft law) is necessary to create a vision for the sector and effectively carry out policymaking, planning, budgeting, and technical-assistance functions. Although the MoH is responsible for WSS services, it has other priorities and currently lacks the expertise necessary to provide WSS utilities with technical and operational guidance.

**122. WSS providers and the draft WSS law both identify the absence of a regulator as a major weakness.** Revenues from the sales of services are too low to cover the operating expenses of the WSS providers, and tariff rates are vulnerable to political influence. By contrast, an independent regulator could set tariffs for all providers based on economic and technical considerations.

## 3. Diagnostic

**123. WSS providers depend on the central government to fund their operating costs and capital expenditures.** In the aggregate, INAPA and the CORAAs rely on central government transfers to cover almost 49 percent of their operating costs, though this share varies across utilities. All investment spending in the WSS sector is entirely financed by the government or external sources. Between 2014 and 2018, the central government devoted an average of 7.2 percent of its capital budget to investments in WSS. In the same time period, total public spending on the sector accounted for 1.9 percent of the government's total expenditure, far above the levels of regional comparators such as Mexico (0.17 percent) or structural peers such as Albania (0.10 percent). With some exceptions, WSS expenditures have averaged 2-3 percent of total government spending since the 1960s. In 2017, the DR spent 0.23 percent of its GDP on capital investments in the WSS sector, comparable to the levels of Panama (0.21 percent) and Costa Rica (0.17 percent).

**124. Billing and collection rates in the WSS sector are low, and revenues from the sale of services do not cover the operating costs of any service provider.** The DR's constitution enshrines access to quality

public services, including WSS services, as an individual right. In practice, this is interpreted to mean that households cannot be deprived of public services due to nonpayment of user charges, even though providers have the legal authority to cut off services in the event of default. Consequently, consumers of WSS services do not face the threat of disconnection in the event of default, contributing to a culture of nonpayment of user charges. The tariffs levied by INAPA and CAASD, which are approved by the president, are low, presumably due to the political salience of water services. This is particularly evident in Santo Domingo, where efforts to increase tariffs have been rolled back three times in recent years in response to pressure from interest groups.

**125. A benefit-incidence analysis (BIA) reveals that although INAPA and CAASD have established an Increasing Block Tariff (IBT) designed to provide cross-subsidies to poor households, this system is ineffective.** Low billing and collection rates across households at all income levels prevent the cross-subsidy mechanism from achieving its desired outcome and, *de facto*, the subsidy for water consumption is largely implicit and untargeted, as it reflects nonpayment for water services by all categories of consumers. While some of the transfers provided by the central government reach consumers, these resources are largely consumed by the inefficiency (overstaffing, inefficient energy consumption, and technical losses) of INAPA and CAASD. Even though the water provided by CAASD and INAPA is heavily subsidized, households in their service areas spend a significant amount of their income on privately provided bottled water.

**126. The poorest 40 percent of households allocate a larger share of their expenditures to purchasing public and private water than do households in the top 60 percent.** In areas served by CAASD, households in the bottom 40 percent of the income distribution allocate 12.8 percent of their monthly consumption expenditures to water supply, with over 90 percent of this going towards the purchase of bottled water. Although in areas served by INAPA, water represents a smaller share of household consumption expenditure, the poorest 40 percent of households spend about 3.5 percent of their income on water, almost 80 percent of which goes to pay for bottled water.

**127. The DR's WSS sector is trapped in a low-level equilibrium, which is characterized by poor service quality.** Low billing and collection rates by providers, below-cost tariffs result in low revenues, and inadequate investment in operations and maintenance lead to a high level of water losses, frequent service interruptions, and limited wastewater treatment. Recourse to coping mechanisms, such as personal water storage and purchases of bottled water, increases out-of-pocket costs of consumers and erodes confidence in public WSS providers. The lack of confidence undermines the public's willingness to pay the existing tariffs let alone higher ones necessary to improve service quality.

**128. WSS providers lack the incentives and capacity to improve their operational efficiency and service quality.** The extraordinarily high level of non-revenue water in the DR is a result of technical losses, excessive unmetered consumption, illegal connections, and low rates of billing and collection. WSS providers can depend on government subsidies to finance their operating deficits, which weakens their incentive to reduce costs or increase efficiency. While the media occasionally report on the discontinuity of services, public pressure and collective action to improve service quality appear limited. Although WSS providers are, in principle, parastatal companies, in practice they function like government departments. Most of their board members and directors general are either appointed by the government or are *ex officio* public servants. Moreover, policymakers lack the information necessary to measure and track the performance of WSS providers relative to national and international benchmarks. Inadequate performance data makes it difficult for the central government or citizens to hold providers accountable

for their performance. Finally, financial reporting by WSS providers is incomplete and sporadic, providers' accounting practices are not standardized, and their accounts are not regularly audited.

#### 4. Recommendations

**129. To improve the quality of services, enhance performance efficiency in the WSS sector, and make service providers less dependent on the central government, the authorities should consider a phased program of reforms.** Informed by lessons from the uneven implementation of previous reform efforts, a phased program would prioritize measures that are relatively easy to achieve—both technically and politically—before moving on to more challenging areas. This approach would allow the government and the implementing agencies to change and adapt as needed during the implementation process. Proposed policy options for each phase of the reform process are described below.

#### 5. Preparatory Phase: Short Term

**130. Begin developing harmonized indicators, protocols for data collection, and requirements for regularly collecting and publishing technically verified data.** The availability of performance information is critical to assess service quality, identify sources of technical inefficiency, and increase accountability to both the households that rely on WSS services and the budgetary authorities that finance service providers. Better performance information would increase transparency and allow the government to better understand the reasons for differences in performance across service providers.

**131. Create an organizational unit to lead the development of harmonized performance indicators and to coordinate and monitor data collection.** A small unit led by trained professionals could spearhead the improvements in data quality described above under the guidance of Ministry of Finance or another appropriate agency. This unit could be established by presidential decree with a mandate to support WSS providers in developing performance indicators and benchmarks and monitoring data collection. Over time, these activities should be transferred to a designated department or ministry or to a new regulator if and when one is established.

**132. Encourage WSS providers to improve their performance by linking funding levels to performance indicators.** Once basic performance data and indicators are available, the government should create incentives for providers by conditioning grants on performance to enhance their efficiency and service quality. Performance indicators should be revised and expanded as new forms of performance information become available.

**133. Invest in metering infrastructure and water audits to enable WSS providers to collect critical information on technical and commercial losses.** While scaling up micro-metering could be left to a later stage if it proves politically sensitive, investments in bulk metering infrastructure and water audits should be coupled with the adoption of strategies for each WSS provider to reduce non-revenue water. External development partners could be approached to assist in financing these investments.

**134. Improve financial reporting, accounting practices, and audits.** Financial reporting, accounting, and auditing practices should be standardized and streamlined immediately. To increase financial transparency, the authorities should make annual audits mandatory. These audits could be conducted by private firms if the Chamber of Accounts does not have the necessary resources or capacity.

**135. Make a final decision on the draft WSS law as soon as possible.** Different versions of a draft WSS law have been debated for two decades, with the latest proposal being put forward in 2020. Various reforms that could be implemented immediately are being postponed based on the grounds that they will be implemented once the law has been passed. Policymakers should remove this uncertainty by either approving and enacting the law or removing it from the agenda.

**136. Conduct a diagnostic on the management of fecal sludge.** The National Sanitation Strategy calls for such a diagnostic, but it has yet to be conducted. An assessment of the management of fecal sludge and wastewater is necessary to address information gaps and inform a dialogue on policy reforms and programmatic interventions.

## 6. Demonstration Phase: Medium Term

**137. Implement service-delivery demonstration projects to prove technical feasibility and to build trust between the public and WSS providers.** To justify any increase in tariffs, WSS providers must earn the trust of users by improving service quality. Given the reluctance of users to pay for WSS services, the successful implementation of pilot projects could demonstrate the ability of providers to offer better services. Over time consumers will be able to reduce their water-related costs by eliminating coping arrangements as the water supply becomes more reliable and lessening their dependence on bottled water as the safety of the public water supply is assured. Demonstration projects could enable two or three providers to create ring-fenced, district-metered areas to reduce non-revenue water and improve service quality and continuity.

**138. Increase the share of billed water by reducing authorized unbilled and illegal/unauthorized consumption, and improve the continuity of services by redistributing water recovered from leak repairs.** Demonstration projects could demonstrate that the benefits of reducing technical and commercial losses justify the considerable investment required to establish adequate metering, improve distribution networks, and create strong communication and outreach programs. These projects can also help reduce these costs by identifying technical and political challenges that will need to be addressed. The WSS sector can learn from successful initiatives in the energy sector that were designed to build public trust with clients through the creation of social contracts. If needed, WSS providers can engage private-sector operators through performance-management or service contracts to assist with project design and implementation.

**139. Identify suitable demonstration projects in coordination with government ministries, WSS providers, and international donors.** The authorities could identify potential projects through a dialogue with the Ministry of Finance, the MEPyD, the MoH, the Ministry of Energy and Mining, WSS providers, and international development organizations. This dialogue should focus on results and use timebound milestones to define the scope, performance challenges, objectives, timelines, and financing requirements of each project.

## 7. Scaling Up: Long Term

**140. Following the implementation of the demonstration projects described above, launch a national initiative focused on reducing water losses, measuring performance, and improving service quality.** This initiative should reflect lessons learned from the implementation of the projects, and it could be used to scale them up to national programs and improve the efficiency and quality of WSS services



across the country. The initiative should include a set of targets for non-revenue water, macro- and micro-metering, billing and collection, and service quality.

**141. Increase the independence and accountability of WSS providers.** This will likely require more than adopting new laws or decrees, as it will take time to redefine the relationship between providers and the government. The government should gradually reduce the dependence of INAPA and the CORAAs on public funding and eventually impose hard budget constraints. Cost-reflective tariffs should be established based on economic considerations and insulated from political influence.

**142. Increase the participation of the private sector through appropriately designed management or service contracts to assist service providers to improve their performance, balance sheets, data collection, and service quality.** The draft WSS law includes provisions for private-sector participation, including lease and concession arrangements. Once a functioning regulator is in place and data on service providers' assets, liabilities, and performance are available, private firms may have the confidence to invest in the WSS sector and enter into contracts where they assume more risk.

**143. Establish clear leadership and independent regulation for WSS services.** While the draft WSS law should either be voted on or removed from the agenda, the management of the WSS sector must be restructured regardless of whether the draft WSS law is approved. The government should vest sectoral leadership responsibility in an adequately staffed and resourced agency, and it should create an independent regulator tasked with establishing professional and independent oversight arrangements. These reforms will be vital to separate policy making functions from service delivery and give more autonomy to service providers. Likewise these reforms will be necessary to encourage the private sector to invest in WSS.

**Table III.1. Summary of Policy Options by Reform Area**

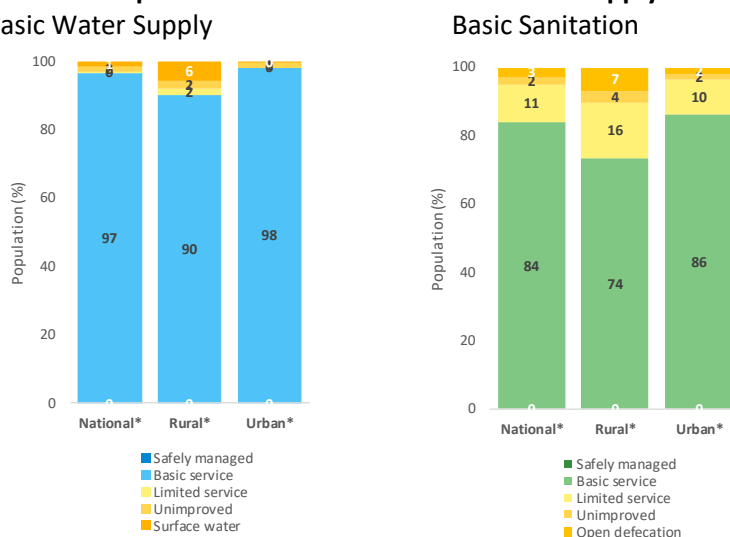
REFORM AREA	POLICY OPTIONS	PHASE
<b>Governance and Institutions</b>	<b>Draft Law:</b> Make a final decision on the draft WSS law as soon as possible.	<b>Preparatory Phase:</b> Short Term
	<b>Performance Unit:</b> Create an organizational unit to lead the development of harmonized performance indicators and to coordinate and monitor data collection.	<b>Preparatory Phase:</b> Short Term
	<b>Institutional Arrangements:</b> Establish clear sectoral leadership and create an independent regulator.	<b>Scaling Up:</b> Long Term
	<b>Financial Arrangements:</b> Increase the independence and accountability of WSS providers by gradually reducing the dependence of INAPA and CORAAs on public funding and eventually imposing hard budget constraints	<b>Scaling Up:</b> Long Term
<b>Utility Reform</b>	<b>Financial Management:</b> Improve financial reporting, accounting practices, and audits.	<b>Preparatory Phase:</b> Short Term
	<b>Performance Indicators and Data Collection:</b> Begin developing harmonized indicators, protocols for data collection, and requirements for regularly collecting and publishing technically verified data.	<b>Preparatory Phase:</b> Short Term
	<b>Metering:</b> Invest in metering infrastructure and water audits to enable WSS providers to collect critical information on technical and commercial losses.	<b>Preparatory Phase:</b> Short Term
	<b>Incentives:</b> Encourage WSS providers to improve their performance by linking funding levels to performance indicators.	<b>Preparatory Phase:</b> Short Term
<b>Service Delivery</b>	<b>Sanitation Diagnostic:</b> Conduct a diagnostic on the management of fecal sludge and wastewater.	<b>Preparatory Phase:</b> Short Term
	<b>Demonstrating:</b> Identify suitable demonstration projects in coordination with government ministries, WSS providers, and international donors. Implementing service-delivery projects to build trust between the public and WSS providers and reduce technical and commercial losses.	<b>Demonstration Phase:</b> Medium Term
	<b>National Program:</b> Launch a national initiative focused on reducing water losses, measuring performance, and improving service quality.	<b>Scaling Up:</b> Medium to Long Term
<b>Private-Sector Participation</b>	<b>Gauging interest of the private sector</b> engage in appropriately designed management or service contracts to assist service providers improve their performance, balance sheets, data collection, and service quality	<b>Demonstration Phase:</b> Medium Term
	<b>Private Investment:</b> engage private sector for larger scale investments once regulation and performance data on providers is available.	<b>Scaling Up:</b> Long-Term

## C. Background

### 1. Coverage of Basic Water Supply and Sanitation Services

**144. Over the last few decades, the DR has achieved near-universal access to basic water services and relatively high rates of access to basic sanitation.** As of 2017, 97 percent of the country’s population had access to the basic water supply and 84 percent had access to basic sanitation services (Figure III.1).<sup>93</sup> Similar to global and regional trends, there is more access in urban than rural areas to both services. For example, the share of the population using surface water for drinking is 6 percent in rural areas but 0 percent in urban areas. Moreover, the reported rate of open defecation is 7 percent among the rural population but only 2 percent among the urban population, with the gap growing wider when considering the use of unimproved and limited sanitation services that do not meet minimum standards to contain human excreta.

**Figure III.1. Population with Access to Basic Water Supply and Basic Sanitation, 2017**

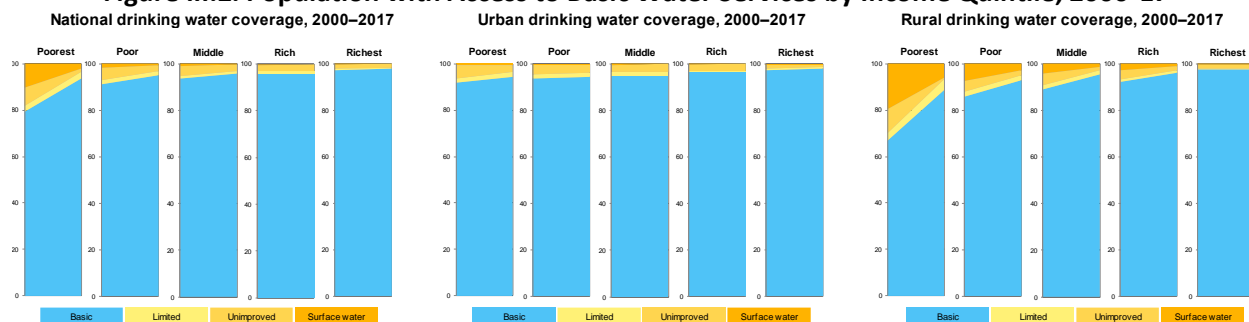


*Source:* Estimates on the use of water, sanitation, and hygiene in Dominican Republic, World Health Organization/United Nations Children Fund Joint Monitoring Programme (WHO/UNICE JMP 2019), last modified on June 2019, <https://www.washdata.org/data/downloads#DOM>

**145. Public investments in the country’s water infrastructure over the last two decades have resulted in overall equitable access to basic water services.** An average of 94 percent of households in the poorest income quintile had access to the country’s basic water supply in 2017, compared to 98 percent of the richest households (Figure III.2). Between 2000 and 2017, the share of the poorest households with access to basic water services increased by 14 percentage points nationally, 3 percentage points in urban areas, and 22 percentage points in rural areas. Despite these improvements, 11 percent of the country’s most vulnerable households in rural areas remain dependent on surface water or limited or improved water services for their drinking water.

<sup>93</sup> The World Health Organization (WHO)/United Nations Children’s Fund (UNICEF) Joint Monitoring Programme (JMP) defines basic service as drinking water from an improved source for which collection time is not more than 30 minutes roundtrip. Basic sanitation is defined as household use of improved facilities that are not shared with other households. Source: <https://washdata.org/monitoring/>. Due to lack of information, estimates for ‘safely managed’ in the DR, which takes into account quality aspects of WSS are not available.

**Figure III.2. Population with Access to Basic Water Services by Income Quintile, 2000-17**

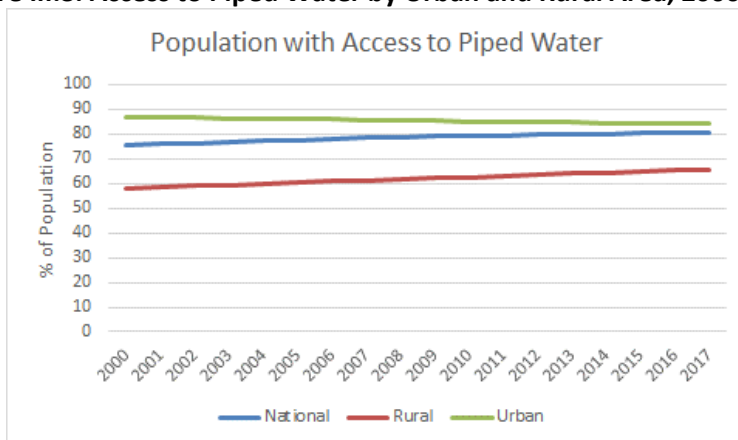


Source: Estimates on household water, sanitation and hygiene by wealth quintile and sub-national region in Dominican Republic, World Health Organization/United Nations Children Fund Joint Monitoring Programme (WHO/UNICEF JMP-Inequalities 2019), last modified on December 2019, <https://www.washdata.org/data/downloads#DOM>

**146. While most households have access to basic water services in the DR, recent trends present cause for concern.** In 2017, 97 percent of the country’s population had access to the basic water supply. However, access to piped water in rural areas only increased from 59 percent in 2001 to 66 percent in 2017, which represents an average annual increase of only 0.7 percent. While the increase in access is positive, the rate of change is too low if the government aims to provide a higher quality service by 2030. In the same period, access to piped water services fell from 87 percent to 84 percent in urban areas (Figure III.3). Reasons for this decline may be that poor services are driving households to opt for private solutions such as drilling their own wells, and/or that expansion of networks are not keeping pace with urbanization. Nevertheless, the trend is worrisome. Moreover, access to water inside the home, particularly important in the era of COVID-19, varies markedly with socioeconomic status. In urban areas, over 90 percent of households in the richest quintile have access to piped water inside the home, much higher than 28 percent and 55 percent of households in the poorest and second poorest quintile, respectively.<sup>94</sup>

<sup>94</sup> Calculations of access to piped water inside the households are based on the National Income and Expenditure Household Survey 2018.

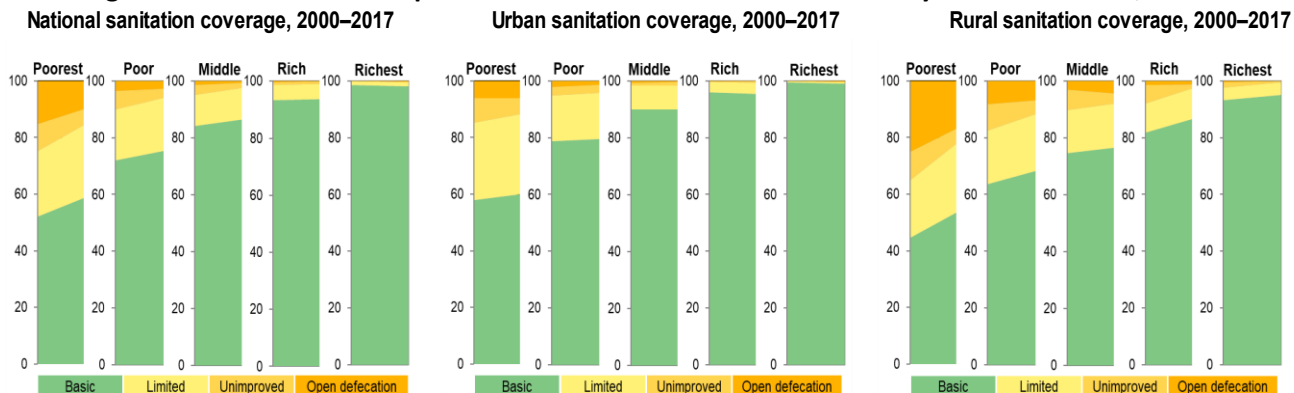
**Figure III.3. Access to Piped Water by Urban and Rural Area, 2000-2017**



Source: WHO/UNICEF JMP 2019

**147. Most Dominicans rely on private solutions to manage human excreta.** While 98 percent of households in the richest income quintile had access to basic sanitation services in 2017, the same was true for only 60 percent of the country’s poorest quintile (Figure III.4). Despite an increase in access to basic sanitation services of 8 percentage points from 2000 to 2017 for the poorest quintile at the national level, 9 percent of poorest quintile still practiced open defecation and another 31 percent only had access to limited or unimproved sanitation services in 2017. Moreover, 30 percent and 24 percent of rural households in the lowest and second-lowest wealth quintiles, respectively, rely on unimproved or limited sanitation services. Since 2000, remarkably access to sewerage in urban areas has declined from 40 percent to 27 percent while the reliance on private on-site solutions such as septic tanks grew from 27 percent to 60 percent.<sup>95</sup>

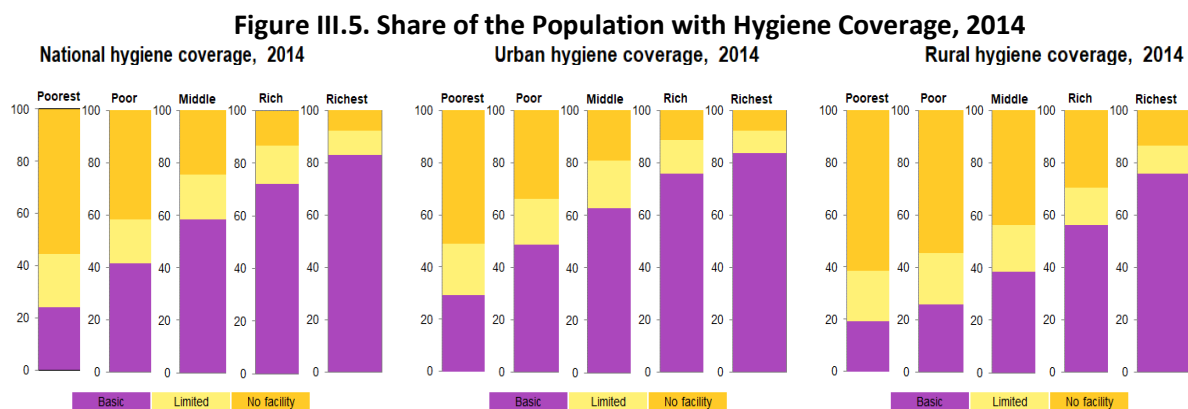
**Figure III.4. Share of the Population with Access to Basic Sanitation by Income Quintile, 2000-17**



Source: WHO/UNICEF JMP-Inequalities 2019

<sup>95</sup> Estimates on the use of water, sanitation, and hygiene in Dominican Republic.” WHO/UNICEF Join Monitoring Programme, <https://www.washdata.org/data/downloads#DOM>

**148. Household survey data show that a significant portion of urban and rural households across the wealth spectrum had no access to handwashing facilities in 2014.**<sup>96</sup> As with water and sanitation services, households in the poorest income quintiles have no or limited access to washing facilities: 76 percent of households in the poorest wealth quintile had no access to hygiene facilities in 2014 (Figure III.5). While many low-income urban households lack access to handwashing facilities, access is significantly limited for vulnerable households in rural areas. The low level of national hygiene coverage in the DR is especially significant, as handwashing with soap and water is a critical preventive health intervention to fight communicable diseases such as COVID-19.

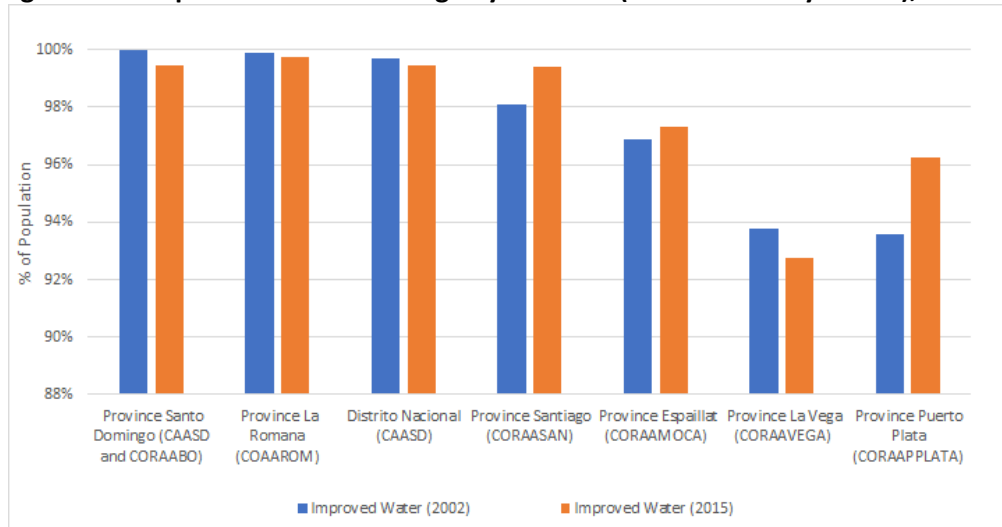


Source: WHO/UNICEF JMP-Inequalities 2019

**149. Due to progress in increasing access to basic water supply services, the country's access to improved drinking water has remained relatively stable across provinces since the early 2000.** In 2015, all of the country's provinces had an improved water coverage of over 90 percent, with the exception of Elías Piña, which had a coverage rate of about 85 percent (Figure III.6 and Figure III.7). Between 2002 and 2015, the coverage rate increased the most in Samaná (8 percentage points), San Juan (11 percentage points), Baoruco (11 percentage points), Santiago Rodríguez (9 percentage points), and Monte Plata (6 percentage points), while it fell slightly in La Romana, the National District, La Vega, Barahona, San José de Ocoa, Peravia, and Salcedo.

<sup>96</sup> The new global SDG indicator for handwashing is the proportion of population with handwashing facilities with soap and water at home. Handwashing facilities can consist of a sink with tap water, but can also include other devices that contain, transport or regulate the flow of water. Buckets with taps, tippy-taps and portable basins are all examples of handwashing facilities. Bar soap, liquid soap, powder detergent and soapy water all count as soap for monitoring purposes.

**Figure III.6. Improved Water Coverage by Province (Not Covered by INAPA), 2002-15**



Source: Authors’ calculations using Demographic Health Surveys 2002, 2007, and Multi-Purpose National Household Survey (*Encuesta Nacional de Hogares de Propósitos Múltiples - ENHOGAR*), 2015. (ENHOGAR, 2015). Due to data limitations, these calculations use the definition of ‘improved’ drinking water source rather than ‘basic’, which is represented in Figures 1 and 2. The JMP’s definition of ‘improved’ does not consider the parameter of accessible within 30 minutes.

Note: Provinces define the service area of public water and sanitation service operators, with the exception of Boca Chica, which is a municipality but is served by the Water Supply and Sewerage Corporation of Boca Chica.

**Figure III.7. Improved Water Coverage by Province (Covered by INAPA), 2002-15**

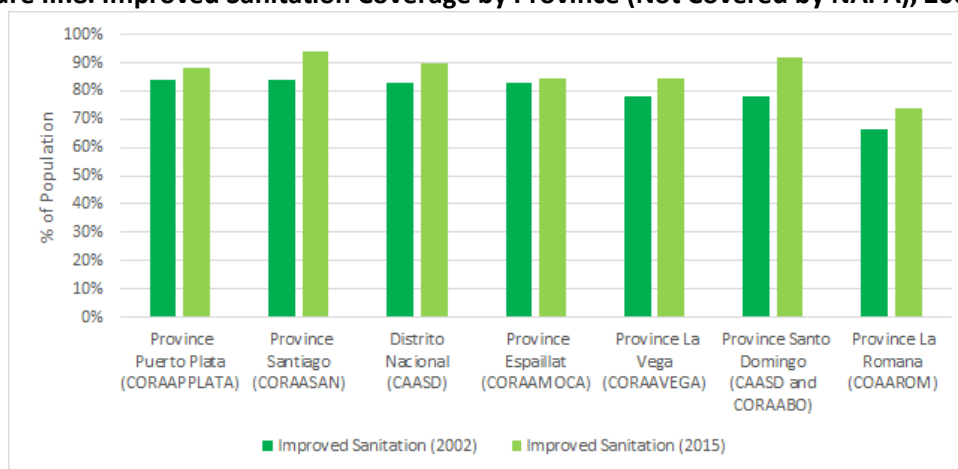


Source: Authors’ calculations using Demographic Health Surveys 2002, 2007, and ENHOGAR, 2015. Due to data limitations, these calculations use the definition of ‘improved’ drinking water source rather than ‘basic’, which is represented in Figures 1 and 2. The JMP’s definition of ‘improved’ does not consider the parameter of accessible within 30 minutes.

**150. There has been progress in improving access to basic sanitation services across provinces.** Among the areas not covered by INAPA, Santiago and Santo Domingo provinces and the National District experienced a relatively significant increase in the coverage of improved sanitation services in 2002-15

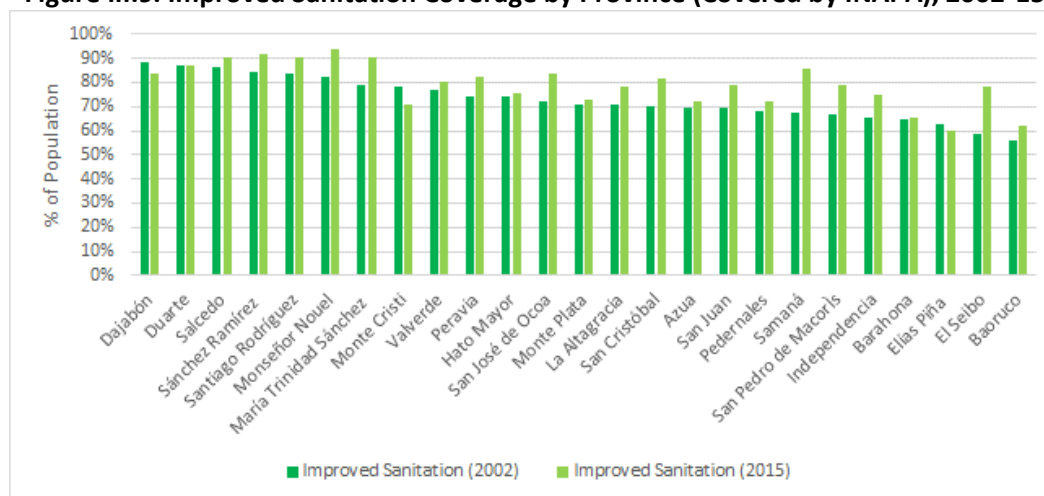
(Figure III.8). Due to data limitations at the provincial level, it is difficult to determine to what extent these improvements were due to private investments in on-site solutions or public investments in sewerage expansion. Based on national level estimates as mentioned earlier, much of this progress seems to be due to private investment. Out of the twenty-five provinces covered by INAPA<sup>97</sup>, eighteen experienced an increase in improved sanitation coverage in the same period, although the coverage rate of most provinces remains below 80 percent (Figure III.9). Improvements ranged from an increase of 3 percentage points in Azua to 20 percentage points in El Seibo.

**Figure III.8. Improved Sanitation Coverage by Province (Not Covered by NAPA), 2002-15**



Source: Authors' calculations using Demographic Health Surveys 2002, 2007, and ENHOGAR, 2015. Calculations for Improved sanitation follow the same parameters used for 'basic' under the Sustainable Development Goals as shown in Figures 1 and 3.

**Figure III.9. Improved Sanitation Coverage by Province (Covered by INAPA), 2002-15**



Source: Authors' calculations using Demographic Health Surveys 2002, 2007, and ENHOGAR, 2015. Calculations for Improved sanitation follow the same parameters used for 'basic' under the Sustainable Development Goals as shown in Figures 1 and 3.

Note: Covers provinces serviced by INAPA.

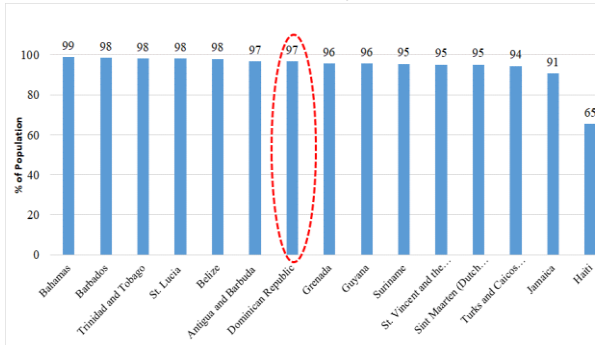
<sup>97</sup> Monseñor Nouel province was within INAPA's service coverage area until 2019.



## 2. Benchmarking Coverage and Quality

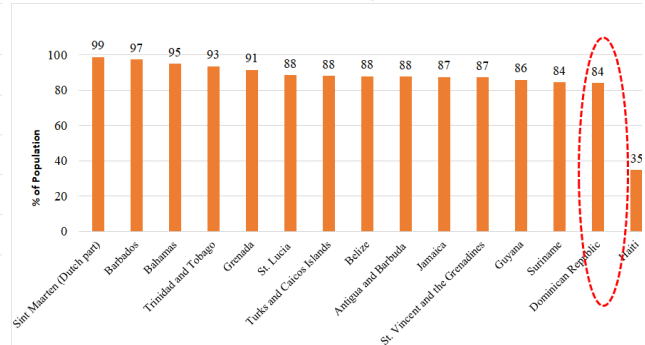
**151. While the DR is in line with its Caribbean neighbors in terms of providing access to basic drinking water, its level of access to basic sanitation is lower than that of almost all regional peers.** With the exception of Haiti, more than 90 percent of the population in the Caribbean have access to the basic water drinking supply (Figure III.10). This is important since many of these countries depend on tourism for economic growth. By contrast, household access to basic sanitation services varies somewhat across the region, with Haiti again being the outlier. The level of access to basic sanitation is lower in the DR (84 percent) than in countries with lower per capita gross domestic product (GDP) such as Jamaica (87 percent), Belize (88 percent), and Guyana (86 percent) (Figure III.11).

**Figure III.10. Access to Basic Drinking Water in the Caribbean, 2017**



Source: Authors calculations using WHO/UNICEF – JMP 2019 database.

**Figure III.11. Access to Basic Sanitation Services in the Caribbean, 2017**



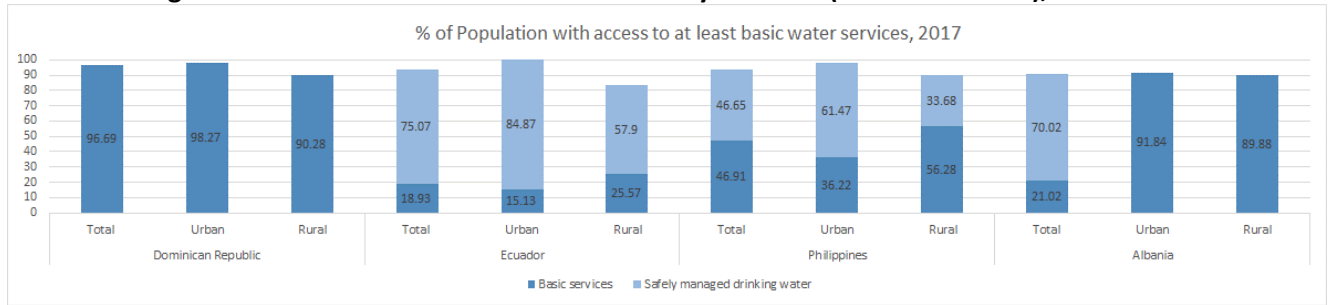
Source: Authors calculations using WHO/UNICEF – JMP 2019 database.

**152. The level of access to basic water services in the DR is on par with that of both structural and aspirational peers.** The country's structural peers are Ecuador, the Philippines, and Albania, while its aspirational peers are Malaysia, Serbia, and Costa Rica.<sup>98,99</sup> The share of the population with access to basic water services was higher in the DR (97 percent) in 2017 than in all structural peers (94.0 percent, 93.6 percent, and 91.0 percent in Ecuador, the Philippines, and Albania, respectively), although it was higher in urban areas in Ecuador (Figure III.12). Compared to aspirational peers, the share of the population with access to basic water services was higher in the DR than in Serbia (85.5 percent), although it was lower than in Costa Rica (99.7 percent) and the same as in Malaysia (96.7 percent) (Figure III.13). While the share of the population with access to basic water services was higher in urban areas in Malaysia, it was higher in rural areas in the DR. Costa Rica was the only country in the sample that performed better than the DR in terms of access to basic water services nationally and in urban and rural areas.

<sup>98</sup> Structural comparators are peer countries that are most similar to the DR in terms of selected indicators. The level of similarity was measured by distance, i.e., how close the DR was to all other countries based on each country's relative global ranking of selected indicators.

<sup>99</sup> Aspirational peers are countries that are structurally similar to the DR but have evolved and perform better on selected indicators.

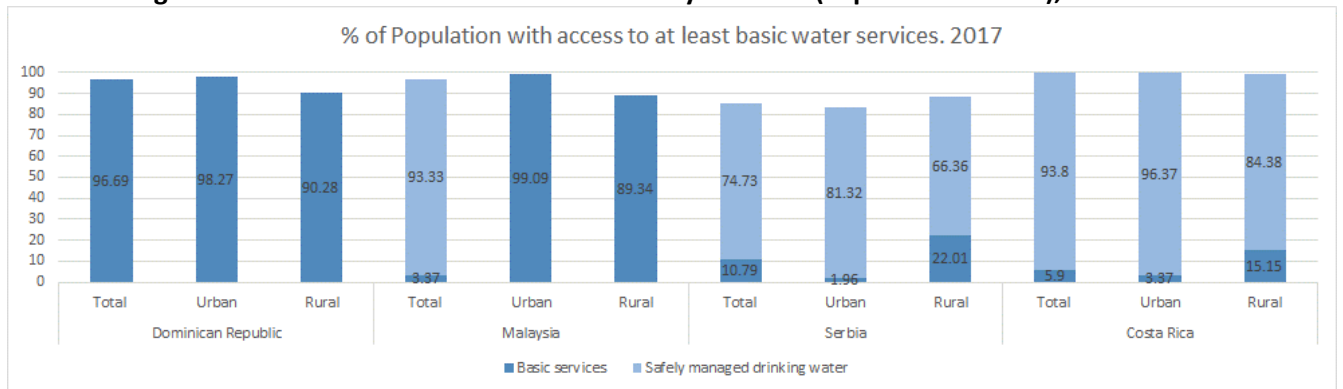
**Figure III.12. Access to Basic Water Services by Location (Structural Peers), 2017**



Source: Authors calculations based on data from WHO/UNICEF – JMP 2019.

Note: All of the DR’s structural and aspirational peers are able to report on the Sustainable Development Goal indicator 6.1 for safely managed drinking water supply, which considers the quality of the water supply such as continuity and water quality. This information is not available in the DR due to a lack of consolidated data.

**Figure III.13. Access to Basic Water Services by Location (Aspirational Peers), 2017**

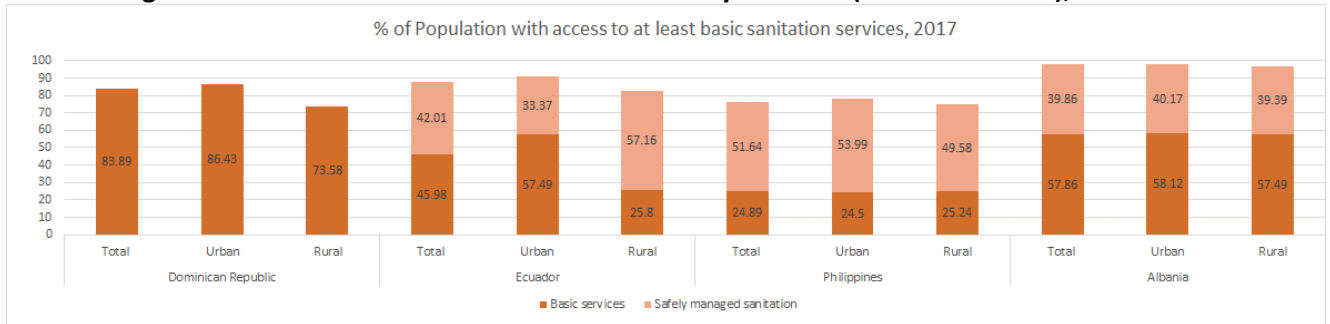


Source: Authors calculations based on data from WHO/UNICEF – JMP 2019.

Note: All of the DR’s structural and aspirational peers are able to report on the Sustainable Development Goal indicator 6.1 for safely managed drinking water supply, which considers the quality of the water supply such as continuity and water quality. This information is not available in the DR due to a lack of consolidated data.

**153. The level of access to basic sanitation services in the DR is, however, lower than that of all structural peers, with the exception of the Philippines, and its aspirational peers. Ecuador (88.0 percent), Albania (97.7 percent), Malaysia (99.6 percent), Serbia (97.6 percent), and Costa Rica (97.8 percent) all had a higher share of the population with access to basic sanitation services than the DR (83.89 percent), both nationally and in urban and rural areas (Figure III.14 and Figure III.15). While the DR performed better than the Philippines nationally and in urban areas, the share of the population with access to basic sanitation services in rural areas was higher in the Philippines (74.8 percent) than in the DR (73.6 percent).**

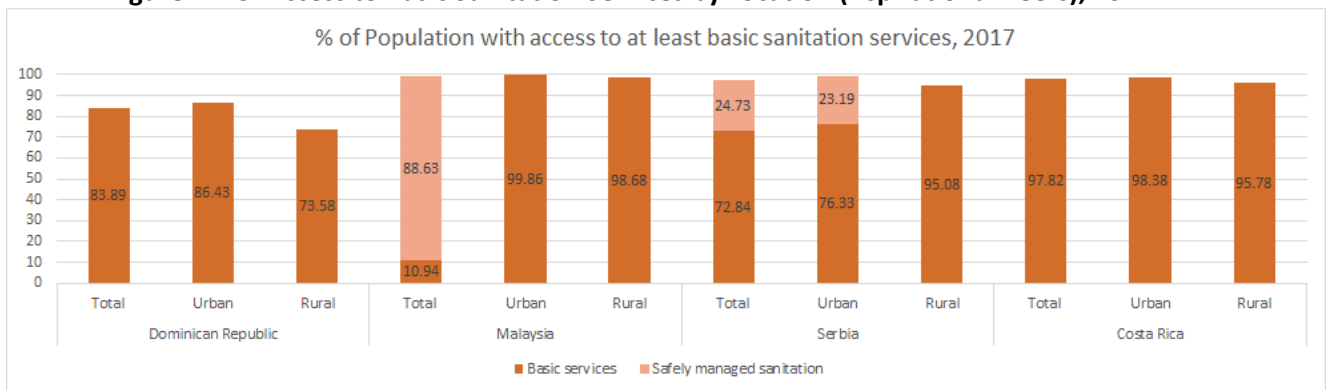
**Figure III.14. Access to Basic Sanitation Services by Location (Structural Peers), 2017**



Source: Authors calculations based on data from WHO/UNICEF – JMP 2019.

Note: All of the DR’s structural and aspirational peers are able to report on the Sustainable Development Goal indicator 6.2 for safely managed sanitation, which considers the quality of sanitation infrastructure. This information is not available in the DR due to a lack of consolidated information on how wastewater and fecal sludge (generated from on-site sanitation systems) are treated and disposed.

**Figure III.15. Access to Basic Sanitation Services by Location (Aspirational Peers), 2017**



Source: Authors calculations based on data from WHO/UNICEF – JMP 2019.

Note: All of the DR’s structural and aspirational peers are able to report on the Sustainable Development Goal indicator 6.2 for safely managed sanitation, which considers the quality of sanitation infrastructure. This information is not available in the DR due to a lack of consolidated information on how wastewater and fecal sludge (generated from on-site sanitation systems) are treated and disposed.

### 3. Performance and Challenges

#### Quality of Water Services

**154. Despite progress in increasing the coverage of basic drinking water services in the DR, the quality of services provided by the state is caught in a low-level equilibrium.** Sixty-five percent of urban dwellers and 52 percent of rural households in the DR report intermittent water supply, and 86 percent and 76 percent of urban and rural households, respectively, rely on coping mechanisms such as storage tanks, pumps, and cisterns to ensure adequate volumes of water for daily consumption.<sup>100</sup> Rationing of water by the country’s water supply and sanitation (WSS) operators is a common practice, which involves the distribution of water to different geographic sectors according to a set schedule, and many areas only have access to water two to three days a week.

<sup>100</sup> Banco Central. 2018. Household Expenditure and Income Survey (*Encuesta Nacional de Gastos e Ingresos de los Hogares – ENGIH*) 2018. Santo Domingo, Dominican Republic: Banco Central

**155. The DR's public WSS operators estimate that they collectively produce, on average, more than 300 liters per capita per day (lpcd), which is more than sufficient to meet the country's basic needs, even after considering technical losses.**<sup>101,102</sup> The lack of metering means that providers are not able to monitor and control their technical and commercial water losses, resulting in discontinuous services. The low level of confidence in the public water supply has made privately provisioned bottled water the main source of drinking water in the country. The use of bottled drinking water in urban and rural areas increased from 13 percent and 0.7 percent, respectively, in 1990 to 89 percent and 68 percent, respectively, in 2016.<sup>103</sup> As a result, households pay two tariffs: one for bottled water, which they deem as safe for consumption, that is paid to private firms, and another one for access to the public water supply, which they deem as not safe for consumption, that is paid to the service provider. Taken together, households pay more for water in the DR than in cities such as Guayaquil in Ecuador or Manila in the Philippines, where public drinking water is safe to consume. Moreover, the increase in consumption of bottled water over the last two decades has contributed to the country's significant plastic pollution problem.

**156. In rural areas, there are an estimated 3,000 water-supply systems that are typically managed by community-based organizations.** Of these, INAPA has registered 555 water systems in the World Bank-supported Rural Water and Sanitation Information System (SIASAR), which tracks the sustainability of water systems. Of these systems that are tracked, 56 are functioning, 272 require repairs that can be done by communities, and 227 require external assistance to be made functional.<sup>104</sup> The number of systems in need of external assistance to make them functional highlights the sustainability challenges of community-managed systems.

### ***Quality of Sanitation Services***

**157. More than two-thirds of households in the DR rely on on-site sanitation systems.** While 84 percent of the population had access to basic sanitation services in 2017, private onsite sanitation solutions represented a large share of these services. Access to public sewerage services in urban areas declined from 40 percent in 2000 to 27 percent in 2017, while the reliance on private solutions such as septic tanks grew from 27 percent to 60 percent in the same period.<sup>105</sup> Onsite solutions can work well as a citywide sanitation approach if the containment, collection, transportation, and treatment of septage are well managed and regulated. However, in the DR there is little control over the onsite sanitation service-delivery chain, resulting in an estimated 100,000 tons of septage produced each year by septic tanks and latrines going untreated and contaminating groundwater, surface waters, and neighborhoods. Moreover, as of 2015, there were seventy-nine wastewater treatment plants (WWTPs) in the country, with an installed treatment capacity of 11.43 meters cubed per second (m<sup>3</sup>/s). Of these, only fifty were in

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<sup>101</sup> The World Health Organization considers 100 liters of water per capita per day or more to be an optimal level to reduce health risks.

<sup>102</sup> The estimated total volume of water produced by public providers in the DR is 7 billion liters per day, according to the websites of INAPA and the CORAAs. Approximately 80 percent of the population is connected to a piped water source, which is approximately 2.5 million households, with an average of 3.7 people per household. Authors calculations based on reported production by providers. This assumes 50 percent physical losses and 20 percent consumption by non-residential users.

<sup>103</sup> Multi-Purpose National Household Survey (*Encuesta Nacional de Hogares de Propósitos Múltiples - ENHOGAR*), 2016.

<sup>104</sup> Rural Water and Sanitation Information System (*Sistema de Información de Agua y Saneamiento Rural – SIASAR*), accessed March 2020, <http://globalsiasar.org>

<sup>105</sup> WHO/UNICEF – JMP 2019

operation and operating at 42 percent design capacity, treating only 3.22 m<sup>3</sup>/s. By contrast, 62 m<sup>3</sup>/s of potable water is produced by the DR's WSS providers. An estimated 80 percent of all water produced is returned as wastewater, which means that the country's installed wastewater treatment capacity is far from meeting the needs of the population.<sup>106</sup>

**158. Wastewater collection and treatment services are interlinked with water-supply services, as they are technically and commercially interdependent.** WWTPs rely on adequate water consumption to function properly, and providers rely on revenue from both water and wastewater tariffs to cover the operating and maintenance costs of WWTPs. WSS providers only provide a small portion of the population with wastewater services, and they are unable to recover the operating costs of water-supply services, making it even more difficult to cover the costs for wastewater collection and treatment.

#### ***Inability to Cover Operating Costs***

**159. While the DR's nine WSS providers are legally obligated to recover operating costs to be financially self-sufficient, none of them can currently cover their operations and maintenance costs with own-source revenues.** Providers rely on the central government to cover 19 to 66 percent of their recurrent operating costs. Billing and collection rates vary substantially among providers but are uniformly low. Moreover, all providers rely almost entirely on the central government to finance their capital investments, further limiting their ability to expand services and improve infrastructure.

**160. As the DR aspires to become a high-income country by 2030, the authorities need to review the institutional arrangements governing the WSS sector and the efficiency and effectiveness of public expenditure in the sector.** WSS services constitute a foundational pillar of the society and are particularly important in the context of the DR, as its tourism sector and natural resources (e.g., beaches) are key drivers of economic growth. Poorly managed natural capital, including freshwater resources, and contaminated surface and ocean waters threaten the sustainability of both the country's natural resources and economy. Deficiencies in WSS service delivery also increase the DR's vulnerability to exogenous shocks such as natural disasters, climate-related risks, and the ability to control pandemics such as COVID.

### **D. Governance Arrangements**

**161. This section provides an overview of governance in the DR's water supply and sanitation (WSS) sector and the institutional architecture for WSS services.** The sector has nine WSS providers and multiple national institutions and organizations that directly and/or indirectly influence the quality of service delivery.

#### **1. Government Structure**

**162. The DR is a unitary state, with a one-tier subnational government structure consisting of 159 municipal districts.** Municipal districts are headed by mayors and municipal councils elected every four years. For administrative purposes, there are thirty-one provinces and the National District. The provinces are each headed by a governor nominated by the president, while the National District is run by a mayor elected through popular vote. The 2010 Constitution specifies that municipalities and the city of Santo

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<sup>106</sup> National Sanitation Strategy (*Estrategia Nacional de Saneamiento*) 2016. National Institute for Water Supply and Sewerage (INAPA). Santo Domingo, Dominican Republic: INAPA

Domingo (within the National District, with special status) constitute the first and only tier of subnational government. National and municipal public authorities are the only elected levels of government.<sup>107</sup> While municipal governments are tasked with coordinating WSS services, they do not have a role in service provision.<sup>108</sup>

## 2. Institutional Architecture

**163. There are nine parastatal entities responsible for delivering public WSS services in the DR (Figure III.16).** These are also known as aqueduct and sewer corporations (*corporaciones de acueducto y alcantarillado*, CORAAs) which are legally similar to the *entes autonomos* in the Latin America and Caribbean (LAC) region. The National Institute for Water Supply and Sewerage (*Instituto Nacional de Aguas Potables y Alcantarillados*, INAPA) serves twenty-four out of the country's thirty-one provinces, and about 40 percent of the population. INAPA's clients tend to reside in small to medium-sized towns and rural areas (Figure III.17). By law, the remaining public providers cover their respective provinces, with the exception of the Boca Chica Water Supply and Sewerage Corporation (*Corporación de Acueducto y Alcantarillado de Boca Chica*, CORAABO), which covers the municipality of Boca Chica. Together, INAPA; CAASD, which serves the Province of Santo Domingo –with the exception of the municipality of Boca Chica– and the National District; and Santiago Water Supply and Sewerage Corporation (*Corporación del Acueducto y Alcantarillado de Santiago*, CORAASAN), which serves the second largest city, Santiago, and the Province of Santiago, cover about 85 percent of the population and twenty-six out of thirty-one provinces, plus the National District. Despite being legally required to provide services in both urban and rural areas, CORAAs largely focus on urban areas and small towns. INAPA serves rural areas and supports the creation of community-based organizations (*Asociaciones Comunitarias de Acueductos Rurales*, ASOCARs) to manage small-scale water systems across the country.

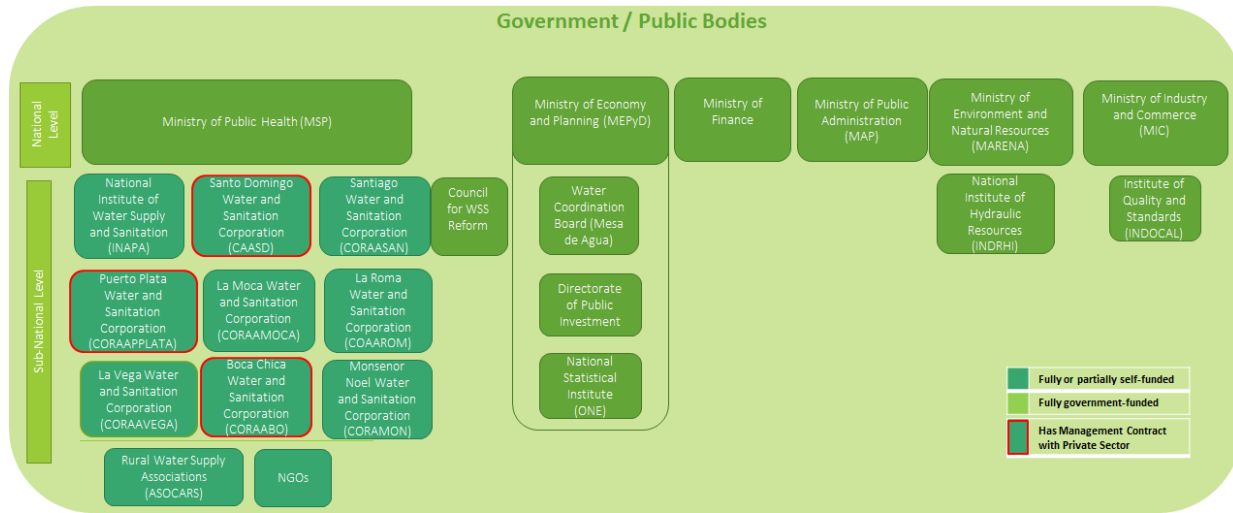
**164. INAPA was established in 1962 as the national WSS provider and subsequently, the CORAAs with provincial responsibilities were created over time with assets transferred to them from INAPA.** CORAAs were established as a hybrid between a government body and a commercial company. INAPA and the CORAAs were created and are governed by their respective laws, which are similar in nature. Nevertheless, INAPA and the CORAAs differ with respect to the composition of their boards of directors (BODs), appointment of director generals, and approval of tariff structures and levels, all of which are important for service delivery.

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<sup>107</sup> Organisation for Economic Co-operation and Development. "Dominican Republic." <https://www.oecd.org/regional/regional-policy/profile-Dominican-Republic.pdf>.

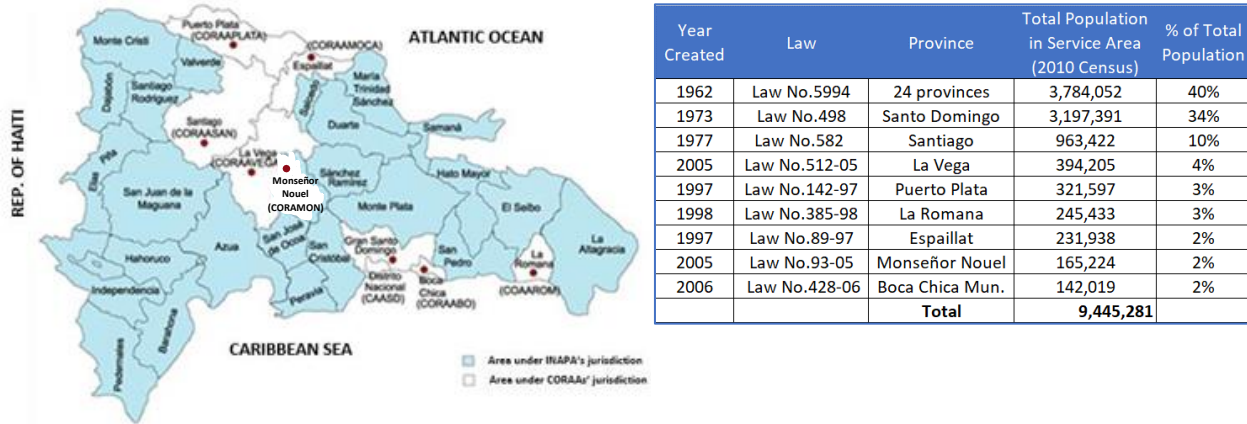
<sup>108</sup> Government of the Dominican Republic. 2007. "Ley No. 176-07 del Distrito Nacional y los Municipios"

**Figure III.16. Institutional Architecture for WSS Delivery**



Source: Authors

**Figure III.17. The Coverage Area of Service Providers in the Water Supply and Sanitation Sector**



Source: Authors' calculations with data from 2010 Census.

Note 1: CORAMON was created by law in 2005 but did not start to operate until 2020. The Province of Monseñor Nouel was serviced by INAPA until 2019.

Note 2: Up until 2019, INAPA covered twenty-five provinces. From 2020, INAPA covers twenty-four provinces, as CORAMON started operations in Monseñor Nouel province.

### 3. Policy, Legislation, and Regulation

**165. This section describes the responsibilities and key functions of institutions and organization involved in the delivery of WSS services in the DR.** Under the current institutional framework, there is no central regulatory agency for the WSS sector.

#### **Policy and Legislation**

**166. The Ministry of Health (MoH) and INAPA are the principal institutions responsible for public policies in the WSS sector.** The MoH is responsible for designing and executing the government's WSS

policies, as WSS services constitute an important public health function.<sup>109</sup> INAPA leads and oversees WSS service delivery across the country, and it can also propose relevant laws and policies.<sup>110</sup>

**167. The Council for the Reform and Modernization of the Water and Sanitation Sector was created in 2011 to coordinate and prepare a proposal for the creation of a new legal and institutional structure for the WSS sector.**<sup>111</sup> This transitory council is led by the Executive Director of INAPA and comprised of representatives from the MEPyD; the MoH; the Ministry of Environment and Natural Resources; the Ministry of Tourism; the Institute of Hydraulic Natural Resource (INDRHI); CAASD; and two rotating members from the other CORAAs.

**168. In 2016, the government established the Coordinating Body of Water Resources (*Mesa de Agua*) to coordinate and carry out a legal and institutional review of the WSS sector.**<sup>112</sup> It was also tasked with developing a proposal for a new General Water Law for the management of water resources and draft a proposal for a new Water and Sanitation Law. This transitory body is led by the MEPyD and includes INAPA and the MoH, and other line ministries.

**169. The Ministry of Environment and Natural Resources is the main implementing agency for the government's water resources policies.** It is responsible for developing, executing, and overseeing the implementation of policies related to water resources, including drinking water and wastewater.

### ***Regulation***

**170. Each of the country's WSS providers is responsible for regulating its own performance and setting tariffs.** CAASD and INAPA are the only providers that need to have their tariffs approved by the president. The BODs of the other WSS providers BODs are vested with authority to approve tariffs.

**171. The Ministry of Environment and Natural Resources is responsible for environmental regulation.** It oversees the quality of surface water and the discharge into receiving water bodies (fresh or marine waters); develops environmental standards; monitors the implementation of environmental legislation; and issues permits and licenses for construction activities that could negatively impact the environment.

**172. The Dominican Institute for Quality (*Instituto Dominicano para la Calidad, INDOCAL*) is responsible for setting water quality standards and the MoH is responsible for monitoring water quality.** Formerly the Directorate General of Standards and Quality Systems (*Dirección General de Normas y Sistemas de Calidad, DIGENOR*), INDOCAL is a public agency under the Ministry of Industry and Trade and is responsible for defining and establishing water quality standards, including for drinking water, receiving bodies, and industrial effluents. The MoH monitors drinking water quality and conducts water quality audits of systems managed by public WSS providers, although the results are only shared with individual providers and not the public.

**173. The National Institute of Hydraulic Resources (INDRHI) which is under the Ministry of the Environment, regulates the allocation and use of surface and groundwater.** The country's Constitution

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<sup>109</sup> Government of the Dominican Republic. 2007. "Ley General de Salud No. 42-01"

<sup>110</sup> Government of the Dominican Republic. 2007. "Ley de INAPA No. 5994"

<sup>111</sup> Government of the Dominican Republic. 2011. Presidential Decree No.465-11.

<sup>112</sup> Government of the Dominican Republic. 2016. Presidential Decree No. 265-16.



prioritizes water resources for human consumption. INDRHI, is responsible for managing water and water-related resources as well as designing, implementing, monitoring, and evaluating programs, projects, and activities aimed at controlling and regulating the use of surface and groundwater.

### ***Planning and Budgeting***

**174. MEPyD is responsible for the overall planning and implementation of the National Development Strategy 2010-2030.** It manages the national public investment system (*Sistema Nacional de Inversión Pública*, SNIP) and is in charge of evaluating investment projects, regardless of sector. MEPyD carries out technical evaluations to ensure compliance with the country's public investment management policy and general technical norms established under their Directorate General of Public Investment (DGIP). The MEPyD does not have specific guidelines for investment planning in the WSS sector.

**175. INAPA and the CORAAs are responsible for investment planning within their jurisdictions and for formulating annual budgets for operational and capital expenditures.** The MoH reviews and clears all investment projects that are submitted by INAPA and WSS providers and approves their annual operating budgets.

**176. The Ministry of Finance coordinates with the MEPyD and the Ministry of the President to identify priority investments to be included in the draft budget law each year.** It also approves all operating budgets of INAPA and the CORAAs in the WSS sector.

### ***Financing***

**177. The central government with support from external agencies finances all capital expenditures in the WSS sector.** Although, according to the law tariffs should cover the replacement costs for capital investments in the WSS sector, all investments are financed by central government budget and tariffs do not even cover operating costs.<sup>113</sup> As noted earlier, households finance the majority of investments in onsite sanitation solutions in both urban and rural areas, as the level of sewerage coverage is relatively low in the DR.

**178. Central government grants finance a large part of the operational expenditures of the WSS providers.** Although in principle user charges should cover operational and capital costs, the central government subsidizes these for all WSS providers to varying degrees. Households finance the operating and maintenance costs for on-site sanitation facilities and invest in coping mechanisms to deal with intermittent water supply.

### ***Capacity Development and Human Resource Management***

**179. The Ministry of Public Administration (MAP) is the responsible ministry for public employment and oversees the implementation of the Public Administration Law (No. 247-12).** MAP establishes norms and standards for the pay and grading structure and job descriptions for civil servants as well as the staff for WSS providers. It also approves changes to the establishment and the organogram of WSS providers. Although WSS providers have the authority to propose the hiring and firing of staff to their BODs, these actions are regulated and supervised (in the case of senior and junior professional levels) by the MAP.

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<sup>113</sup> Regulations for the other CORAAs were not available for review.

**180. Although various public agencies, including MAP, the Directorate General of Public Investment, and the Directorate General of Public Procurement, regulate and guide certain functions there is no central government agency that provides WSS providers with technical, operational, and commercial management support.** Technical assistance regarding service delivery has been provided through various past and ongoing projects funded by multilateral and bilateral organizations such as the Inter-American Development Bank, the Spanish Agency for International Development Cooperation, the French Agency for International Development, and the World Bank.

### *Service Provision*

**181. INAPA and the CORAAs are legally responsible for the provision of most water-supply services in the DR.** CAASD, CORAABO, and CORAAPPLATA have management contracts with private firms for billing and collection. In remote rural areas, INAPA transfers assets and delegates responsibility for operating and maintaining water-supply systems to community-based organizations (Asociaciones Comunitarias de Acueductos Rurales, ASOCARS) or non-governmental organizations (NGOs). Aside from operating and maintaining these systems, ASOCARS and NGOs are expected to undertake billing and collection services in these areas. For the country's bulk water supply, INDHRI constructs, owns, and operates multipurpose water storage facilities, focuses on water resource management, and distributes water to various WSS providers that do not have their own production capacity.

**182. INAPA and CORAAs are also responsible for managing wastewater services in their respective jurisdictions.** This includes managing the collection, transportation, and treatment of fecal sludge generated by onsite systems and WWTPs. While WSS providers are required by law to cover both urban and rural areas, the allocation of responsibility for promoting sanitation practices in rural areas is unclear.

## **E. Sources and Uses of Public Funds**

**183. This section provides an overview of public expenditure in the WSS sector and includes a breakdown between the operating costs and capital investments of WSS providers in 2014-18.** It also provides an analysis of the sources of funds, including the extent to which INAPA and the CORAAs depend on transfers from the central government.

### **1. Financing of Operational Expenditures**

#### ***At the Aggregate Level***

**184. Transfers from the central government constitute the largest source of recurrent revenues for WSS providers with the wage bill being their biggest recurrent expense.** In 2018, WSS providers' recurrent income came from (i) current transfers (DR\$4.6 billion – 48.7 percent of total revenues) provided by the government to pay for operational expenses; (ii) income from sales of WSS services (DR\$4.2 billion – 44.8 percent of total revenues); and (iii) other sources (DR\$0.6 billion – 6.7 percent of total revenues) which include surcharges and fines. In the same year, the recurrent expenses of WSS providers were consisted of (i) staff costs (DR\$5.1 billion – 56.1 percent of total recurrent costs), including wages and salaries as well as social contributions; (ii) energy costs (DR\$2.3 billion – 25.5 percent of total

recurrent costs), which are an approximate estimate of electricity costs;<sup>114</sup> and (iii) other recurrent costs (DR\$1.7 billion – 18.4 percent of total recurrent costs), including for materials and supplies (Table III.2).

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<sup>114</sup> There are no disaggregated data for expenses included under basic services (2.2.1), which include electricity costs (e.g., electric energy and non-cuttable electricity). Therefore, other expenses may be included under energy costs, such as telephone, internet and mail services, and radio communication expenses, but these are likely to be relatively small.

**Table III.2. Consolidated Accounts of Water Supply and Sanitation Providers, 2014-18**

(in Current DR\$ Billion)					
	2014	2015	2016	2017	2018
Income from Sales of Services	3.44	3.84	3.88	3.93	4.24
Income from Current Transfers*	3.55	3.64	4.02	4.22	4.61
Other Sources of Current Income	0.05	0.03	0.54	0.61	0.63
<b>Total Recurrent Income (I)</b>	<b>7.05</b>	<b>7.51</b>	<b>8.44</b>	<b>8.76</b>	<b>9.47</b>
Energy Costs	2.21	2.13	2.08	2.43	2.32
Staff Costs	3.63	4.06	4.19	4.33	5.11
Other Current Costs	1.46	1.58	2.25	2.69	1.67
<b>Total Recurrent Costs (II)</b>	<b>7.30</b>	<b>7.77</b>	<b>8.52</b>	<b>9.45</b>	<b>9.11</b>
<b>Operational Balance (III=I-II)</b> (Resultado Económico)	<b>(0.25)</b>	<b>(0.26)</b>	<b>(0.08)</b>	<b>(0.69)</b>	<b>0.37</b>
Capital Transfers:					
From Internal Sources	2.24	4.04	5.00	7.25	7.54
From External Sources	2.36	2.01	1.49	2.85	1.07
<b>Total Capital Transfers (IV)*</b>	<b>4.59</b>	<b>6.05</b>	<b>6.49</b>	<b>10.11</b>	<b>8.60</b>
<b>Total Capital Expenditure (V)</b>	<b>4.73</b>	<b>5.31</b>	<b>6.78</b>	<b>8.75</b>	<b>7.88</b>
<b>Capital Balance (VI=IV-V)</b> (Resultado de Capital)	<b>(0.14)</b>	<b>0.74</b>	<b>(0.29)</b>	<b>1.36</b>	<b>0.72</b>
<b>Financial Result (VII=III-VI)</b> (Operational Balance - Capital Balance)	<b>(0.39)</b>	<b>0.48</b>	<b>(0.37)</b>	<b>0.67</b>	<b>1.09</b>

Source: General Directorate of Budget (*Dirección General de Presupuesto, DIGEPRES*) Executed Budget Reports for Non-Financial Public Enterprises 2014-2018.

Note 1: Includes data on recurrent and capital accounts for INAPA and the CORAAs in the WSS sector. Data include year-end balances (deficit/surplus) for both accounts, and the financial result is the net balance.

Note 2: Both recurrent and capital transfers include transfers from internal and external sources, following the accounting methodology of DIGEPRES. Internal sources comprise government transfers from the general fund, while external sources could include external credits and/or donations.

Note 3: This table uses the same terms used by DIGEPRES in its reports to understand the uses and sources of public funds.

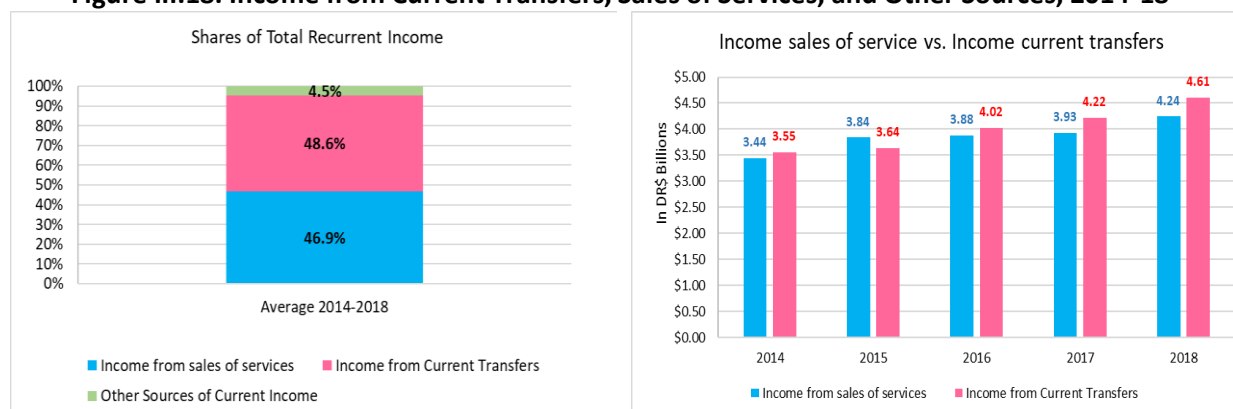
Note 4: MEPyD implemented a US\$27.5 million WSS project (2010-2018) financed by the World Bank that benefited CORAAMPLATA, CORAAMOCA, and COAROM, which is not included in this analysis. Annual capital expenditure information for MEPyD was not available.

Note 5: Analysis does not include CORAMON as it began operations in 2020, which is outside the period of study.

**185. INAPA and the CORAAs depend significantly on the central government to fund their operating expenses (OPEX).** Between 2014 and 2018, transfers from the central government made up almost half (48.6 percent) of WSS providers' recurrent income, followed by income from sales of services (46.9 percent) and other sources (4.5 percent) (Figure III.18). Current transfers from the central government

were the largest source of income OPEX for WSS providers for all years, except for 2015 when the income from sales of services was higher than central government transfers.

**Figure III.18. Income from Current Transfers, Sales of Services, and Other Sources, 2014-18**



Source: Author’s calculations based on DIGEPRES Executed Budget Reports for Non-Financial Public Enterprises, 2014-2018.

**186. Although transfers from the central government are a significant source of funds for the WSS providers these represent only a small share of the government’s total recurrent expenditures.** These transfers represented between 0.8-0.9 percent of the central government’s recurrent expenditures in 2014-18 (Table III.3). Total transfers (i.e., recurrent and capital transfers) to INAPA and the CORAAs in the WSS sector represented an average of 1.9 percent of total government expenditure in the same period.

**Table III.3. Transfers to WSS Providers as a Share of Total Public Expenditure**

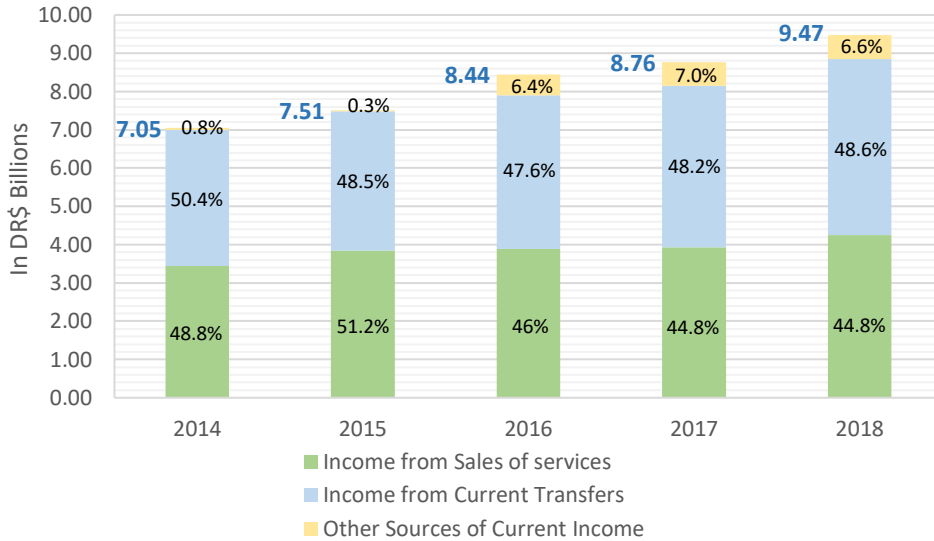
	2014	2015	2016	2017	2018
Recurrent Transfers to WSS providers as % of Gov Recurrent Expenditure	0.9%	0.8%	0.9%	0.8%	0.8%
Capital Transfers to WSS providers as % of Gov Capital Expenditure	5.8%	7.0%	7.2%	8.1%	8.2%
Total Transfers to WSS providers as % of Total Gov Expenditure	1.7%	1.9%	1.9%	2.3%	1.9%

Source: Author’s calculations based on DIGEPRES Executed Budget Reports for Non-Financial Public Enterprises 2014-2018.

**187. From 2014 to 2018, the total recurrent income of the WSS providers grew in nominal terms by 34.3 percent, from DR\$7.05 billion to DR\$9.47 billion (Figure III.19).<sup>115</sup>** However, the government’s recurrent transfers to WSS providers grew at faster rate than their earnings from the sale of services. The annual average growth of recurrent transfers during this period was 6.7 percent, while income from the sale of services grew at an average annual rate of 5.4 percent.

<sup>115</sup> These values are in current prices and the 34 percent increase is a nominal increase; therefore, the real increase is likely lower. Current prices were used as inflation was relatively low at 2.4 percent and stable over this timeframe.

**Figure III.19. Sources of WSS Providers' Recurrent Income**  
(in current DR\$ Billion)

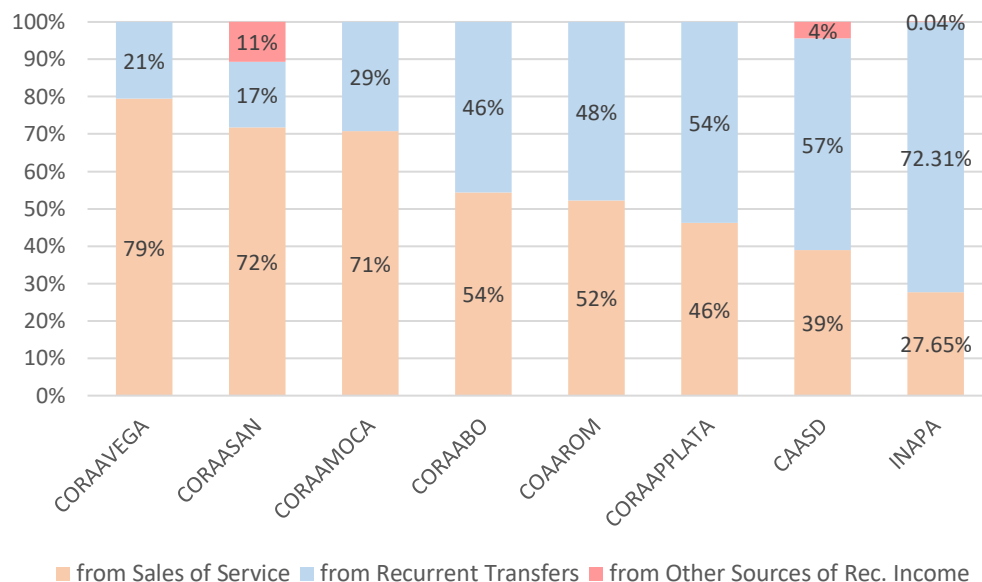


Source: Author's calculations based on DIGEPRES Executed Budget Reports for Non-Financial Public Enterprises, 2014-2018.

**Variation across Utilities**

**188. The share of income generated from the sale of services varies significantly across service providers.** While INAPA and the CORAAs on aggregate received 46.9 percent of their revenues from the sale of services in 2014-18 (Figure III.19), CORAAVEGA derived 79 percent of its income from sales of services, ranging from 75 percent in 2014 to 83 percent as a high in 2016 (Figure III.20). CORAASAN and CORAAMOCA generated 72 percent and 71 percent, respectively, of their income from the sale of services in the same period. In contrast, the share of income generated from services sales was only 39 percent for CAASD and 28 percent for INAPA in 2014-18.

**Figure III.20. Sales of Service, Recurrent Transfers, and Other Income as a Share of Total Recurrent Income by Provider, 2014-18**



Source: Author’s calculations based on DIGEPRES Executed Budget Reports for Non-Financial Public Enterprises, 2014-2018.

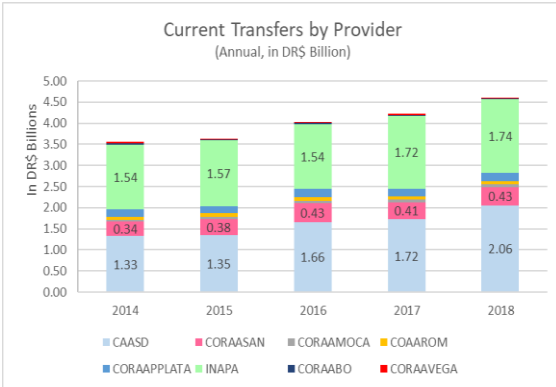
**189. WSS providers with the lowest share of revenues from the sale of services are the most dependent on transfers from the central budget.** Between 2014 and 2018, recurrent transfers covered 72 percent and 57 percent of the recurrent costs of INAPA and CAASD, respectively. By contrast, CORAASAN and CORAAVEGA derived only 17 percent and 21 percent, respectively, of their recurrent income from central transfers.

**190. The largest share of central government transfers goes to the two largest WSS providers—INAPA and CAASD—which, between them, serve around 74 percent of the country’s population.**<sup>116</sup> In 2014-18, INAPA and CAASD received DR\$8.10 billion and DR\$8.13 billion, respectively, in recurrent transfers, totaling 81 percent of all recurrent grants from the central government to all WSS providers (Figure III.21). CORAASAN received 9.9 percent of recurrent transfers in the same period, while the other CORAAs received a much smaller allocation.

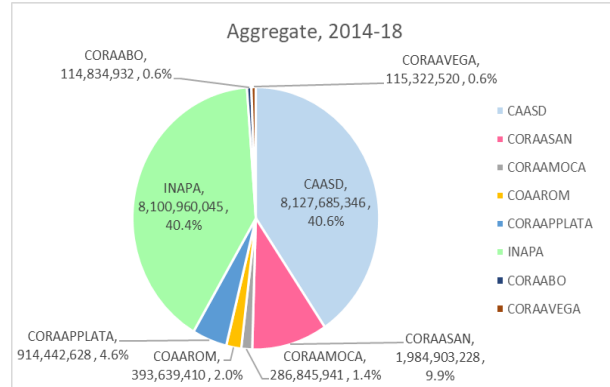
<sup>116</sup> Based on the 2010 Population Census.

**Figure III.21. Recurrent Transfers by Provider**

Recurrent Transfers by Provider, 2014-18  
(RD\$, Billion).



Share of Recurrent Transfer by Provider, 2014-18  
(In RD\$, %)

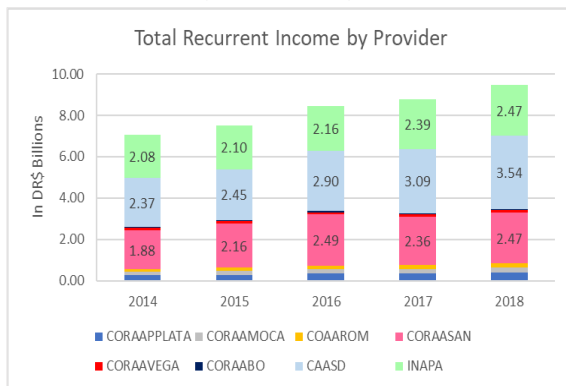


Source: Author's calculations based on DIGEPRES Executed Budget Reports for Non-Financial Public Enterprises, 2014-2018.

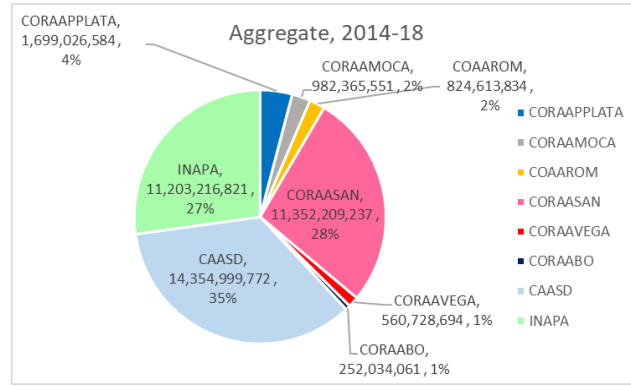
191. Despite serving a smaller population than INAPA,<sup>117</sup> CAASD has the highest recurrent income among all WSS providers in the DR (Figure III.22).<sup>118</sup> Its recurrent income averaged DR\$2.9 billion per year in 2014-18, representing 35 percent of the aggregate recurrent income of all WSS providers. In the same period, the recurrent income of CORAASAN (DR\$2.3 billion/year on average) and INAPA (DR\$2.2 billion/year on average) represented 28 percent and 27 percent, respectively, of the aggregate recurrent income of all the WSS providers. CAASD's large share of recurrent income is due to both the high level of recurrent transfers it receives from the central government and the high level of revenue it generates from the sale of services (the second highest after CORAASAN).

**Figure III.22. Total Recurrent Income by Provider**

Recurrent Income by Provider, 2014-18  
(RD\$, Billion).



Share of Recurrent Income by Provider, 2014-18  
(In RD\$, %)



Source: Author's calculations based on DIGEPRES Executed Budget Reports for Non-Financial Public Enterprises, 2014-2018.

<sup>117</sup> Based on the 2010 census, INAPA, CAASD, and CORAASAN serve 40 percent, 34 percent, and 10 percent of the population, respectively.

<sup>118</sup> Total recurrent income is the result of the combination of income from sales of services, from current transfers, and from other sources of income.

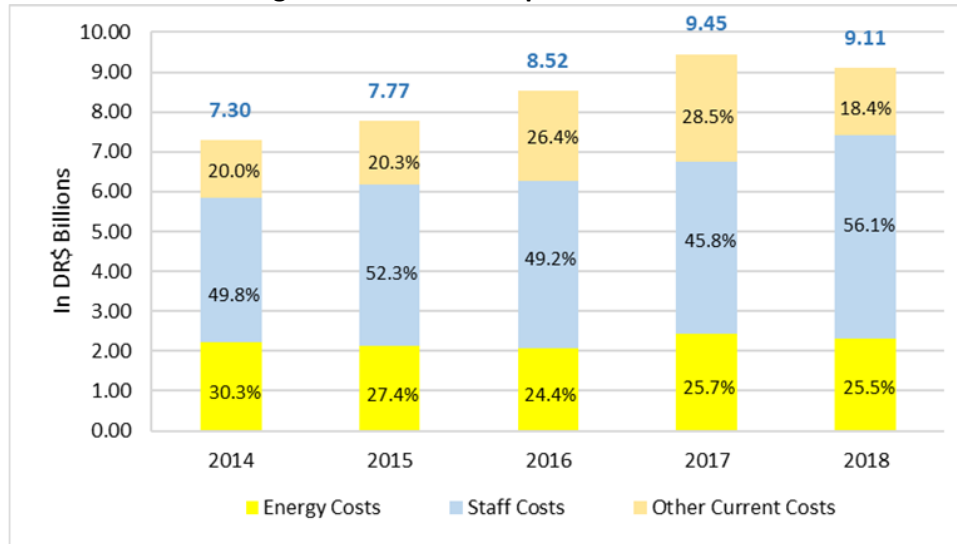


## 2. Use of Operating Resources

### *At the aggregate level*

**192. The wage bill and energy costs are the largest recurrent expenditure items for WSS providers.** Aggregated across utilities, the wage bill and energy costs made up 50.6 percent and 26.5 percent, respectively, of expenditures in 2014-18 (Figure III.23). Other recurrent/operational costs represented the remaining 22.9 percent of expenditures.

**Figure III.23. Uses of Operational Funds**



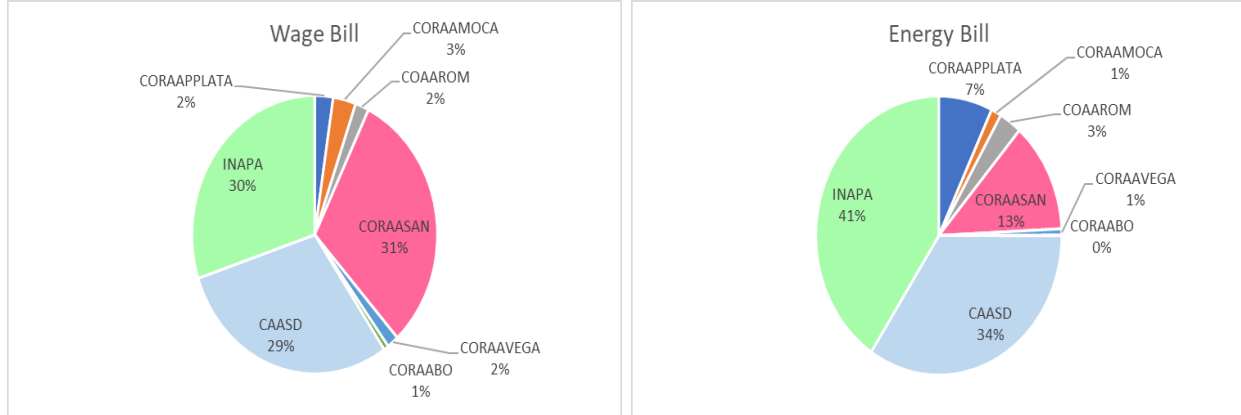
Source: Author's calculations based on DIGEPRES Executed Budget Reports for Non-Financial Public Enterprises, 2014-18.

**193. Between 2014 and 2018, staff costs of WSS providers increased while their energy costs remained relatively stable.** Their aggregate wage bill grew by 40.7 percent, at an annual average rate of 8.9 percent, over the five-year period. By contrast, their energy expenditure only increased by about 5 percent in the same period. Spending on energy fluctuates for technical reasons, including the dependence on ground water and surface water sources,<sup>119</sup> and due to other exogenous factors such as droughts and energy prices. Driven largely by the wage bill, aggregate recurrent expenditure for all providers grew in nominal terms by 24.8 percent during in 2014-18.

**194. The three largest utilities (i.e., INAPA, CAASD, and CORAASAN) accounted for 90.6 percent and 88.0 percent of the aggregate wage and energy costs in 2014-18 of all WSS providers (Figure III.24).** Together, these utilities account for 90 percent of the consolidated operating expenses of all WSS providers.

<sup>119</sup> For example, pumping costs are higher for ground water extraction.

**Figure III.24. Staff and Energy Costs by WSS Provider, 2014-18**  
(Share of Aggregate Totals)



Source: Author's calculations based on DIGEPRES Executed Budget Reports for Non-Financial Public Enterprises, 2014-2018.

### Variation across Utilities

**195. The share of staff costs in total expenditures varies across service providers.** Between 2014 and 2018, CORAAMOCA and CORAASAN spent 65 percent and 63 percent, respectively, of their total recurrent expenditures on the wage bill, while wage expenditures represented 50 percent and 43 percent of the total recurrent spending of INAPA and CAASD, respectively. In the same period, the wage bill only accounted for 34 percent of CORAAPPLATA's total recurrent spending.<sup>120</sup>

**196. Similarly, the share of energy costs in recurrent expenditures varies between WSS providers.** These differences could be due to the different water sources used by each provider (e.g., pumping or gravity, or a combination of both) and/or the different levels of wastewater treatment across providers.<sup>121</sup> During 2014-18, CORAAPPLATA spent the largest proportion of its operational expenses (52 percent on average) on energy, ranging from a high of 64 percent in 2014 to a low of 46 percent in 2016. In the same period, COAAROM, which is known for having high pumping costs, spent 38 percent of its operational expenditures on energy. INAPA, CAASD, and CORAASAN—the three providers with the largest energy costs in absolute numbers—spent 35 percent, 26 percent, and 14 percent, respectively, of their operational budgets on energy in 2014-18.

### 3. Operational Balance

#### At the aggregate level

**197. The consolidated operational balance of WSS providers was in arrears at the end of every year between 2014 and 2017.** The end-of-year operational deficit ranged from around 1 percent of total expenditures in 2016 to 7.3 percent in 2017, with a surplus of 4 percent in 2018. The aggregate deficit of all providers was 2.17 percent over the period 2014-18. Operational deficits are financed by the central

<sup>120</sup> See Annex 1 for detailed breakdown on expenditures by provider

<sup>121</sup> The use of pumping systems and mechanical equipment for water and wastewater systems increases the use of energy, raising energy costs. These systems vary by provider.

budget, and they constitute a charge on the budget, in addition to the annual transfers for recurrent expenditures.

#### **Variation across utilities**

**198. INAPA and CORAAVEGA had the largest operational deficits relative to their expenditures in 2014-18 (Table III.4).** While INAPA experienced deficits every year, ranging from 9.39 percent of total operational expenditure in 2014 to 17.27 percent in 2018, CORAAVEGA had a deficit in four out of the five years, ranging from a surplus of 5.9 percent in 2014 to a deficit of 22.45 percent in 2018.

**199. By contrast, CORAAPPLATA and CORAASAN had operational surpluses every year in the same period.** The surplus ranged from 0.92 percent of total operational expenditure in 2015 to 23.38 percent in 2018 for CORAAPPLATA, and from 1.26 percent in 2017 to 15.44 percent in 2018 for CORAASAN. CORAABO had a surplus in four out of the five years, and its operational balance ranged from a surplus of 22.08 percent in 2015 to a deficit of 7.95 percent in 2016. However, even the WSS providers with surpluses would have had an operational deficit, both annually and in aggregate, if they had not received operational grants from the central government.

**Table III.4. Operational Balance as Share of Operational Expenditure by Provider, 2014-18**

	2014	2015	2016	2017	2018	Aggr. 14-18*
<b>CORAAPPLATA</b>	9.67%	0.92%	10.46%	13.01%	23.38%	11.86%
<b>CORAAMOCA</b>	-8.86%	-5.49%	0.67%	10.85%	-1.75%	-0.86%
<b>COAROM</b>	-10.85%	-29.56%	12.96%	-1.71%	7.55%	-6.10%
<b>CORAASAN</b>	8.06%	7.99%	8.29%	1.26%	15.44%	8.09%
<b>CORAAVEGA</b>	5.90%	-1.57%	-16.37%	-17.19%	-22.45%	-11.21%
<b>CORAABO</b>	1.99%	22.08%	-7.95%	15.65%	14.82%	7.96%
<b>CAASD</b>	-6.84%	-1.57%	1.87%	-13.84%	16.30%	-1.10%
<b>INAPA</b>	-9.39%	-13.03%	-14.09%	-10.11%	-17.27%	-12.97%
<b>TOTAL ANNUAL</b>	-3.39%	-3.39%	-0.95%	-7.31%	4.06%	-2.17%

Source: Author's calculations based on DIGEPRES Executed Budget Reports for Non-Financial Public Enterprises, 2014-18.

\*This is the ratio of the aggregates (i.e., aggregate surplus or deficit of each provider divided by the aggregate total recurrent expenditure of each provider).

**200. An analysis of the sources and uses of funds for recurrent expenditures reveals WSS providers' dependence on the central government.** Specifically, all service providers in the WSS sector are dependent on central government transfers to meet their operating needs. Their own revenues (largely from the sale of services) are inadequate to pay for their operating expenses.

#### 4. Financing of Capital Expenditures

##### *At the Aggregate level*

**201. Capital transfers from the central government constitute the only source of investment finance for WSS providers.**<sup>122</sup> Capital expenditures include all resources used to acquire, upgrade, and maintain physical assets such as property, buildings, industrial plants, technology, or equipment. Investments in WSS infrastructure and for the rehabilitation of existing infrastructure are entirely financed by the central budget and from internationally financed projects. As the utilities do not have sufficient own-source revenues to finance their operating expenses, they do not contribute to investment projects.

**202. Between 2014 and 2018, the central government devoted an average of 7.2 percent of its capital budget to investments in the WSS sector (Table 3).** This ranged from 5.8 percent in 2014 to 8.2 percent in 2018. During this period, the government allocated an average of RD\$7.17 billion to WSS providers each year, with a peak of RD\$10.11 billion in 2017 (Table III.5). The annual allocation for investments in WSS grew by 87.4 percent between 2014 and 2018.

**203. Of the amount allocated to investments from the central budget, 27 percent is financed by external sources (Table III.5).**<sup>123</sup> Of this, 89 percent is in the form of external credits and 11 percent is in the form of external donations/grants.

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<sup>122</sup> In the government accounting system, capital transfers come from internal and/or external sources. Internal sources are the central government's General Fund and/or own-source revenue (if any). External sources are external credit and donations (if any). Internal or external sources of investment financing are classified as capital transfers.

<sup>123</sup> External sources include external credits and external donations (e.g., international development or donor agency projects). As noted in Table V.2, this amount does not include the US\$27.5 million project implemented by MEPyD on behalf of CORAAPPLATA, CORAAMOCA, and COAAROM between 2010-2018.

**Table III.5. Sources of Total Capital for Investments in WSS**

	2014	2015	2016	2017	2018	Avg. 2014-18
Government Resources	49%	67%	77%	72%	88%	73%*
External Credits	49%	29%	18%	25%	10%	24%*
External Donations	2%	4%	5%	3%	2%	3%*
Total Capital Transfers (DR\$ Billion)	\$4.59	\$6.05	\$6.49	\$10.11	\$8.60	\$7.17
*This is the ratio of the aggregates (i.e., aggregates of government resources, external credits, and external donations) divided by the aggregate of total capital transfers.						
Source: Author's calculations based on DIGEPRES Executed Budget Reports, 2014-2018.						

**204. In nominal terms, total capital expenditure (CAPEX) in the WSS sector increased by 66.6 percent between 2014 and 2018 (Figure III.26).** WSS-related CAPEX grew from DR\$4.73 billion in 2014 to DR\$7.88 billion in 2018 at an annual average growth rate of 13.6 percent.

#### *Variation across Utilities*

**205. INAPA, CAASD, and CORAASAN were the only WSS providers that received capital transfers from external sources in 2014-18.** During this period, INAPA received DR\$6.03 billion in capital transfers from external sources (61.7 percent of total funding from external sources), CAASD received DR\$2.90 billion (29.7 percent), and CORAASAN received DR\$846 million (8.6 percent). The other five providers did not receive any capital transfers from external sources in the same period.<sup>124</sup>

### 5. Capital Balance

#### *At the Aggregate Level*

**206. While most WSS service providers reported an aggregate capital deficit for the period 2014-18, the combined aggregate capital balance for all WSS provider reveals a small surplus (Table III.6).** The combined capital balance was negative in two out of the five years and positive in three out of the five years. In the case of capital balances, a surplus implies that allocated resources are not being utilized during the fiscal year, and by the same logic a deficit implies an overcommitment in the same fiscal year. More information is needed on how investment funds are budgeted and allocated to understand how the capital balance is related to the quality and management of investment projects.

### At the Level of the Utility

207. All providers posted aggregate capital deficits between 2014 and 2018, except for INAPA and CORAAVEGA, which recorded surpluses of 20.07 percent and 11.95 percent, respectively. Most WSS providers' deficits were, however, relatively small, revealing no persistent over- or under-spending, with the exception of the large deficits posted by CORAAPPLATA (48.69 percent) and CORAABO (27.05 percent). Since INAPA and CAASD receive almost 90 percent of the capital WSS budget their performance drives the overall performance on capital spending. For example, INAPA's large surpluses compensate for deficits posted by other providers. Once projects are approved, INAPA and the CORAAs are allocated investment budgets based on their original investment plans. If WSS providers underspend, the surplus funds remain with the provider, which means that the MEPyD does not deduct the surplus from the following year's budget (i.e., the funds are not returned to the Treasury). More information is needed to determine how deficits are funded, and how project delays are monitored and evaluated. For instance, it is unclear why INAPA is not fully utilizing its capital budget (e.g., are there procurement bottlenecks or does it lack implementation capacity?).

**Table III.6. Capital Balance as a Share of Capital Expenditure by Provider, 2014-18**

	2014	2015	2016	2017	2018	Aggr. 14-18*
CORAAPPLATA	-66.59%	-6.86%	-72.57%	-14.85%	-58.24%	-48.69%
CORAAMOCA	-3.44%	-0.64%	-0.06%	-0.90%	-9.66%	-3.46%
COAAROM	-24.05%	-14.16%	-1.69%	-20.16%	48.78%	-1.00%
CORAASAN	-17.36%	-18.74%	-13.22%	14.30%	-13.68%	-8.05%
CORAAVEGA	-41.58%	-4.45%	-3.22%	146.21%	-9.20%	11.95%
CORAABO	-3.96%	-48.61%	-100%	-17.92%	-20.26%	-27.05%
CAASD	-5.86%	-3.23%	-2.07%	6.83%	-11.44%	-2.46%
INAPA	-0.17%	28.33%	-4.25%	26.27%	61.79%	20.07%
<b>ANNUAL TOTAL</b>	<b>-2.93%</b>	<b>14.03%</b>	<b>-4.27%</b>	<b>15.54%</b>	<b>9.14%</b>	<b>7.16%</b>

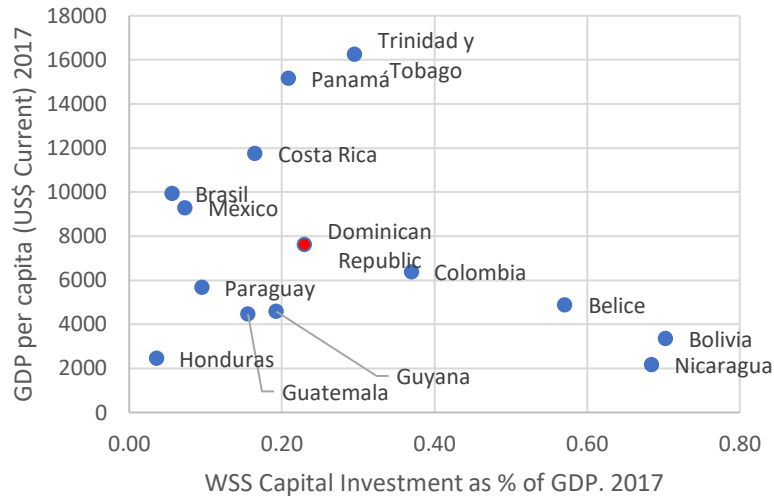
Source: Author's calculations based on DIGEPRES Executed Budget Reports for Non-Financial Public Enterprises, 2014-2018.

\*This is the ratio of the aggregates (i.e., the aggregate surplus or deficit of each provider divided by the aggregate total capital expenditure of each provider).

### 6. Comparing Capital and Operational Expenditures to Other Countries

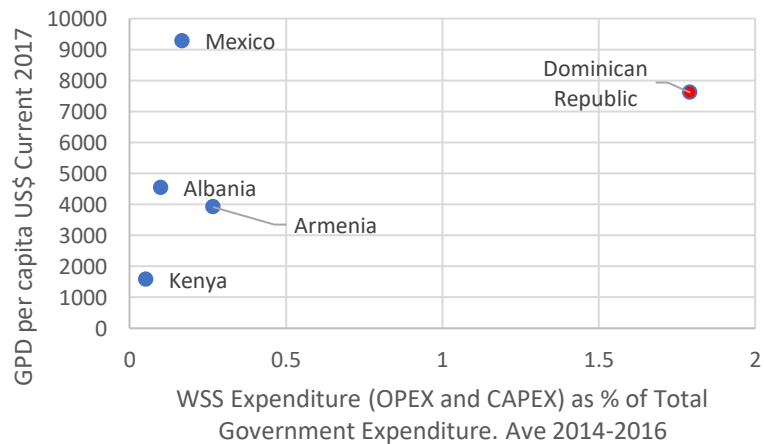
208. The DR spent about 0.23 percent of GDP on WSS sector investments in 2017, which was similar to Costa Rica, Panama, and Guyana (Figure III.25 and Annex III.1). The DR was slightly below the regional average following Bolivia, Nicaragua, Belize, Colombia, and Trinidad and Tobago.

**Figure III.25. GDP per capita vs. CAPEX as % of GDP**



Source: <http://es.infralatam.info/dataviews/252249/agua/>

**Figure III.26. GDP per capita vs WSS as % of total government expenditure**



Source: Background paper World Bank<sup>125</sup>.

**209. However, the DR spent an average of 1.8 percent of total government expenditure between 2014-2016 on WSS operations and investments, which is significantly higher than other countries (Figure III.26). This is higher than other countries in the region such as Mexico or its structural peer – Albania, which spent 0.17 and 0.10 respectively.**

<sup>125</sup> Andres, Luis A., Michael Thibert, Camilo Lombana Cordoba, Alexander V. Danilenko, George Joseph, and Christian Borja-Vega. 2019. “Doing More with Less: Smarter Subsidies for Water Supply and Sanitation.” World Bank, Washington, DC.

## F. Allocation of Resources

**210. This section discusses the process for allocating resources for investment and operating expenses, and also reviews allocative efficiency of water supply investments among the provinces served by INAPA.**

### 1. Investment Planning and Approval

**211. The MEPyD is responsible for planning and implementing the National Development Strategy (NDS) 2010-2030.**<sup>126</sup> This includes managing the national public investment system (*Sistema Nacional de Inversión Pública*, SNIP) and appraising all investment projects. The objective of the ministry's technical evaluation is to ensure compliance with the DR's public investment management policy and general technical norms established by the Directorate General of Public Investment (DGIP). The MEPyD consolidates a multi-year investment program across all sectors, identifies priority projects (in coordination with the Ministry of the Presidency), and submits a list of investment projects to the Ministry of Finance, which includes it in the draft budget law each year. Investment resources are not allocated to provinces/WSS providers. WSS providers submit projects to MEPyD for technical evaluation. There are no special guidelines for investment planning in the WSS sector, such as formulas to consider households' basic needs, poverty rates, infrastructure gaps, or health statistics; however, the cost-benefit analysis conducted by MEPyD does take into account economic and social costs and benefits.

**212. The selection of new investment projects is based on a four-year strategic plan that is consistent with the NDS.** At the start of the multi-year strategic plan, there are several new projects added to SNIP and assigned a unique code. However, not all projects with a SNIP code are included in the budget. A large share of the project portfolio consists of projects already under implementation, as the budgeting process rightly prioritizes ongoing projects (*proyectos de arrastre*). Between 2016 and 2018, 151 WSS projects were included in the budget, of which 54 were new and 97 were ongoing and initiated prior to 2016.<sup>127</sup>

**213. The country's WSS providers are legally responsible for investment planning in their jurisdictions.** New WSS investment projects are identified and proposed by INAPA and the CORAAs and sent to the Ministry of Health for administrative approval, before they are forwarded to the MEPyD, which performs a technical review. However, the criteria used by WSS providers to identify projects is unclear. INAPA has a multi-annual investment plan for 2020-24 and CAASD has one for 2020-23.<sup>128</sup> INAPA's plan includes RD\$66 billion (equivalent of US\$1.2 billion) worth of investment projects, while CAASD has plans to spend RD\$15 billion (US\$274.4 million) and RD\$15.9 billion (US\$290.9 million) to finance ongoing and new projects, respectively, in 2020-2023.<sup>129</sup>

**214. In its technical review, the MEPyD calculates the net present value (NPV) and the internal rate of return (IRR) of each investment project.** The process for admitting a project in SNIP includes an

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<sup>126</sup> MEPyD. 2017. *Metodología General para la Formulación y Evaluación de Proyectos de Inversión Pública*. Viceministerio de Planificación. Santo Domingo, República Dominicana; and MEPyD. 2017.

<sup>127</sup> While this report's overall expenditure analysis is based on 2014-18 data from DIGEPRES, data on projects in this section are limited to 2016-18 and based on project data provided by the MEPyD.

<sup>128</sup> It is unclear if the other CORAAs have multi-year investment plans. However, there are no investment projects that fall under the jurisdiction of the other CORAAs, with the exception of CORAASAN, during the period covered by this report.

<sup>129</sup> CAASD Investment Plan 2020-2023 and INAPA Investment Plan 2020-2024.



evaluation of not only its financial viability but also its impact and relevance. For example, the MEPyD performs a qualitative analysis that evaluates a project's technical, socioeconomic, and environmental impact. Projects are returned to the implementing agencies when project designs don't provide sufficient information. Some investment projects are assigned a provisional SNIP code when further studies need to be done.

**215. Projects that meet threshold requirements are admitted in the SNIP and assigned a unique code.** This is a critical step because the Ministry of Finance only allocates budget resources to investment projects that have a SNIP code. Inclusion in SNIP is a necessary but not sufficient condition for final project selection, as admitted projects are reviewed by the Ministry of Finance, in consultation with the Ministry of the Presidency, based on the multi-year budget and total/sector-specific budget allocations for the current year. Although this practice is discouraged, at times agencies and providers are able to circumvent the SNIP process by receiving extra-budgetary resources (mostly through presidential orders).

**216. Smaller providers' lack of capacity to prepare quality projects.** Considering their size, INAPA, CAASD, and CORAASAN should have a large share of new investments, but it is notable that none of the other CORAAs had a single investment project in 2016-18.<sup>130,131</sup> Nevertheless, seventeen out of the 21 new projects (80 percent) were classified as "rehabilitation" projects during this period, presumably for existing infrastructure rather than entirely new construction.<sup>132</sup>

**217. Most investment projects in the WSS sector focus on the water supply rather than wastewater management, despite the publication of the National Sanitation Strategy by INAPA in 2016 and the negative health and environmental effects of substandard sanitation practices.** While the National Sanitation Strategy calls for increased investment in sanitation and improved quality of WSS services, most WSS investments continue to be related to the water supply infrastructure. While all new WSS projects created in 2016 had focused on wastewater management (five projects), this share dropped to 19 percent and 15 percent of all new projects in 2017 and 2018, respectively. As a result, the share of ongoing projects dedicated to wastewater management ranged from 20 percent to 30 percent in 2016-18. The limited investment in the country's wastewater infrastructure is inconsistent with the DR's reliance on tourism and the need to preserve its natural capital.

**218. While the National Sanitation Strategy includes investments to improve the quality of services and enhance the efficiency of WSS providers, it has had a limited impact on project selection.** The strategy calls for increased micro-metering, better billing/collection practices, and a reduction in non-revenue water (NRW), as well as minimizing the dependence of WSS providers on subsidies to finance operational costs. The National Sanitation Strategy appears to have had a limited impact, as during 2016-2018 there was only one investment project (administered by COAAROM) that explicitly included micro-metering (the installation of 10,000 micrometers) and four projects dedicated to institutional strengthening (of which three were initiated prior to 2016). All of the projects focused on institutional strengthening were financed by external credits or donations.

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<sup>130</sup> Between 2016 and 2018, INAPA initiated fourteen new projects, CAASD initiated six new projects, and CORAASAN initiated one new project.

<sup>131</sup> The World Bank financed project implemented by MEPyD on behalf of CORAAPPLATA, CORAAMOCA, and COAAROM is not included.

<sup>132</sup> There were seventeen rehabilitation projects, three new construction projects, and one project related to human capital development in 2016-18.

## 2. Budget Allocation for Operating Expenses

### **219. The Ministry of Finance approves annual budgets proposed by WSS providers and their BODs.**

Until 2019, operating budgets were reviewed by the Ministry of the Presidency prior to being submitted to the Ministry of Finance. This changed in 2019 with Presidential Decree 207-19 that delegated the approval of budgets and budget modifications for non-financial public enterprises (which includes WSS providers) to the Ministry of Finance.

**220. CORAAs follow a four-year strategic plan that is consistent with the NDS.** Based on the NDS, CORAAs develop an operational annual plan (*plan operativo anual*) that includes (i) plans for purchases and contracts; (ii) the expected number of clients; (iii) projects for the current year; and (iv) previous years' expenses, with an incremental increase based on inflation and permissible increases in the wage bill.

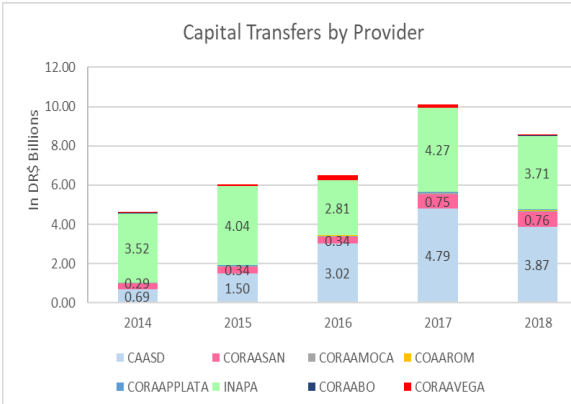
**221. Central government grants to WSS providers are essentially allocated as increments based on the previous year's allocation and are not based on current needs or performance.** The previous year's budget is used as the starting point in the budget allocation process. While the availability of funds at the national level determines the volume of funding available, it is not a binding constraint since the grants to WSS providers represent a relatively small share of the recurrent central government budget (less than 1 percent) (Table 2. Section III).

## 3. Budget Allocation for Capital Expenditures

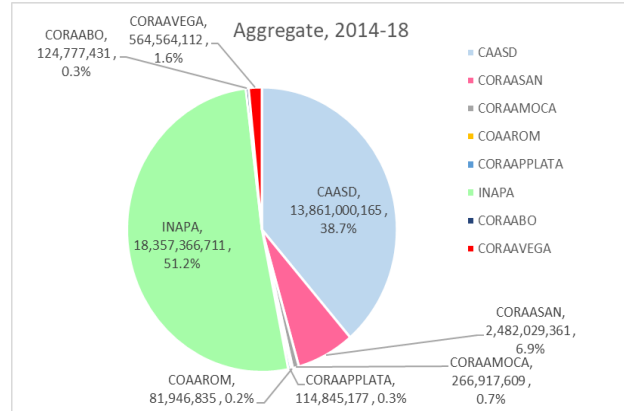
**222. INAPA and CAASD receive the largest share of capital transfers.** They receive the most resources because they not only cover the largest service area and serve the most people relative to other providers, but also because they have better capacity to apply for investment projects. Between 2014 and 2018, INAPA and CAASD received almost 90 percent of total capital transfers to the WSS sector, while CORAASAN received 6.9 percent, CORAAVEGA received 1.6 percent, and the remaining WSS providers received less than 1 percent each of all capital transfers (Figure III.27).

**Figure III.27. Capital Transfers to the WSS Sector, 2014-18**

**Capital Transfers by Provider, 2014-18  
(RD\$ Billion)**



**Share of Capital Transfers by Provider, 2014-18  
(RD\$, %)**



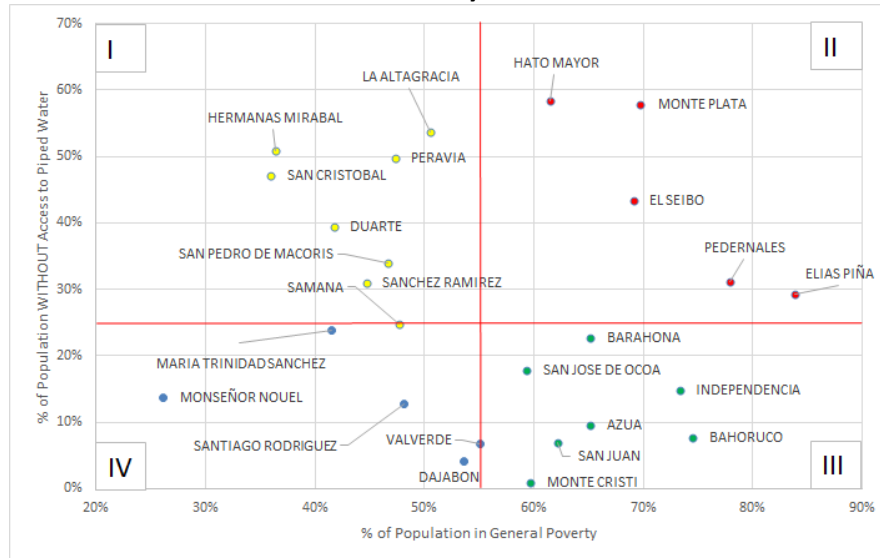
Source: Author's calculations based on DIGEPRES Executed Budget Reports for Non-Financial Public Enterprises, 2014-2018.

#### 4. Allocation of Resources for Water Supply Investments in Areas Served by INAPA

**223. As noted above, there is no formula for allocating capital budgets to providers or provinces.** Projects are submitted by providers and approved by the MEpYD and selected by the Ministry of Finance and the President's office to be included in the budget. While the evaluation of projects by MEpYD does consider social benefits, it is not clear to what extent factors such as poverty and access to piped water figure in these calculations. As the Sustainable Development Goals aspire to universal access and decreasing inequalities in access to safely managed services, it is worth exploring whether the largest provider in the country in terms of population and number of provinces – INAPA – has been able to reach those in most in need. This is not to say that other factors such as unit costs per capita to expand services, population density and efficiency gains by reaching more people, and other factors are not valid to consider in allocating scarce resources for capital investment projects; nevertheless, the question of whether the poor are benefiting in the allocation of resources for investments is worth exploring.

**224. Based on available data, there is no evident correlation between provincial poverty rates and the percentage of the population without access to piped water in the provinces served by INAPA.** In Figure III.28, the 25 provinces served by INAPA from 2014-2018 are located in one of four quadrants based on the median poverty rate and the median percentage of people without access to piped water in the province. On a positive note, seven of the twelve provinces with poverty rates higher than 55 percent (the median) have smaller percentages of the population without access to piped water indicating that investments have arguably been pro-poor. This may likely be partially explained by a USD 75 million investment project with the Inter-American Development Bank (IDB) and the Spanish International Cooperation Agency (AECID) that started in 2010, which invested in the provinces of Bahoruco, Barahona, Independencia, San Juan, Elías Piña, San Cristóbal, and San Pedro de Macorís. The first four of these provinces are in Quadrant III, which have high poverty rates but also high access to piped water and could be considered positive deviants. This figure also shows that important gaps in access to piped water remain in higher poverty provinces such as Hato Mayor, Monte Plata, El Seibo, Pedernales, and Elías Piña (Quadrant II). Notably, important gaps in access to piped water also remain in provinces with lower than median poverty rates such as La Altagracia, Peravia and San Cristóbal (Quadrant I). Based solely on poverty rates and access to piped water, Quadrant IV would be the lowest priority provinces.

**Figure III.28. Population Without Access to Piped Water (%) 2015 vs General Poverty Rates (%) 2010 – 25 Provinces served by INAPA 2014-2018**



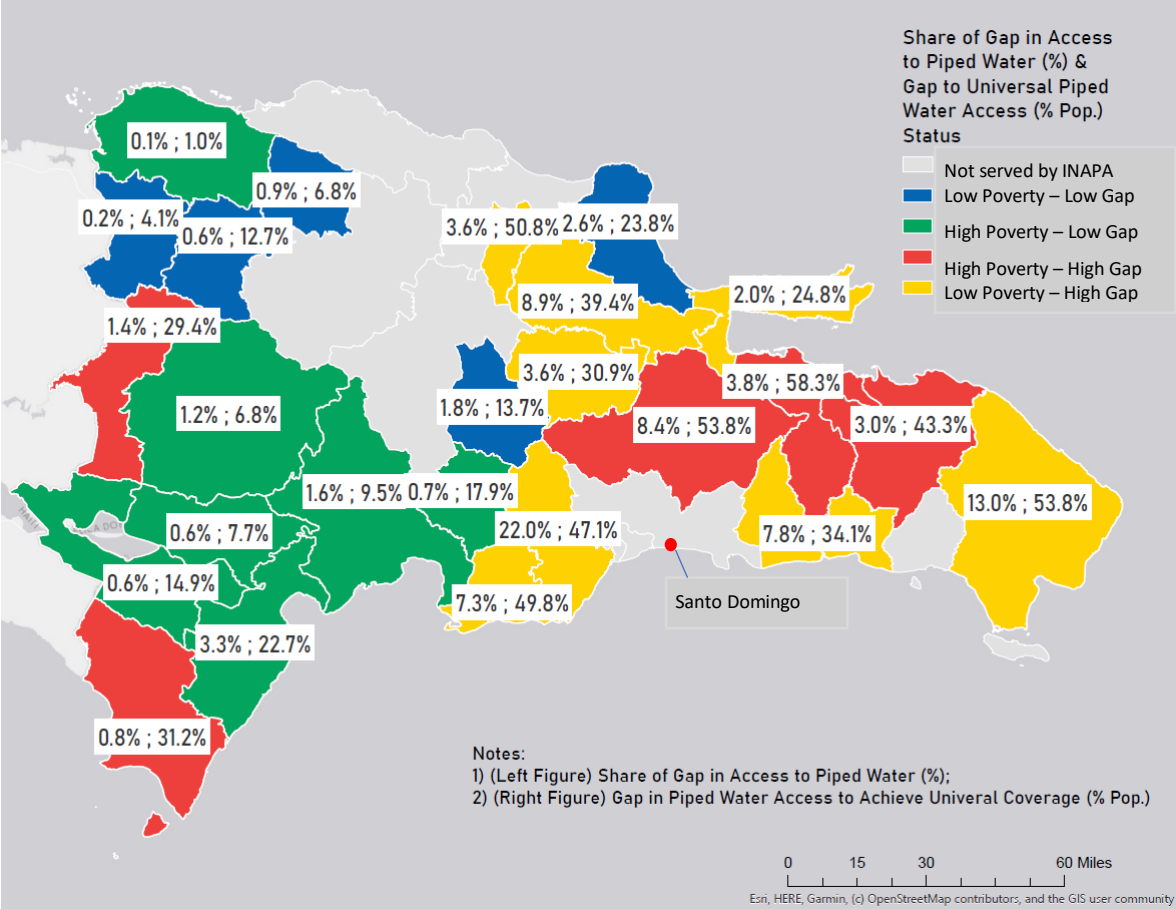
Source: Authors' calculations.

Note: Provincial level estimates for access to piped water are derived from ENHOGAR, 2015.

Poverty levels are derived from MEPyD 2010 Poverty Map. Median values for population without access to piped water and general poverty levels were used to demarcate quadrants.

**225. The western provinces, which are also further away from the capital, appear to do better on access to piped water.** Figure III.29 shows some spatial clustering of provinces which are categorized by the quadrants in Figure III.28. The green provinces (Quadrant III) are clustered in the western half of the country and do better with respect to access to piped water as do the blue provinces (Quadrant IV). Provinces in yellow are clustered in the eastern half of the country, and while they have lower provincial poverty rates, they collectively have the largest share of the gap in access to piped water. The red provinces with the highest poverty rates and highest gaps in access to piped water are mainly clustered in the east of the country. The reasons for the large gap in access to piped water between the east and west is unclear. While investments by INAPA over the last decade appear to have been largely pro-poor, looking forward toward the SDGs, the government could consider a formula-based allocation of capital resources that utilizes objective data to allocate scarce resources to ensure equitable access across all provinces. In doing so other factors would need to be considered such as capacity of providers other than CAASD and INAPA to formulate well designed projects to address provincial needs. Additionally, any formula-based allocation methodology would need to consider a minimum allocation per province to make investments worthwhile.

**Figure III.29. Share of Gap in Access to Piped Water (%) and Gap to Universal Access to Piped Water (% of Pop) 2015 – 25 Provinces served by INAPA 2014-2018**



Source: Authors' calculations.

Note: Provincial level estimates for access to piped water are derived from ENHOGAR, 2015. Poverty levels are derived from MEPyD 2010 Poverty Map. Median values for population without access to piped water and general poverty levels were used to demark quadrants.

5. Consumption Subsidies for Water Services in Areas Served by INAPA and CAASD

**226. This section examines the size and distribution of consumption subsidies for water and sanitation services (WSS).** It uses benefit-incidence analysis (BIA) to assess the distributional impact by socioeconomic group of government spending on WSS, and whether the allocation of subsidies is progressive or regressive. The section evaluates the various types of WSS subsidies provided in the DR; however, it does not examine the allocative efficiency of investments in service expansion undertaken as part of the government's effort to provide universal access to WSS.

**Subsidy Mechanisms**

**227. A consumption subsidy represents the difference between the cost of providing a service and the amount paid by the user.** Like other consumption subsidies, WSS subsidies may be untargeted, implicit, or explicit. Untargeted subsidies apply to all consumers regardless of income level or other socioeconomic characteristics. Implicit subsidies reflect a difference between the official tariff rate for the service and the actual rate paid by consumers, often due to inadequate metering or low rates of billing

and collection. Explicit subsidies are below-cost tariffs offered to specific groups of consumers. Most explicit WSS subsidies are based on consumption volumes, with low-volume consumers paying lower tariff rates than high-volume consumers under an increasing block tariff (IBT) system. WSS subsidies are financed through: (i) fiscal transfers to water utilities; (ii) cross-subsidies created by the higher tariff rates paid by high-volume consumers; and/or (iii) short-term savings from service interruptions or underinvestment in WSS infrastructure.<sup>133</sup>

### ***Scope of Analysis***

**228. The BIA presented in this section is limited to the geographic areas served by CAASD and INAPA.** These two providers are the largest in the DR, covering approximately 75 percent of the population and receiving 88 percent of all recurrent transfers from the central government. The analysis is based on data from the 2018 National Household Expenditure and Income Survey (*Encuesta Nacional de Gastos e Ingresos de los Hogares*, ENGIH). Of the 8,881 households included in the 2018 ENGIH, 6,948 were within the service areas of CAASD and INAPA. These households provide a sufficiently large sample for the purposes of the analysis.

### ***Subsidies in Practice***

**229. INAPA and CAASD have established an IBT designed to provide cross-subsidies to poor households, but this system is ineffective in practice.** In principle, the IBT imposes a progressive tariff structure, in which unmetered households (which compose the vast majority of households) are assigned to consumption categories based on their socioeconomic characteristics, and poorer households are subject to a lower marginal tariff than their wealthier counterparts.<sup>134</sup> In practice, however, low billing and collection rates across households at all income levels prevent the cross-subsidy mechanism from achieving its desired outcome.<sup>135</sup> Consequently, the real subsidy for water consumption is largely implicit, as it reflects nonpayment for water services by all categories of consumers.

**230. High rates of nonpayment for water services drive the operating deficits of WSS providers.** 71.1 percent of households connected to the piped network in CAASD's jurisdiction report not paying for the water they consume (Figure III.30), as do 53.8 percent of households connected to the piped water network in INAPA's jurisdiction (Figure III.31). Meanwhile, only about 16 and 27.4 percent of households in the CAASD and INAPA service areas, respectively, report paying for the piped water they consume.<sup>136</sup> These patterns are similar across all consumption quintiles for both CAASD and INAPA customers.

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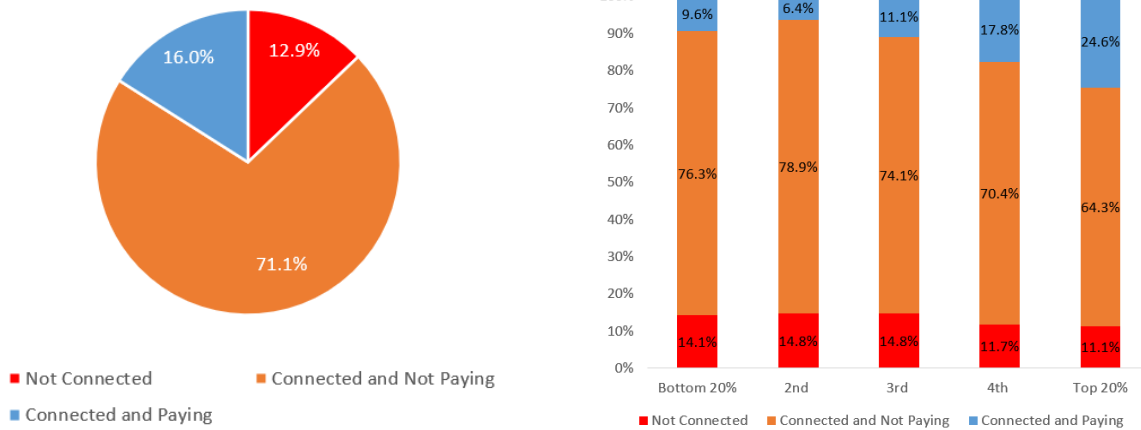
<sup>133</sup> Abramovsky et al. 2020. *Study of the Distributional Performance of Piped Water Consumption Subsidies in 10 Developing Countries. Policy Research Working Paper*. Washington, DC: World Bank.

<sup>134</sup> See Annex 3

<sup>135</sup> CAASD estimates a collection rate of about 59 percent, whereas for INAPA it is difficult to verify this data point. As noted in Section VI, only 141,600 of INAPA's hundreds of thousands of clients are billed, of whom only about 55,000 (39 percent) pay their bills. Household survey data on payment for water services corroborates the magnitude of the problem.

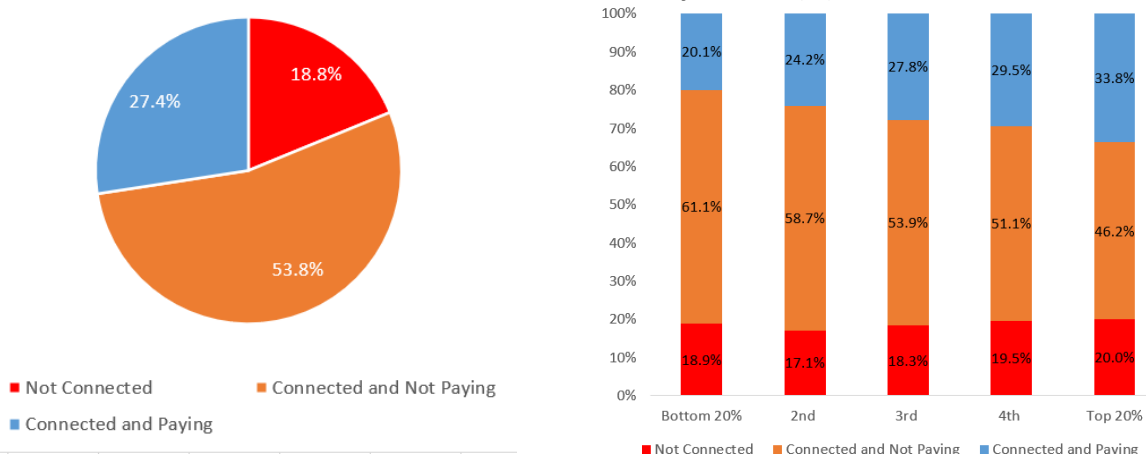
<sup>136</sup> Note that self-reported non-payment for water bills in the ENGIH may be influenced, particularly in urban areas, by households that live in multi-story housing units such as apartments that may not see a water bill because it is included their rent. Nevertheless, administrative data on low billing and collection rates corroborates the self-reported data.

**Figure III.30. Connection and Payment Status of Households in Areas Served by CAASD with a Piped Water Connection, Total and by Quintile (%)**



Source: Authors' calculations using ENGIH 2018

**Figure III.31. Connection and Payment Status of Households in Areas Served by INAPA with Piped Water Connection, Total and by Quintile (%)**



Source: Authors' calculations using data from ENGIH 2018

**231. While some of the transfers provided by the central government reach consumers, these resources are largely consumed by the inefficiency of INAPA and CAASD.** Both utilities face unnecessarily high operational costs due to a combination of overstaffing, inefficient energy consumption, and technical losses in the water grid. Since fiscal transfers cover the operational deficits of the providers, their inefficiency is a burden on the national budget. In addition, although the unit prices for water reflected in the tariff structure may be below the efficient cost of production, low billing and collection rates are a more urgent problem. Taken together, the inefficiency of the providers and nonpayment by consumers result in the central government transferring RD\$4.07 billion per year to INAPA and CAASD to ensure that services continue.<sup>137</sup>

<sup>137</sup> In 2018, INAPA received DR\$2.25 billion (48.8 percent of all transfers to WSS providers) and CAASD DR\$1.82 billion (39.5 percent of all transfers to WSS providers).

### Consumption patterns

**232.** Although the water provided by CAASD and INAPA is heavily subsidized, households in their service areas spend a significant amount of their income on privately provided bottled water. Each month, households at all income levels spend substantially more on privately provided bottled water than they do on publicly provided water (Table III.7). Globally, an upper limit of 5 percent of household income has been widely adopted as a benchmark for the affordability of WSS.<sup>138</sup> However, CAASD customers routinely spend more than 5 percent of their income on water services alone.

**Table III.7. Household Spending on Water Consumption as a Share of Total Spending by Expenditure Quintile (%)**

		Bottom 20%	2nd	3rd	4th	Top 20%	Bottom 40%	Top 60%
CAASD	Public water expenditure	1.1%	1.0%	1.1%	0.6%	0.5%	1.0%	0.5%
	Bottled Water	11.2%	12.1%	7.7%	4.1%	1.6%	11.7%	2.5%
	<b>Total</b>	<b>12.4%</b>	<b>13.1%</b>	<b>8.8%</b>	<b>4.7%</b>	<b>2.0%</b>	<b>12.8%</b>	<b>3.0%</b>
INAPA	Public water expenditure	0.8%	0.7%	0.7%	0.5%	0.4%	0.7%	0.5%
	Bottled Water	2.8%	2.8%	2.5%	2.4%	1.4%	2.8%	1.9%
	<b>Total</b>	<b>3.6%</b>	<b>3.5%</b>	<b>3.2%</b>	<b>2.9%</b>	<b>1.8%</b>	<b>3.5%</b>	<b>2.4%</b>

Source: Authors' calculations using ENGIH 2018

**233.** In the DR, the poorest 40 percent of households allocate a larger share of their expenditures to purchasing public and private water than do households in the top 60 percent. In areas served by CAASD, households in the bottom 40 percent of the income distribution allocate 12.8 percent of their monthly consumption expenditures to water supply, with the overwhelming majority (11.7 percent) going to purchases of bottled water. In areas served by INAPA, water represents a smaller share of household consumption expenditure with poorer households spending a higher percentage than their wealthier counterparts. Households in the poorest 40 percent spend about 3.5 percent of their income on water, almost 80 percent of which goes to pay for bottled water.

**234.** High levels of spending on bottled water by both rich and poor consumers suggests a general lack of confidence in publicly provided water services. Encouraging households to use water provided through the network will require major efforts by public providers to improve the continuity of services while convincing consumers of the quality and safety of publicly provided water.

### *The Distribution of Water Consumption Subsidies across Income Levels*

<sup>138</sup> Komives, et al. 2005. *Water, Electricity, and the Poor: Who Benefits from Utility Subsidies?* Directions in Development. Washington, DC: World Bank.



**235. Households in areas served by CAASD and INAPA are slightly wealthier than average.** Households in CAASD’s service area tends to be relatively wealthy, while households in INAPA’s service area are more evenly distributed across expenditure levels (Tables III.8 and III.9).<sup>139,140</sup>

**Table III.8. Number of Households in the INAPA and CAASD Service Areas by Expenditure Quintile**

	Total	Bottom 20%	2nd	3rd	4th	Top 20%
<b>National</b>	8,881	1,776	1,776	1,776	1,776	1,776
<b>CAASD</b>	1,956	227	312	355	426	636
<b>INAPA</b>	4,990	889	928	1,003	1,064	1,105

Source: Author’s calculations based on the ENGIH 2018

Note: These figures include households not connected to the network

**Table III.9. Share of Households (%) in the INAPA and CAASD Service Areas by Expenditure Quintile**

	Total	Bottom 20%	2nd	3rd	4th	Top 20%	Total
<b>National</b>	8,881	20%	20%	20%	20%	20%	100%
<b>CAASD</b>	1,956	11.6%	16.0%	18.2%	21.8%	32.5%	100%
<b>INAPA</b>	4,990	17.8%	18.6%	20.1%	21.3%	22.2%	100%

Source: Author’s calculations based on the ENGIH 2018

**236. Over 80 percent of households have access to piped water, with high rates of access observed across all expenditure quintiles.** The vast majority of households in the CAASD and INAPA service areas have access to piped water through a connection in their house or on their property or through a public tap (Table III.10).<sup>141</sup> Although access rates do not differ substantially across expenditure quintiles, levels of access to the piped water network are highest within the largely urban jurisdiction of CAASD.

**Table III.10. Share of Households with a Piped Water Connection by Expenditure Quintile**

	Bottom 20%	2 <sup>nd</sup>	3 <sup>rd</sup>	4th	Top 20%	Overall
<b>CAASD</b>	85.9%	85.2%	85.2%	88.3%	88.9%	87.1%
<b>INAPA</b>	81.1%	82.9%	81.7%	80.5%	80.0%	81.2%

Source: Author’s calculations based on the ENGIH 2018

Note: This analysis includes the National District and the Province of Santo Domingo along with the 25 provinces that INAPA managed in 2018.

**237. The distribution of water subsidies is regressive in areas served by CAASD and roughly neutral in areas served by INAPA.**<sup>142</sup> In CAASD’s jurisdiction, a larger share of households connected to the network is in the top quintile than in the bottom quintile, whereas in INAPA’s jurisdiction the shares are broadly equal (Figure III.32 and III.33). This distribution of connected households in CAASD’s service area skew the distribution of water subsidies towards wealthier households (Figure III.32b). INAPA’s broadly equal shares of poor and wealthy households result in a relatively equitable distribution of subsidies. In

<sup>139</sup> The consumption index used to generate expenditure quintiles is based on the Central Bank’s methodology who managed the ENGIH 2018.

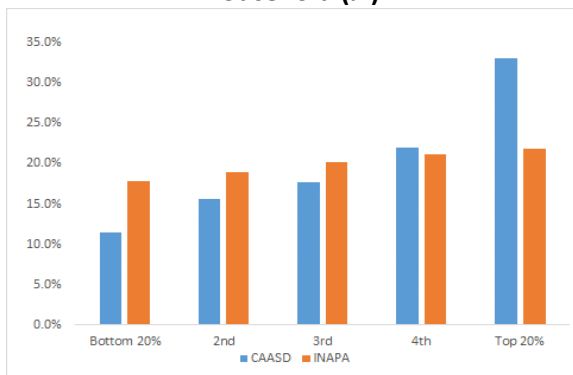
<sup>140</sup> These are households with and without access to the public network that are located in the provider’s service area.

<sup>141</sup> Table 11 presents the percentage of households by quintile (from Table 9) with access to a piped network.

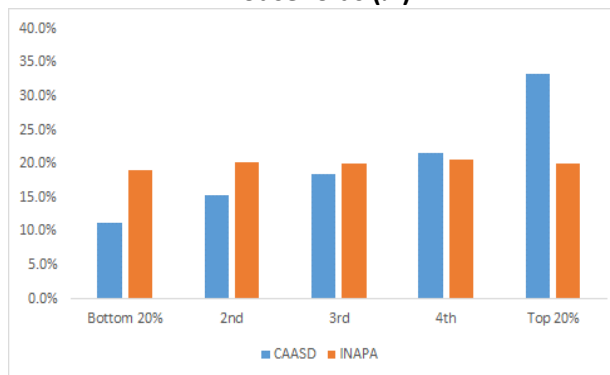
<sup>142</sup> See Annex 3 for methodology on calculating net subsidy

effect, INAPA delivers an untargeted subsidy that is neutral and roughly equally benefits rich and poor households.<sup>143</sup> By contrast, in CAASD’s jurisdiction the subsidy incidence is regressive, with the bottom 40 percent of consumers receiving only 29 percent of the total subsidy and the top 40 percent receiving 52 percent. Because CAASD provides services to a population that is wealthier on average than the population in INAPA’s jurisdiction, a larger share of subsidies accrues to wealthier households. In both cases, the subsidy’s distribution is affected by low billing and collection rates, defeating the IBT’s intended progressivity.

**Figure III.32. Share of Connections by Household (%)**



**Figure III.33. Share of Net Subsidy Received by Households (%)**



Source: Author’s calculations based on data from ENGIH 2018

### Conclusion

**238. The water consumption subsidies received by households in the DR do not reflect the design of its IBT system but are instead the result of pervasive nonpayment among both wealthy and poor households.** High levels of non-revenue water and low collection rates deprive providers of revenues, creating large operating deficits that undermine service delivery. As a result, the fiscal transfers provided to the water sector primarily subsidize the inefficiency of service providers. Meanwhile, consumers receive subsidies in the form of free or below-cost water; these subsidies are untargeted and accrue to wealthy and poor households at roughly equal rates. Consequently, the relative shares of poor and wealthy households in each service area determines the distribution of benefits across expenditure quintiles. As the CAASD service area includes a large number of wealthier households, the distribution of subsidies is regressive.

**239. Poor households spend up to 12 percent of their income on bottled water, indicating a pervasive lack of confidence in the quality, safety, and reliability of public water services.** Reforms and investments that reduce technical losses in the water grid will be vital to ensure that service providers have the resources necessary to maintain adequate levels of service. Key measures include expanding macro-metering, conducting annual water audits, implementing district-level meters, updating user cadasters, and developing water-loss reduction strategies and investment plans. The gradual expansion of micro-metering will increase the amount of billed water, making the progressivity of the IBT more effective in practice. Increasing billing and collections rates will require robust social outreach coupled with improvements in service quality that are visible to consumers, which will help establish trust in the quality

<sup>143</sup> Komives et al. 2005. *Water, Electricity, and the Poor: Who Benefits from Utility Subsidies?* Directions in Development. Washington, DC: World Bank.

and safety of publicly provided water. Improvements in service quality can help poor households reduce their spending on expensive bottled water while reallocating a share of that spending to public providers.

## G. Challenges Facing the Sector

### 1. Trapped in a Low-Level Equilibrium

**240. While the coverage of WSS services in the DR is relatively high and comparable to that in peer countries, significant challenges remain.** For example, the share of households in urban areas, where 80 percent of the population lives, with access to sewerage services is only 27 percent.<sup>144</sup> Of the households that are connected to the sewerage system, only a small portion of their wastewater is treated, and those that are not connected rely on onsite sanitation solutions that contaminate the groundwater.<sup>145</sup> This situation is expected to worsen as the population increases. Major gaps remain in rural areas, with 10 percent of the population without access to basic water-supply coverage and 26 percent without access to basic sanitation. Evidence suggests that the country's challenges in the WSS sector are related to the quality of services, which cannot be improved by an increase in investment spending alone. Even in areas that are classified as "covered" by public water-supply services, 65 percent of urban dwellers and 52 percent of rural households report intermittent water supply and rationing. As a result, 86 and 76 percent of urban and rural households, respectively, rely on coping mechanisms such as storage tanks, pumps, and cisterns to ensure adequate volumes of water for daily consumption.<sup>146</sup>

**241. The DR's WSS sector is trapped in a low-level equilibrium,** which is characterized by: (i) poor service quality; (ii) low tariffs; (iii) low billing and collection; (iv) inadequate attention to operations and maintenance, leading to a high level of water loss and discontinuity; (v) households relying on coping arrangements to mitigate unreliable supply; and (vi) a reluctance to pay higher tariffs that could be used by WSS providers to improve service quality.

**242. Experience from other countries with similar challenges suggests the persistence of the low-level equilibrium is often due to a lack of trust between customers and service providers.** Several countries such as India, Nigeria, and Tanzania are in similar situations. Using the framework of the World Bank's 2004 World Development Report (WDR), the "short route of accountability" between service providers and customers in the DR would be characterized as weak.<sup>147</sup> The problem is exacerbated by the central government continuing to subsidize the operating deficits of WSS providers and keeping tariffs low. The task of building trust between providers and customers in the WSS sector is challenging, particularly if consumers only have experience of unreliable and intermittent services. Nevertheless, there are parallels with the DR's energy sector, where the authorities have been able to make progress on improving the quality of services and building trust through initiatives such as Back to Electricity and Pacto Eléctrico.

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<sup>144</sup> Oficina Nacional de Estadísticas (ONE). 2014. Mult-Purpose Indicator Survey (*Encuesta Nacional de Hogares de Propósitos Múltiples*). 2014.

<sup>145</sup> *Ibid* 12

<sup>146</sup> Banco Central. 2018. Household Expenditure and Income Survey (*Encuesta Nacional de Gastos e Ingresos de los Hogares – ENGIH*) 2018. Santo Domingo, Dominican Republic: Banco Central

<sup>147</sup> World Bank. 2003. *Making Services Work for Poor People: World Development Report 2004*. Washington, DC: World Bank.

## **High Water Losses**

**243. Many of the country's WSS providers operate well below international efficiency norms.** CAASD, which provides water services to the national district of Santo Domingo and Santo Domingo province (excluding Boca Chica municipality), produces an estimated 220 liters of water per capita per day (lpcd), and yet it is only able to provide intermittent services.<sup>148</sup> Combined production capacity in 2019 across all providers suggests that on an average more than 300 lpcd is available, which should be more than adequate to provide a continuous water supply.<sup>149</sup> For example, the French city of Paris provides its residents with a continuous water supply with 120 lpcd. The current strategy of CAASD, along with that of INAPA and the other CORAAs, is to increase the quantity of water,<sup>150</sup> with a limited focus on reducing losses, improving services, and building customer confidence that services could improve.

**244. The extraordinarily high levels of water loss, or NRW, in the DR are due to leakages and legal and illegal excess consumption.** Although the absence of metering makes it difficult to precisely estimate water losses, the difference between water produced and sold provides a rough estimate of NRW. Using this method, NRW among the smaller CORAAs ranges from 45 percent at CORAAPPLATA to 68 percent at COAAROM and 95 percent at CORAAMOCA. According to a study conducted over a decade ago, CAASD's level of NRW was as high as 70 percent. An analysis of INAPA's customer base (about 3.8 million) and the number of installed micrometers (around 1,400) suggests that NRW is likely to be high. The level of NRW among the DR's WSS providers is higher than that of providers in neighboring countries in the Caribbean and significantly higher than that of better-performing utilities in Africa (Figure III.34). A lack of monitoring of water losses and ability to reduce NRW results in not only lost revenues but also in unreliable and intermittent supply. This situation is unsustainable both from a social and environmental perspective, especially considering the climate-related challenges facing island countries such as the DR.

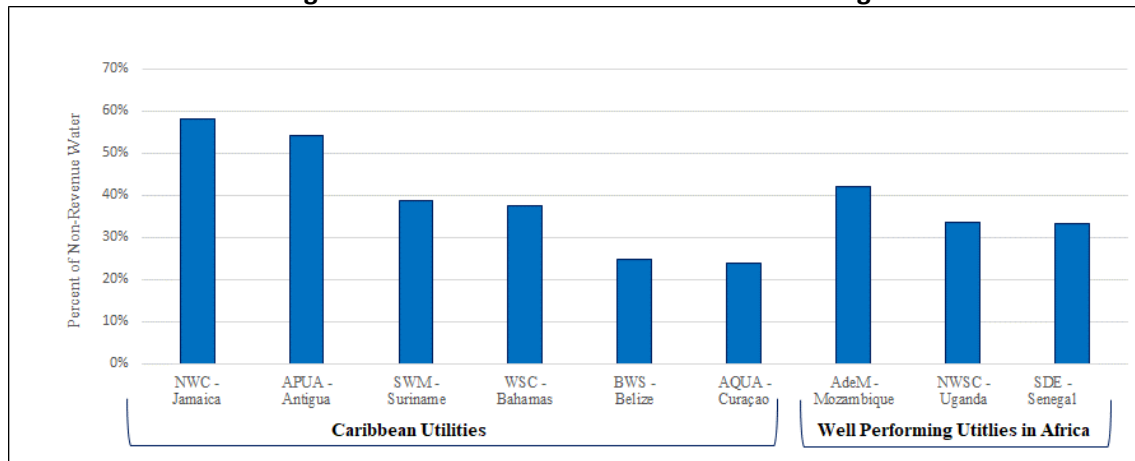
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<sup>148</sup> CAASD reports producing 499,373,000 M3/year and has approximately 674,000 active [billed] and inactive clients [served but not billed], which equates to 548 liter per person per day (lpcd). Assuming 50 percent physical losses and another 20 percent for non-residential uses, CAASD should be able to deliver close to 220 lpcd.

<sup>149</sup> This assumes 50 percent physical losses and 20 percent consumption by non-residential users. Source: Authors' calculations based on providers' reported production.

<sup>150</sup> Meetings with INAPA and CAASD on February 6, 2020, and February 7, 2020.

**Figure III.34. Non-Revenue Water Benchmarking**



Source: World Bank 2020. A Benchmark for the Performance of State-Owned Water Utilities in the Caribbean. Washington DC: World Bank; International Benchmarking Network (IBNET), World Bank, Washington, DC (accessed March 2, 2020), <http://www.ib-net.org>.

**245. Neighboring countries that have high levels of NRW such as Jamaica (albeit less than the DR) have prioritized efforts to reduce water losses.** Jamaica’s National Water Commission has launched a five-year NRW reduction co-management program with a water efficiency partner. The US\$42.5 million program is funded by the Inter-American Development Bank and is focused on addressing leaks, converting non-paying consumers to paying customers, and installing new meters that accurately measure consumption. A key aspect of the program is a strong social component to engage and communicate with users.

**246. Service providers have not prioritized the sectorization of networks and metering, making it difficult to detect leaks, repair aging infrastructure, and convert illegal connections to registered clients.** For example, staff at CAASD have reported that much needed investments in an operational control center that would allow them to better manage resources have not been a priority. Additionally, low tariffs and billing rates and a lack of stringent collection practices do not encourage users to conserve water, and the absence of a continuous water supply leads to additional waste as a result of taps that are left open to fill cisterns that overflow. Furthermore, WSS providers have reported that it is not uncommon for water produced for household consumption to be illegally and inappropriately diverted toward agricultural use, often in a clandestine manner. This contributes not only to high commercial losses but also to an intermittent supply of water services, which primarily affects vulnerable households.

### **Low levels of Metering**

**247. WSS providers lack the ability to measure the amount of water produced and used.** Macro-metering is largely absent and INAPA and the CORAAS are unable to measure raw water used, drinking water produced and distributed through the networks, and wastewater channeled through the sewerage network and disposed of with or without treatment. Previously installed meters are dysfunctional due to lack of maintenance and other technical reasons. Micro-metering varies across providers but remains low overall.<sup>151</sup> For example, only a small fraction of INAPA’s total users and billed clients are metered and only

<sup>151</sup> According to the National Expenditure and Income Survey of Households 2018, only about 10 percent of households were metered in 2018.

15 percent of COAAMOCA's clients are metered. On the other hand, while other CORAAs such as CORAASAN have installed meters for 61 percent of its clients, and CAASD and CORAAPPLATA have had some success in outsourcing their billing and metering functions, with incentives to identify illegal connections, only 30 percent of CAASD's clients and 27.6 percent of CORAAPPLATA's clients are metered.

### ***Low Level of Billing and Collection***

**248. Contributing to the low-level equilibrium in the WSS sector is the low level of billing and collection.** Only 141,600 of INAPA's hundreds of thousands of clients are billed, of whom only about 55,000 (39 percent) pay their bills. Collection rates range from 33 percent at CORAAVEGA to 81 percent at CORAAMOCA, with CAASD and CORAAPPLATA at 59 percent and 45 percent, respectively. While INAPA has started making progress on increasing its billing and collection rates in recent years, decades of not billing have contributed to a culture of non-payment.

### ***High Costs and Staffing and Energy Inefficiencies***

**249. The operational cost per cubic meter of water produced ranges between 6.20 RD\$/m<sup>3</sup> for CORAAVEGA and 17.25 RD\$/m<sup>3</sup> for CORAASAN.**<sup>152</sup> The operational cost is higher than the billed price per cubic meter of water produced at INAPA, CAASD, CORAAPPLATA, and CORAAMOCA. Factoring in collection efficiency, none of the service providers are financially viable based on from the sale of services. This is due to high levels of commercial and physical losses and other inefficiencies, including staffing levels above international standards, suboptimal maintenance, and lack of efforts to improve energy efficiency. For example, a project identified in CORAAMOCA's business plan in June 2013 to reconfigure the water conveyance system in Moca, which could have resulted in annual savings of around US\$150,000, has not yet been implemented.

**250. Wage expenditures constitute the largest share of the recurrent costs of WSS providers, ranging from 60 percent for CORAAMOCA and CORAASAN to 34 percent for CORAAPPLATA.** However, CORAAs have no control over the level of remuneration, as their pay and grading structure is determined by the Ministry of Public Administration. Their salary levels are low relative to the average government salary. The average salary at INAPA and CORAASAN is lower than the government average, and salaries offered at CAASD are reportedly lower than the salaries at INAPA and CORAASAN.

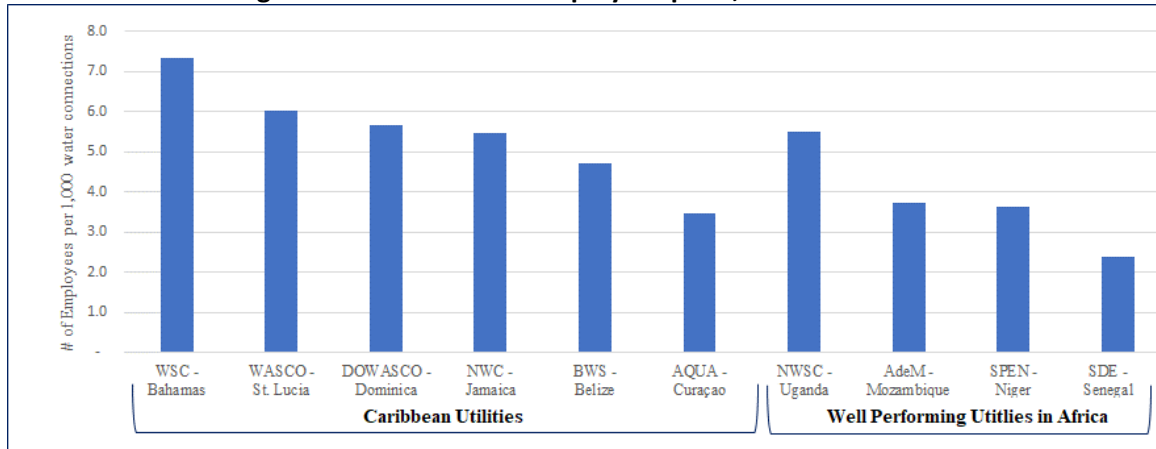
**251. While wages may be considered low in comparison to government averages, there may be room to reduce costs by increasing employee productivity.** Staffing levels for the DR's WSS providers are well above the developed country standard of 2-3 employees per 1,000 water connections, and also above those of regional and other developing country comparators. Estimating staff levels in the DR is difficult due to (i) limited information on the actual number of connections; (ii) the inability to differentiate employees involved in water-supply and wastewater management; and (iii) the outsourcing of some services by some providers. Nevertheless, estimates suggest that the number of staff employed by CORAAs ranges from 7.2 per 1,000 connection at CORAAVEGA to over 21 per 1,000 connections at CORAAMOCA.<sup>153</sup> By contrast, the country's Caribbean neighbors have between 3.5 to 7.3 employees per 1,000 connections, while some of the best-performing utilities in Africa have even lower ratios (Figure III.35).

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<sup>152</sup> Operational cost per cubic meter is calculated by dividing total OPEX by volume of water produced. This number is reported for 2019.

<sup>153</sup> Based on interviewers and available information from CORAAs' websites.

**Figure III.35. Number of Employees per 1,000 Water Connections**



Source: World Bank 2020. A Benchmark for the Performance of State-Owned Water Utilities in the Caribbean. Washington DC: World Bank; International Benchmarking Network (IBNET), World Bank, Washington, DC (accessed March 2, 2020), <http://www.ib-net.org>.

**252. Almost all of the energy costs of the WSS providers are paid for with transfers from the central government, removing any incentives for utilities to be more energy efficient.** Even though energy costs are included in the CORAAs' budgets, the Ministry of Finance directly pays their energy bills, as the government wants to prevent payment defaults to the power utilities. WSS utilities are victims of power theft from illegal connections at their pumping stations and plants, further driving up their costs and increasing the burden on public finances.<sup>154</sup>

#### **Additional Costs Due to Poor Quality Services**

**253. Service providers in the WSS sector also need to pay for chemicals and tanker trucks, and the costs vary depending on the season.** While chemicals are needed for any water and wastewater treatment process, the high levels of water loss result in wasted resources spent on chemicals for water treatment. Providers need to purchase or rent tanker trucks to deliver water to households that have poor service or lack access to public networks. Due to the intermittent service provision, most providers own and/or rent tanker trucks to distribute water. For example, CAASD owns fifteen water tanker trucks and rents around seventy trucks (with biweekly contracts). Truck rental varies with water availability. While CAASD rents about twenty trucks when water availability is high during the rainy season, this increases significantly during periods of droughts, such as in 2019 when it rented one hundred trucks at one time.<sup>155</sup> In 2017, CAASD reported truck rental costs of US\$640,000 for 20,025 tanker truck operations, with an average of thirty permanently rented trucks. Even smaller providers such as CORAAMOCA have tanker trucks and rely on rentals to meet the needs of the population in times of drought.

#### **2. Incentives of Service Providers**

**254. The low-level equilibrium in the DR's WSS sector has persisted for some time.** This suggests that INAPA and the CORAAs lack the incentives, knowhow, and resources needed to improve the efficiency of their operations and quality of services.

<sup>154</sup> Staff interviews at CAASD on February 7, 2020.

<sup>155</sup> A water tanker is estimated to carry about 2,500 gallons, equivalent to 9.46 M<sup>3</sup> of water. The annual volume of tanking for CAASD is estimated to be 423,531 M<sup>3</sup> for the first 10 months of 2019, equivalent to 9,750 M<sup>3</sup> per week.



### ***Soft Budget Constraints***

**255. INAPA and the CORAAs lack the incentives to improve their operational efficiency.** No service provider in the DR's WSS sector can currently cover its operating costs with own-source revenue. To supplement their own revenues, WSS providers rely on grants from the central budget to finance their operating costs, and there are reports that they sometimes draw on their investment budgets to finance operating expenditures. The state views WSS services as a human right, which means that the government finances the operating expenses of CORAAs as needed. In practice, service providers are subject to soft budget constraints, which means that they are not constrained by binding limits on their budgets, as their revenue shortfalls are routinely financed by the central government. This creates incentives to extract bigger subsidies to finance operating expenses rather than to reduce costs and increase efficiency.<sup>156</sup>

**256. The central government intervenes so that service providers do not carry over operational deficits to the next year.** Year-end operational deficits are typically financed by the government. If there were hard budget constraints (i.e., there are no other resources available when budgeted funds are exhausted), WSS providers would be under pressure to improve their performance efficiency (including billing and collection) or the quality of their services and coverage would significantly deteriorate. The evidence suggests that the government is not willing to take the risks involved in pressuring INAPA and the CORAAs to improve their operational performance. Instead, the government continues to allow service providers to operate under soft budget constraints, allowing the low-level equilibrium to persist.

**257. Thus, for all practical purposes, WSS providers operate as government departments rather than as commercially driven utilities.** While they were legally created as autonomous entities,<sup>157</sup> the only difference between the CORAAs and government departments is that the former retain and use own-source revenues to partly finance their operations. Therefore, there is *de facto* no arm's length relationship between the government and WSS providers, which means that an effective "compact" between policymakers and service providers does not exist.<sup>158</sup> As a result, policymakers have limited ability to hold INAPA and the CORAAs to account for poor service quality and operational inefficiency.

### ***Reporting on Own-Source Revenues***

**258. Even though CORAAs can generate their own revenues (largely from user charges), they do not set revenue targets, and financial reporting is weak.** The quality of their financial reports is often poor, and reports are not subject to frequent controls such as regular financial audits. INAPA and the CORAAs report income and expenditures on an annual basis to the DIGEPRES, which generates annual expenditure reports for all non-financial public enterprises. While the Organic Public Budget Law 423-06 stipulates that non-financial public enterprises have to report accrued income and expenditures, some providers use a mix of cash-based and accrual accounting methods. For example, instead of reporting the amount billed as accrued revenues and listing account receivables as assets, some providers only report the actual amount collected as their revenues. WSS providers may do this because they know they will not be able to collect the amount they bill, and their accounts receivables would continue to accumulate.

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<sup>157</sup> INAPA Law No 5994, CAASD Law No. 498, CORAASAN Law No. 582, CORAAVEGA Law No. 512-05, CORAAPPLATA Law No. 142.97, COAROM Law No. 385-98, CORAAMOCA Law No. 89097, CORAABO Law No. 438.06.

<sup>158</sup> World Bank. 2004. *World Development Report*.

### 3. Transparency and Accountability

#### Corporate Governance

**259. INAPA and the CORAAs are set up as statutory bodies, also known as parastatal entities, and are a hybrid between a government body and a commercial company.** While they are, in principle, autonomous, their functioning is similar to that of government departments.

**260. The majority of the members of WSS providers' BOD are either appointed by the government or are *ex officio* public servants.** This is true of all the board members of INAPA and CAASD, which serve around 80 percent of the population, and true for 78 percent or more of the board members of the other CORAAs, except for CORAAPPLATA and COAAROM, where it is true for 67 percent of the members (Table III.11). Moreover, the executive branch appoints the directors general for all the providers except CORAAVEGA and COAAROM. Even in these latter two cases, board members that are appointed by the executive branch can influence the appointment of director generals. As such, their appointments are directly tied to the four-year electoral cycle, the beginning of which is often accompanied by management changes particularly when there is a change in parties. The relationship between the government and some CORAAs is such that some service providers' staff members are directly engaged in campaign activities.

**Table III.11. Composition of Boards of Directors**

Institution	INAPA	CAASD	CORAASAN	CORAAMOCA	CORAAPPLATA	COAAROM	CORAABO	CORAAVEGA
Board members	5	7	9	9	9	9	6	20
Executive Branch appointments	1	5	4	4	2	1	1	1
Members of the Executive appointed	4	1	-	-	1	-	2	-
Elected officials appointed	-	1	2	2	2	4	1	14
Representative from INAPA or a CORAA	-	-	1	2	1	1	1	1
Civil society appointments not chosen by the Executive Branch	-	-	2	1	3	2	1	3
Internal appointments	-	-	-	-	-	1	-	1
Board members appointed by the Executive + <i>ex officio</i> public servants (including INAPA or another CORAA representative) [A]	5	7	7	8	6	6	5	16
[A] % of total board members	100%	100%	78%	89%	67%	67%	83%	80%

Source: Author's calculations based on laws and regulations in the DR.

#### Absence of Data on Performance

**261. Information required to construct internationally recognized performance indicators is either nonexistent or of poor quality in the DR.** NRW is a critical performance indicator for any water utility, but the lack of metering across providers makes it difficult to establish a baseline and measure improvements, which is compounded by the lack of data on networks and the number of connections. Service providers lack or have partial network cadasters, which prevents them from creating a clear picture of their infrastructure assets. INAPA has only one province with an updated user cadaster and one that is currently being surveyed. Some providers have asset registries and others are incomplete, and their valuation of these assets are often not based on realistic assumptions and are not comparable across providers. For example, some providers such as CORAAMOCA do not depreciate assets at all, while other providers depreciate some types of assets but not others including infrastructure. Missing information on the actual number of connections makes labor productivity, measured as the number of employees per 1,000 water

or sewerage connections, difficult to calculate. Significant work is required across providers to update asset registers, along with network and user cadasters, and establish an accurate performance baseline. Although rough estimates on some performance indicators can be derived from available data these are not useful for rigorous performance monitoring or benchmarking. While INAPA and CAASD publish their tariff structures on their websites, other providers do not.

**262. Information collected by WSS providers is neither consistent nor comparable across them.** The data produced by providers differ in their quality and consistency and do not allow for easy and meaningful comparison.

- Some CORAAs do not perform an analysis of treated wastewater, and INAPA does not conduct a microbiological analysis of purified water from many of its secondary aqueducts.
- Energy consumption and subsidies are not comparable since WSS providers do not use the same methodology or approach when registering energy costs in their accounting systems.
- Billing information is not harmonized and data on actual consumption are scarce, making it difficult to develop a reliable picture of the volume of water that actually reaches consumers.
- In the case of accounts receivable, the different approaches followed by the WSS providers in their registration does not allow for a comparison of short-term current assets between CORAAs. The lack of reliable client databases also indicates that -independently of accounting registries- even internal commercial information across WSS providers is not comparable. Although all providers produce income and financial statements, these reflect neither the economic value of their assets nor their current liabilities. The inconsistency in accounting practices between providers also makes it challenging to compare working ratios (i.e., own-source revenues divided by operating costs). Energy costs and depreciations are not properly registered, which casts doubt on not only the results but also on the progress recorded in terms of improving equity. It is imperative that WSS providers harmonize their accounting registries and practices, reconstruct network cadasters and fully reevaluate their asset bases for accounting information to reflect the economic reality of the different providers to enable comparison of their balance sheets and income statements over time. This is important for improving accountability, transparency, and overall performance, for attracting private-sector investment and for the regulator (when one is established to conduct performance monitoring).

### ***Absence of Regular Audits***

**263. Although INAPA<sup>159</sup> and CAASD<sup>160</sup> are legally subject to audits, annual financial audits of the country's WSS providers are not legally mandated.** The Ministry of Health is responsible for water quality audits, and the Comptroller and Auditor General (Chamber of Accounts/*Cámara de Cuentas*) has the legal authority to audit. Similarly, although the BODs of the CORAAs have the legal authority to appoint an external auditor, it is not a legal requirement. As a result, there are no regular external audits of the financial accounts of WSS providers. An internal audit unit (*Revisión y Análisis*) for CAASD, to carry out pre-audits, was established under Law 10-07 (*Ley de Control Interno y de la Contraloría General de la República*). In the case of INAPA, the audit function is focused on compliance with internal policies rather than financial audits.

**264. The Chamber of Accounts does not have an auditing calendar for INAPA and the CORAAs.** The frequency of audits depends on its capacity and available resources. Since 2008, INAPA and CAASD have

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<sup>159</sup> Law 5944, Chapter X.

<sup>160</sup> Law 3402, Chapter IX.

been audited twice, while CORAABO and CORAASAN once. All the audit reports reviewed for this study came with qualifications. The Chamber of Accounts is currently auditing CAASD for a period of six years (2012-18), which corresponds to the tenure of the previous Director of CAASD.

**265. According to international assessments, the DR’s auditing performance is considered poor.** The Public Expenditure and Financial Accountability (PEFA) assessment for 2016 assessed the country as “D+” on External Audits (indicator 30); “D” on both Audit Coverage and Standards (30.1) and External Audit Follow Up (30.3); and “C” on Independence of the Supreme Audit Institution/Chamber of Accounts<sup>161</sup> (30.4). Moreover, the International Budget Partnership’s Open Budget Survey reveals that the country’s Chamber of Accounts provides limited budget oversight, and it recommends that the government provides the Chamber of Accounts with adequate funding to perform its duties (as determined by the legislature or judiciary).<sup>162</sup> The absence of regular financial auditing of CORAAs and INAPA means that there is a lack of control and oversight on how government grants and own-source revenues are spent for essential services.

#### 4. Institutional Arrangements

##### *Absence of Strategic Leadership*

**266. It is a widely held view that the WSS sector suffers from a lack of strategic leadership in government.** This is one of the key shortcomings identified and addressed in the draft WSS law.<sup>163</sup> Strategic leadership (identified as “rectory” and “stewardship” in the draft law) is necessary to create a vision for the sector and carry out policymaking, planning, budgeting, and technical-assistance functions. The Ministry of Health is responsible for WSS services, but it has various other priorities and does not have the expertise to provide utilities with technical and operational guidance.

**267. The functions of the Ministry of Health with respect to WSS functions are currently limited.** The Ministry of Health, receives budget and investment planning information from the WSS providers as a formality; however, in practice, WSS providers deal directly with DIGEPRES at the Ministry of Finance and the Directorate General of Public Investment at the MEPyD for their budgets and investment plans, without any substantive involvement of the Ministry of Health.

##### *Absence of a Regulatory Function*

**268. WSS providers and the new draft WSS law identify the absence of a regulator as a major challenge for the WSS sector.** The prevailing view is that with a regulator in place, tariffs, which are typically too low to cover the operating expenses of INAPA and the CORAAs, will be freed of political influence and will be based on economic and technical considerations. In addition, INAPA and the CORAAs view the proposed draft law, including the establishment of a regulator, as the solution to many problems besetting the sector.

#### 5. Political Economy

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<sup>161</sup> The Public Expenditure and Financial Accountability. 2016. “Dominican Republic 2016.”

<http://pefa.org/assessments/summary/686>.

<sup>162</sup> <https://www.internationalbudget.org/open-budget-survey/results-by-country/country-info/?country=do>

<sup>163</sup> Draft Water and Sanitation General Law, Santo Domingo, DN, February 5, 2019 (Final Version).

## ***Water as a Human Right***

**269. The United Nations<sup>164</sup> and most countries recognize access to water as a basic human right.** The idea that access to water is a human right is noted in several places of the draft WSS law. The preamble to the draft law states that, “access to drinking water and sanitation is a universal human right essential for life and for the realization of all human rights.”

**270. Moreover, Article 61 of the Constitution of the Dominican Republic stipulates the right to health, which includes access to potable water.** Article 147 of the Constitution also states that the government guarantees access to quality public services, including WSS services. This provision suggests that households cannot be deprived of public services in the event of non-payment of fees, even though providers have the legal authority to cut off services in the event of default. Since consumers do not face the threat of disconnection, this has resulted in a culture of non-payment of user charges. This culture of entitlement is reinforced by extremely low levels of billing and collection at INAPA and CAASD, which together serve 74 percent of the country’s population.<sup>165</sup> These challenges are compounded by the soft budget constraints to which the CORAAs are subjected to, resulting in limited incentives on their part to gain customer trust or to increase the rate of collection and billing.

### ***Balancing the Right Tariff Levels***

**271. The country’s president approves tariffs for INAPA and CAASD, which are kept low presumably due to the political salience of water services.** This is especially evident in Santo Domingo, where efforts to increase tariffs have been rolled back three times in the recent past in the face of social and media pressure, and sometimes by presidential suggestion. The service area for CORAASAN, on the other hand, has higher tariffs. However, tariff revenues do not cover operating costs for any of the WSS providers. The tradeoff is typically between low tariffs and poor services and higher tariffs and the ability to provide better services. Consumers who have never experienced better services tend to accept the sub-optimal level of services rather than accept higher tariffs, as they have little confidence that service quality can improve.

**272. While some tariff levels may be low, users should not have to pay for the inefficiency of WSS providers.** There is no consistency between the way tariffs are designed or structured, and some providers merely mirror others without having analyzed their own cost structures and customer base. Without more detailed data on volume of water billed, the authorities are unable to estimate the average tariff levels across providers. While available information suggests that the price of a cubic meter of water sold is less than the cost of producing it, it is difficult to justify raising tariffs without addressing inefficiencies and quality of services.

### ***Independence and Autonomy of Providers***

**273. The legal position notwithstanding, CORAAs are *de facto* not autonomous entities.** Their BODs are not fully independent of the executive, and the Ministry of Public Administration sets their pay and grading structure, regulates hiring and firing decisions, approves their establishment and organograms, and is directly involved in the recruitment of senior (i.e., technical, professional, and managerial) staff. Terminations are also governed by the Public Function Law No. 4108, which regulates labor relations.

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<sup>164</sup> Resolution 64/292 of the General Assembly.

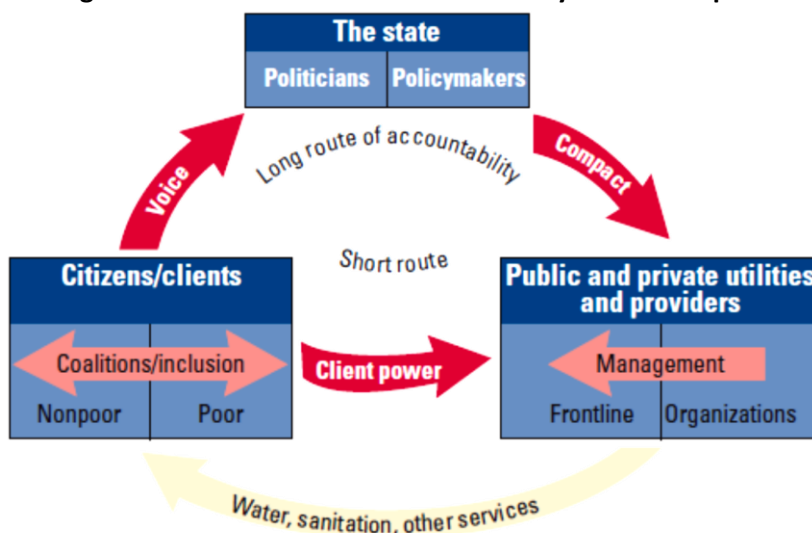
<sup>165</sup> Fjeldstad, Odd-Helge. 2004. “What’s trust got to do with it? Non-payment of service charges in local authorities in South Africa.” *Journal of Modern African Studies*, Volume 42, Issue 4, pp 539 – 562.

Investment decisions are determined by the MEPyD and the Ministry of Finance. Although INAPA and the CORAAs can issue bonds, in practice they are not allowed by the Ministry of Finance to borrow.

## H. Recommendations

**274. Based on the diagnostics presented in the previous section, this section recommends a set of actions to improve the quality of WSS services and, in time, reduce the reliance on transfers from government.** This analysis uses the accountability framework developed in the 2004 World Development Report (WDR) (World Bank 2003)<sup>166</sup>, to identify the current weaknesses in the relationships between (i) policy makers/government and WSS providers (the “compact”); and (ii) between WSS providers and citizens – “the short route of accountability” (“client power”). (See Figure III.36.) Actions to enhance accountability in these relationships will help in improving sector performance and the quality of services. The recommendations presented here do not address the long route of accountability – the “voice” relationship between citizens and policy makers – as this is beyond the scope of this analysis. Additional recommendations are presented on the performance of the WSS providers, the existing institutional arrangements, and the limits to private sector participation in the short to medium term.

**Figure III.36. Framework of Accountability Relationships**



Source: World Bank. 2003. Making Services Work for Poor People: World Development Report 2004. Washington, DC: World Bank.

**275. WSS sector reforms is not a new topic in the DR.** The lack of sector leadership, the absence of a regulator, and the lack of a performance culture among the WSS providers have been discussed for the last twenty years with no change.<sup>167</sup> Discussions on reforms were initiated in the late 1990s with the IADB as part of an investment lending operation which the government ultimately did not approve. Over time, the sector has become increasingly fractured with the addition of more self-regulated CORAAs taking over responsibility for areas that had been within INAPA’s service area. The most recent attempt at introducing new WSS legislation was early in 2020 when a draft law was submitted for executive and legislative branch review. While the current draft WSS law aims to address some of the identified problems such as the lack

<sup>166</sup> World Bank. 2003. *Making Services Work for Poor People: World Development Report 2004*. Washington, DC: World Bank.

<sup>167</sup> See Annex 2 for more details on sector reforms.

of strategic leadership and the need for independent regulation, it is silent on reforms of the performance of the existing CORAAs.

**276. This report recommends a carefully prioritized and sequenced reform program subject to the constraints posed by technical and political feasibility.** The government has already initiated steps in this direction. The draft WSS law which is under review recognizes and addresses some of the sector's constraints to improve service delivery. On a positive note, most of the actors involved in the sector are cognizant of the problems suggesting that constraints are more likely to be political and cultural rather than technical.

**277. Authorities should consider a phased program of reforms recognizing the challenges of implementing a wide-ranging reform program all at once.** The program could be initiated with a preparatory phase, which sets the stage for further reforms, followed by a demonstration phase and finally a scaling-up phase. Since past efforts to implement reforms have had limited success, a phased program would start with reforms that are technically and politically easier to implement, before focusing on more challenging areas. This would allow the government and implementing agencies to draw lessons, undertake mid-course corrections and adapt during implementation.

1. Preparatory Phase: Short Term

#### ***Measuring and benchmarking performance***

**278. Availability of performance information is critical to increase downward accountability to clients who pay for services, and upward accountability to government which finances capital and recurrent expenditures.** The entity in government responsible for stewardship of the sector, such as the Vice-Ministry of Water and Sanitation envisaged in the draft law, as well as Regulator envisaged in the law would be unable to perform its functions in the absence of this basic information. Even under the existing institutional arrangements, the MoH which approves the budgets for WSS providers, MEPyD which approves investment projects, and the Ministry of Finance which provides funds for operating costs and capital investments, should have access to such data to inform their decisions.

**279. Regularly measuring and collecting performance metrics is a basic requirement for benchmarking and improving performance.** The need for performance data has been identified in numerous diagnostics over the years and is a central component of the National Sanitation Strategy of 2016. Currently there are no incentives for WSS providers to collect and publish performance data. Collecting and publishing this information could be linked to annual operational and capital budget approvals. Performance information would increase transparency and allow government and providers to better understand why some providers perform better or worse than others. This is a critical ingredient for strengthening the "compact" between policy makers and providers.

**280. Providing incentives to improve performance once basic performance data and indicators are available.** Central government grants to subsidize the operating expenses of INAPA and the CORAAs are provided on an historical basis with annual increments for inflation and wage increases. A performance element can only be introduced if performance is measured. It will also be difficult to enter into effective management contracts in the future as envisioned under the law if it is not possible to measure and track performance.

**281. Establishing a baseline, measuring, and monitoring performance is a necessary and feasible first step towards improving the performance of the WSS sector.** The WSS sector in the DR lacks a performance culture. Performance indicators that are routinely collected and monitored globally such as the extent of technical losses, the cost and volume of non-revenue water and billing and collection rates, labor productivity, service quality and the like are hard to come by in the DR. Actions for developing an agreed set of harmonized indicators, protocols for data collection, and requirements for regularly collecting and publishing technically verified data should be undertaken immediately.

#### ***Performance Unit***

**282. Immediately creating an entity to lead the development of harmonized performance indicators and to coordinate and monitor data collection.** Establishing an interim arrangement to develop harmonized indicators and baseline for the sector can be done without the new law being passed. Till such time as a new institutional architecture of the sector is established, a unit led by a team of suitably trained professionals could coordinate this activity under the guidance of the Ministry of Finance or any other entity the government deems appropriate. In time, the activity would be transferred to the designated department/ministry and the future regulator when and if one is established.

#### ***Metering***

**283. Investing in metering infrastructure and water audits to enable WSS providers to collect critical information on technical and commercial losses.** Investing in metering infrastructure and water audits would enable WSS providers to collect critical information on technical and commercial losses. International development agencies could be approached to assist in financing these investments. These investments should be coupled with the adoption of strategies for each WSS provider to reduce non-revenue water. If it is politically sensitive, the scaling up of micro-metering could be left to a later stage.

#### ***Accounting and reporting***

**284. Improving financial reporting, accounting practices, and audits as a priority.** Financial reporting is incomplete, inconsistent, and sporadic. Accounting practices across the WSS providers are inconsistent. While accrual accounting is required by law the different providers in practice use some combination of cash and accrual accounting. Annual audits are not required by law. Annual audits should be introduced as a requirement immediately in the interest of financial probity and transparency. If the Chamber of Accounts does not have the resources and the capacity to carry these out, the WSS providers should contract private audit firms to conduct these audits.

#### ***WSS Law***

**285. Making a final decision on the draft WSS law as early as possible.** Different versions of a draft WSS law have been under discussion for two decades, with the latest proposal being put forth in 2020. Various reforms that could be implemented now are being postponed on the pretext that they will happen once the law has been enacted. Policymakers should remove this uncertainty by either approving and enacting the law or taking it off the table.

2. Demonstration Phase: Medium Term

#### ***Strengthen the Short Route of Accountability***



**286. Currently there is no provider–customer relationship in the traditional sense - the “short route of accountability” is broken.** In a traditional provider-client relationship, the provider delivers a service/product and the customer/client pays for the service or goes to an alternative where there is a choice. As networked services are a natural monopoly, alternatives are limited. The only options are to substitute with bottled water and/or to invest in coping arrangements which is more difficult for poor people and comes at a high economic cost.

**287. As a result, the relationship is that of provider and “beneficiary”.** In this situation, any service that is received is viewed as a “benefit” bestowed by the provider and the recipient pays little or nothing for it. Lack of payment and poor services are elements of the low-level equilibrium and the “culture of non-payment” persists and poor services persist. In the current situation it would be hard to convince the customer to pay (or pay more) as there is no confidence that this will result in better services. The provider has the excuse that a few clients pay, that many clients do not pay or pay very little, and that, therefore, it is not possible to make the investments required to deliver better services.

### ***Service delivery projects***

**288. Implementing service-delivery demonstration projects to build trust between the public and WSS providers.** To justify an increase in tariffs, WSS providers need to earn the trust of users by improving the quality of services and reducing performance inefficiencies. In view of the reluctance of users to pay for WSS services in the DR, the successful implementation of projects could demonstrate the ability of WSS providers to provide better services. In time, consumers will have enough confidence to eliminate their coping arrangements and reduce reliance on bottled water.

**289. Demonstration projects could be initially limited to 2-3 providers and focused on creating ring-fenced district-metered areas to reduce non-revenue water and improve the continuity and quality of services.** The reasons for attempting this on a demonstration basis are: (i) successful implementation is likely to require considerable investment in metering, improvement of distribution networks and strong communication and outreach programs; (ii) there will be technical and political challenges that can be addressed through learning from projects; and (iii) the water sector can learn –and adapt– from the successful initiatives in the energy sector that were designed to build public trust with clients through the creation of social contracts. If needed, WSS providers can access technical expertise by engaging private-sector operators through performance-management or service contracts to assist them with project design and implementation.

**290. The government could begin to gauge interest with private sector companies for management contracts to perform longer-term technical assistance.** Engaging in a discussion or negotiating a contract on the one hand would help providers lay out incremental improvements that would be needed to enhance the quality of services and on the other hand gain a deeper understanding of the “asks” of the contractor. The latter are likely to include investments in infrastructure by the government (rehabilitation of networks, leak detection and management, metering) and spheres of independence. Whether or not contracts are ultimately concluded, the act of negotiating such a contract would reveal the various steps that would be required to shift from the current low equilibrium to a better one. In the first instance, the focus should be on service improvements with financial independence as secondary.

**291. A key element would be to build a social contract between users and WSS providers.** Strengthening the social contract would require investments in social outreach and broad-based customer education campaign engaging all sections of the citizenry. Citizens would need to understand that even

though water is a human right, clean water delivered at or near the home costs money to deliver. They would also need to understand the importance and purpose of metering for better management of a scarce resource, and how it is linked to better services. Farmers would need to understand why water produced for drinking purposes should not be diverted for agricultural purposes, and alternative sources found. Theft would need to be reduced through education as well as punitive measures. The DR has had some success in the electricity sector with initiatives that have used the Social Compact approach. (see Box III.1). There are lessons to be learned from these initiatives that are directly relevant and applicable to WSS service.

### **Box III.1. DR Energy Sector Social Compact Approach**

The energy sector in the DR has faced similar challenges in service delivery and accountability as the water sector. This includes low-quality services, utilities not being responsive, low levels of consumer payment, political pressure on tariffs, high operational subsidies, vandalism of meters, little public oversight and transparency, and rationing of services by providers as a coping mechanism. As a result, the energy sector was trapped in a low state of equilibrium.

The DR energy reform agenda is still a work in progress, but one notable reform that has had a positive impact was the development of the Social Compact approach aimed at strengthening the provider-client/customer relationship, building trust, and breaking the low state of equilibrium. The approach was developed under the World Bank financed DR Electricity Distribution Rehabilitation Project (2009-2013), and subsequently scaled up under the Distribution Grid Modernization and Loss Reduction Program financed by multiple development partners.

The multi-step approach builds trust by first identifying the area for intervention based on service delivery issues, which is followed by raising awareness among clients and local leaders on challenges and proposed interventions. An integral part of the approach involves signing a formal agreement ("*pacto social*") between the provider and a group of users detailing the commitment from both parties. Interventions include rehabilitation to reduce losses, increased metering, strong community outreach, and follow up on the commitments.

The approach has helped reduce distributors energy loss index from 35.5 percent in 2012 to 28.4% in 2018, decrease vandalism of meters, and increased public transparency and public oversight, which has translated in consumers trust in the utility, service satisfaction and client's commitment to pay for services received.

*Source:* Corporación Dominicana de Empresas Eléctricas Estatales (CDEE) presentation on Distribution Grid and Energy Loss Reduction Program. March 2019.

**292. Identifying suitable demonstration projects in coordination with government ministries, WSS providers, and international donors.** The authorities could identify potential projects through a dialogue with the Ministry of Finance; the MEPyD; the Ministry of Health; the Ministry of Energy and Mining; WSS providers; and international development organizations. This dialogue should focus on results and have timebound milestones to define the scope, performance challenges (e.g. technical and commercial losses), objectives (service standards), timelines, and financing requirements of each project.

### 3. Scaling Up: Long Term

#### ***National Program***

**293. Launching a national results-based program that focuses on reducing water loss, measuring performance, and improving services.** The program should be based on the lessons learned from implementing the demonstration projects. A national program with a set of targets for non-revenue

water, macro- and micro-metering, billing and collection, and service quality could be used to scale up the demonstration projects and improve the efficiency and quality of WSS services across the country.

### ***Independence and accountability of providers***

**294. Increasing the independence and accountability of WSS providers to strengthen the “compact” between policy makers and service providers.** This will most likely require more than enacting new laws or decrees, as it will take time to redefine the relationship between providers, which currently function *de facto* as government departments rather than as commercial entities, and the government. The government should gradually reduce the dependence of INAPA and the CORAAs on public funding and gradually impose hard budget constraints. While it will be important to improve the performance efficiency of providers, tariffs also need to be based on economic considerations. The successful implementation of demonstration projects will make it possible for the authorities to make tariffs cost reflective and reduce their political salience.

**295. A practical way forward may be to initiate the process with any of the providers that is ready to be more accountable in exchange for greater autonomy.** Even this would need to be implemented incrementally as improvements in performance will require investments in improving the quality of the networks. It is not immediately obvious whether independence in HR management and wage setting will provide adequate incentives for the WSS providers. Under what circumstances will a Board of Directors value independence in decision making? If tariffs continue to be set politically, the current sub-optimal equilibrium is likely to persist. The mere establishment of a regulator is not likely to address this issue.

### ***The private sector could play a role***

**296. The draft WSS law has an exhaustive set of provisions for private sector participation in the WSS sector including for lease and concession arrangements.** While this is welcome, it is unlikely that significant private sector financing will occur in the sector in the medium term. In view of the financial condition of the providers, along with the lack of asset registries, incomplete network cadasters, minimal metering, the poor quality of distribution infrastructure, the political interference with tariffs, and the lack of regulation, the private sector is unlikely to take the risk of investing in the sector. Until regulatory practices are better established, the balance sheets of the providers are healthier, issues around asset ownership are clearer and better data and information are available regarding the quality of the assets, it may be more realistic to expect private sector interest in management or service contracts. Such contracts could assist service providers to improve their performance, improve their balance sheets, produce performance data, and improve services. In the medium to long term, once a functioning regulator is in place and there is public access to indicators on service providers’ assets, liabilities, and performance, the private sector might have the confidence to make investments in the sector and enter into contracts where they can take on more risk.

### ***Institutional Arrangements: Focus on the Functions***

**297. The draft WSS law recognizes the need for more effective leadership in the central government as well as the need for a regulator.** The draft law proposes a Vice-Minister for Water and Sanitation with strong technical support. A key role of the Vice-Minister is to provide strategic leadership to “achieve sustainability, economic and financial independence of the service providers” (Article 25.6). With respect to tariffs (which have been a recurring issue in this report), the Vice-Minister will “define the criteria and

approve the methodology of the financial and tariff system of the sector” (Art.26.13). The Vice-Minister also has the responsibility for “reform and modernization” of the sector.

**298. The draft law also proposes to establish a new regulatory body for the WSS sector which is decentralized and autonomous (art. 34).** As envisaged, the regulator is responsible for tariff regulation, specifically, the design, approval and control of the tariff regime and tariff levels. In relation with tariff determination, the Law also specifies that the regulator defines the criteria for efficient operations. The draft law further specifies that the regulator approves and controls the execution of the management plans of the service providers. This is consistent with the functions and practices observed in well-functioning regulators elsewhere. Given the lack of a measurement culture and the lack of good data, a first order priority as noted earlier is to develop and collect a common set of performance indicators and establish a baseline for the sector. In absence of this it will be difficult for a regulator to perform its economic functions.

**299. It should be noted that while the establishment of a leadership entity and a regulator for WSS may be necessary conditions for improving sector performance and outcomes, these are not, in themselves, sufficient conditions.** It is now widely recognized<sup>168</sup> that the establishment of an organizational “form” does not ensure that the functions that these entities are supposed to perform will be, indeed, carried out while dysfunctions could persist.

**300. It is recommended that the focus should be on addressing performance problems rather than on establishing the organizational form.** If government and providers are concerned and care about the quality of services provided to their constituents and clients, then real performance issues to be addressed are reducing water losses and non-revenue water, discontinuity in service, and increasing billing and collection, which can be done even before an independent regulator is in place. A focus on addressing practical problems such as these could lead to the identification of better long-term solutions that are politically and technically feasible in the local context and reduce the risk of isomorphic mimicry.

**301. Establishing sector leadership and an independent regulator is needed whether or not the draft WSS law is passed in its current form.** As noted earlier, the uncertainty arising from the fact that the law has been in draft for some time now should be resolved. Regardless of this, the government should clearly establish the leadership responsibility for the sector with an entity which is provided with the required skills and staff. An independent regulator should be established to create a professional and independent arrangement to oversee and improve sector performance and provide, in time, the necessary conditions for the private sector to take on investment and financial risks.

## I. Appendix

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<sup>168</sup> There is a growing literature on “isomorphic mimicry” that points to the risk of focusing on organizational forms rather than their functionality. See for example Andrews, M., L. Pritchett, and M. Woolcock. 2013. “Escaping Capability Traps through Problem Driven Iterative Adaptation (PDIA).” *World Development* 51: 234–44; Andrews, M., L. Pritchett, and M. Woolcock. 2017. *Building State Capability: Evidence, Analysis, Action*. United Kingdom: Oxford University Press; Buntaine, M., B. C. Parks, and B. P. Buch. 2017. “Aiming at the Wrong Targets: The Domestic Consequences of International Efforts to Build Institutions.” *International Studies Quarterly* 61 (2): 471–88. Srivastava, Vivek, Eeman Amjad, and Craig Kullmann. 2019. “Getting Practical: The Search for ‘Best Fit’ Solutions to Improve Water Sector Outcomes: A Primer on a Problem-Driven Diagnostic Approach.” World Bank, Washington, DC.

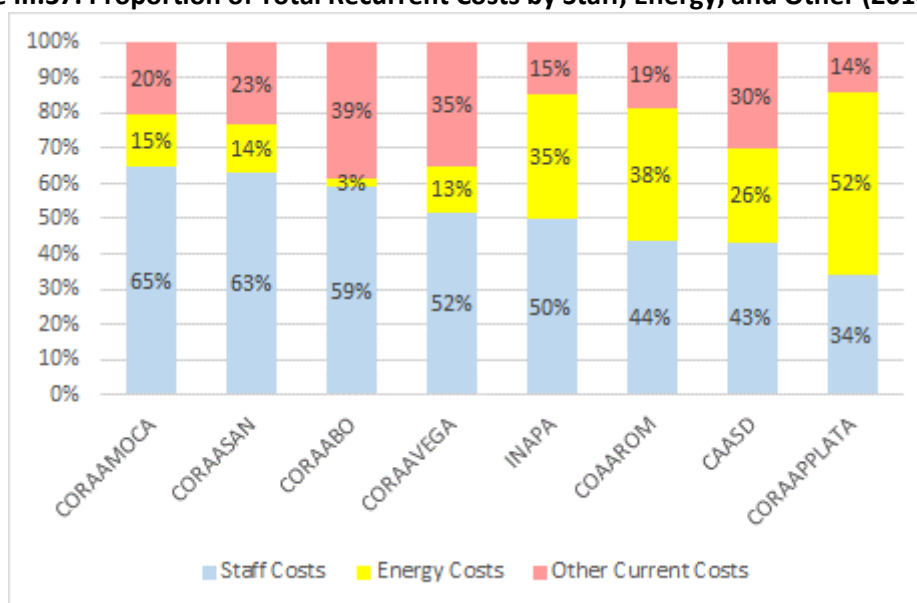
Annex III.1 – Expenditures

**Table III.12. Total Operating expenditures (OPEX) by provider for five-year period (2014-2018)**

2014-2018	CORAAPPLATA	CORAAMOCA	COAAROM	CORAASAN	CORAAVEGA	CORAABO	CAASD	INAPA
Energy Costs	789,502,016	150,609,639	331,718,849	1,433,256,826	82,465,074	5,836,675	3,826,940,030	4,547,515,688
Staff Costs	516,463,638	640,065,878	384,007,224	6,615,699,237	327,694,672	137,734,817	6,291,696,626	6,410,625,695
Other Current Costs	212,931,506	200,200,600	162,465,628	2,453,495,674	221,356,019	89,879,998	4,395,706,793	1,914,776,403
<b>Total Recurrent Costs (II)</b>	<b>1,518,897,160</b>	<b>990,876,117</b>	<b>878,191,701</b>	<b>10,502,451,737</b>	<b>631,515,765</b>	<b>233,451,490</b>	<b>14,514,343,449</b>	<b>12,872,917,786</b>
As a percentage of Total Recurrent Costs	CORAAPPLATA	CORAAMOCA	COAAROM	CORAASAN	CORAAVEGA	CORAABO	CAASD	INAPA
Energy Costs	52%	15%	38%	14%	13%	3%	26%	35%
Staff Costs	34%	65%	44%	63%	52%	59%	43%	50%
Other Current Costs	14%	20%	19%	23%	35%	39%	30%	15%
<b>Total Recurrent Costs (II)</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: Author's calculations based on DIGEPRES Executed Budget Reports for Non-Financial Public Enterprises, 2014-2018.

**Figure III.37. Proportion of Total Recurrent Costs by Staff, Energy, and Other (2014-2018)**



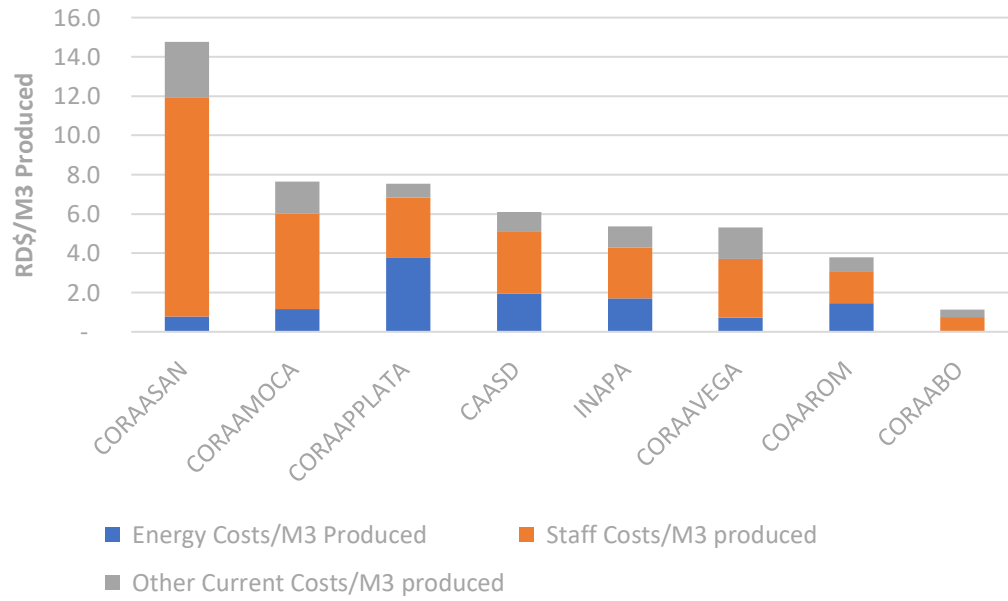
Source: Author's calculations based on DIGEPRES Executed Budget Reports for Non-Financial Public Enterprises, 2014-2018.

**Table III.13. OPEX per m3 of Water Produced by Provider for Year 2018**

2018	CORAAPPLATA	CORAAMOCA	COAAROM	CORAASAN	CORAAVEGA	CORAABO	CAASD	INAPA
Energy Costs	165,741,992	36,976,615	70,014,975	112,755,893	19,262,458	1,117,664	974,286,210	941,253,203
Staff Costs	131,883,129	156,391,976	78,074,671	1,608,872,420	80,163,913	23,149,194	1,590,953,204	1,440,609,840
Other Current Costs	31,110,265	52,236,831	33,061,966	414,275,442	42,604,276	11,899,385	480,410,346	608,060,535
<b>Total Recurrent Costs (II)</b>	<b>328,735,386</b>	<b>245,605,422</b>	<b>181,151,612</b>	<b>2,135,903,755</b>	<b>142,030,647</b>	<b>36,166,243</b>	<b>3,045,649,760</b>	<b>2,989,923,578</b>
Volume of Water Produced m <sup>3</sup> 2019	43,588,161	32,158,685	47,801,206	144,580,881	26,752,032	32,342,543	499,373,665	556,882,719
Energy Costs/m <sup>3</sup> Produced	3.8	1.1	1.5	0.8	0.7	0.0	2.0	1.7
Staff Costs/m <sup>3</sup> produced	3.0	4.9	1.6	11.1	3.0	0.7	3.2	2.6
Other Current Costs/m <sup>3</sup> produced	0.7	1.6	0.7	2.9	1.6	0.4	1.0	1.1
<b>Total OPEX/m<sup>3</sup> produced</b>	<b>7.5</b>	<b>7.6</b>	<b>3.8</b>	<b>14.8</b>	<b>5.3</b>	<b>1.1</b>	<b>6.1</b>	<b>5.4</b>

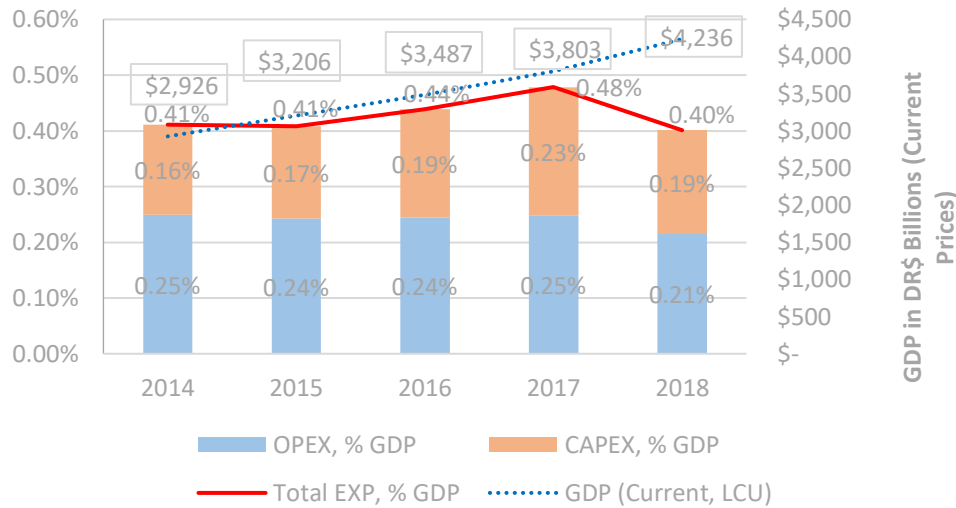
Source: Author's calculations based on DIGEPRES Executed Budget Reports for Non-Financial Public Enterprises, 2018

**Figure III.38. OPEX per m3 of Water Produced by Provider – 2018**



*Source:* Author's calculations based on DIGEPRES Executed Budget Reports for Non-Financial Public Enterprises, 2018; Water production data were extracted from individual CORAA and INAPA websites for 2019.

**Figure III.39. Total Expenditure in WSS as % of GDP (2014-2018)**



Source: Author's calculations based on DIGEPRES Executed Budget Reports for Non-Financial Public Enterprises, 2014-2018.

#### Annex III.2 - WSS Reform Efforts

**Sector reforms began in 1962 with the creation of INAPA. Since then, a series of reforms and/or reform efforts have taken place at the subnational and national level. Below is a timeline of events:**

- 1973 and 1977: CAASD and CORAASAN were created respectively.
- Between 1997-1998: CORAAPPLATA, CORAAMOCA, and COAROM were created taking over services from INAPA for Provinces of Puerto Plata, Espaillat, and La Romana.
- 1999: Inter-American Development Bank (IADB) approved a US\$ 71 million loan to modernize the water and sanitation sector. The loan intended to finance investments with INAPA and regional companies and provide technical assistance to convert the five CORAAs into competitive government-owned stock companies with participation of civil society on the boards of directors. The reforms included private sector participation through management contracts for two of the CORAAs. INAPA was to be gradually decentralized into autonomous regional units. An effectiveness condition of the loan was the passing of a water and sanitation framework law by Congress that would have established a central government agency to lead the sector as well as a water and sanitation regulatory agency.<sup>169</sup>
- 2002: A draft water and sanitation law was debated in Congress and again in June 2004 but was not passed. The IADB loan did not become effective.<sup>170</sup>
- 2004: National level reforms stalled.
- 2005: laws to create CORAAs for the Province of La Vega and Monseñor Nouel were passed, but CORAAVEGA did not begin operation until 2010, and CORAMON until 2020. A CORAA was established for the municipality of Boca Chica within the province of Santo Domingo in 2006.
- 2009: INAPA began a pilot to concentrate the Province of San Juan with support from the Spanish International Cooperation Agency (AECID).

<sup>169</sup> IADB. 1999. <https://www.iadb.org/en/news/idb-approves-71-million-modernize-water-and-sanitation-dominican-republic>

<sup>170</sup> USAID / RTI International. 2006. [Evaluation of USAID Strategy to Increase Potable Water Access and Sanitation in Rural Areas - Dominican Republic](#)

- 2009: World Bank loan for wastewater services with CORAAPPLATA, but included financing to support national level reforms and draft WSS law.
- 2010: Participative Anti-Corruption Initiative (IPAC) process started between government, private sector, civil society, and donors to implement 30 recommendations aimed at fighting corruption, to improve transparency mechanisms, and to improve performance in 10 thematic areas such as health, education, public procurement, energy, water and sanitation.<sup>171</sup>
- 2011: INAPA, AECID, and IADB developed a project to deconcentrate functions from INAPA central to INAPA's administrative structures in 7 provinces.
- 2011: the Council for Water Supply and Sanitation Reform and Modernization was created to coordinate and propose draft legislation.
- 2012: A draft law was reviewed by Congress but did not pass. Recognition that broader water resource reform was needed, and a new general water law was needed along with a WSS law.
- 2016: Development a National Sanitation Strategy by INAPA, but not formally endorsed by government.
- 2016: Water Resource Coordination Body (Mesa de Agua) was established to coordinate the development of both general water law and support the development of a WSS law.
- 2016: Presidential proclamation that 2016-2020 is the quadrennial period of water;
- 2018: Draft water and sanitation law and general water law completed and submitted.
- 2019: Draft laws submitted to executive branch for review.
- 2020: General Water Law approved by Senate in June 2020 and has been passed to Congress for final approval. The WSS law remains under review.

### Annex III.3

**Table III.14. INAPA Tariff Schedule for Unmetered Connections**

Category	Social Class/Housing/Size	Price of water (DR\$) by monthly consumption bracket (M3)				
		1-15 M3	16-25 M3	26-45 M3	46-55 M3	56-130 M3
1	Low	5.2				
2	Medium-Low	8				
3	Medium	10				
4	Medium-High	10				
5	High	10				

**Table III.15. CAASD Tariff Structure for Unmetered and Metered Connections**

Category	Price of water (DR\$) by monthly consumption bracket (M3)	
	1-32 M3	32+ M3
Residential	6	
		8*

\* Applies only to metered households

<sup>171</sup> Fritz, Verena, Brian Levy, and Rachel Ort. 2014. Problem-Driven Political Economy Analysis: The World Bank's Experience. Directions in Development. Washington, DC: World Bank. doi:10.1596/978-1-4648-0121-1.



## *Calculating Net Subsidy Amount*

### **Step 1. Allocate households into deciles**

Households were allocated into deciles based on their self-reported levels of per capita monthly consumption expenditure from ENGIH.

### **Step 2. Calculate Gross Subsidy at Household Level**

Information on subsidies/transfers for current expenditures (O&M) from the central government to utility providers are obtained from DIGEPRES Reports. The gross subsidy at household level is calculated by dividing the transfers by the number of households connected to piped water after accounting for household weights. This was then adjusted for inflation.

### **Step 3. Calculate the Value of Net Subsidy**

This number is constructed using the variables described above and the self-reported household water expenditure from ENGIH; for each household, the amount of *Net Subsidy* is equal to *Gross Subsidy at Household Level – Self-reported Household Water Expenditure*.

## IV. Social Protection

### A. Summary and recommendations

**302. Following several decades of sustained economic growth, the Dominican Republic (DR) has achieved impressive progress in protecting the welfare of its poorest and most vulnerable citizens.** A consistent focus on robust social protection (SP) programming can help safeguard household consumption, encourage investment in human capital, improve poverty indicators, promote gender equality, prevent discrimination, and improve the health, education, and general wellbeing of individuals and households. The DR's improving performance on both the World Bank's Human Capital Index and domestic surveys of household welfare illustrate the extent to which the government has leveraged economic development to support broad-based gains in social welfare.

**303. As it moves toward upper-income status, the DR must continue to make progress on the challenges it faced as a developing country while also evolving the capacity to address the SP issues of an advanced economy.** The DR is completing its demographic transition, and the median age of its population is steadily rising. Even in the world's wealthiest countries, coping with the demands of an aging population poses a major administrative and policy challenge. The DR will need to ensure the economic security of a rising share of retirees while shouldering an increasing burden of noncommunicable diseases, including age-related chronic conditions and disabilities, and maintaining an adequate SP framework in an aging society will require the development new institutional capabilities backed by greater fiscal resources. The DR's transition to advanced economy will also give rise to increasingly sophisticated problems related to urbanization and labor markets, which will require the creation of additional administrative competencies. As it pivots to address these novel challenges, the government must continue to make progress on longstanding development priorities, including food security, early childhood development, youth employment, women's economic empowerment, and poverty reduction, especially among female-headed households and in households with children and adolescents.

**304. This chapter presents and evaluates strategic alternatives for managing the DR's evolving SP challenges.** It reviews the country's institutional framework for SP and identifies ways to improve the effectiveness of public spending. It provides an overview of how public SP spending is determined and what kind of programs are being implemented to advance the government's goals, and it offers recommendations for improving the quality of public spending in the SP sector. The first section examines recent developments in welfare indicators and the scope of SP in the DR. The second section assesses the institutional architecture of the SP system and describes its legal framework, and it identifies opportunities to improve the effectiveness of SP policies and programs. The third section evaluates the country's SP spending in terms of its allocation across strategic objectives, categories, and programs. The fourth section analyzes the effectiveness of the government's main SP programs based on their coverage, cost, and effects on poverty and inequality. Finally, the last section provides recommendations for policymakers to improve the quality and effectiveness of public SP spending.

#### *Social Protection Expenditure*

**305. Total public spending on SP in the DR reached 7.3 percent of GDP in 2018 (RD\$310.5 billion), equivalent to 41.4 percent of the country's consolidated nonfinancial public expenditures.** Real per capita SP expenditure increased by 17 percent between 2014 and 2018. Nominal spending rose across all

areas of SP except general subsidies. However, total public SP spending declined as a share of GDP, falling from 7.98 percent in 2014 to 7.3 percent in 2018.

**306. Public spending on SP is almost equally divided between contributory (49 percent) and non-contributory programs (51 percent).** The largest share of SP spending corresponds to social security (49 percent), followed by social assistance (22 percent) and general subsidies (21 percent). Less than 10 percent of SP spending is allocated to social care services, labor market programs, and adaptive SP. Less than 20 percent of SP spending is explicitly registered under the SP functional classification used by DIGEPRES, while over 80 percent is classified as spending on electricity, education, health, or other sectors.

**307. In addition to social security, the government's major SP programs include food support, in-kind transfers, electricity subsidies, and services for children and adolescents.** More than two-thirds of public spending on social assistance is dedicated to food support, in-kind transfers, and quasi-money transfers. The next-largest categories are cash transfers and other forms of social assistance. Most food support, in-kind transfers, and quasi-money transfers help beneficiaries access school meals and health services, while conditional and non-conditional cash-transfer programs focus on poverty alleviation. Similarly, more than two-thirds of general subsidies consist of electricity subsidies, followed by water and transportation subsidies.<sup>172</sup> More than two-thirds of social care services focus on children and adolescents, while family care programs and other social care services make up most of the remainder. Finally, over three-fourths of employment support focuses on active labor market programs, specifically job training. Other categories of SP spending are underfinanced, including social care services dedicated to people with disabilities, the elderly, and members of the working-age population with specific vulnerabilities such as drug dependency. Moreover, the DR is not taking full advantage of modern SP delivery mechanisms such as unemployment insurance, pension schemes for informal workers, and innovative labor market programs.

### ***Institutional Arrangements***

**308. A total of 88 laws and decrees constitute the regulatory framework for the DR's SP sector.** There are six major institutional arrangements for delivering SP services: (i) the Dominican Social Security Systems, (ii) the System for Protection and Fundamental Rights of Children and Adolescents, (iii) the National System for Disaster Prevention, Mitigation and Response, (iv) the National System for Food and Nutrition Sovereignty and Security, (v) the Social Protection Program of the Social Policy Coordination Cabinet, and (vi) the Special Programs of the Presidency. Whereas other countries in Latin America and the Caribbean have created a single government institution to oversee and coordinate SP policies, the DR's overlapping institutions, objectives, and guidelines reduce the cost-effectiveness and impact of SP policies.

**309. Numerous organizations are involved in delivering SP services in the DR, and many of the country's SP programs suffer from the duplication of efforts and resources.** Redundancy in programs and management structures affects the efficiency and effectiveness of social policies. 105 general-government entities implement around 287 SP initiatives, and many of the country's 391 municipalities and municipal districts implement parallel local initiatives. Most of these initiatives are managed

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<sup>172</sup> General subsidies consist of transfers to firms and autonomous entities that supply public services related to electricity, drinking water, and transportation; they cover both operating deficits and capital costs. Agricultural inputs are also subsidized.

separately, with little coordination between them, and many are managed by institutions that are also responsible for implementing other programs in different sectors.

**310. Similarly, the DR operates multiple monitoring and evaluation mechanisms that cover different programmatic areas and levels of the public administration.** Each institution has its own systems and mechanisms to track and evaluate programs. Some noncontributory SP programs—including the DR’s main cash-transfer program, Progressing in Solidarity (*Progresando con Solidaridad*, PROSOLI)—are monitored and evaluated via well-developed systems. However, other programs have either rudimentary monitoring and evaluation mechanisms or none at all.

### ***Effectiveness of Social Protection***

**311. Moderately or extremely poor households participate in most SP programs at higher rates than do nonpoor households.** The only exception is contributory social security programs, which are dominated by nonpoor households with workers employed in the formal sector. The generally progressive orientation of the DR’s SP programs is confirmed by the relatively high coverage rates of low-income households, though multidimensionally poor households are underrepresented in social assistance programs. The coverage rate for the roughly 657,000 households in the bottom 20 percent of the income distribution ranges from 40 percent for the main cash transfer program (*Comer es Primero*) and the household gas subsidy (*Bonogas Hogares*) to 60 percent for the subsidized national health insurance plan (*Seguro Familiar de Salud*, SFS), and close to 70 percent for the school feeding program (*Alimentación Escolar*). While the coverage of most SP programs is broadly similar across rural and urban areas, the Dominican Social Security System (*Sistema Dominicano de Seguridad Social*, SDSS) covers more urban households, while more rural households are covered by social assistance.

**312. About one-third of beneficiary households of the DR’s SP programs are headed by women, and 52 percent are headed by people ages 25-49.** In 2018, male-headed households represented an average of 60-70 percent of all households participating in SP programs, while Old-Age Protection (*Proteccion a la Vejez*) was the only SP program with more households headed by women (50.1 percent) than by men. Though this distribution is consistent with the fact that 62.4 percent of all households in the DR are headed by men, the incidence of poverty is almost 6 percentage points higher among female-headed households (20.8 percent) than among male-headed households (15.0 percent). Consequently, a significant share of eligible female-headed households may be unable to access SP programs.

**313. Low-income households receive a large share of total social assistance benefits, and social assistance transfers represent half of the income of extremely poor households.** Households in the first and fifth income quintiles received a monthly average of RD\$794 (US\$16) and RD\$482 (US\$9.7), respectively, in 2018. The DR’s school feeding initiative is the country’s most important SP program in terms of its contribution to consumption among extremely poor households. More than 70 percent of students in public schools receive free breakfast, snacks, and lunch through the School Feeding program. Extremely poor households tend to receive more benefits as they have more children than the average household. Other cash transfer programs, such as *Eating is First* (*Comer es Primero*) and the Incentive to Attend School (*Incentivo a la Asistencia Escolar*), have also a relevant impact on the income of the poorest households despite the fact that their purchasing power has diminished over time.

**314. The DR’s SP programs have reduced both monetary poverty and income inequality while preventing an increase in the poverty gap.** In 2018, the incidence of monetary poverty would have been 8.2 percentage points higher (30.9 percent instead of 22.7 percent) in the absence of SP programs.

Contributory social security and social assistance programs represented 3.3 and 4.8 percentage points of this differential, respectively. Meanwhile, the poverty gap—measured as the distance between the average income of poor households and the national poverty line expressed as a percentage of the poverty line—would have increased from 6.7 percent to 11.4 percent in the absence of SP programs. An analysis of the benefit-cost ratio of the DR’s main SP programs reveals that each peso invested reduced the general poverty gap by DR\$0.25 on average in 2018. Finally, the level of income inequality would have been 7.3 percent higher without the country’s SP programs.

**315. Lack of identification documents constitutes a structural challenge to increasing SP coverage among those most in need.** While the SP system reaches a large share of its intended beneficiaries, a wide coverage gap persists among extremely poor households. In 2017-18, 25.5 percent of heads of household (42,561 people) who scored in the lowest category of the Quality-of-Life Index (*Índice de Calidad de Vida, ICV*)<sup>173</sup> either did not have an identification document or failed to report that they did. This lack of documentation reduces access to SP programs, as potential beneficiaries must provide identification to apply.

**316. A significant share of cash-transfer beneficiaries has experienced improvements in their living standards.** Almost 80 percent of extremely poor households (ICV-1) improved their living standards between the first Single System of Beneficiaries (*Sistema Único de Beneficiarios, SIUBEN*) study in 2004-2008 and the third SIUBEN study in 2017-2018. These improvements included better housing conditions and increased access to public services, among others.

### ***Social Protection Challenges***

**317. The DR has made significant progress in reducing poverty and raising living standards, yet many households remain vulnerable to shocks.** About half of the population is still considered vulnerable, and the SP system faces enormous challenges, which the COVID-19 pandemic has greatly exacerbated. The authorities must safeguard recent gains in poverty reduction while continuing to improve the living standards of the country’s most vulnerable groups, particularly households in extreme poverty.

**318. While public spending on SP totaled 7.3 percent of GDP in 2018, organizational and programmatic reforms could improve the impact of SP interventions.** The government has created a wide array of programs, institutions, and mechanisms for delivering SP benefits. However, the proliferation of small interventions with limited scopes and resources undermines the efficiency of the SP sector. Moreover, many of the DR’s large labor-market programs, SP initiatives, and social care services do not have the desired impact in terms of alleviating poverty and reducing social risks, which calls into question the allocation and prioritization of social spending. The current context of low tax pressure offers a valuable opportunity to increase the effectiveness and efficiency of SP spending, and the government should prioritize efforts to target the most vulnerable populations and expand the scope of SP interventions to include groups that are currently excluded or that benefit only marginally from SP programs and systems.

**319. The DR’s SP sector faces five key challenges.** These include: (i) creating an effective regulatory framework and reducing regulatory gaps; (ii) establishing a clear governance structure in terms of responsibilities, decision-making processes, and mechanisms to facilitate coordination; (iii) prioritizing and ensuring the effective use of resources; (iv) eliminating programmatic and operational redundancies

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<sup>173</sup> The lowest category is ICV-1.

and improving the effectiveness of programs; and (v) establishing strategic leadership in the SP sector. Much of the SP regulatory framework focuses on creating institutions, many regulations are outdated, and many existing sectoral institutions are supported by presidential decrees instead of formal laws, which leaves them vulnerable to political leadership changes. Moreover, the oversight of SP programs is fragmented, and there is a lack of coordination between governing bodies. Finally, the absence of an integrated sectoral strategy, coupled with a fragmented management structure, increases the difficulty of administering social policies. These challenges will complicate and likely impede the government's response to the poverty and SP impacts of the COVID-19 pandemic.

## **Recommendations**

### ***Enhancing the Strategic and Legislative Framework for Social Protection***

- **Formulate a national SP plan based on a comprehensive vision for social development.** This plan should include medium- and long-term policies that recognize the interdependence of different areas of SP. This plan should align with and complement broader strategic documents, such as the National Development Strategy (*Estrategia Nacional de Desarrollo*, END), and it should inform annual budgets and medium-term expenditure plans. The national SP plan should be developed through an inclusive dialogue involving representatives of the various public agencies involved in the SP sector, as well as nongovernmental organizations and civil society groups.
- **Adopt a national disaster-preparedness plan focused on the SP sector to ensure public institutions can quickly and effectively respond to the needs of affected households and communities.** The plan must specify the administrative mechanisms, criteria for selecting beneficiaries, financing arrangements consistent with medium and long-term fiscal sustainability, and logistics infrastructure responsible for disaster preparedness and response. The plan should also include provisions for offering essential support to disaster-affected populations in cases where a national emergency has not yet been declared.
- **Establish a single national law that regulates the entire SP sector.** This law should (i) identify and empower governing authorities for the SP sector; (ii) harmonize all SP regulations at the central and local government levels; (iii) establish the operating principles for SP programs; (iv) clarify the financing, instruments, and tools available to governing authorities; and (v) enable the governing authorities of contributory and non-contributory SP programs to coordinate their policies, strategies, and programs. All SP-related initiatives should be required to adhere to the SP law, and all public institutions involved in SP should follow the guidelines issued by the relevant governing authority. Such guidelines should include standardized requirements for registering and approving SP initiatives, and no public entity should be able to implement or receive funding for SP interventions without the approval of the governing body.

### ***Restructuring Institutions***

- **Create a new ministry responsible for managing the entire non-contributory SP system.** This authority should be tasked with setting the overall strategic direction of the country's contributory and non-contributory SP programs, while the governing authorities defined in the SP legislation would be responsible for implementing their respective programs. This revised institutional framework would require clear mechanisms and processes to ensure the effective management and coordination of policies and programs, as well as the harmonization of the non-contributory SP and social security systems. If creating a new ministry proves infeasible, policymakers could instead create an SP council with a similar mandate.

- **Establish an SP intelligence unit responsible for collecting and consolidating all relevant data from public information systems.** This unit must be capable of managing large volumes of data, and its staff must possess the analytical skills necessary to identify information gaps. The unit should integrate data from the monitoring and evaluation system with programs' administrative and operational records.

### *Improving Administrative Mechanisms and Processes*

- **Strengthen the cost-accounting procedure for SP programs to gauge their costs, benefits, and value for money more effectively.** Currently, multiple institutions develop and implement SP initiatives in the DR, particularly those related to the labor market. The government should evaluate their effectiveness and reallocate resources to scale up successful interventions while consolidating or eliminating those that offer little value for money.
- **Create adaptive institutional and financial instruments that allow the authorities to respond swiftly and effectively to nationwide socioeconomic shocks.** The entire population must be able access to SP services during times of crisis, such as the current COVID-19 pandemic or the weather- and climate-related risks to which the DR is highly exposed. The authorities must establish criteria and modalities that enable SP systems to provide benefits to households in need while effectively communicating the availability of those benefits to the entire population.
- **Establish a comprehensive and integrated monitoring and evaluation system for the entire SP sector.** The system should include modules for monitoring: (i) outcomes, outputs, and financial progress indicators; (ii) benefits received by each beneficiary; and (iii) the supply of public social services. It should also include an objective population and targeting mechanism, as well as a dashboard with a set of specific indicators for measuring the effectiveness of interventions. This system should ensure the interoperability of information systems for individual contributory and noncontributory SP programs over the medium-to-long term.
- **Develop a multidimensional targeting system to identify potential beneficiaries of all SP programs.** While the targeting system should be consistent with the national poverty line, it should also reflect nonmonetary indicators of wellbeing, such as housing quality and access to services, as well as risk exposure to natural disaster, pandemic and economic shocks, considering the possibility of differentiated impacts across territories, economic activities, and population groups. Moreover, the system must be able to identify and track individuals who lack formal identification, as those that are least likely to possess identification documents are also most likely to be in the groups targeted by SP programs. The targeting system should be directly compatible with SIUBEN, and in addition to identifying potential beneficiaries who are not currently participating in an SP program, it should use the socioeconomic data collected by SIUBEN to identify additional programs for which current SP beneficiaries would be eligible.
- **Transform SIUBEN into a social information system that integrates all beneficiaries of the country's contributory and non-contributory SP programs.** SIUBEN should allow the government to identify all current SP beneficiaries and monitor the benefits they receive from multiple programs. Comprehensive beneficiary data will enable the authorities to reduce redundancy and ensure benefits reach their intended targets. For years when surveys are not carried out, algorithms can be used to estimate the number of households classified as ICV-1, 2, or 3.
- **Regularly publish community-level scorecards for all SP initiatives to strengthen social oversight.** PROSOLI's experience with participatory, community-based reports shows that they can promote accountability, increase the transparency and effectiveness of interventions, and strengthen public participation and social oversight. Adopting new technologies could help the authorities automate the reporting process.

### ***Reforming Individual Policies and Programs***

- **Assess and consolidate cash-transfer programs.** A small number of well-designed programs that effectively target poor and vulnerable households is preferable to numerous overlapping initiatives implemented by both central and local authorities. The government should review all cash-transfer programs to assess whether their combined benefits are adequate to lift poor households above the poverty line. Benefit levels should be adjusted as necessary, and program administration should be consolidated to increase coverage and reduce costs. In addition, indexing benefits to consumer price inflation could help maintain the purchasing power of cash transfers over time. Finally, evaluating in which cases the delivery of benefits could be more efficient, effective, and transparent using cash transfers instead of the current modality of food, in-kind, or quasi-money transfers.
- **Gradually replace general subsidies for public services, particularly for electricity and drinking water and sanitation services, with a new scheme of subsidies linked to the conditional cash transfer system, as part of comprehensive sectorial reform processes aimed at improving the efficiency and social impact of public expenditure.** The Dominican Republic needs to deepen the reform processes in the provision of public services that allow to reduce costs and technical and non-technical losses, expand access and quality of services, improve transparency and accountability of the governance structure, combat the culture of non-payment, and to ensure its operation and expansion in a sustainable financial and fiscal manner. Moreover, these processes must count with effective mechanism for delivering welfare benefits to lower-income households. Over the longer term, the government should strive to eliminate electricity and water and sanitation subsidies entirely and replace them with cash transfers of equal or greater value that can be more accurately targeted to poor and vulnerable households.

## **B. Background**

### **1. Recent Developments**

**320. The Dominican Republic (DR) has reached upper-middle-income status and made significant progress in poverty reduction, yet it still faces significant challenges in terms of inclusion and social protection (SP).** With a population of 10.3 million people, approximately 19.9 percent and 2.9 percent of the population lived in moderate and extreme monetary poverty, respectively, in 2018 (Table IV.1). The country is currently in a demographic transition, as the population is becoming more urban and older, increasing the importance of initiatives such as old-age protection programs. Meanwhile, the country faces many challenges similar to those of lower-income countries, including how to promote equal access to economic opportunities, foster inclusive development, and mitigate the effects of climate change and exogenous shocks such as pandemics.



**Table IV.1. Development Indicators for the Dominican Republic**

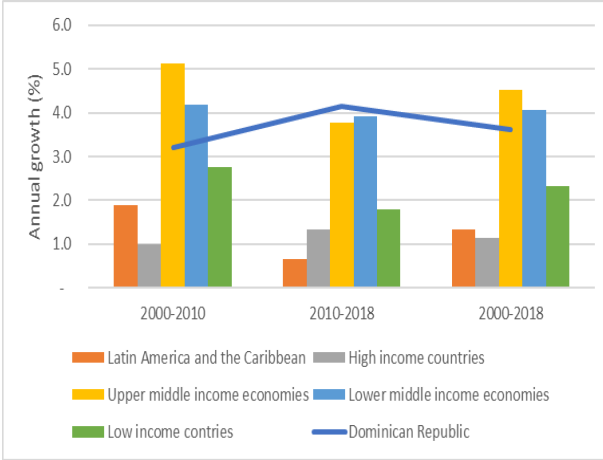
	2000	2010	2018
Total population (million)	8.4	9.4	10.3
Age 0-14 (%)	35.1	31.1	27.5
Age 15-24 (%)	19.8	19.3	17.8
Age 25-64 (%)	40.2	43.8	47.8
Age 65 & above (%)	4.9	5.9	7.3
Urban population (%)	61.7	73.8	81.0
Population growth (annual %)	1.5	1.2	1.1
Population density (persons per km <sup>2</sup> of land area)	175.4	200.7	220
GNI per capita, Atlas method (US\$ current prices)	2,680	5,330	7,760
GNI per capita, PPP (U\$ current prices)	6,350	11,000	17,330
% of population in general poverty	31.8	40.5	22.8
% of population in extreme monetary poverty	7.9	10.8	2.9
% of population in moderate monetary poverty	23.9	29.7	19.9
Life expectancy at birth, total (years)	69	72	74
Fertility rate, total (births per woman)	2.8	2.5	2.3
Adolescent fertility rate (births per 1,000 women aged 15-19)	108	100	93
Births attended by qualified health personnel (% of total)	98	97	100
Mortality rate, children under five years old (per 1,000 live births)	41	34	29
Immunization, measles (% of children aged 12 to 23 months)	85	85	95
Primary completion rate, total (% of relevant age group)	79	93	93
Primary school enrollment (% gross)	115.8	110.5	105.7
Secondary school enrollment (% gross)	60	78	80
Fiscal income, excluding donations (% of GDP)	13.8	13.8	15.2

Source: World Bank's World Development Indicators; and MEPyD and ONE.

Note: The distribution of the population by age group corresponds to estimates for 2000, 2010, and 2018.

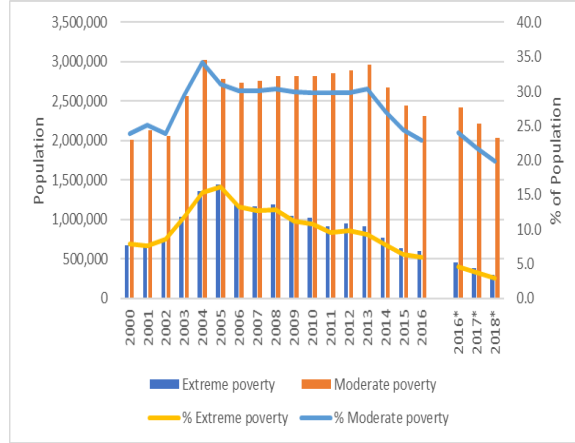
**321. The DR's high economic growth in recent years allowed the authorities to accelerate the rate of poverty reduction (Figure IV.1).** Following a rapid rise in monetary poverty during the 2003-2004 banking crisis, the number of people in poverty fell from 4.4 million (49.5 percent of the population) in 2004 to 2.3 million (22.9 percent) in 2018 (Figure IV.2). The poverty rate fell by an average of 1.1 percentage points (of which the extreme and moderate poverty rate fell by 0.7 and 0.4 percentage points, respectively) per year in 2004-13, before accelerating to an annual average of 3.4 percentage points (2.1 and 1.3 percentage points, respectively) in 2013-18. Multidimensional poverty indicators confirm the country's progress in poverty reduction (Figure IV.3). Similarly, there has been an improvement in income inequality over the last decade, although it worsened slightly in recent years (Figure IV.4).

**Figure IV.1. Growth in GDP per Capita (Average, Constant US\$)**



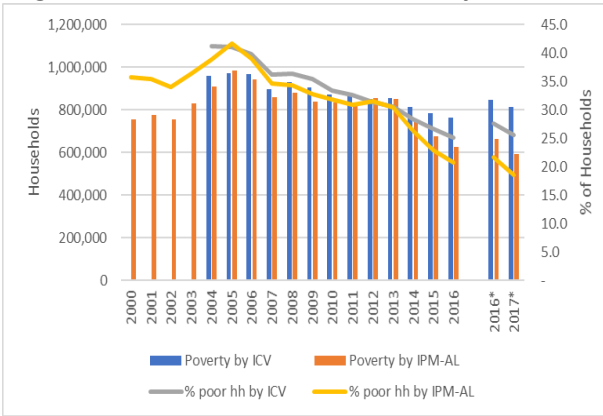
Source: World Bank.

**Figure IV.2. Monetary Poverty, 2000-18**



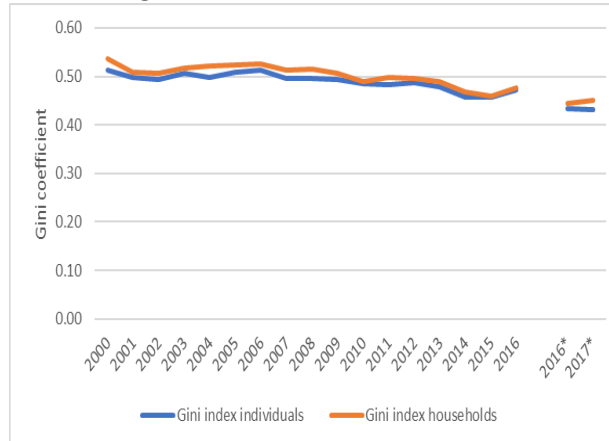
Source: Authors' calculations based on SISDOM 2017, ENFT and ENCFT data

**Figure IV.3. Multidimensional Poverty, 2000-17**



Source: Author's calculations based on SISDOM 2017

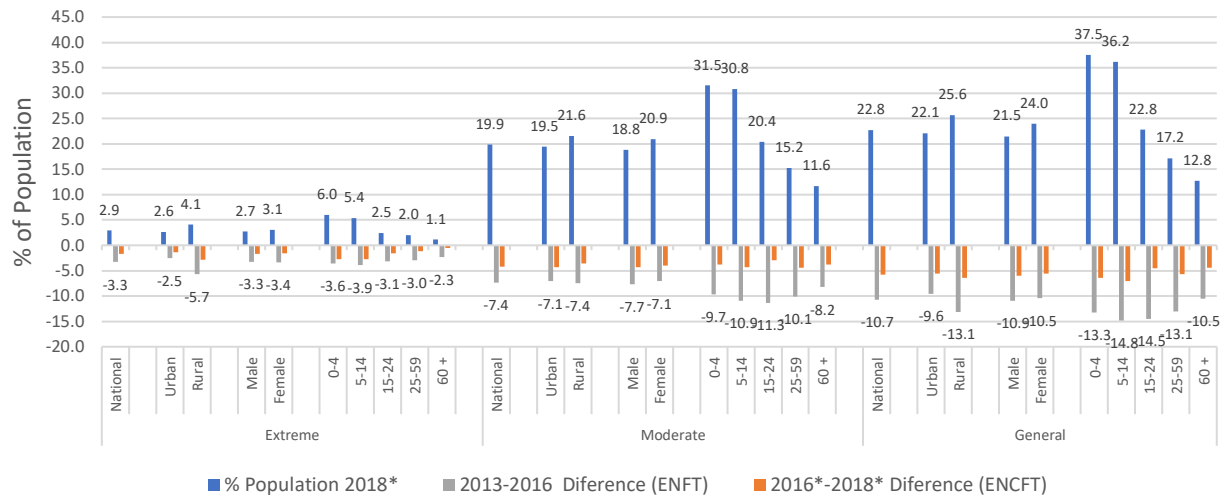
**Figure IV.4. Gini Index, 2000-17**



Source: Author's calculations based on SISDOM 2017.

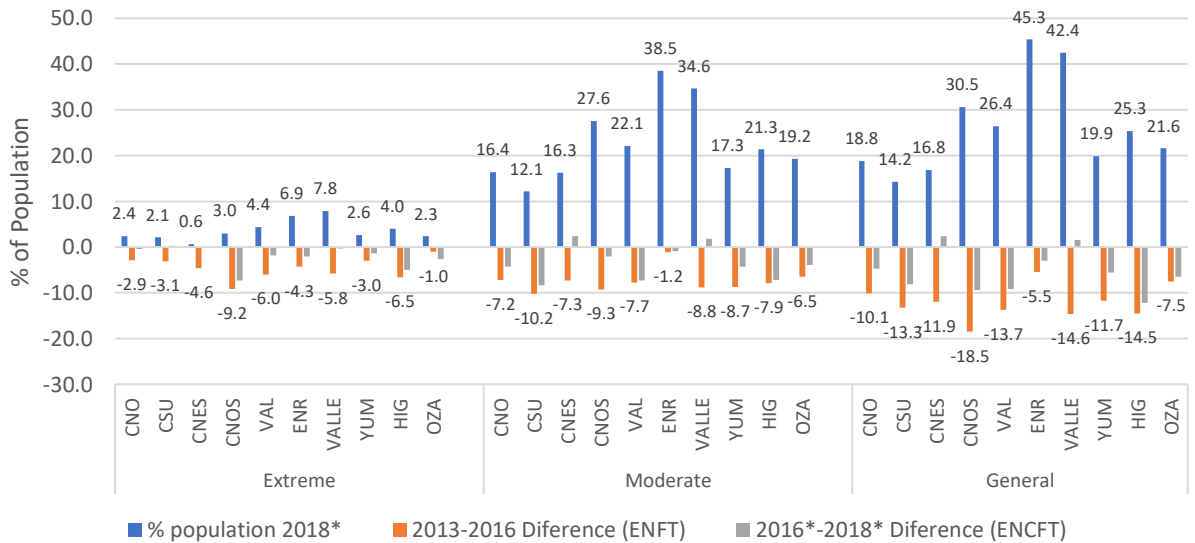
**322. The change in the incidence of poverty in 2013-18 varied by location and population group for both extreme and moderate poverty (Figure IV.5).** Both moderate and extreme poverty fell the most in rural areas. Extreme poverty rate fell the most for population fifteen and under while moderate poverty rate fell the most for population between fifteen to twenty-four years of age. In addition, the extreme poverty rate fell the most in the El Cibao Noroeste, Higuamo, Valdesia and El Valle regions and among women headed households (Figure IV.6). By contrast, the general poverty rate fell the most in regions with average levels of general poverty and among people between the ages of ten and twenty-four as well as those aged sixty or over.

**Figure IV.5. Monetary Poverty by Location, Gender, and Age, 2013-18**



Source: Author's calculations based on ENFT and ENCFT (\*) data.

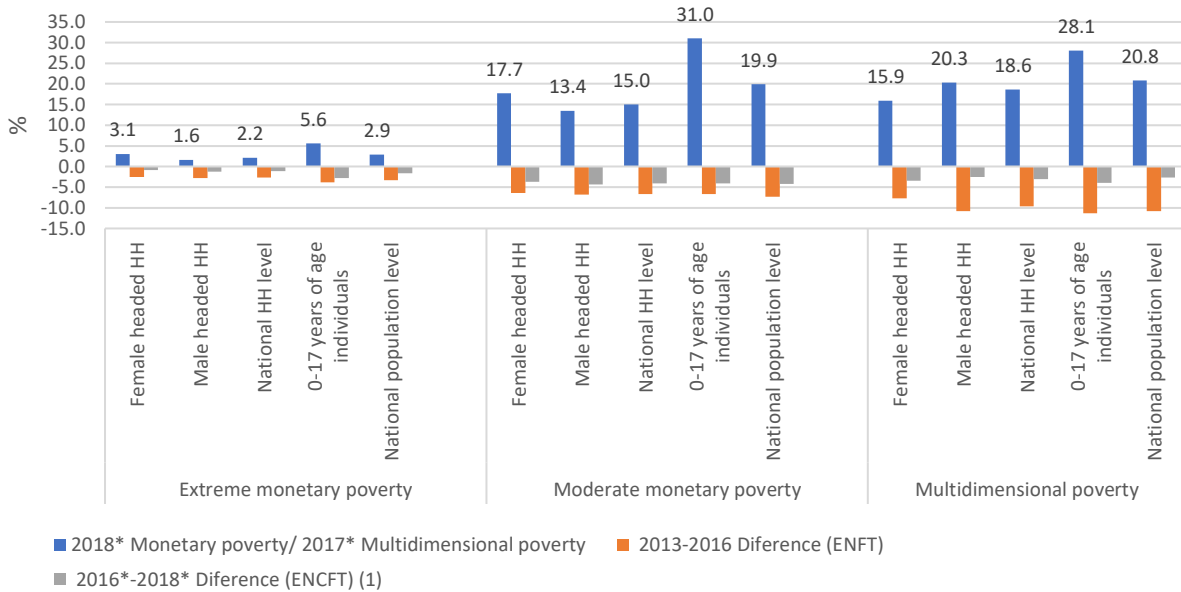
**Figure IV.6. Monetary Poverty by Region, 2013-18**



Source: Authors' calculations based on SISDOM 2017, ENFT and ENCFT data.

**323. The poverty rate is high for female-headed households and children and adolescents.** In 2018, the monetary poverty rate among female-headed households was higher than that of male-headed households, both in terms of moderate and extreme poverty (Figure IV.7). However, the multidimensional poverty rate was higher for households headed by men than those headed by women, which shows the difficulties in measuring multidimensional poverty and the bottlenecks women face trying to access paid work. In the same year, the incidence of multidimensional, moderate, and extreme poverty among young people under the age of seventeen was much higher than national averages. For example, the moderate monetary poverty rate among children and adolescents was 31.0 percent in 2018, almost double the national poverty rate of 19.9 percent. Since it is common in many countries that the poverty rate is higher for kids and adolescents, SP programs often target the young population and female-headed households.

**Figure IV.7. Monetary and Multidimensional Poverty Rates by Head of Household Gender, and Age, 2013-18**



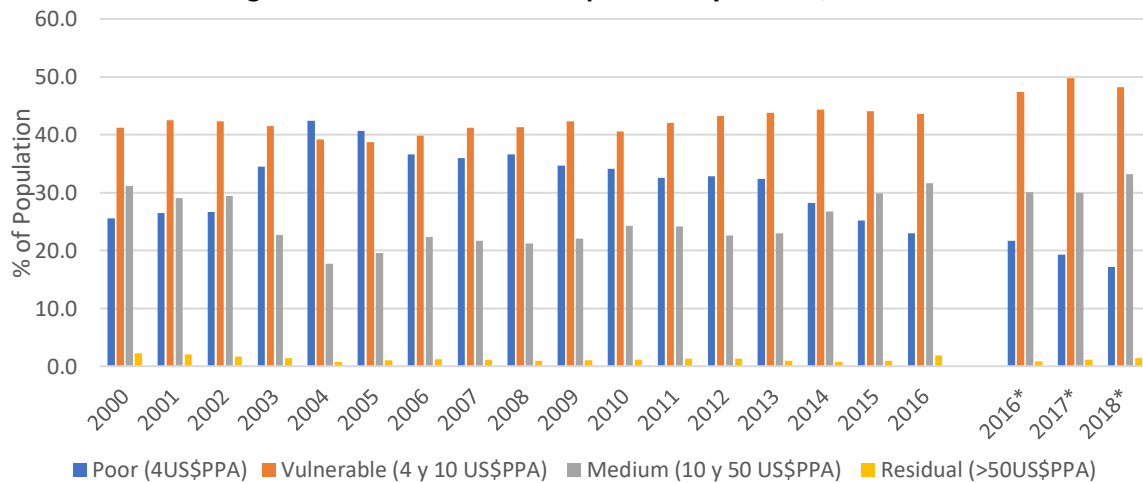
Source: Authors' calculations based on SISDOM 2017, ENFT and ENCFT data.

\* Corresponds to the ENCFT.

Note 1: For multidimensional poverty the difference corresponds to 2016\*-2017\* . Multidimensional poverty corresponds to the Multidimensional Poverty Index of Latin America and the Caribbean.

**324. Despite progress in reducing monetary poverty, many households remain vulnerable.** While the share of the poor population (people living on less than US\$4 per day) fell from 42.4 percent in 2004 to 17.2 percent in 2018, the vulnerable population (people living on US\$4-10 per day) represented almost half of the Dominican population in 2018—much higher than 39.1 percent in 2004 (Figure IV.8). Households considered vulnerable are at a high risk of falling back into poverty in the event of a shock.

**Figure IV.8. Distribution of Population by Income, 2000-18**



Source: Authors' calculations based on SISDOM 2017, ENFT and ENCFT data.

Note: Data constructed using the BM-CEDLAS methodology.

## 2. Scope of Social Protection

**325. The country's SP regime aims to mitigate social risks, sustain consumption, and promote capacity development among the poor and vulnerable population.** It started with the establishment of the social security system back in the 1940s, and it has changed overtime to take into account changing sociodemographic, economic, and political conditions. Today, there are around 111 public institutions involved in the implementation of 287 SP initiatives in the public financial and non-financial public sector. SP includes social assistance—such as conditional and unconditional cash transfers, school-feeding programs, subsidized family health insurance, and the essential medicines program<sup>174</sup>—and social security—including contributory health, old-age, disability, and survival and occupational risk insurance, as well as private pension funds and pension and retirement programs under the old pay-as-you-go system.<sup>175</sup> Moreover, there are labor market programs such as jobs and vocational training initiatives, and job creation is supported through tax exemptions, financing for micro, small, and medium enterprises, and agricultural extension services, although there are no unemployment insurance schemes. The country's social care services focus mostly on advocacy, the protection of rights, and, to a lesser extent the provision of services, for children, young people, women, people with disabilities, and the elderly. Finally, the government subsidizes various services, such as electricity, drinking water, and mass transportation, and small agricultural producers also receive subsidies.

**326. While the DR has institutions and financing mechanisms to respond to emergencies, additional adaptive SP measures and supporting systems are needed.** Traditionally, the authorities have focused on immediate emergency response for households and efforts to repair damaged infrastructure in the aftermath of a crisis. However, the government recently accelerated efforts to align SP instruments with disaster response mechanisms to lessen the impact of emergencies on the economy and livelihoods. For example, in response to COVID-19 pandemic, the government has issued unconditional cash transfers to a large share of households, regardless of their socioeconomic background before the pandemic, to mitigate the adverse economic effects of the crisis.

**327. Despite the country's progress in increasing the coverage and diversity of social services, there is no direct correlation between the number of SP initiatives and the allocation of public resources.** In 2018, most SP interventions were in the area of social assistance, followed by the labor market and social care services. However, most public funding for SP went to social security, followed by general subsidies and social assistance. This means that wide-ranging social assistance and labor market programs coexist with a large number of small-scale (both in terms of beneficiaries and financial resources) initiatives.

### ***National Trends in Social Protection Spending***

**328. A large share of spending on SP is not classified as such in the country's public finances.** Using the World Bank's Atlas of Social Protection Indicators of Resilience and Equity (ASPIRE), public spending on SP amounted to RD\$310,556.9 million (7.3 percent of GDP) in 2018 (Figure IV.9). Of this, social security represented RD\$151,529.1 million, or 3.6 percent of GDP. Public spending on other areas of SP totaled RD\$159,027.8 million (3.7 percent of GDD) in the same year. According to the classification used by DIGEPRES, excluding individual contribution to the Dominican Social Security System (*Sistema Dominicano de Seguridad Social*, SDSS), only RD\$61,554.1 million (1.4 percent of GDP) was classified as SP, and

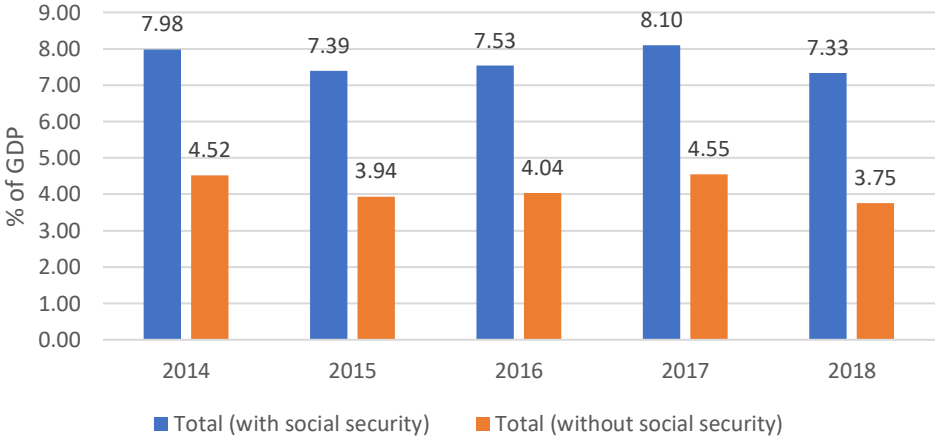
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<sup>174</sup> While the Contributory Regime Law 87-01, approved in 2001, established a solidarity pension, the law became effective only in 2019.

<sup>175</sup> Contributory Regime Law 87-01, which was approved in 2001.

RD\$136,117.1 million (3.2 percent of GDP) was classified as spending in other functional categories, such as energy and fuel, education, health, agriculture, housing and community services, and economic and labor affairs. The Dominican government transfers a significant amount of resources to subsidize the provision of public services, particularly electricity and potable water and sanitation. These transfers cover operating deficits and investment needs of the public companies that provide the services, which originate from the establishment of tariff that do not reflect costs and technical and non-technical losses in the provision of services. If general subsidies are excluded, SP expenditure is equivalent to 5.8% of GDP in 2018.

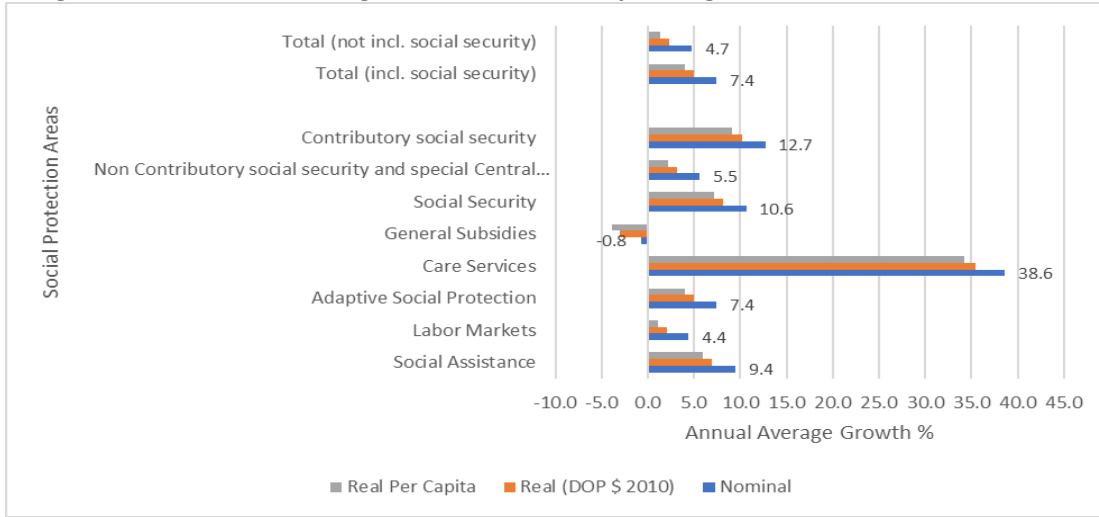
**Figure IV.9. Social Protection Expenditure, 2014-18 (% of GDP)**



Source: Authors’ calculations with data from DIGEPRES and Central Bank.

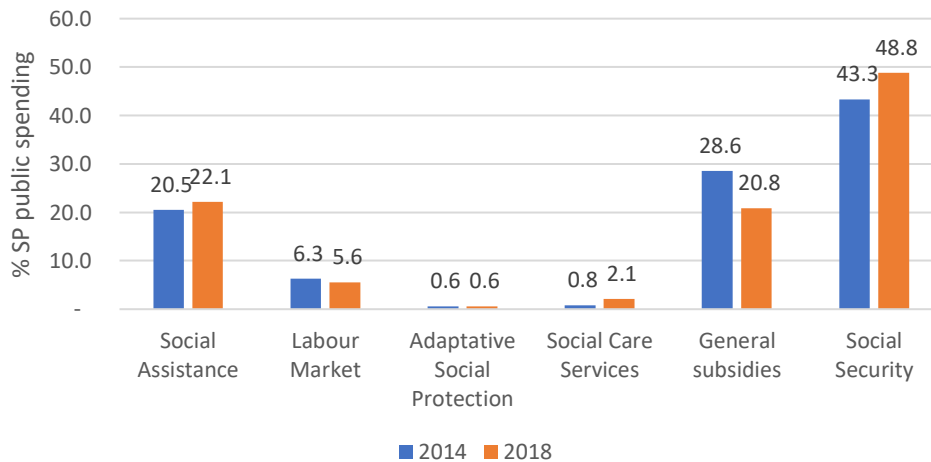
**329. While real public spending on SP increased in recent years, it fell as a share of GDP.** Following the ASPIRE classification, real public spending on SP increased by an annual average rate of 5.3 percent in 2014-18, while it fell from 8.0 percent to 7.3 percent of GDP in the same period, mainly due to the reduction of general subsidies (Figure IV.10). The overall growth in public spending on SP was primarily the result of an expansion of social security and social assistance programs (over 7 percent in both real and nominal terms), which represented more than 65 percent of total public SP expenditure (Figure IV.11). Public spending on social care services, labor market programs, and adaptive SP also expanded between 2014 and 2018, although these areas represent 8 percent of total public expenditure.

**Figure IV.10. Annual Average Growth of Public Spending on Social Protection, 2014-18**



Source: Authors' calculations with data from DIGEPRES and Central Bank.

**Figure IV.11. Public Spending on Social Protection by Area, 2014 and 2018**



Source: Authors' calculations with data from DIGEPRES.

**330. Public SP spending per capita has also increased in recent years, mainly due the expansion of the social security system.** Per capita spending on SP increased from RD\$19,444.5 in 2014 to RD\$22,729.1 in 2018. While social security represented a large share of this increase, public spending on SP outside of social security also increased, from RD\$11,021.6 to RD\$11,639.0 per capita<sup>176</sup> in the same period.

**Regional Trends in Social Protection Spending**

**331. Total public spending on SP is higher in the DR than in many other countries in the region.** A comparative analysis of regional peers in Latin America and the Caribbean reveals that total government spending on SP in the DR (7.3 percent of GDP in 2018) was surpassed only by Costa Rica (8.9 percent of GDP in 2014) (Table IV.2). Other countries such as Guatemala (3.0 percent in 2014), Nicaragua (4.4 percent in 2014), and El Salvador (4.5 percent in 2014) spend significantly less on SP than the DR.

<sup>176</sup> At 2020 prices.

**Table IV.2. Comparative Public Spending on Social Protection  
(% of GDP, Dominican Republic and Regional Peers)**

Country	% GDP
Costa Rica (2014)	8.9
Nicaragua (2014)	4.4
Guatemala (2014)	3.0
El Salvador (2014)	4.5
Panama (2013)	6.1
Honduras (2014)	6.5
Jamaica (2018)	4.9
Trinidad & Tobago (2016)	5.1
Dominican Republic	
2014	8.0
2016	7.5
2018	7.3

*Source:* Author's calculations with data from the World Bank's Central America Public Expenditure Review 2016, T&T 2018 and Jamaica 2016.

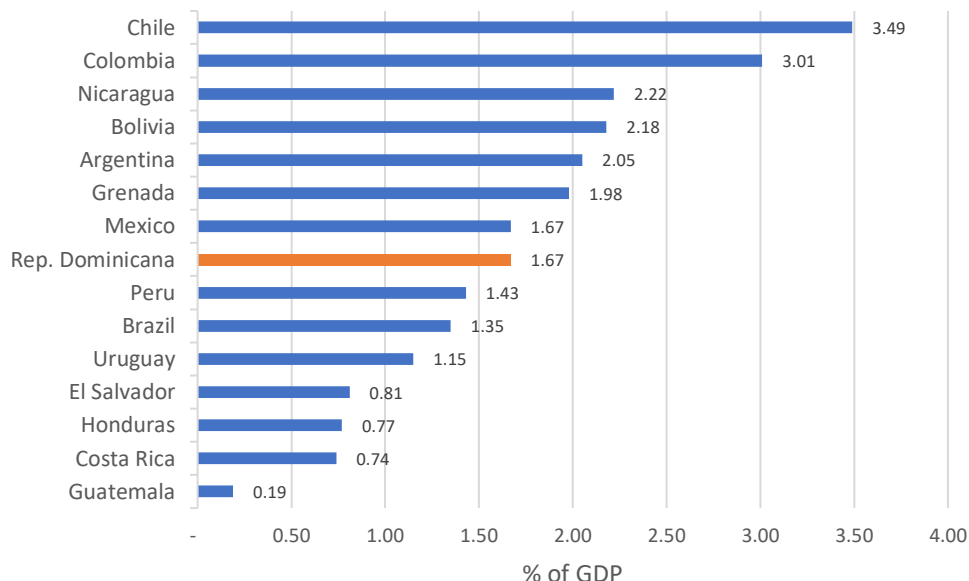
**332. Total public spending on social assistance in the DR is less than the average of Latin America and the Caribbean.** When controlling for the level of poverty and income, spending on social assistance in the DR is close to the average of countries with similar characteristics<sup>177</sup>. In 2015, the DR spent 1.67 percent of GDP on social assistance, below the regional average of 2 percent (Figure IV.12). The level of public spending on social assistance in the DR was lower than that of countries such as Chile (3.49 percent of GDP), Colombia (3.01 percent), and Nicaragua (2.22 percent), but higher than that of countries such as Honduras (0.81 percent), Costa Rica (0.74 percent), and Guatemala (0.19 percent). General subsidies have historically represented a large share of the DR's spending on social protection.

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<sup>177</sup> The poverty line used is PPP US\$ 5.5 per day as shown in Figure 18.



**Figure IV.12. Comparative Public Spending on Social Assistance  
(% of GDP, Select Countries in Latin America and the Caribbean)**



Source: ASPIRE database.

Note: Figures for Guatemala, Costa Rica, Honduras, and El Salvador are from 2014. The figure for Dominican Republic has been revised, as the original figure published in ASPIRE was 1.18 % of GDP in 2015.

## C. Institutional and Legal Arrangements

### 1. Institutional Structure and Legislation

#### *Legal Framework*

**333. The DR's legal framework for SP is based on 88 laws and decrees.** The main laws and decrees are: (i) Law 87-01, which created the SDSS; (ii) Law 136-03, which created the System for the Protection and Fundamental Rights of Children and Adolescents; (iii) Law 47-02, which created the National System for Disaster Prevention, Mitigation, and Response; (iv): Law 589-16, which crated the National System for Food and Nutrition Sovereignty and Security; (v) Decrees 1251-04 and 570-05, which created the Social Policy Coordination Cabinet (*Gabinete de Coordinación de Políticas Sociales*, GCPS) and assigned it executive functions; (vi) Decree 1554-04, which established the GCPS' Social Protection Program; (vii) Decree 491-12, which created the Special Programs at the Presidency; and (viii) Decree 102-13, which created the National System for Protection and Comprehensive Care in Early Childhood.

#### *Social Protection Institutions*

**334. In 2018, numerous public and private SP initiatives were created that suffered from a limited governing framework and weak coordination mechanisms.** There were one hundred five institutions in the non-financial public sector and six institutions in the financial public sector that developed SP initiatives in 2018 (Table IV.3). Of the non-financial institutions, forty-nine were central government organizations, twelve were decentralized or autonomous institutions, eighteen were social security

institutions, twelve were non-financial public companies, and four were quasi non-financial corporations. Meanwhile, the public financial institutions consisted of one loan institution, one pension fund administrator, and three administrators of health and occupational risk insurance funds. The high number of public institutions involved in SP makes it challenging for the authorities to coordinate and effectively implement SP initiatives, especially in the absence of a comprehensive regulatory framework.

**Table IV.3. Public Institutions Involved in the Implementation of Social Protection Initiatives, 2018**

Non-Financial Public Sector					
General Government					Non-Financial Public Companies
Central Government					Non-financial public companies
Central government institutions (Share of expenditure related to social protection)				Social security institutions	
<b>Legislature</b> -Senate of the Republic -Chamber of Deputies  <b>Judicial</b> -Council of the Judiciary  <b>Executive</b> <b>Presidency of the Republic</b> Executive Power Fund <i>Administrative Ministry of the Presidency</i> -Administrative Ministry of the Presidency -Presidential Commission for Provincial Development -Office of the First Lady	-Solidarity Program -Administrator of Social Subsidies -Single System of Beneficiaries -National Council on Aging -Community Initiatives Promotion Fund -Community Kitchens -General Directorate of Border Development -General Directorate of Community Development Ministry of the Presidency -Ministry of the Presidency -Emergency Operations Center	-General Directorate of Vocational Schools -Directorate General of the Social Plan of the Ministry of Defense -Social Security Institution of the Armed Forces -Ministry of Foreign Affairs  Ministry of Finance -Ministry of Finance -General Directorate of Public Procurement -General Directorate of Retirement Public and Pensions Ministry of Education	Ministry of Labor  Ministry of Public Works and Communications -Ministry of Public Works and Communications -Inter-Institutional Council for Housing Coordination -National Office of Seismic Assessment and Infrastructure Vulnerability	Administration of Treasury Obligations Ministry of Agriculture  <b>Constitutional bodies</b> -Central Electoral Board -Chamber of Accounts -Constitutional Court	-CORAA for Santo Domingo -CORAA for Santiago -CORAA for Moca -CORAA for La Romana -CORAA for Puerto Plata -CORAA for Boca Chica -CORAA de Monseñor Nouel -CORAA for La Vega -Institute of Drinking Water and Sewerage -Dominican Corporation of State Electric Companies -Institute of Price Stabilization -Institute of Housing
			<b>Decentralized and autonomous non-financial entities</b> -National Population and Family Council -Civil Defense -Dominican Agrarian Institute -Institute of Hydraulic Resources -Dominican Telecommunication Institute -Equity Fund for Reformed Institutions -Institute for Cooperative Development and Credit -Special Fund for Agricultural Development -National Council for Children and Adolescents	-Council for Child Care Centers -Dominican Institute of Social Insurance -Aid and Housing Institute -Superintendence of Pensions -Superintendence of Health and Labor Risk -National Council of Social Security -Social Security Institute of the National Police -Central Bank Fund -Reserve Bank Fund -Social Solidarity Fund -Pension Fund of the Supreme Court of Justice -Pension Fund of the National Congress -Pension Fund of the Central Electoral Board	

-National Drug Council -Territorial Development and Communities  Social Policy Cabinet -Social Policy Coordination Cabinet -Dignity Community Directorate -Social Plan of the Presidency -Presidential Commission for Neighborhood Development -National Council on Disability	-Comprehensive Emergency Services -General Directorate of Presidency Special Programs -Permanent Commission of State Land Titling  Ministry of Interior and Police -General Directorate of National Police Reserves -Retirement Board of the National Police Ministry of Defense -Ministry of Defense -General Directorate of Shelters and Homes for Children and Adolescents -Brotherhood of Pensioners	-Ministry of Education and National Institute for the Integral Attention for Childhood Development Ministry of Public Health and Social Assistance -Ministry of Public Health and Social Assistance -National Council for HIV/AIDS.	-Board of Directors of Temporary Homes and Shelters  Ministry of Youth Ministry of Environment and Natural Resources Ministry of Economy, Planning, and Development	-Professional Technical Training Institute -National Office of Public Defense -Institute of Student Welfare	-Teacher Pension Fund -Teacher Health Insurance -Pension and Retirement Fund for Drivers -Pension Fund for Construction Workers -Pension and Retirement Fund for Metalworkers -Autonomous University of Santo Domingo Retirement Fund	-Metropolitan Office of Bus Services -Office for the Reorganization of Land Transportation. Implementing Unit for Mass Transit -National Lottery -Program for Essential Medicines and Logistics Support Center
<b>Local Government: 157 city councils and 232 municipal district boards</b>						
<b>Non-Financial Public Sector</b>						
<b>Captive financial institutions and lenders</b>		<b>Pension fund</b>		<b>Social security fund</b>		
-National Council for the Promotion and Support of Micro, Small, and Medium Enterprises -Country Reserve Foundation		-Pension Fund administrators Banreservas		-Occupational Risk Manager, Health Safety -Manager of Health Risks, Health Safety -National Health Insurance		

Source: Authors' calculations with data from DIGEPRES (2014 and 2018).

Note: CORAA: *Aqueduct and sewer corporation (corporación de acueducto y alcantarillado)*.

## **Inter-Institutional Coordination**

**335. The country's SP interventions are implemented and coordinated through six institutional arrangements that often suffer from overlapping institutions, objectives, and guidelines.** Dispersion and fragmentation challenge the coordination and effectiveness of SP programs. There are six SP-related institutional arrangements in the DR: (i) the GCPS' Social Protection Program; (ii) the Quisqueya without Misery program; (iii) the SDSS; (iv) the System for the Protection and Fundamental Rights of Children and Adolescents; (v) the National System for Disaster Prevention, Mitigation, and Response; and (vi) the National System for Food and Nutrition Sovereignty and Security. The mechanisms to coordinate the activities of these entities are weak, limited to setting strategies, reporting on independent institutional plans, and adopting policies.<sup>178</sup> The fragmented governing structure has resulted in a lack of vertical integration of plans and strategies as well as a lack of horizontal coherence between agencies and programs.

### **Box IV.1. Institutional Arrangements for Coordination of Social Protection Interventions**

**The purpose of the GCPS' Social Protection Program is to protect the population in extreme poverty or vulnerable to various risks.**<sup>179</sup> It was created by the GCPS and is managed by the Coordinator of the Social Cabinet. The program groups twenty entities involved in non-contributory SP, and it is organized into five subprograms: (i) the Local and Territorial Development Subprogram, which includes efforts to improve the enabling environment of select localities and border areas; (ii) the Social Assistance Subprogram, which includes conditional cash-transfer schemes and other measures targeting the poor; (iii) the Subprogram for the Inclusion of Vulnerable or Specific Groups, which includes programs that target children, the elderly, people who are HIV positive or afflicted with addictions, and the population around sugar mills (i.e., bateyes); (iv) the Employment Subprogram, which is responsible for managing initiatives that support job creation and training efforts; and (v) the Social Subsidies Subprogram, which groups the food subsidies and the social subsidies implemented by the government.

**The Quisqueya without Misery program was created to increase the effectiveness of government social policies aimed at reducing poverty and social exclusion, strengthening the middle class, and promoting active and participatory citizenship.**<sup>180</sup> It is coordinated by the General Directorate of Special Programs of the Presidency (*La Dirección General de Programas Especiales de la Presidencia*, DIGEPEP), and all central government authorities involved with the Quisqueya without Misery program are required to coordinate their program-related activities and use their budgets to fund its interventions. The program coordinates its activities with the ministries in charge of education, interior and police, defense, and culture, as well as the Professional Technical Training Institute (*Instituto de Formación Técnico Profesional*, INFOTEP), Office for the Reorganization of Land Transportation (*Oficina para el Reordenamiento del Transporte Terrestre*, OPRET), National Institute for the Integral Attention for Early Childhood Development (*Instituto Nacional de Atención Integral a la Primera Infancia*, INAIPI), local governments, the National Congress, and the Central Electoral Board.

**The objective of the SDSS is to protect the population from risks related to old age, disability, and unemployment due to old age, motherhood, or occupational risks.**<sup>181</sup> The system is governed by the National Social Security Council and comprises nineteen social security entities, of which fifteen receive funding from the national budget. The SDSS is financed through: (i) a contributory pension scheme, which covers public and private salaried workers and employers, all of which make pension contributions; (ii) a subsidized pension scheme, which is financed by the government and covers self-employed workers with unstable income and workers who earn below the national minimum wage, as well as the unemployed, disabled, and poor population; and (iii) a

<sup>178</sup> 2013. Social Protection Systems in Latin America and the Caribbean: Dominican Republic. ECLAC.

<sup>179</sup> Decree 1554-04.

<sup>180</sup> Decree 491-12.

<sup>181</sup> Law 87-01.

contributory and subsidized pension scheme, which has not yet been implemented but would cover independent professionals and technicians as well as self-employed workers who earn equal to or greater than the minimum wage, and it would be financed by workers' contributions and public subsidies.

**The objective of the System for the Protection and Fundamental Rights of Children and Adolescents is to guarantee the rights of children and adolescents and promote their full development.** It consists of fifteen public and non-governmental institutions and organizations that formulate, coordinate, integrate, monitor, execute, and evaluate policies and programs related to children and adolescents at the national, regional, and municipal level. It is governed by the National Council for Children and Adolescents (*Consejo Nacional para la Niñez y la Adolescencia*, CONANI), which also governs the System for the Protection and Comprehensive Care in Early Childhood. In addition to CONANI, there are courts for cases involving children; a technical ombudsman that provides free legal support; and a Public Ministry of Boys, Girls, and Adolescents that is responsible for investigating and prosecuting cases involving children.

**The National System for Disaster Prevention, Mitigation, and Response (*Sistema Nacional para la Prevención, Mitigación y Respuesta ante Desastres*, SNPMRD) is in charge of implementing the country's risk management policies.** It is governed by the National Council for Disaster Prevention, Mitigation, and Response, which is responsible for coordinating the work of forty public and private institutions. The SNPMRD comprises a set of guidelines, regulations, programs, and institutions that seek to: (a) reduce risk and prevent disasters; (b) socialize strategies to prevent and mitigate risk; (c) ensure an effective response in case of emergency or natural disaster; and (d) facilitate a rapid and sustainable recovery of affected areas and populations. Aside from the governing body, the main institutions include the (i) National Emergency Commission; (ii) Technical Committee on Risk Prevention and Mitigation; (iii) Emergency Operations Center; (iv) the National Emergency Operations Committee; (v) advisory teams; and (vi) regional territorial committees. Operationally, the Emergency Operations Center, the Office of Civil Defense, the comprehensive 911 emergency services, and the Ministry of the President are the main publicly funded institutions.

**The National System for Food and Nutrition Sovereignty and Security is responsible for developing policies and instruments related to the sovereignty and security of the country's food supply.** It coordinates the work of thirteen public entities, and its policies are relevant to the country's agricultural, economic, health, and SP priorities and aim to improve the quality of life for all Dominicans. Interventions related to food and nutrition sovereignty and security are explicitly connected to SP in terms of the country's access to food and preparedness for emergencies and disasters. The National System for Food and Nutrition Sovereignty and Security consists of twelve government entities and is governed by the National Council.

**In addition to the country's formal institutional arrangements for SP, there are also sector-specific and municipal initiatives.** There are fifty-eight ministries and autonomous institutions that implement SP programs in various sectors, and 391 municipalities and municipal boards that are mandated by law to provide SP-related services.

## **Challenges**

**336. In contrast to the DR, countries in Latin America and the Caribbean tend to concentrate the role of governing and coordinating non-contributory SP in a single institution.** A study by the Economic Commission for Latin America and the Caribbean<sup>182</sup> finds that only the DR and four other countries out of twenty-seven countries in Latin America and the Caribbean do not have a ministry (or secretariat of state) for social development and inclusion that focuses on poverty alleviation and non-contributory SP. The study also finds that fifteen countries have made this ministry responsible for the authorities in charge of ensuring the well-being and rights of particular segments of the population, such as children and

<sup>182</sup> Martínez, R. (2019). *Institucionalidad social en América Latina y El Caribe*. Santiago de Chile: CEPAL.

adolescents, the elderly, people with disabilities, indigenous peoples, and Afro-descendant populations, among others. While the organizational structure of SP needs to reflect each country's special circumstances, the DR's SP programs are fragmented, and there is no systemic approach, reducing the effectiveness of SP interventions.

**337. The implementation of the country's SP policies suffers from overlap, redundancies, and a lack of coordination.** There are 111 state entities and 391 municipalities and municipal districts that execute SP programs in the DR. All have their own management structure and processes, which reduces the cost-effectiveness of SP interventions, making it less likely that social policies have their intended effect on improving the well-being of the population. This situation is exacerbated by the lack of leadership in the SP sector and the absence of plans and strategies to coordinate the work between institutions and different levels of government.

**338. Despite the broad legal framework governing the SP sector, there are many regulatory gaps.** A large portion of the country's SP-related regulations were adopted to create the institutions responsible for implementing social policies, and many of them are outdated (or belonging to regulatory or institutional outdated frameworks) or limited in scope (e.g., Law 87-01, which only covers social security). Moreover, much of the existing institutional framework for SP, both in terms of governing bodies and service-delivery instruments, is supported by presidential decree instead of established laws, making it highly vulnerable to changes in political leadership. The regulatory gap is also due to the obsolescence of many regulations, which is due to the lack of a contextual, regulatory, and institutional framework.

#### ***Programmatic Offering and Service Delivery***

**339. This subsection performs an analysis of the objectives, mechanisms, and financing of SP interventions in the DR.** It is based on ASPIRE, which is a framework for classifying SP programs and includes indicators on social assistance, social insurance, and labor market programs for over 120 countries (Box IV.2).

#### **Box IV.2. Atlas of Social Protection Indicators of Resilience and Equity (ASPIRE)**

ASPIRE classifies public and private SP programs into five major areas, which in turn are classified into various categories and subcategories depending on how benefits are delivered, the target population, and program goals and objectives. The five program areas are:

1. Social assistance, which includes non-contributory programs that support chronically poor or vulnerable people and households;
2. Social security, which includes contributory programs that minimize the negative impact of shocks on individuals and families;
3. Labor market, which includes passive and active programs aimed at increasing employment, facilitating labor intermediation, and ensuring that workers maintain their incomes throughout their careers;
4. Social care services, which includes integrated care and protection services for individuals and families during periods of vulnerability due to old age or special circumstances; and
5. General subsidies, including universal subsidies for goods and services, such as electricity, food, transportation, drinking water, and housing, that are often provided to the entire population, regardless of the ability of users to pay.

*Source:* World Bank 2018.

#### ***Policies and Plans***

**340. The National Planning System, under the Ministry of Economy, Planning, and Development (*Ministerio de Economía, Planificación y Desarrollo, MEPyD*), defines the country’s national SP policies.** Policies are based on various strategies and plans. The second axis of the National Development Strategy (*Estrategia Nacional de Desarrollo, END*), labeled A Society with Equal Rights and Opportunities, outlines the government’s objectives and priorities for SP in the period up to 2030. Moreover, the Multiannual Public Sector Plan (*Plan Plurianual del Sector Público, PNPS*) establishes the government’s medium-term priorities to achieve the objectives outlined in END.

**341. However, there is no integrated medium- or long-term plan that coordinates the individual plans and systems created by each governing authority in the SP sector.** While each institution involved in the implementation of SP creates its own plans based on national and sector-specific priorities, specific mechanisms to ensure consistency with national and/or sector priorities still need to be developed or strengthened. For example, the SDSS has a strategic plan for 2014–20, and the GCPS created the Sector Strategic Plan for Social and Economic Inclusion for 2018–24 to guide the implementation of its Social Protection Program. Despite these plans, there are few mechanisms to coordinate SP interventions.

### ***Social Protection Initiatives***

**342. In 2018, there were around 111 public institutions involved in the implementation of 287 contributory and non-contributory SP initiatives in the DR (Table IV.4).** Some of these initiatives were outside of the purview of, or had limited links to, the country’s main SP authorities. More than half of SP initiatives were implemented through sector-specific SP programs, followed by the Social Protection Program and the SDSS. The other half of SP initiatives were implemented through a range of public institutions. For example, the Ministry of Public Works manages five sector-specific initiatives, more than the four initiatives managed by the Quisqueya without Misery program. There are also other public institutions, such as the Chamber of Accounts, the Chamber of Deputies, and the Senate of the Republic, that implement SP-related initiatives that are not classified as SP.

**Table IV.4. Social Protection Initiatives by Institutional Arrangement, 2018**

Structure	Initiatives	
	#	%
Social Protection Program	70	24.4
Quisqueya without Misery Program	4	1.4
Dominican Social Security System	43	15.0
System for the Protection and Fundamental Rights of Children and Adolescents	9	3.1
Sector-specific SP programs	158	55.1
National System for Disaster Prevention, Mitigation, and Response	3	1.0
<b>Total</b>	<b>287</b>	<b>100.0</b>

*Source:* Author’s calculations based on information from DIGEPRES and Institutional Memories.

**343. Almost one-third of SP initiatives in the DR are related to social assistance, although adaptive SP has become more important in recent years.** In 2018, social assistance programs represented 33 percent of all SP interventions, followed by programs related to the labor market (25 percent), social security (14 percent), and social care services (21 percent). Programs involving general subsidies and adaptive SP represented 6 percent and 1 percent, respectively, of all SP interventions in the same year.



However, adaptive SP has become an important part of the government's social agenda. The authorities have used the country's SP programs to mitigate the effects of natural disasters, such as hurricanes and floods, and other emergencies by protecting the lives and well-being of affected population as well as reconstructing affected infrastructure. However, this response lacks a strategic approach in both the short and long term. Therefore, over the last two years, the GCPS has been preparing an integral strategy for adaptive SP, which informed the country's response to the COVID-19 pandemic. The plan integrates SP measures with disaster risk management. Since adaptive SP is based on services offered by the DR's regular SP institutions, the strategy needs to be thoroughly assessed in terms of the scope, impact, and financing of SP programs to ensure the overall SP system is prepared for the next emergency.

### **Benefits**

**344. SP in the DR involves efforts to guarantee people's economic, social, and cultural rights amid idiosyncratic and covariant risks.** Therefore, it includes the provision of a wide range of goods and services. While SP programs target different segments of the population, they need to coordinate their efforts to reduce overlap of administrative responsibilities. The country would benefit from not only the creation of stronger coordination mechanisms across ministries but also from a matrix-like mechanism to ensure consistency with the DR's developmental objectives. These coordination efforts could take advantage of existing SP tools such as the Single System of Beneficiaries (*Sistema Único de Beneficiarios*, SIUBEN) and the Administrator of Social Subsidies (*Administradora de Subsidios Sociales*, ADESS).

**345. Initiatives related to food security and food transfers are implemented by the GCPS' Social Protection Program, the Ministry of Education, and the Administrative Ministry at the Presidency (Table IV.5).** These institutions need to coordinate the targeting and delivery of services to avoid overlap and duplication of efforts. The Social Protection Program has nine initiatives that sell subsidized food, including the initiatives managed by the Institute for the Stabilization of Prices (*Instituto de Estabilización de Precios*, INESPRES), which need to be coordinated with programs implemented by the Ministry of the Presidency, such as community kitchens and the president's Social Assistance Plan. In addition, the Ministry of Education provides lunches to public school students through the school-feeding program run by the Institute of Student Welfare.

**Table IV.5. Thematic Overlap among Institutions**

<b>Services</b>	<b>Institutions providing services</b>
<b>Works and community infrastructure</b>	<ol style="list-style-type: none"> <li>1. Presidential Commission for Neighborhood Development</li> <li>2. Presidential Commission for Provincial Development</li> <li>3. Territorial Development and Communities</li> <li>4. Promotion Fund for Community Initiatives (PROCOMUNIDAD)</li> <li>5. Dignity Community Directorate</li> <li>6. Equity Fund for Reformed Institutions</li> </ol>
<b>In-kind transfers (household goods)</b>	<ol style="list-style-type: none"> <li>1. Dignity Community Directorate</li> <li>2. Presidential Commission for Neighborhood Development</li> <li>3. Territorial Development and Communities</li> <li>4. Social Plan of the Presidency</li> <li>5. Equity Fund for Reformed Institutions</li> </ol>
<b>In-kind transfers (food and nutrition)</b>	<ol style="list-style-type: none"> <li>1. Dignity Community Directorate</li> <li>2. Presidential Commission for Neighborhood Development</li> <li>3. Social Plan of the Presidency</li> <li>4. Community kitchens</li> <li>5. Institute for the Student Welfare</li> <li>6. Institute for the Stabilization of Prices</li> </ol>
<b>Housing improvements</b>	<ol style="list-style-type: none"> <li>1. Presidential Commission for Neighborhood Development</li> <li>2. Presidential Commission for Provincial Development</li> <li>3. Dignity Community Directorate</li> <li>4. Social Plan of the Presidency</li> </ol>
<b>Professional and technical training</b>	<ol style="list-style-type: none"> <li>1. Dignity Community Directorate</li> <li>2. Territorial Development and Communities</li> <li>3. National Technical and Professional Training Institute</li> <li>4. Progressing with Solidarity Program</li> </ol>
<b>Medical brigades/ Health assistance</b>	<ol style="list-style-type: none"> <li>1. Presidential Commission for Neighborhood Development</li> <li>2. Social Plan of the Presidency</li> <li>3. Progressing with Solidarity Program</li> <li>4. Office of the First Lady</li> <li>5. Program of High Cost Medicines</li> <li>6. Program for Essential Medicines and Logistics Support Center</li> <li>7. Equity Fund for Reformed Institutions</li> </ol>
<b>Environmental sustainability</b>	<ol style="list-style-type: none"> <li>1. Dignity Community Directorate</li> <li>2. Territorial Development and Communities</li> </ol>

Source: Author's calculations based on information from DIGEPRES and Institutional Memories.

### ***Delivery of Benefits***

**346. ADESS is responsible for administrating and issuing targeted SP subsidies to the vulnerable population.** It currently manages six conditional and four unconditional cash-transfer programs.<sup>183</sup> Beneficiaries use the Prepaid PROSOLI Debit Card, which is issued at the request of ADESS, to receive and

<sup>183</sup> ADESS administers the following conditional cash-transfer programs: *Comer es Primero, Incentivo a la Asistencia Escolar, Bono Escolar Estudiando Progreso, Incentivo a la Educación Superior, Incentivo a la Policía Preventiva, and Incentivo a los Alistados de la Armada*; and the following unconditional cash-transfer programs: *Suplemento Alimenticio de PROVEE, Bonogás Hogar, Bonogás Chofer, and Bonoluz*.

use cash. Beneficiaries can use a network of 5,572 stores, shops, bookstores, university registration payment boxes, energy payment offices, and liquified petroleum refilling stations to buy food, school supplies, and liquified petroleum, as well as to pay university registration fees and energy bills. Although ADESS is a good example of a rationalization effort<sup>184</sup> for the delivery of subsidies, the country still needs to develop an innovative and technology-based cash-transfer mechanism to ensure the financial inclusion of beneficiaries, particularly women.

**347. The Social Security Treasury (*Tesorería de la Seguridad Social*, TSS) oversees the Single Information System and the SDSS, and it has increased the efficiency of the pension administration system.**<sup>185</sup> It is responsible for the processing, collection, distribution, and payment of pensions and other social security benefits. The TSS is assisted by the Social Security Collection and Information Board, a non-profit entity created exclusively to administer the Single Information System and collect social security contributions. It is also assisted by UNIPAGO, a private company that manages the modules of the Social Security information system. The TSS disburses resources to fund managers, which in turn distribute them to service providers.

**348. Goods and services related to SP that are not delivered through the ADESS or the TSS are provided directly by SP institutions or through third parties.** Civil society organizations and the private sector play an important role in providing SP-related goods and services financed by public resources. For example, INAPI directly manages 495 comprehensive early childhood care centers and childhood family care centers, while its remaining 146 centers are managed by social organizations.<sup>186</sup> Moreover, private firms are widely used by (i) health risk administrators (*administradoras de riesgos de salud*, ARS), pension fund administrators (*administradoras de fondos de pensiones*, AFP), and healthcare service providers for contributory SP programs; (ii) the ADESS; and (iii) the National Institute for Student Welfare (*Instituto Nacional de Bienestar Estudiantil*, INABIE) for non-contributory SP programs (e.g., INABIE has a wide network of MSMEs that provide food to schools).

### **Challenges**

**349. The DR offers a diversity of social initiatives to cover the three pillars of SP, which has resulted in fragmentation and dispersion of programs.** This expansion of the social agenda and increased institutional complexity has also occurred among many regional peers. Many countries have multiple heterogeneous interventions with a low level of articulation that often focus on specific populations, resulting in a multiplicity of governing authorities.<sup>187</sup>

**350. The management of SP programs is fragmented, and there is a lack of coordination between governing bodies and levels of government.** There is especially a lack of vertical integration of policies, plans, and strategies related to non-contributory SP interventions, and there is little coordination between agencies and programs. To ensure SP programs address the needs of the population, the authorities need to not only strengthen existing instruments to identify beneficiaries, deliver benefits, and monitor programs, but also employ innovative information management solutions and enable the interoperability of existing information systems.

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<sup>184</sup> 2017. Better services for a more inclusive growth in the Dominican Republic. OECD.

<sup>185</sup> 2020. Economic Challenges of Pension Systems: A sustainability and International Management Perspective. Springer.

<sup>186</sup> As of November 2019.

<sup>187</sup> Martínez, R. (2019). *Institucionalidad social en América Latina y El Caribe*. Santiago de Chile: CEPAL.

**351. There are a multitude of organizations involved in delivering SP services in the DR, and many of the country's SP programs suffer from duplication of efforts and resources.** Redundancy in programs and management structures affects the efficiency and effectiveness of social policies. One hundred and eleven government entities implement around 287 SP initiatives, and the country's 391 municipalities and municipal districts implement separate local initiatives. Many of these programs are managed separately, with little coordination between them, and many SP programs are managed by governing authorities that are also responsible for other programs in different sectors.

## 2. Targeting, Monitoring, and Evaluation

### *Identification and Selection of Beneficiaries*

**352. SP interventions in the DR are classified as universal, geographically focused, or individually focused initiatives.** The country's poverty map is used to identify the poorest areas in a certain geographic territory and the overall geographic distribution of the country's poor population. It is based on the Quality of Life Index (*Indice de Calidad de Vida*, ICV), which uses four dimensions and seventeen variables of poverty to measure material living conditions.<sup>188</sup> Moreover, the authorities use SIUBEN to identify, categorize, register, and prioritize households living in poverty. It is based on census data, uses the same method as the poverty map, and classifies households based on the ICV.<sup>189</sup>

**353. Universal initiatives constitute the largest group of SP programs.** A study of the GCPS' Social Protection Program finds that 50 percent of initiatives are universal, 22 percent use the poverty map to identify beneficiaries, another 22 percent use SIUBEN, and 5 percent of initiatives focus on the country's border areas.<sup>190</sup> The same study reveals that 11 percent of the program's budget is allocated to initiatives that use discretionary criteria to select beneficiaries.

**354. SIUBEN's list of eligible households has not been consistently renewed or updated.** It is supposed to be renewed and updated every four years,<sup>191</sup> but it took eight and six years to publish the second and third list, respectively, after the first census was conducted in 2004-05. These delays create uncertainty and make it more difficult to accurately define the potential beneficiaries of the country's SP programs. Nevertheless, there are plans to ensure that the list of eligible households is updated more frequently. While SIUBEN has a well-developed management system, it relies on the governing authorities of SP programs to update the list of beneficiaries. However, governing authorities often lack the resources to collect the necessary data, and the process to ensure SIUBEN is up-to-date is under development, resulting in outdated information on beneficiaries.

**355. There are also no mechanisms to use SIUBEN to project socioeconomic changes in the population in the years between surveys.** An ability to estimate the number of potential beneficiaries is important for the authorities to adjust the coverage and benefits of SP programs. It would also allow the government to understand, manage, and control leakages.<sup>192</sup> While the algorithms based on the ICV are

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<sup>188</sup> The four dimensions of poverty are: ICV-1: Extreme Poverty; ICV-2: Moderate Poverty; ICV-3: No Poverty but Vulnerable; and ICV-4: No Poverty.

<sup>189</sup> SIUBEN is the targeting tool used for *Comer es Primero*, *Incentivo a la Asistencia Escolar*, *Bono Escolar Estudiando Progreso*, *Bonoluz*, *Bonogas Hogar*, *Incentivo a la Educación Superior*, and *Suplemento Alimenticio*.

<sup>190</sup> Rubio, M. 2017.

<sup>191</sup> Decree 426-04.

<sup>192</sup> Valdés, J. 2018.

useful to accurately segment the population by socioeconomic status, the authorities need to be able to estimate changes in poverty, especially among the poorest population.<sup>193</sup>

### ***Monitoring and Evaluation***

**356. In the DR, there are various public monitoring and evaluation mechanisms focused on different areas and levels of public administration.** For example, the MEPyD monitors and executes the PNPSP through its Management System for the Public Sector's Multi-Annual National Plan (*Sistema de Gestión del Plan Nacional Plurianual del Sector Público, RUTA*), and it is currently developing a national monitoring and evaluation system. Meanwhile, the Ministry of the President monitors the government's management priorities through the System of Presidential Goals, an application of the United Nations Development Programme's governance management system. Finally, the General Budget Directorate has integrated a monitoring and evaluation module into the national budget, as part of the implementation of the new Multi-Year Results-Oriented Budget model.<sup>194</sup>

**357. There is, however, no comprehensive monitoring and evaluation system for the SP sector.** Instead, each institution has its own systems and mechanisms to track and evaluate programs. While some of the country's non-contributory SP programs are monitored and evaluated with well-developed systems (e.g., PROSOLI's monitoring and evaluation system, Box IV.3), other programs have either rudimentary or no monitoring and evaluation mechanisms (e.g., the president's Social Assistance Plan and the Dignity Community program).<sup>195</sup> Therefore, the authorities need a set of national monitoring and evaluation guidelines, and institutions should be allowed to exercise discretion on periodicity, depth, etc.

**358. Many non-contributory SP programs also lack a list of beneficiaries.** This prevents the authorities from tracking the public benefits households receive and evaluating the performance of SP interventions. The absence of data on beneficiaries also fosters the duplication of efforts and beneficiaries. The SP-related initiatives or institutions with no list of beneficiaries include community kitchens *Comedores Económicos*, the president's Social Assistance Plan, the General Directorate for Dignified Community, the General Directorate for Community Development, the Presidential Commission on Support to Neighborhood Development, the Presidential Commission on Provincial Development Support, and PROCOMUNIDAD.

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<sup>193</sup> Parodi et al. 2016: 28.

<sup>194</sup> DIGEPRES 2016.

<sup>195</sup> Rubio, M. 2017.

### Box IV.3. PROSOLI's Monitoring and Evaluation System

PROSOLI's monitoring system consists of different modalities for (i) internal monitoring; (ii) external monitoring, and (iii) monitoring of the annual operational plan (*plan operativo anual*, POA).

Program units are responsible for internal monitoring, which can be done on a continuous or periodic basis. Continuous monitoring is done through liaisons and supervisors visiting beneficiary households; suggestion boxes at training and service-delivery centers; and supervisors' evaluations at the end of training activities. Periodic monitoring is done through the preparation of annual community reports, which constitute a form of social oversight and include surveys of beneficiaries, community leaders, and service providers.

The Technical Directorate of the GCPS, with the participation of the Civil Society Advisory Council, is in charge of external monitoring functions. External monitoring is done both annually and on specific occasions, and it can involve any stage of the program process. In addition, PROSOLI has a social audit and redress mechanism, the Community Report Card (*Reportes Comunitarios* and *Puntos Solidarios*), to consult beneficiaries on how to improve the quality and efficiency of service provision.

The Planning and Development Directorate monitors the POA based on reports from the PROSOLI Information System. The information system processes beneficiary data on the status of families collected by family liaisons and supervisors in the field. Information on beneficiaries is evaluated and analyzed by the Planning and Monitoring Department, which prepares and publicizes monthly, quarterly, and annual reports.

The Technical Directorate of the GCPS coordinates the external evaluations of PROSOLI. The GCPS has an integrated monitoring and evaluation system that collects data from PROSOLI, SIUBEN, and ADESS, which allows it to carry out its own evaluations of PROSOLI. It also oversees evaluations conducted by independent third parties.

### Challenges

**359. While the country has various monitoring and evaluation mechanisms focused on different areas and levels of public administration, there is no comprehensive and integrated monitoring and evaluation system for the SP sector.** Instead, institutions either implement their own mechanisms or do not have any systems to monitor and track program activities. There are mechanisms for identifying and selecting beneficiaries—the poverty map and SIUBEN—although only a minority of SP programs use them. Finally, most governing authorities do not have access to integrated information systems to effectively monitor and evaluate SP programs. With the exception of systems such as the one at PROSOLI or the General Directorate of Special Programs of the Presidency, there are few comprehensive information, monitoring, and evaluation systems that allow the authorities to evaluate the past performance of programs and make informed decisions about future initiatives. The greatest strength of information systems and administrative databases lies in their integration, as policymakers need to understand the relationship between different pieces of household data to be able to make informed decisions.

## D. Sources and Uses of Public Funds

### 1. Overview of Public Spending on Social Services

**360. Consolidated non-financial public spending<sup>196</sup> in the DR amounted to 17.6 percent of GDP in 2018 (Table IV.6).** The central government represented 73 percent of total public expenditure, followed by non-financial public companies at 16 percent, decentralized and autonomous non-financial institutions at 7.3 percent, local governments at 0.4 percent, and social security institutions at 2.2 percent. More than 60 percent of non-financial public sector expenditure is on social services and interest on the public debt, according to the classification used by the General Budget Directorate.

**Table IV.6. Consolidated Non-Financial Public Expenditure by Function, 2018 (% of GDP)**

Purpose/function	Central government	Decentralized and autonomous non-financial institutions	Social security institutions	Local governments	Non-financial public companies	Total
<b>1 – GENERAL SERVICES</b>	<b>2.41</b>	<b>0.09</b>	<b>0.00</b>	<b>0.14</b>	<b>0.00</b>	<b>2.64</b>
1.1 – General administration	0.90	0.07	0.00	0.13	0.00	1.11
1.2 – International relations	0.21	0.00	0.00	0.00	0.00	0.21
1.3 – National defense	0.55	0.00	0.00	0.00	0.00	0.56
1.4 – Justice, public order, and security	0.74	0.01	0.00	0.01	0.00	0.77
<b>2 – ECONOMIC SERVICES</b>	<b>1.20</b>	<b>0.36</b>	<b>0.00</b>	<b>0.07</b>	<b>2.38</b>	<b>4.00</b>
2.1 – Economic affairs and labor	0.12	0.04	0.00	0.02	0.00	0.19
2.2 – Agriculture, hunting, fishing, and forestry	0.15	0.06	0.00	0.00	0.07	0.28
2.3 – Irrigation	0.00	0.09	0.00	0.00	0.00	0.09
2.4 – Energy and fuel	0.01	0.02	0.00	0.00	2.27	2.30
2.5 – Regulation and supervision of construction	0.01	0.00	0.00	0.03	0.00	0.03
2.6 – Transport	0.74	0.12	0.00	0.03	0.02	0.91
2.7 – Communications	0.02	0.00	0.00	0.00	0.01	0.03
2.8 – Banking and insurance	0.00	0.01	0.00	0.00	0.00	0.01
2.9 – Other economic services	0.14	0.00	0.00	0.00	0.00	0.15
<b>3 – ENVIRONMENTAL PROTECTION</b>	<b>0.09</b>	<b>0.01</b>	<b>0.00</b>	<b>0.12</b>	<b>0.17</b>	<b>0.39</b>
3.1 – Protection of air, water, and soil	0.03	0.00	0.00	0.01	0.17	0.22
3.2 – Waste management	0.06	0.01	0.00	0.11	0.00	0.17
<b>4 – SOCIAL SERVICES</b>	<b>6.07</b>	<b>0.84</b>	<b>0.26</b>	<b>0.05</b>	<b>0.25</b>	<b>7.47</b>
4.1 – Housing and community services	0.01	0.00	0.00	0.01	0.18	0.21
4.2 – Health	0.61	0.80	0.01	0.00	0.00	1.43
4.3 – Sports, recreational, cultural, and religious activities	0.16	0.01	0.00	0.02	0.01	0.19
4.4 – Education	3.91	0.00	0.00	0.00	0.00	3.91

<sup>196</sup> This section analyzes the public spending in social services as classified in the Budgetary Function as defined by GIDEPRES.

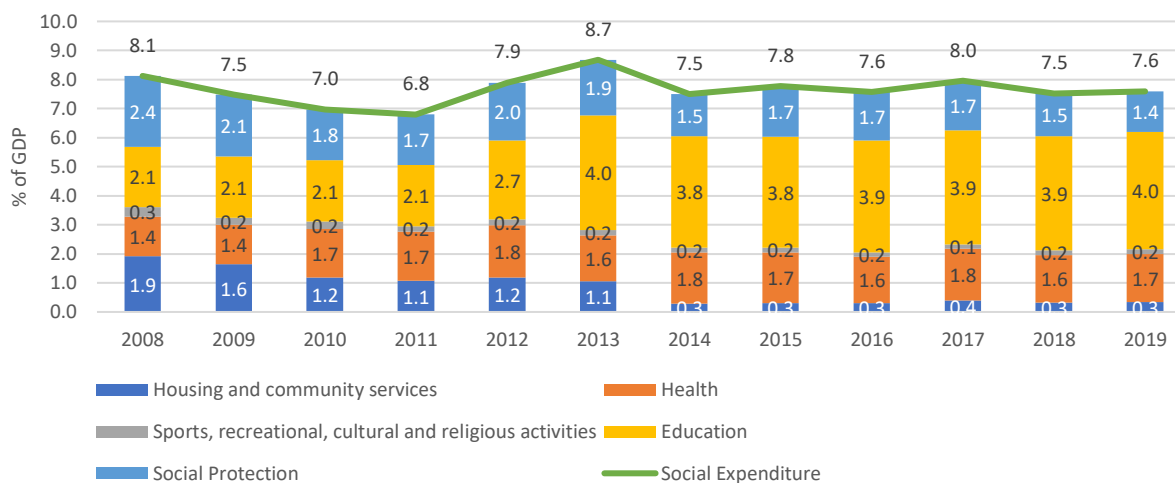
4.5 – Social Protection	1.38	0.02	0.25	0.02	0.05	1.73
<b>5 – INTEREST ON THE PUBLIC DEBT</b>	<b>3.10</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>3.10</b>
5.1 – Public debt interest and commissions	3.10	0.00	0.00	0.00	0.00	3.10

Source: Author's calculations with data from DiGEPRES (2018). Table 9. Pag.37.

Note: Table does not include the resources managed by the financial institutions under the SDSS.

**361. In the national budget, public spending on social services averaged 7.7 percent of GDP in 2008-19.** As a share of GDP, it grew from 8.1 percent in 2008 to a peak of 8.7 percent in 2013, before falling to 7.6 percent in 2019. In this period, education represented the largest area of social services spending (average of 3.8 percent), followed by SP (1.8 percent); health (1.6 percent); community services and housing (0.8 percent); and sports, recreational, cultural, and religious activities (0.2 percent). Spending on education has increased at the expense of spending on community services and housing and SP. The share of social services spending on community services and housing and SP fell from 23.7 percent and 30.0 percent, respectively, in 2008 to 4.4 percent and 18.2 percent, respectively, in 2019.

**Figure IV.13. Public Spending on Social Services, 2008-19 (% of GDP)**



Source: Author's calculations with data from DIGEPRES.

## 2. Overview of Public Spending on Social Protection

**362. Public spending on SP, according to the ASPIRE classification, reached RD\$310,556.9 million, equivalent to 7.3 percent of GDP, in 2018 (Table IV.7).** There was almost an equal distribution of spending on contributory (48.8 percent) and non-contributory (51.2 percent) SP interventions. In the same year, per capita spending on SP totaled RD\$22,729.1 in 2010 prices, although this does not include all public entities' SP-related expenditures or tax expenditures from incentives provided to companies and consumers. Non-financial public institutions at both the local and central level rely heavily on central government transfers to finance their SP expenditure. The central government also devotes resources to subsidize the provision of public services. General subsidies represented 1.5% of GDP in 2018, mainly oriented to cover operating deficits and investment needs of public service providers, which originate from the establishment of tariff that do not reflect costs and technical and non-technical losses in the provision of services. If general subsidies are excluded, SP expenditure was equivalent to 5.8% of GDP in 2018.



**363. Social security receives the largest share of public SP resources, followed by social assistance and general subsidies.** Public spending on social security totaled 3.6 percent of GDP in 2018, of which the individually funded contributory pension scheme represented 2.7 percent of GDP and the old pay-as-you-go system and special pension funds represented 0.9 percent of GDP. In the same year, social assistance and general subsidies totaled 1.6 percent and 1.5 percent of GDP, respectively, while social care services, labor market programs, and adaptive SP together represented barely 0.61 percent of GDP.

**Table IV.7. Public Spending on Social Protection, 2014-18**  
(ASPIRE Classification)

Area of Social Protection	2014	2015	2016	2017	2018	% Change 2014-18 <sup>1</sup>
	RD\$ Million					
Social assistance	47,924.5	53,036.8	58,835.6	70,383.7	68,680.4	43.3
Labor market	14,587.9	15,883.1	16,712.2	17,350.7	17,314.8	18.7
Adaptive social protection	1,303.4	759.6	2,158.3	2,000.8	1,732.4	32.9
Social care services	1,793.3	2,481.1	4,377.0	5,241.0	6,620.9	269.2
General subsidies	66,675.3	54,131.6	58,647.9	78,124.1	64,679.3	-3.0
Social security	101,094.0	110,735.3	121,982.9	134,897.1	151,529.1	49.9
Distribution and special funds	31,173.2	31,683.0	32,933.8	35,239.4	38,675.1	24.1
Contributory (individual contributions)	69,920.9	79,052.4	89,049.2	99,657.8	112,854.0	61.4
<b>Total (with social security)</b>	<b>233,378.3</b>	<b>237,027.5</b>	<b>262,713.9</b>	<b>307,997.4</b>	<b>310,556.9</b>	<b>33.1</b>
<b>Total (without social security)</b>	<b>132,284.3</b>	<b>126,292.2</b>	<b>140,731.0</b>	<b>173,100.3</b>	<b>159,027.8</b>	<b>20.2</b>
	% GDP					
Social assistance	1.64	1.65	1.69	1.85	1.62	-0.02
Labor market	0.50	0.50	0.48	0.46	0.41	-0.09
Adaptive social protection	0.04	0.02	0.06	0.05	0.04	0.00
Social care services	0.06	0.08	0.13	0.14	0.16	0.10
General subsidies	2.28	1.69	1.68	2.05	1.53	-0.75
Social security	3.46	3.45	3.50	3.55	3.58	0.12
Distribution and special funds	1.07	0.99	0.94	0.93	0.91	-0.15
Contributory (individual contributions)	2.39	2.47	2.55	2.62	2.66	0.27
<b>Total (with social security)</b>	<b>7.98</b>	<b>7.39</b>	<b>7.53</b>	<b>8.10</b>	<b>7.33</b>	<b>-0.65</b>
<b>Total (without social security)</b>	<b>4.52</b>	<b>3.94</b>	<b>4.04</b>	<b>4.55</b>	<b>3.75</b>	<b>-0.77</b>
	Per capita (RD\$ December 2010)					
Social assistance	3,993.0	4,339.7	4,693.2	5,385.8	5,026.6	25.9
Labor market	1,215.4	1,299.6	1,333.1	1,327.7	1,267.2	4.3
Adaptive social protection	108.6	62.2	172.2	153.1	126.8	16.8
Social care services	149.4	203.0	349.1	401.0	484.6	224.3
General subsidies	5,555.2	4,429.3	4,678.2	5,978.0	4,733.8	-14.8
Social security	8,422.9	9,060.9	9,730.3	10,322.3	11,090.1	31.7
Distribution and special funds	2,597.3	2,592.5	2,627.1	2,696.5	2,830.6	9.0
Contributory (individual contributions)	5,825.6	6,468.5	7,103.2	7,625.8	8,259.6	41.8
<b>Total (with social security)</b>	<b>19,444.5</b>	<b>19,394.8</b>	<b>20,956.1</b>	<b>23,567.9</b>	<b>22,729.1</b>	<b>16.9</b>
<b>Total (without social security)</b>	<b>11,021.6</b>	<b>10,333.9</b>	<b>11,225.8</b>	<b>13,245.6</b>	<b>11,639.0</b>	<b>5.6</b>

Area of Social Protection	2014	2015	2016	2017	2018	% Change 2014-18 <sup>1</sup>
Population	9,883,486	9,980,243	10,075,045	10,169,172	10,266,149	
GDP	2,925,665.1	3,205,61	3,487,292.5	3,802,655.8	4,235,846.8	
Consumer Price Index (December 2010)	121.4	122.5	124.4	128.5	133.1	

Source: Author's calculations based on data from the Financial Management Information System.

Note: % GDP corresponds to changes in percentage points.

**364. With the exception of general subsidies, all areas of SP grew in real per capita terms in 2014-18.**

Public spending on social care services increased by an impressive 269.2 percent during this period, and spending on contributory social security increased by 61.4 percent, labor market programs by 18.7 percent, and social assistance by 43.3 percent. This increase in SP spending was mainly related to the development of programs focused on the welfare of children, social assistance in the health sector, water subsidies, and pensions, as well as the expansion of youth and training programs.

**365. However, most public spending on SP in the DR is registered under budget functions other than SP.**

While a total of RD\$61,554.1 million in SP spending was registered in the central government budget in 2018, there was an additional RD\$136,117.7 million in public spending on SP across a range of other budget functions, such as education, health, transportation, and energy and fuel (Table IV.8). This includes subsidies for electricity services; INABIE's school-feeding, health, and wellness programs; non-contributory health insurance under SENASA; transportation services (e.g., metro, cable car, buses, and tolls); WSS services; and the provision of medicines under PROMESE-CAL and the Ministry of Public Health. Self-financed expenditure represented 37.6% of total SP expenditure and it is integrated by contributory social security and the professional training provided by INFOTEP, both financed with contributions from employers and workers.

**Table IV.8. Public Spending on Social Protection by Budget Function, 2018**

Budget Function	RD\$ Million	% Total SP Expenditure	% GDP
<b>Social protection function</b>	<b>61,554.1</b>	<b>19.8</b>	<b>1.45</b>
<b>Social protection under other functions</b>	<b>136,117.7</b>	<b>43.8</b>	<b>3.21</b>
Energy and fuel	42,071.1	13.5	0.99
Education	41,247.4	13.3	0.97
Health	20,497.2	6.6	0.48
Housing and community services	13,097.5	4.2	0.31
Transport	9,350.4	3.0	0.22
Agriculture, hunting, and fishing	5,572.0	1.8	0.13
National defense (civil defense)	1,725.4	0.6	0.04
General administration	1,275.9	0.4	0.03
Economic and labor affairs	783.2	0.3	0.02
Justice, public order, and security	485.1	0.2	0.01
Other economic services	12.4	0.0	0.00
Total (Excluding contributory SDSS)	<b>197,671.7</b>	<b>63.7</b>	<b>4.67</b>
<b>Contributory social security</b>	<b>112,854.0</b>	<b>36.3</b>	<b>2.66</b>

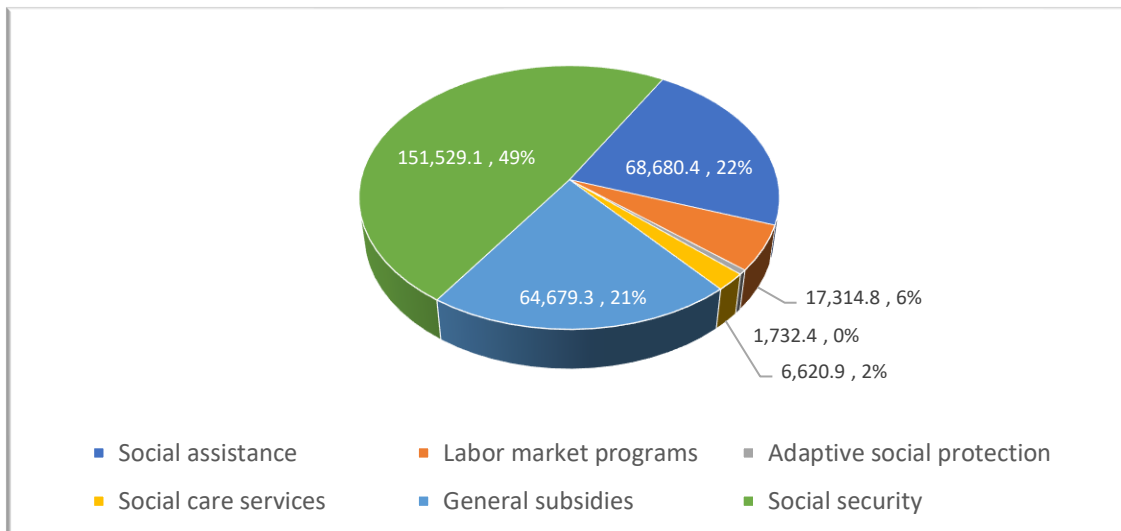
<b>Total Social Protection Expenditure</b>	<b>310,525.7</b>	<b>100.0</b>	<b>7.33</b>
<b>Memo</b>			
<b>Self financing expenditure</b>	<b>116,745.0</b>	<b>37.6</b>	<b>2.75</b>
<b>Education (Infotep)</b>	<b>3,891.0</b>	<b>1.3</b>	<b>0.09</b>
<b>Contributory social security</b>	<b>112,854.0</b>	<b>36.3</b>	<b>2.66</b>

Source: Author's calculations based on data from DIGEPRES.

### 3. Social Protection Spending by Area

**366.** While the multiplicity of existing programs and initiatives makes it difficult to classify public SP spending, available data reveals that spending on social security accounts for almost half of public spending on SP. Also, there are often no detailed records of SP spending at the program level. Using the ASPIRE classification, unconsolidated public spending on SP in the DR focused mainly on contributory social security (49 percent) in 2018, followed by social assistance (22 percent) and general subsidies (21 percent) (Figure IV.14). Although there is a significant number of labor market programs, they receive a relatively low share of resources (6 percent). Spending on social care services and adaptive SP represented 2 percent 1 percent, respectively, of total SP spending in the same year.

**Figure IV.14. Unconsolidated Spending on Social Protection by Area, 2018**



Source: Author's calculations based on data from DIGEPRES.

**367.** Excluding social security, the government's SP priorities include food, in-kind, and quasi-money transfers, electricity subsidies, and services for children and adolescents. More than two-thirds of public spending on social assistance is dedicated to food, in-kind, and quasi-money transfers (66.8 percent), followed by cash transfers (21.2 percent) and other social assistance (12.0 percent) (Figure IV.15). Most food, in-kind, and quasi-money transfers help beneficiaries access school meals and health services (e.g., subsidized SFS, Promese-Cal's essential medicines program, and the *Programa de Medicamentos de Alto Costo*), while cash-transfer programs focus on poverty alleviation (e.g., *Comer es Primero* and *Incentivo a la Asistencia Escolar*) (Figure IV.16).

**368.** More than two-thirds of general subsidies consist of electricity subsidies (64.1 percent), followed by water (19.9 percent) and transport (14.2 percent) subsidies. These subsidies are made up of

central government's current and capital transfers to companies and autonomous entities that supply public services related to electricity, drinking water, and transportation, and they cover operating deficits and capital resources, which are associated to tariffs that do not cover costs and technical and non technical losses. In the case of electricity service, in addition to a general subsidized tariff applied to consumers of less 300 Kwh/month, poor and vulnerable households also receive a cash transfer for paying electricity bills, equivalent to approximately 100 Kwh per month. While 98 percent of households are connected to the public electricity network, more than 40 percent of households in the lower socioeconomic strata have access to electricity less than 14 hours per day. In the case of water supply and sanitation, 28.3 of the bottom 20<sup>th</sup> percent of the distribution of the households are not connected to the public network<sup>197</sup>. Moreover, the use of subsidized public transportation is concentrated in the capital city.

**369. More than two-thirds of social services focus on children and adolescents (70.1 percent), followed by other social care services (19.4 percent) and care for families (10.3 percent).** However, only a small share of spending on social care services is dedicated to people with disabilities, the elderly, and the working-age population with specific vulnerabilities such as drug dependency.

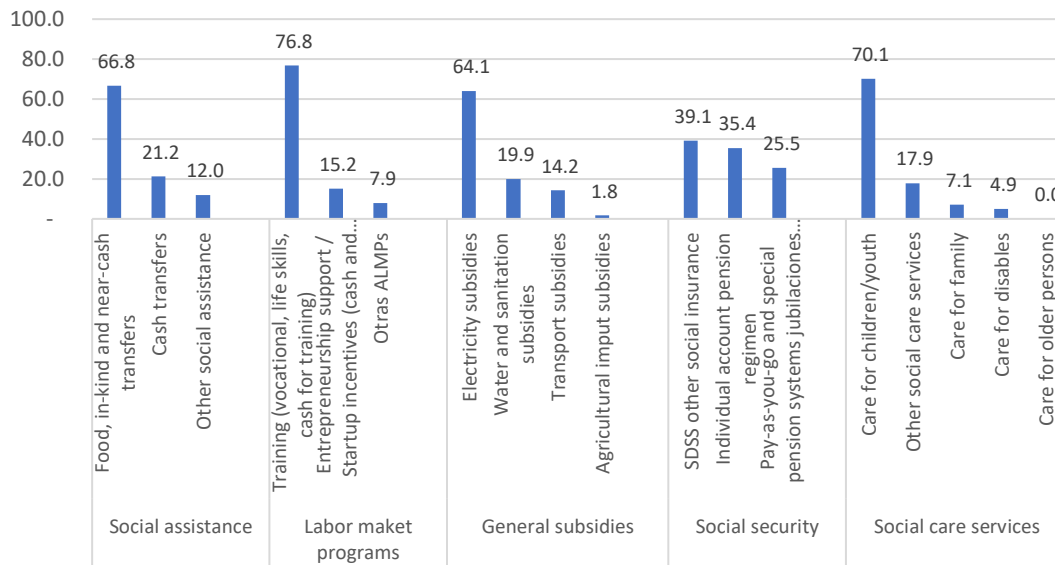
**370. Most labor market programs promote active labor policies.** The country's labor market programs focus on job training (76.8 percent) and supporting entrepreneurs (15.2 percent). There are only two labor intermediation programs in the DR, and there is no unemployment insurance. Instead, the severance payments are paid by employers. Active labor market programs could play a more relevant role in DR, where the open unemployment rate is significantly higher among people aged between fifteen and twenty-four (10.0 percent for men and 20.4 percent for women) than for the overall population (4.0 percent for men and 7.8 percent for women).<sup>198</sup>

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<sup>197</sup> Data from the Encuesta Nacional de Ingresos y Gastos de los Hogares 2018.

<sup>198</sup> SISDOM 2017. Tables 06 3 010a.2, 06 3 011 b.2.

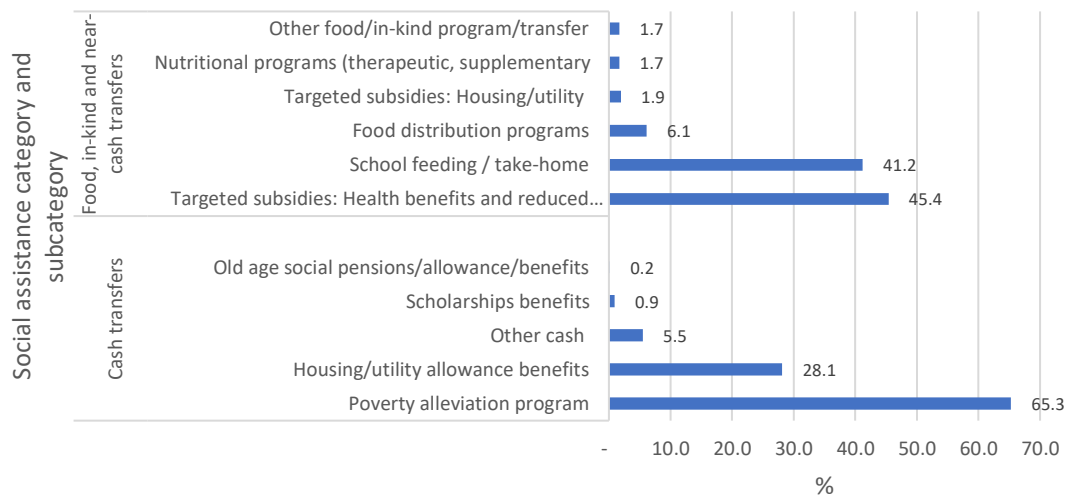
**Figure IV.15. Public Spending on Social Protection by Category, 2018 (% of Spending)**



Source: Author's calculations based on data from DIGEPRES and Dominican authorities.

Note: \* There is no budget information available for CONAPE's two social care programs for the elderly and CND's program for the working-age population.

**Figure IV.16. Public Spending on Social Assistance by Subcategory, 2018 (% of Spending)**



Source: Author's calculations based on data from DIGEPRES and Dominican authorities.

**371. Most public spending on social security in the DR is allocated to contributory insurance programs.** Contributory SFS and occupational risk insurance represent 39.1 percent of total public spending on social security, and 35.4 percent of spending cover contributions to the SVDS. Moreover, the government allocates 25.5 percent of social security spending to (i) pensions and retirements funds under the old pay-as-you-go system for public employees; and (ii) private pension funds for certain groups of public employees such as teachers and members of the police, military, and judiciary. Although 97 percent of the occupied population was affiliated with the SDSS in 2018, the contributory density was 49 percent, corresponding 6.9 percent of the contributors to the pay-as-you-go system. Most contributors to the SDSS

earn no more of two minimum salaries (71 percent).<sup>199</sup> Moreover, only 13.0 percent of people over the age of fifty-nine received a pension in 2018, which was substantially lower among people living in monetary poverty (4.2 percent).<sup>200</sup> It is expected that the first cohort of workers who belong to the individual savings pension scheme, which started in 2001, will begin to earn a pension in 2025.

**372. Since the current social security system is mainly oriented to formal workers, there is a high level of labor informality among self-employed workers, increasing their vulnerability.** Self-employed workers represented 39 percent of the occupied population in 2019. Almost all self-employed workers are in the informal sector (97 percent). Even though the Social Security Law 87-01, approved in 2001, created the Social Security Contributory Subsidized Regime for self-employed workers, it has still not been implemented.

**373. Based on administrative data for 2014-18, public spending on the school-feeding program, professional technical training at INFOTEP, water subsidies, and contributory social insurance increased at a higher rate than spending on the subsidized SFS and *Comer es primero*.** By contrast, there was a reduction of public spending on *Incentivo a la Asistencia Escolar* and *Bonoluz* in the same period. Although the increase in coverage for the school-feeding program was modest during this period, additional benefits were introduced by the program in 2013 to include not only breakfast but also snacks and lunches for students in public schools. Additionally, two new social care services were created during the period: the Comprehensive Care in Early Childhood Program and centers for the comprehensive care of people with disabilities, both of which focused on children and their families.

**Table IV.9. Beneficiaries and Expenditure of Social Protection Programs**

Main Programs	Beneficiaries	Beneficiaries	% Change	Executed Expenditure	Executed Expenditure	% Change
	2013	2018	2013/2018	2014	2018	2014/2018
<b>Social Assistance</b>						
<i>Comer es primero</i> program (households)	698,196	831,106	19.0	6,942.1	8,453.7	21.8
<i>Incentivo a la Asistencia Escolar</i> (households)	288,111	254,277	-11.7	776.8	740.8	-4.6
<i>Bonogas Hogar</i> (households)	843,439	957,790	13.6	2,305.7	2,587.4	12.2
<i>Bonoluz</i> (households)	533,766	452,433	-15.2	2,178.8	2,052.6	-5.8
School-feeding programs (people)	1,630,456	1,814,974	11.3	7,959	17,456	119.3
Subsidized SFS (people)	2,751,753	3,620,150	31.6	6,840	9,442	38.0
<b>Social care services</b>						
Comprehensive Care in Early Childhood Program (people)		175,711			4,161	
<b>Labor market</b>						
Professional technical training, INFOTEP (people)	468,373	804,935	71.9	2,250	4,088	81.7
Adult Education Program (people)	193,879	237,524	22.5		5,971	
<b>Social security</b>						

<sup>199</sup> CNSS (2019). Pag. 48.

<sup>200</sup> Author's calculation based on ENCFT 2018.

Main Programs	Beneficiaries	Beneficiaries	% Change	Executed Expenditure	Executed Expenditure	% Change
	2013	2018	2013/2018	2014	2018	2014/2018
Contributory SFS (people)	2,859,306	4,153,987	45.3	33,171	54,020	62.8
SVDS (people)	1,508,392	1,935,968	28.3	33,592	53,637	59.7
Occupational risk insurance (people)	1,530,322	2,173,990	42.1	3,158	5,197	64.6
<b>General subsidies</b>						
Electricity subsidy (current and capital expenditures)				49,566	42,071	-15.1
Water supply (current and capital expenditure)				7,855	13,098	66.7

Source: Author’s calculations with data from DIGEPRES and Dominican authorities.

**374. The authorities have also started to allocate more resources to adaptative SP to respond to emergencies related to climate change such as hurricanes and floods.** Efforts to develop a national strategy for adaptive SP facilitated the preparation of the government’s COVID-19 response and the realignment of resources. The COVID-19 crisis in the DR follows a fifteen-year period of uninterrupted economic growth, threatening to amplify fiscal risks that have been kept in check by the country’s rapidly rising GDP. Since the country had strong initial conditions, the slowdown in economic growth of almost 6 percentage points is projected to lead to a comparatively modest contraction of 0.8 percent in 2020. However, the sharp decline in economic growth increases fiscal risk, as the government has to finance both the response and efforts to stabilize the economy once the crisis has passed.

**Box IV.4. Main Measures Adopted by the Government in Response to COVID-19**

The DR is the country with the 7<sup>th</sup> highest number of confirmed cases of COVID-19 in LAC. As of May 25, 2020, there were a total of 15,073 confirmed cases, 8,285 people had recovered, and 460 people had died from the disease. The number of confirmed cases spiked from 581 on March 28<sup>th</sup> to 20,808 on Jun 10<sup>th</sup>.

The government is responding to the pandemic and the associated economic slowdown with a program focused on public health, social spending, and support to the private sector. To protect household income and jobs, this response includes a substantial expansion of social support, scaling up existing programs to deliver emergency cash transfers to vulnerable households and laid-off workers, and developing new programs to protect independent workers. The support programs include:

- The “Stay Home” program (Quédate en Casa), which aims to benefit up to 1.5 million poor and vulnerable households with a transfer of c. US\$ 93 up to US\$ 130 per household to cover food and medicine for two months. This program expands the existing cash transfer program vertically to top up the transfers during the lockdown to existing beneficiaries according to their level of vulnerability and horizontally to include 690,000 new poor and vulnerable households;
- The “Workers Technical Support Fund” (Fondo de Asistencia Solidaria al Empleado, FASE), which supports formally employed workers by subsidizing between c. US\$93 and c. US\$158 of their monthly salaries. The program aims to benefit 770,000 formal employees;
- The “For You” program (Pa’ Ti), which aims to support around 220,000 independent workers ineligible for the above programs and affected by social distancing measures imposed by the pandemic. A monthly transfer of US\$93 will be deposited to their bank accounts for two months;
- Food packages provided to families through different food security programs implemented by different

institutions, such as: *Plan Social* (serving 315,000 households per week with three meals), *Comedores Economicos* (serving around 100,000 meals every day), the Ministry of Education (1.3 million meals per week), and infant centers or early childhood development centers for children aged under the age of five (22,000 households).

With respect to the private sector, the GoDR is granting tax breaks and central bank-managed liquidity support. Both individuals and firms were offered tax payment extensions. The Central Bank has loosened monetary policy by lowering the key interest rates such as the policy rate (from 4.5 percent to 3.5 percent), the 1-day REPO facility rate (from 6 percent to 4.5 percent), and the overnight deposit rate (from 3 percent to 2.5 percent), and lowering the legal reserve ratio for banks. The Central Bank has also provided substantial liquidity support to the financial sector and relaxed financial institutions prudential regulations by freezing debtor ratings, capping required provisions, and facilitating loan restructuring. These measures can help to avoid a wave of defaults in the short term and offer immediate relief to the real sector and additional time for banks and borrowers to adjust. In addition, banks have agreed to postpone credit card payments, waive late fees, and lower credit card interest rates by 1 percentage point for three months between April and June 2020.

Finally, the government will also support micro and small enterprises (MSEs) through a cost-sharing program with financial intermediation entities. The creation of a guarantee and financing fund to benefit MSEs was agreed upon with the Central Bank, the Supervisory Authority of Banks, and the Association of Commercial Banks of the DR, with technical support from multilateral organizations. The fund will guarantee resources for MSEs at the lowest interest rates. In this scheme, the government would be guaranteeing up to 50 percent of the portfolio, while banks would be guaranteeing the remaining 50 percent. This will benefit more than 210,000 MSEs in key sectors affected by the pandemic.

#### 4. Benchmarking Analysis of Social Protection Spending

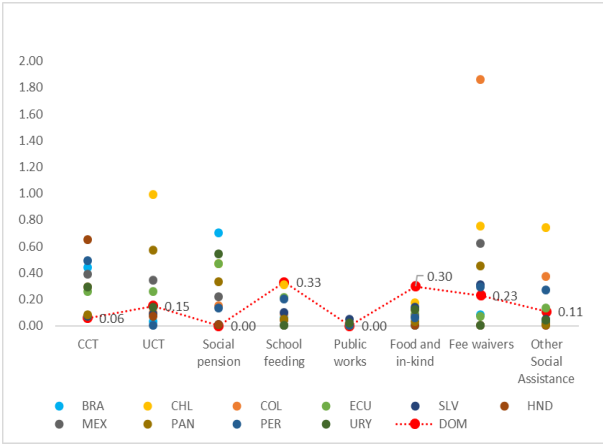
**375. The DR allocates a relatively high share of public expenditure to food, in-kind, and quasi-money transfers, although it spends relatively little on conditional cash transfers.** The DR spends around 0.33 percent of GDP on school-feeding programs and 0.30 percent of GDP on food and in-kind transfers, more than the average of 0.17 and 0.16 percent, respectively, for regional peers (Figure IV.17). By contrast, programs focused on the elderly and the unemployed represent a relatively low share of public spending on social assistance. Moreover, the country's spending on conditional and unconditional cash transfers is below the regional average, corresponding to 0.271 and 0.267 percent of GDP respectively.<sup>201</sup>

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<sup>201</sup> The benchmarking exercise compares DR with countries in the DR-CAFTA, other LAC countries and countries with structural similarities. See World Bank (2018c).

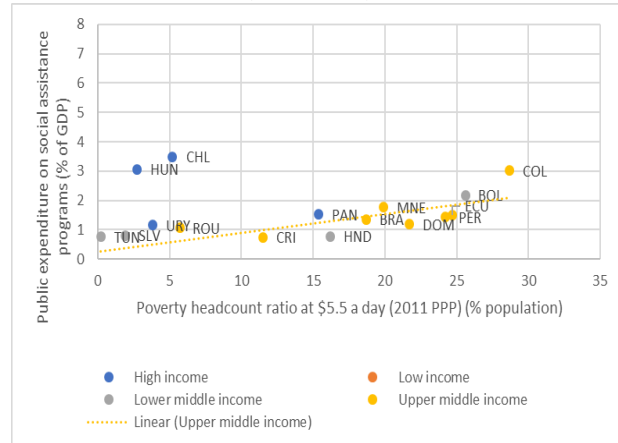


**Figure IV.17. Regional Comparison of Public Spending on Social Assistance (% of GDP)**

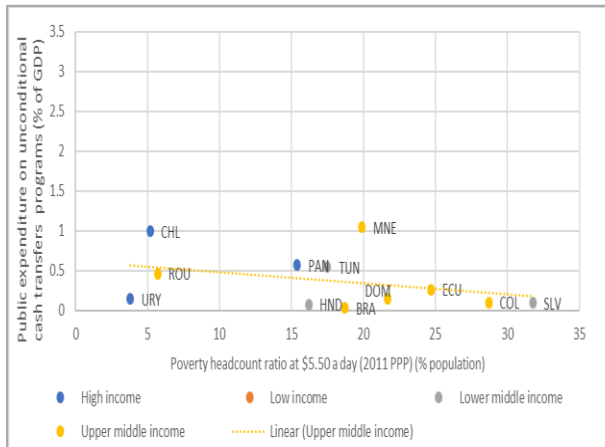


Source: ASPIRE database.

**Figure IV.18. Public Spending on Social Assistance and Poverty Headcount Ratio by Country (% of GDP)**

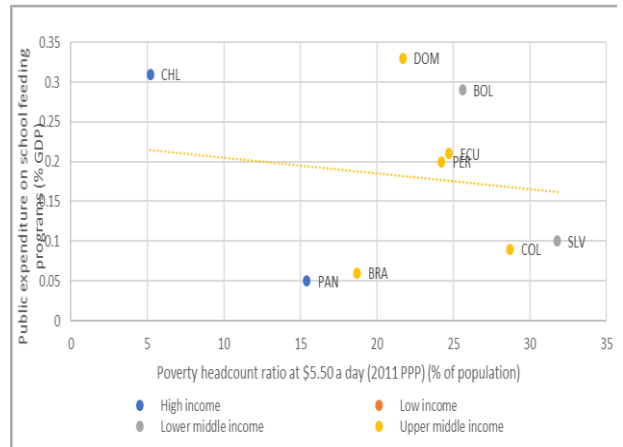


**Figure IV.19. Public Spending on Unconditional Cash Transfers and Poverty Headcount Ratio by Country**

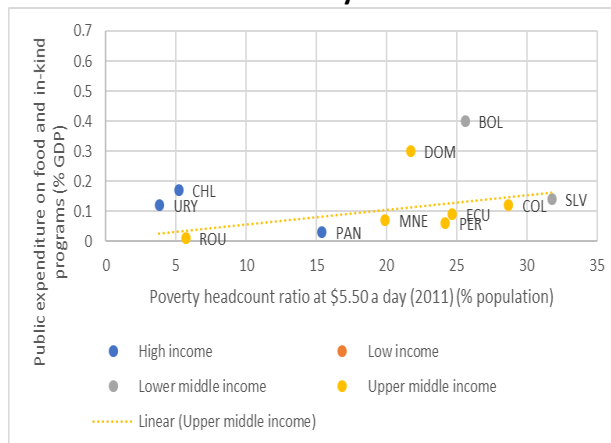


Source: ASPIRE database.

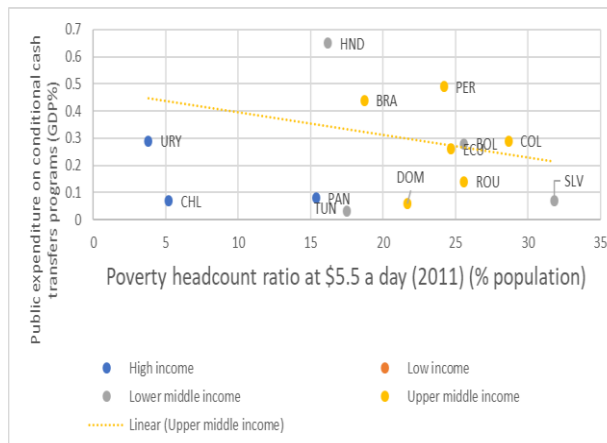
**Figure IV.20. Public Spending on School Feeding Programs and Headcount Ratio by Country**



**Figure IV.21. Public Spending on Food and In-kind Transfers and Poverty Headcount Ratio by Country**



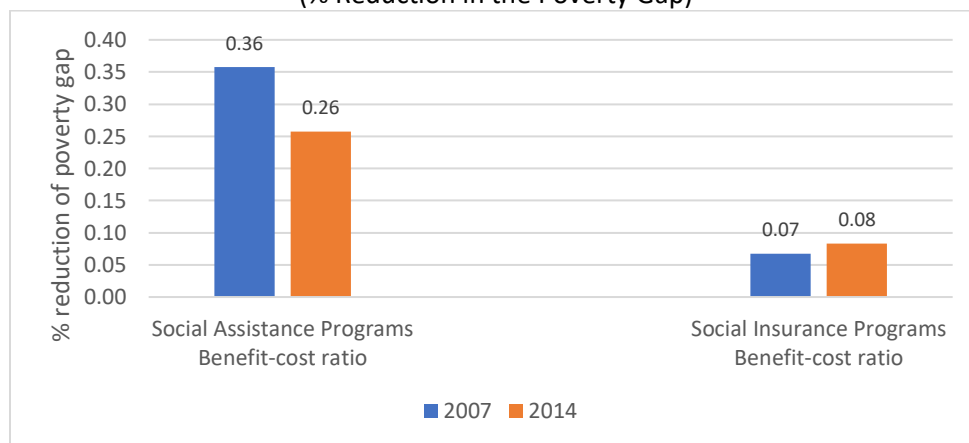
**Figure IV.22. Public Spending on Conditional Cash Transfers and Headcount Ratio by Country**



Source: ASPIRE database.

**376. The impact of the DR’s social assistance programs on reducing the poverty gap was lower in 2014 than in 2007.** In 2007, for each RD\$ spent on social assistance, the poverty gap was reduced by 0.36 percent, higher than 0.26 percent in 2014. This could be due to the fact that cash transfers have not been indexed to inflation since 2011, which means that an increase in coverage does not result in an increase in the benefit-cost ratio of social assistance programs. In the case of social security programs, the benefit-cost ratio is lower than that of social assistance programs and its behavior is associated with the dynamics of the labor market and the setting of the minimum salary for the purpose of social security contribution.

**Figure IV.23. Benefit-Cost Ratio of Social Protection Programs, 2007-2016**  
(% Reduction in the Poverty Gap)



Source: ASPIRE database.

Note: Benefit-Cost Ratio: % reduction in the poverty gap for each RD\$ spent on social programs. Benefit-cost ratio is estimated as (poverty gap pre-transfer - poverty gap post-transfer)/ total transfer amount.

## E. Efficiency of Spending

### 1. Methodological Considerations

**377.** This section provides an overview of the effectiveness of public spending in the DR's SP sector. It aims to analyze and evaluate the coverage, adequacy, and impact of nine social programs: five cash-transfer programs, two food, in-kind, and near-cash transfers programs, and two contributory social security programs, especially in terms of their ability to target the most vulnerable population (Table IV.10). The analysis is based on the 2018 National Continuous Labor Force Survey (*Encuesta Nacional Continua de Fuerza de Trabajo*, ENCFT), which collects information on household access to a set of social programs. The main advantage of using the ENCFT is that its representative sample can be used to analyze the effectiveness of social programs at the national level.

**Table IV.10. Social Protection Programs Considered in the Analysis of Public Spending**

Name	Benefit Amount <sup>a</sup>	Period	Executed Expenditure (RD\$ Million)
<i>Comer es Primero</i>	RD\$825 (US\$16.7)	Monthly	8,315.70
<i>Incentivo a la Asistencia Escolar</i>	RD\$600–RD\$1,200 (US\$12.1–US\$24.2)	Bimonthly per household <sup>b</sup>	709.4
Old-Age Protection	RD\$400 (US\$8)	Monthly	381.9
<i>Bonogas Hogar</i>	RD\$228 (US\$4.6)	Monthly	2,496.10
<i>Bonoluz</i>	Up to RD\$444 (US\$9) <sup>c</sup>	Monthly	1,395.00
<i>Programa de Alimentación Escolar</i>		Lunch, breakfast, and snack during school hours	18,099.90
Subsidized SFS (per member)	RD\$220.3 (US\$4.4)	Monthly	9,303.00
<b>Contributory social security</b>			
SVDS		Monthly	53,637.20
Contributory SFS		Monthly	59,216.80

Source: Author's calculations based on data from the respective programs.

<sup>a</sup> At current 2018 prices. The exchange rate used corresponds to the 2018 annual average of RD\$49.47 per U.S. dollar.

<sup>b</sup> Depends on the number of children who attend school.

<sup>c</sup> Depends on household electricity consumption, up to 100 kWh per month.

**378.** PROSOLI administers the conditional cash-transfer programs (Box IV.5). These include *Comer es Primero*, *Incentivo a la Asistencia Escolar*, *Bono Escolar Estudiando Progreso*, *Bonogas Hogares*, *Bonoluz*, and the Old-Age Protection program, which provides food subsidies to households with members who

are sixty-five-years or older.<sup>202,203</sup> The first three programs are conditional, as they require beneficiaries to fulfill certain criteria, and aimed at households categorized as ICV-1 (i.e., extreme multidimensional poor) or ICV-2 (moderate poor) in SIUBEN. The last three programs are unconditional and available to not only households classified as ICV-1 or ICV-2 but also to those classified as ICV-3 (i.e., vulnerable non-poor). Households classified as ICV-4 (i.e., non-poor) are only eligible to benefits from *Bonogas Hogares*. The *Bono Escolar Estudiando Progreso* program, designed exclusively for beneficiaries of *Comer es Primero* with household members who high school students, is not included in the effectiveness analysis, as it was not used in 2018. Moreover, PROSOLI manages other transfers, including *Bonogas Chofer*, *Incentivo a la Educación Superior*, *Programa de Incentivo a la Policía Preventiva*, and *Programa de Incentivo Alistados Armada República Dominicana*.

#### Box IV.5. PROSOLI and Conditional Cash Transfers

The economic crisis caused by the bankruptcy of three major banks in 2003 resulted in not only a 1.3 percent drop in GDP but also an end to more than a decade of sustained economic growth in the DR. Moreover, the general poverty rate increased from 32.9 percent in 2002 to 49.5 percent in 2004, while the extreme poverty rate increased from 8.5 percent to 15.4 percent in the same period. To reduce the impact of the crisis, the government created the Conditional Cash Transfer Program (*Programa de Transferencias Monetarias Condicionadas*, PTMC) SOLARIDAD in October 2004.

The objective of the PTMC was to address the intergenerational root causes of poverty by providing poor households with resources to purchase food and access education and health services; increasing job opportunities; and promoting the accumulation of human capital (PROSOLI Operating Manual 2017). In 2012, following the merger of SOLIDARIDAD and PROGRESANDO, the PTMC was renamed to PROSOLI, and the authorities added the following components: identification; human formation and citizen awareness; income generation; habitability and protection of the environment; and access to information and communication technologies and reducing the digital divide.

The country's conditional cash transfers target the poorest households based on the DR's poverty map, and SIUBEN is used to identify families based on their ICV classification. The program targets families classified as ICV-1 or ICV-2, especially families with pregnant mothers, children under the age of five, or children of school age.

PROSOLI is implemented through (i) conditional cash transfers; (ii) socio-educational support through home visits; and (iii) linking families to programs and services in their communities. The conditional cash-transfer programs are *Comer es Primero*, *Incentivo a la Asistencia Escolar*, and *Bono Escolar Estudiando Progreso*. The first requires beneficiaries to access health services, including pre and post-natal examinations, immunizations, and routine examinations for children under the age of five. The other two programs are open to households with members aged between five and twenty-one if they enroll their children in school and ensure regular school attendance. There are also unconditional cash-transfer programs such as *Bonogas*, *Bonoluz*, and Old-Age Protection. The first two programs include targeted subsidies for households to purchase liquefied petroleum gas for cooking and pay electricity bills, respectively. Meanwhile, the third unconditional cash transfer involves food assistance to households with members who are aged sixty-five years or older.

<sup>202</sup> In the case of the *Incentivo a la Asistencia Escolar* and Old-Age Protection, the ENCFT fails to adequately capture the total number of beneficiary households, mainly because these programs have fewer beneficiaries than *Comer es Primero*, *Bonogas Hogares*, and *Bonoluz*. Therefore, the analysis imputed the difference in beneficiary households to approximate administrative data on beneficiaries in 2018. The imputation was done randomly for households that met the eligibility criteria and received benefits from *Comer es Primero*.

<sup>203</sup> While the food subsidy under Old-Age Protection is deposited through PROSOLI's payment system, it is financed by the National Council on Aging.

After more than fifteen years since the first cash transfers were issued, PROSOLI has become one of the main social assistance programs in the DR. In 2018, nearly 830,000 households benefited from *Comer es Primero*, equivalent to more than 2.8 million people, or 27.7 percent of the country's population.

**379. The remaining SP initiatives included in the analysis are social assistance and social security programs.** *Programa de Alimentación Escolar* and the subsidized SFS are both classified as social assistance. While the subsidized SFS is a part of the SDSS, it is regarded as social assistance. The social security programs are the contributory SFS and the SVDS.<sup>204</sup>

**380. The ENCFT 2018 is used to calculate the benefits households receive from the SP programs.** The survey asks households to estimate what the benefits under *Programa de Alimentación Escolar*—including breakfast, snacks, and lunch—represent in terms of their income in order to estimate the monthly value of the in-kind transfers households receive. The monthly values of the transfers received for the SFS and SVDS also need to be imputed. In the case of the subsidized SFS, the cash transfer imputation corresponds to the amount paid by the TSS to SENASA per beneficiary of the subsidized SFS. For the contributory SFS and the SVDS, contributions made by the employer per worker are imputed to household income of the worker. All the imputation exercises include an analysis of outliers. Indicators are estimated using the ADePT program as well as the net income distribution of each social program. While household surveys provide details on the sociodemographic characteristics of the population, they tend to underrepresent households at the ends of the income distribution, which needs to be considered when interpreting the results.<sup>205</sup> Similarly, since the individual-based pension scheme was established by Law 87-01 in 2001, workers will start to receive pensions in 2025, which means that the analysis of the SDSS coverage includes people who are currently quoting to the SDSS.

## 2. Poverty in the Dominican Republic

**381. In 2018, 22.8 percent of the Dominican population was considered monetary poor and 2.9 percent was considered extreme monetary poor (Table IV.11).** While urban areas, particularly in the provinces of Santo Domingo and Santiago, have the highest concentration of poor people, the poverty rate in rural areas (19.2 percent) is higher than in urban areas (16.7 percent), despite the dramatic fall in the poverty rate among rural households during the last decade.

**Table IV.11. Population Distribution by Monetary and Multidimensional Poverty, 2018**

	Number of people	%	Number of households	%
<b>Monetary poverty (official poverty line)</b>				
Extreme poor	296,591	2.90%	70,613	2.20%
Moderate poor	2,039,330	19.90%	494,127	15.00%
Non-poor	7,929,358	77.20%	2,719,319	82.80%
<b>Multidimensional poverty (ICV SIUBEN)</b>				
Extreme poor (ICV 1)	552,165	5.40%	218,934	6.70%
Moderate poor (ICV 2)	2,549,030	24.80%	808,554	24.60%
Vulnerable non-poor (ICV3)	4,567,759	44.50%	1,402,259	42.70%
Non-poor	2,596,329	25.30%	854,312	26.00%
Total	10,265,279		3,284,059	

Source: Author's elaboration based on ENCFT 2018 data.

<sup>204</sup> Both employees and employers contribute to contributory social security, while the government contributes to the subsidized SFS.

<sup>205</sup> Anecdotal evidence from the Central Bank's labor force surveys shows households in the highest income quintiles are more underrepresented than households in the lower end of the income distribution.

**382. The incidence of multidimensional poverty is higher than that of monetary poverty.** Extreme multidimensional poverty (ICV-1) at the household level was 6.7 percent in 2018, much higher than 2.2 percent for extreme monetary poverty. This means that 148,000 households were considered extreme poor in terms of multidimensional poverty but not in terms of monetary poverty, which is relevant when comparing the effectiveness of programs aimed at the most vulnerable population. The difference can be explained by the way the poverty level is approximated for each indicator. The ICV considers a household's physical assets, access to basic services, and demographic profile. Therefore, a moderate monetary poor household, whose head of household has a formal job with an income that exceeds the extreme poverty line, may reside in inadequate housing with no access to water, which would classify it as extreme poor (ICV-1) in terms of multidimensional poverty.

**383. Moreover, 70 percent of households are considered vulnerable non-poor or non-poor in terms of multidimensional poverty, lower than 83 percent of households classified as monetary non-poor.** In 2018, 42.7 percent and 26.0 percent of the population was classified as ICV-3 and ICV-4, respectively. These differences are important to consider while interpreting the results of the effectiveness analysis, which presents results by monetary and multidimensional poverty (and in some cases by income quintile).

### 3. Social Protection Coverage

**384. The expansion of the SDSS over the last eighteen years was one of the most important events in the DR's SP sector.**<sup>206</sup> In 2018, approximately 48 percent and 44 percent of the country's households had at least one member who was covered by the contributory or subsidized SFS, respectively (Table IV.12). Moreover, around 42 percent of households had at least one member who was covered by the contributory SVDS.<sup>207</sup> Other programs with significant coverage include *Bonogas Hogares*, *Programa de Alimentación Escolar*, and *Comer es Primero*, which covered 28.6 percent, 27.6 percent, and 25.0 percent of households in the same year, respectively, while the *Incentivo a la Asistencia Escolar* covered 7.1 percent and the Old-Age Protection program covered a mere 2.6 percent of households.<sup>208</sup>

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<sup>206</sup> The SDSS was enacted by Law 87-01 in 2001. The subsidized SFS was created in November 2002, while the contributory SFS was created in September 2007. Meanwhile, employees started to be covered by the SVDS in February 2003, and contributions to the system started in August of the same year.

<sup>207</sup> The subsidized pension program started in 2019 and covers approximately 6,000 people.

<sup>208</sup> The beneficiary households for these two programs were adjusted based on data from the ENCFT 2018 and the ADESS. Since they were underrepresented in the ENCFT, a random imputation exercise of beneficiary households was done in order to mirror the administrative data.

**Table IV.12. Coverage of Social Protection Programs based on ENCFT 2018 data**

	<b>Total Beneficiary Households</b>	<b>% Beneficiary Households</b>
<b>Conditional Cash Transfers</b>		
<i>Comer es Primero</i>	822,372	<b>25.00%</b>
<i>Incentivo a la Asistencia Escolar</i>	232,866	<b>7.10%</b>
<b>Unconditional Cash Transfer</b>		
<i>Bonoluz</i>	485,858	<b>14.80%</b>
<i>Bonogas Hogares</i>	938,568	<b>28.60%</b>
Old-Age Protection	86,823	<b>2.60%</b>
<b>Food and Quasi-Cash Transfers</b>		
<i>Programa de Alimentación Escolar</i>	907,467	<b>27.60%</b>
Subsidized SFS	1,433,323	<b>43.60%</b>
<b>Social Security Contributory Scheme</b>		
Contributory Health Insurance Scheme	1,585,250	<b>48.30%</b>
Contributory SDSV	1,375,927	<b>41.90%</b>
<b>Total</b>	<b>3,284,059</b>	

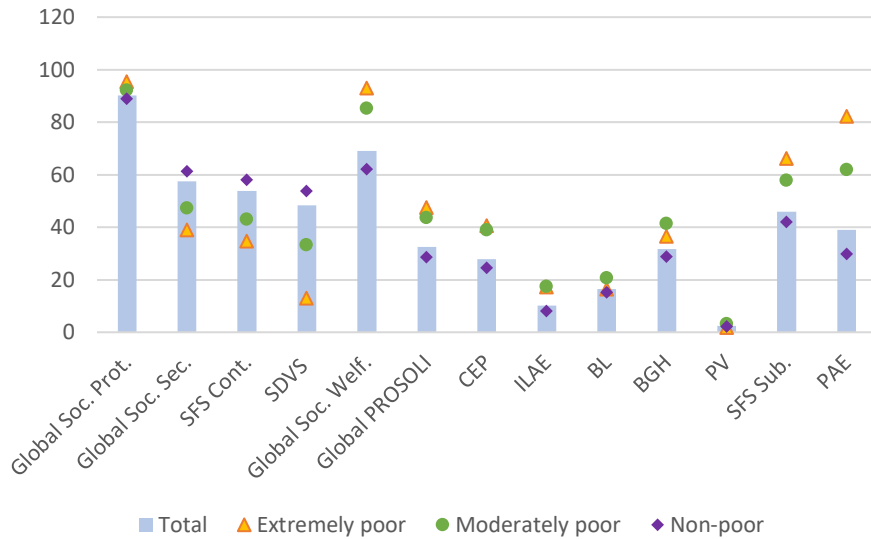
Source: Authors' calculations based on ENCFT 2018 data.

**385. With the exception of contributory social security, moderate or extreme poor households participate in SP programs to a greater extent than non-poor households (Figure IV.24).** The underrepresentation of poor households in contributory social security is likely due to the greater participation of high-income households in the formal sector. In terms of social assistance, the difference in coverage between households considered monetary poor and those considered non-poor is especially great for *Programa de Alimentación Escolar*, the subsidized SFS, and *Comer es Primero*, as these programs focus on the country's poorest population. The country's school-feeding programs, which do not include private educational institutions, cover a large share of extreme monetary poor households. Moreover, the subsidized SFS helped close the gap in health insurance between poor and non-poor households: nearly 60 percent of the DR's households had access to subsidized health insurance in 2018.<sup>209</sup>

<sup>209</sup> In addition to global indicators for SP, social security, and social assistance, cash-transfer programs are grouped into a joint indicator called PROSOLI Global.



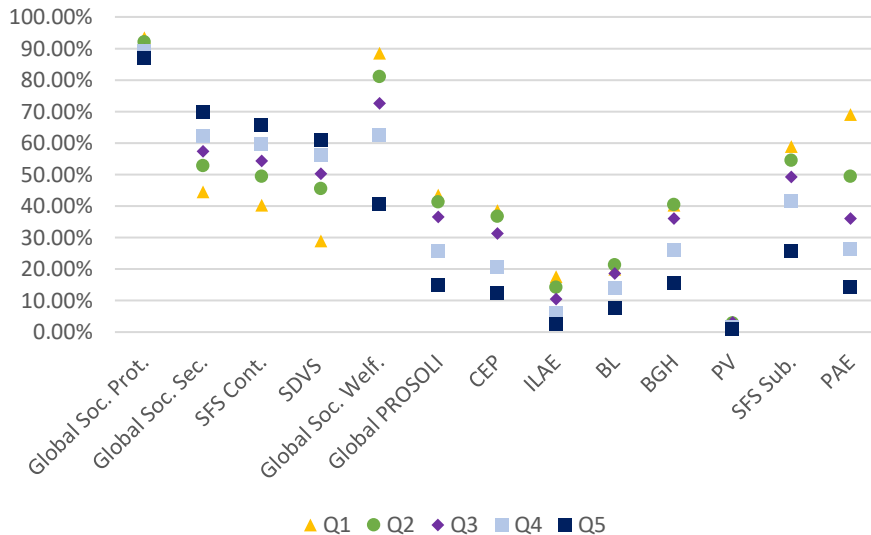
**Figure IV.24. Coverage of Major Social Protection Programs by Monetary Poverty (%), 2018**



Source: Data from ENCFT 2018 and ADePT.

**386. Similarly, the progressive nature of the DR’s SP programs is confirmed by their relatively high coverage of low-income households.** The coverage rate for households in the bottom 20 percent of the income distribution—around 657,000 households—ranges from 40 percent for *Comer es Primero* and *Bonogas Hogares* to 60 percent for the subsidized SFS and close to 70 percent for *Programa de Alimentación Escolar* (Figure IV.25). A similar pattern is observed for households in the second income quintile, with the exception of *Programa de Alimentación Escolar*.

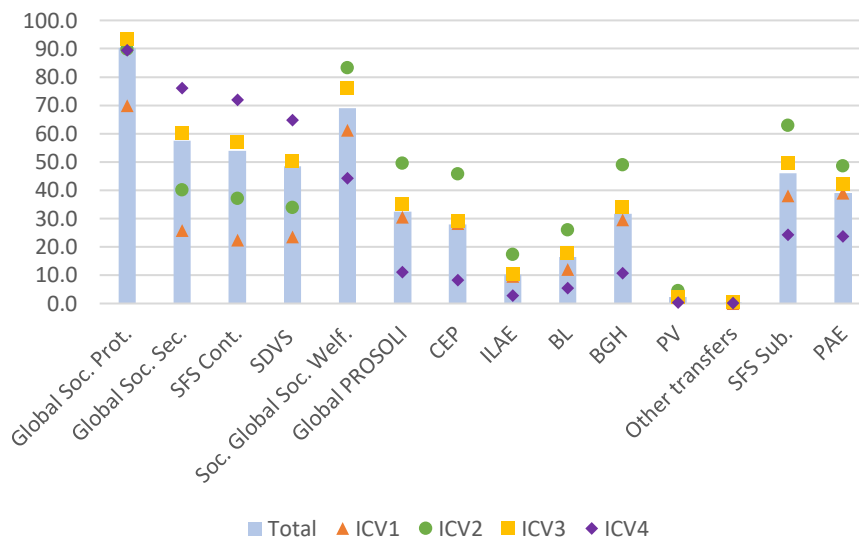
**Figure IV.25. Coverage of Major Social Protection Programs by Income Quintile (%), 2018**



Source: Data from ENCFT 2018 and ADePT.

**387. However, multidimensionally poor households are underrepresented in social assistance programs (Figure IV.26).** The coverage rate of households classified as moderate poor (ICV-2) or vulnerable non-poor (ICV-3) is generally higher than that of households classified as extreme poor (ICV-1). This is likely due to ICV-3 households being eligible for unconditional cash transfers under PROSOLI and ICV-4 households (non-poor) being eligible for *Bonogas Hogares*. Meanwhile, the high coverage of ICV-3 households in the *Comer es Primero* program is mainly due to an improvement in the living conditions of beneficiaries since the program was created, especially among households that were included in the early years of the program.

**Figure IV.26. Coverage of Main Social Protection Programs by Multidimensional Poverty (%), 2018**



Source: Data from ENCFT 2018 and ADePT.

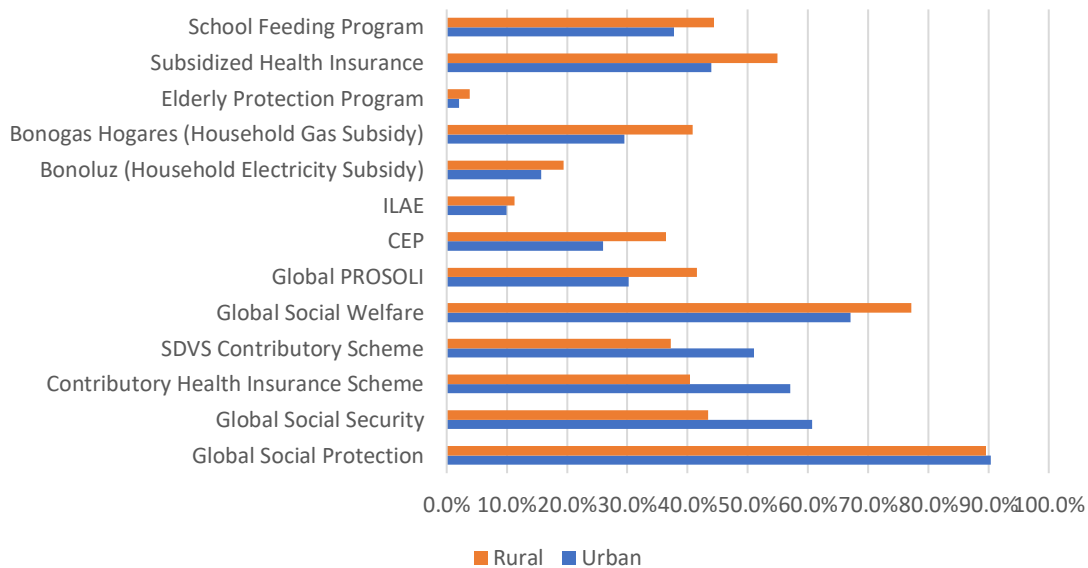
**388. A significant portion of the beneficiaries of the DR’s cash-transfer programs improve their living standards.** An analysis of the socioeconomic status of PROSOLI beneficiaries reveals that almost 80 percent of the households classified as ICV-1 in 2004-09 had escaped extreme poverty by 2017-18. Moreover, 49.6 percent of households classified as ICV-2 in 2004-09 were classified as ICV-3 (45 percent) or ICV-4 (4.6 percent) in 2017-18. As a result, a significant share of beneficiary households experienced an improvement in their living standards in terms of the physical condition of their homes, their access to basic services, their possession of household appliances, overcrowding, and educational achievement, especially for school-age children aged 5-14 years.<sup>210</sup>

**389. Despite the positive trends in poverty alleviation, a wide gap remains in coverage, especially within the group of extreme poor households.** In 2017-18, 25.5 percent of head of households (42,561) classified as ICV-1 either did not have identification documents or failed to report that they did. Since potential beneficiaries need to identify themselves to access SP programs, the lack of identification documents constitutes a structural challenge to increasing SP coverage for the people most in need. As of 2019, nearly 109,000 ICV-1 households were not beneficiaries of the country’s SP programs, according to SIUBEN.

<sup>210</sup> Subsection 5.8 examines the upward social mobility in PROSOLI’s cash-transfer programs by analyzing the socioeconomic status of nearly 400,000 beneficiary households.

**390. While the coverage of most SP programs is relatively similar between rural and urban areas, the SDSS covers more urban households, and more rural households are covered by social assistance.** In 2018, the SDSS covered 60.7 percent of the urban population while only 43.4 percent of the rural population, which is mainly due to the higher presence of formal jobs in cities (Figure IV.27). By contrast, the coverage of social assistance programs was 77.1 percent in rural areas compared to 67.1 percent in urban areas, reflecting the higher incidence of poverty in rural areas. The higher coverage of social assistance programs in rural than urban areas is likely one of the reasons for the greater reduction of poverty among rural households during the last decade.

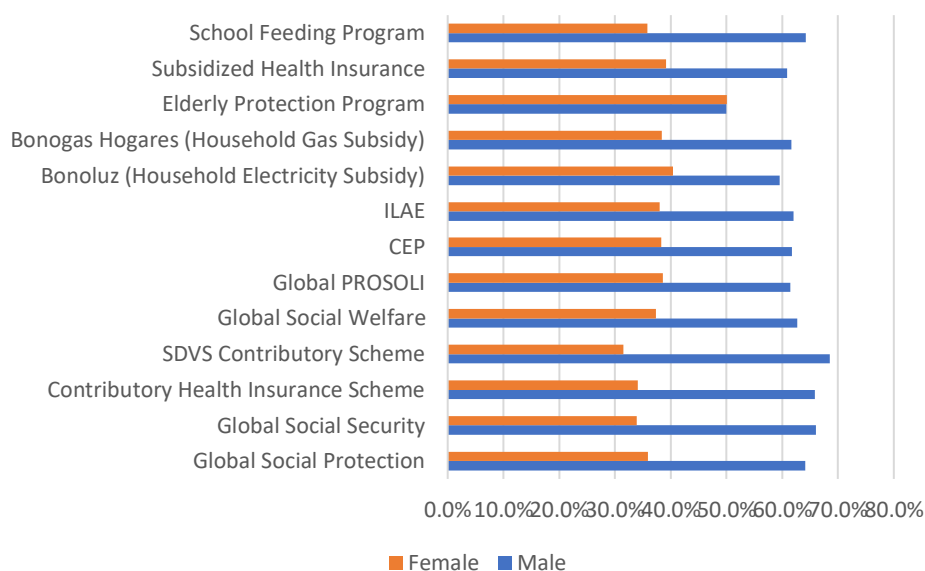
**Figure IV.27. Coverage of Major Social Protection Programs by Place of Residence (%), 2018**



Source: Data from ENCFT 2018 and ADePT.

**391. Finally, about one-third of beneficiary households of the DR’s SP programs are headed by men.** Male-headed households represented an average of 60-70 percent of all households participating in SP programs in 2018 (Figure IV.28). For example, 64.2 percent of beneficiary households covered by *Programa de Alimentación Escolar* were headed by men. Old-Age Protection was the only SP program with more households headed by women (50.1 percent) than men. While this reflects the fact that 62.4 percent of all households in the DR are headed by men, the incidence of poverty is almost 6 percent higher in female-headed households (20.8 percent) than in households headed by men (15.0 percent).

**Figure IV.28. Coverage of Major Social Protection Programs by Sex of Head of Household (%), 2018**



Source: Data from ENCFT 2018 and ADePT.

#### 4. Social Protection Benefits

**392. An analysis of average per capita transfer of beneficiary households from the DR’s main SP programs confirms the progressiveness of non-social security spending in the SP sector.** While social assistance programs focus their benefits mainly on the poor population, most social security benefits go to non-poor or vulnerable non-poor households, which is related to the relationship between higher living conditions and formal employment (Table IV.13). Benefits from the country’s main SP programs are relatively low. The average per capita transfer of beneficiary households from the main social security and social assistance programs represented only 21.4 percent and 19.2 percent, respectively, of the general poverty line in 2018, equivalent to RD\$4,956 (US\$100) at current 2018 prices. The highest average per capita transfer of beneficiary households came from *Programa de Alimentación Escolar*, followed by the contributory SFS and *Comer es Primero*.<sup>211</sup> An analysis of average per capita transfer of beneficiary households by income quintile reveals similar results: households in the first and fifth income quintile received average monthly social assistance transfers of RD\$794 (US\$16) and RD\$482 (US\$9.7), respectively, in the same year.<sup>212</sup>

<sup>211</sup> A significant share of households that receive benefits from *Comer es Primero* also receive benefits from *Bonogas Hogares* and *Bono Luz*, so the average household benefits received from PROSOLI are similar to those received from *Programa de Alimentación Escolar*.

<sup>212</sup> See Table IV.4.

**Table IV.13. Average Per Capita Transfer of Beneficiary Households from the Main Social Protection Programs, 2018 (RD\$)**

	Multidimensional poverty					Monetary poverty		
	Total	ICV1	ICV2	ICV3	ICV4	Extreme poor	Moderate poor	Not poor
<b>Social protection</b>	1,059	794	898	1,016	1,340	1,224	946	1,078
<b>Social security</b>	954	582	652	839	1,297	703	705	1,019
Contributory SFS	576	412	480	581	629	672	588	571
Contributory SDVS	489	246	248	348	823	97	165	546
<b>Social assistance</b>	591	664	653	581	482	1,009	661	509
<b>PROSOLI</b>	383	459	408	366	328	343	346	401
<i>Comer es Primero</i>	252	298	255	246	237	195	212	273
<i>Incentivo a la Asistencia Escolar</i>	67	69	66	67	72	66	66	68
<i>Bonoluz</i>	130	155	127	130	128	94	106	139
<i>Bonogas Hogares</i>	68	76	68	67	65	49	54	73
Old-Age Protection	143	164	146	139	102	92	111	157
Other transfers	224	167	235	207	268	119	204	235
Subsidized SFS	134	135	138	135	118	141	134	133
<i>Alimentación Escolar</i>	570	550	524	584	623	876	563	515

Source: 2018 ENCFT.

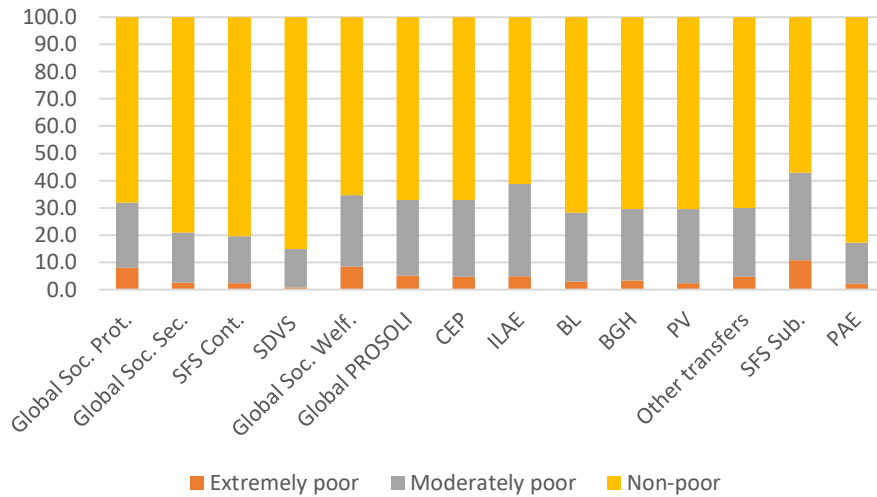
Note: In current 2018 prices.

## 5. Incidence and Adequacy of Social Protection

**393. This subsection analyzes the incidence and adequacy of SP benefits in the DR.** This is done by measuring: (i) the relative participation of different groups in the country's main SP programs; (ii) each group's share of SP benefits; and (iii) the relative importance of benefits in terms of each group's household income.

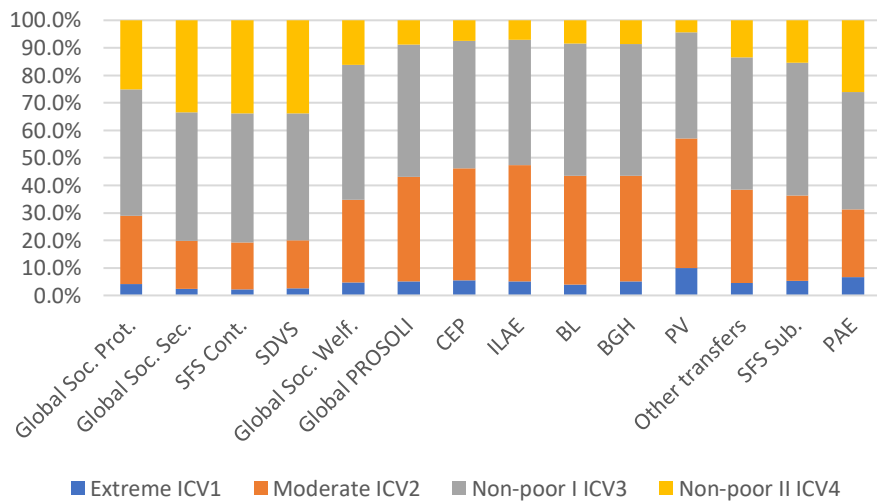
**394. Monetary non-poor households, or households classified as moderate or vulnerable non-poor, represent a large share of the beneficiaries of the country's main SP programs.** In 2018, monetary non-poor households, which represented 83 percent total households, accounted for 68% of SP beneficiaries (Figure IV.29). Similarly, 80 percent of the beneficiaries of the main social assistance programs were moderate poor (ICV-2) or vulnerable non-poor (ICV-3) households, which together represent 67 percent of all Dominican households (Figure IV.30). By contrast, extreme monetary poor households and ICV-1 households represented only 8.1 percent and 4.2 percent of SP beneficiaries, respectively. While the low participation of extreme poor households is partly due to them representing a low share of total households, many of the extreme poor are also not covered by the country's SP programs (e.g., because they lack identification, etc.).

**Figure IV.29. Incidence of Social Protection Beneficiaries by Monetary Poverty (%), 2018**



Source: Data from ENCFT 2018 and ADePT.

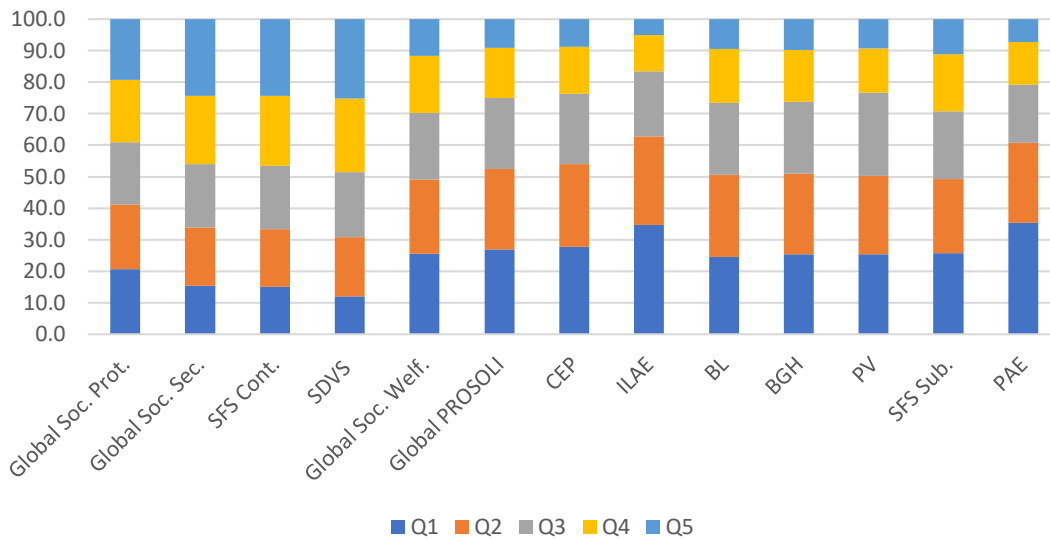
**Figure IV.30. Incidence of Social Protection Beneficiaries by Multidimensional Poverty (%), 2018**



Source: Data from ENCFT 2018 and ADePT.

**395. However, almost half of all beneficiaries of social assistance in the DR are households in the bottom 40 percent of the income distribution (Figure IV.31).** Moreover, households in the bottom 60 percent represent 70 percent of all social assistance beneficiaries. By contrast, social security beneficiaries from households in the upper 60 percent of the income distribution are more than the beneficiaries from the bottom 40 percent.

**Figure IV.31. Incidence of Social Protection Program Beneficiaries by Income Quintile (%) - 2018**

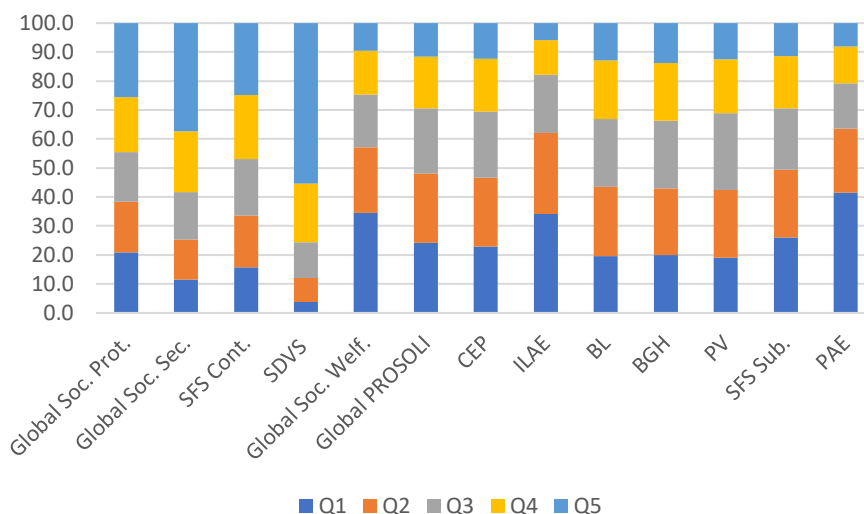


Source: Data from ENCFT 2018 and ADePT.

**396. The monetary non-poor population and households classified as ICV-2 or ICV-3 receive more than two-thirds of benefits from the main SP programs.** Almost 70 percent and 78 percent of SP benefits go to monetary non-poor households and households classified as ICV-2 (moderate poor) or ICV-3 (vulnerable non-poor), respectively. This is expected, given the high participation of these households in the country’s social assistance and social security programs.

**397. Nevertheless, an analysis of households by income quintile reveals that low-income households receive a large share of SP benefits.** In 2018, the bottom 40 percent of the population received 57 percent of total social assistance benefits, and households in the bottom 60 percent of the income distribution received 75 percent of all benefits (Figure IV.32). For example, households in the bottom 40 percent of the income distribution received more than 60 percent of the benefits from *Incentivo a la Asistencia Escolar* and *Alimentación Escolar*. By contrast, social security benefits were concentrated in the top 20 percent of the population.

**Figure IV.32. Incidence of Social Protection Benefits by Income Quintile (%), 2018**



Source: Data from ENCFT 2018 and ADePT.

**398. Benefits from the DR’s main SP programs represent almost half of the income of extreme poor households.** In 2018, SP benefits represented 46.8 percent of the household income of the monetary extreme poor—much higher than 20.2 percent and 7.0 percent of the income of moderate poor and non-poor households, respectively (Figure IV.33). They also represented 12.7 percent of the income of ICV-1 (extreme poor) and ICV-2 (moderate poor) households, respectively—higher than 6.3 percent of the income of ICV-4 (non-poor) households (Figure IV.34). Finally, benefits from the country’s SP initiatives represented 30.5 percent of household income in the poorest income quintile—much higher than 15.5 percent for households in the second income quintile.

**399. The country’s school-feeding initiative is the most important SP program in terms of the finances of monetary extreme poor households.** Benefits under *Programa de Alimentación Escolar* and *Comer es Primero* represented 37.1 percent and 16.5 percent, respectively, of these households’ income in 2018. While the importance of the school-feeding program could be due to an overestimation of the income to cover benefits, it is likely also due to: (i) the extension of the school day for more than 70 percent of students in public schools, which makes them eligible to free breakfast, snacks, and lunch; and (ii) extreme poor households having more children than the average household, as benefits are provided per child.

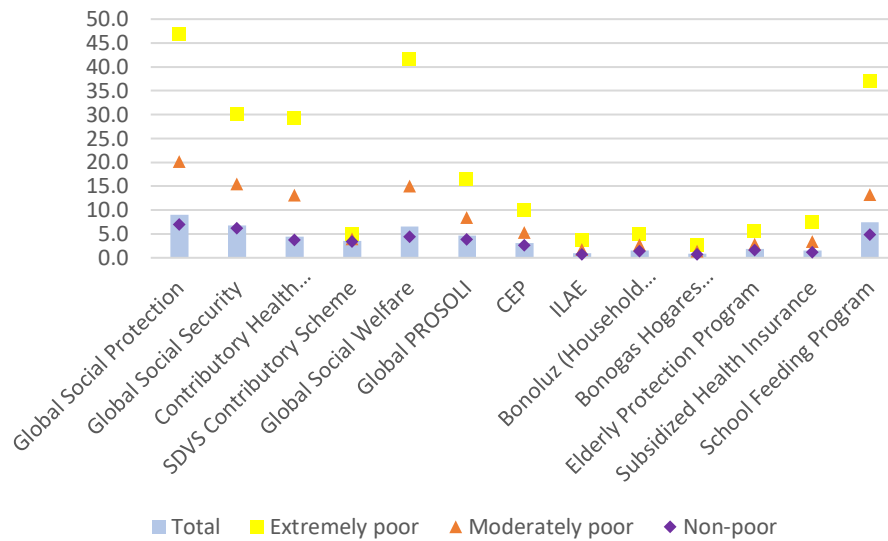
**400. SP benefits are generally low, and their purchasing power has eroded over time.** For example, benefits under *Comer es Primero* have not been adjusted since they increased from RD\$700 to RD\$825 in June 2013. This means that benefits had eroded by 13 percent by December 2018, except for 19.6 percent of beneficiaries who were also part of the *Progresando Unidos* program, as their benefits increased to RD\$1,000 in December 2018.<sup>213</sup> Similarly, the benefits of other programs such as *Bonogas* and the subsidized SFS have changed little since they were created.

<sup>213</sup> *Progresando Unidos* was an initiative within PROSOLI to develop human capital, help people access employment, and improve housing in selected provinces. It was implemented in fourteen provinces with the highest proportion of the population in extreme poverty and in some provinces with the highest absolute levels of households in extreme poverty.



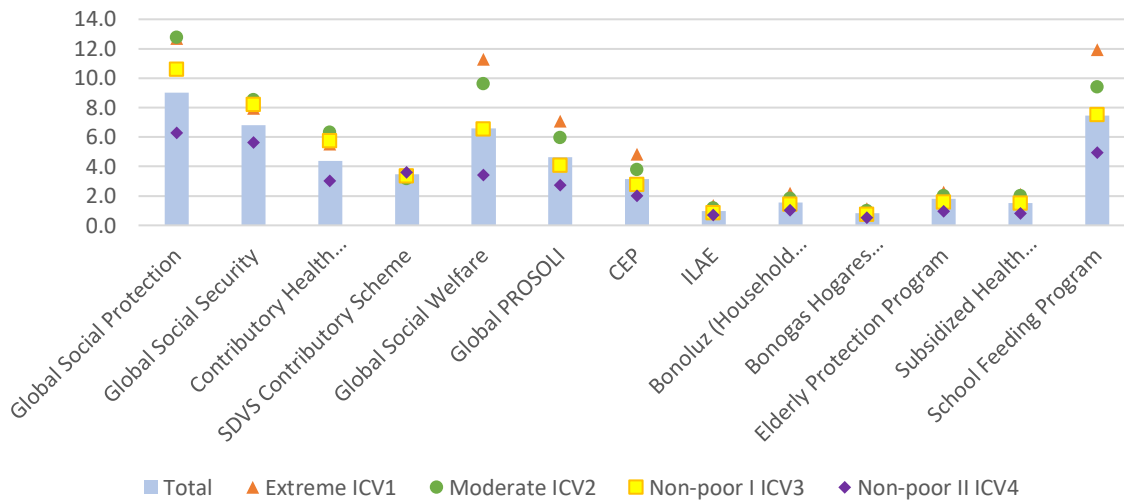


**Figure IV.33. Adequacy of Major Social Protection Programs by Monetary Poverty (%), 2018**



Source: Data from ENCFT 2018 and ADePT.

**Figure IV.34. Adequacy of Major Social Protection Programs by Multidimensional Poverty (%), 2018**



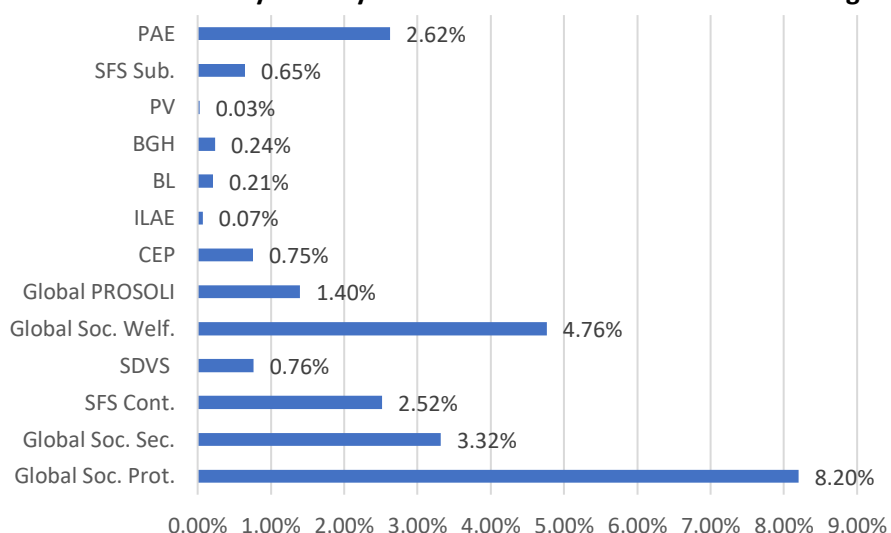
Source: Data from ENCFT 2018 and ADePT.

## 6. Poverty and Income Inequality

**401. The DR's SP programs have reduced both monetary poverty and income inequality.** In 2018, the incidence of monetary poverty would have been 8.2 percentage points higher (30.9 percent instead of 22.7 percent) in the absence of SP programs, of which contributory social security and social assistance represented 3.3 and 4.8 percentage points, respectively (Figure IV.35). *Programa de Alimentación Escolar*, PROSOLI, and the subsidized SFS represented 2.6, 1.4, and 0.65 percentage points, respectively, of the reduction in poverty. Moreover, without the country's SP programs, the level of income inequality would have been 7.3 percent higher in 2018 (increase in the Gini coefficient of 0.0032 in absolute terms), mainly due the impact of *Programa de Alimentación Escolar* and the contributory SFS on the livelihood of extreme

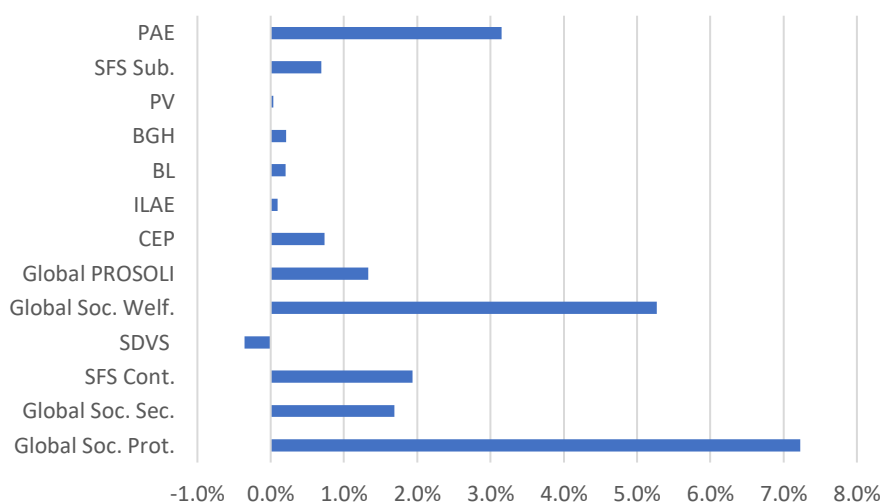
poor households (Figure IV.36). The small negative effect of the SVDS on income inequality is due to the high participation of high-income households in this program.

**Figure IV.35. Increase in Monetary Poverty in the Absence of Social Protection Programs (%), 2018**



Source: Data from ENCFT 2018 and ADePT.

**Figure IV.36. Increase in Inequality in the Absence of Social Protection Programs (%), 2018**



Source: Data from ENCFT 2018 and ADePT.

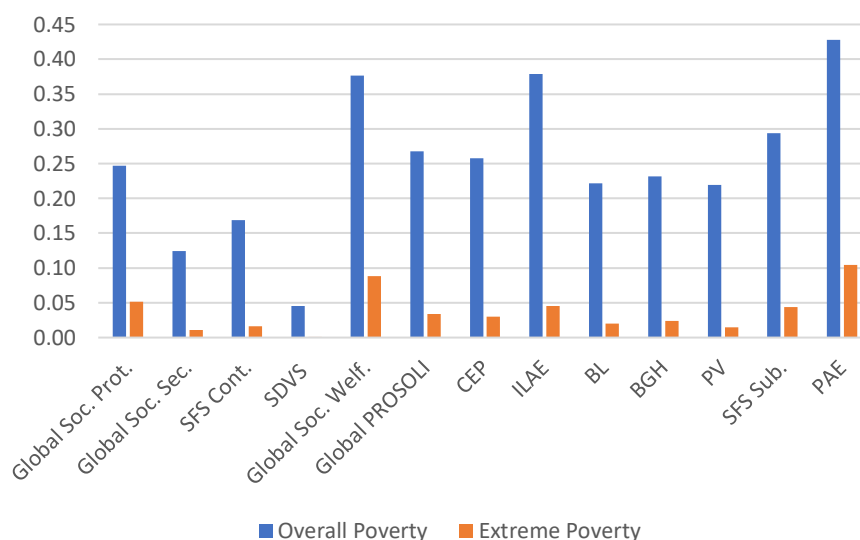
**402. The country's SP interventions have also prevented an increase in the poverty gap.** In 2018, the poverty gap<sup>214</sup> would have increased from 6.7 percent to 11.4 percent in the absence of SP programs. The country's social assistance programs were especially important to prevent an increase in the poverty gap, as they target the moderate and extreme poor population. Social assistance interventions prevented

<sup>214</sup> The poverty gap is measured as the average distance of the income of poor households from the general poverty line, expressed as a percentage of the poverty line.

roughly two-thirds of the total increase in the ‘poverty severity indicator’ (from 0.029 to 0.061), which is calculated as the squared poverty gap.

**403.** Finally, an analysis of the benefit-cost ratio of the DR’s main SP programs reveals that each peso invested reduced the general poverty gap by DR\$0.25 on average in 2018 (Figure IV.37). While two-thirds of Dominican households are considered non-poor, a large share of households are also classified as vulnerable non-poor (ICV-3) and at risk of falling back into poverty in the event of a relatively minor shock. The programs with the highest benefit-cost ratios are *Programa de Alimentación Escolar* and *Incentivo a la Asistencia Escolar* at RD\$0.43 and RD\$0.38, respectively. Despite the latter program’s relative low importance for the overall income of extreme poor households, it is well defined and targeted, contributing to efficient SP spending. In terms of monetary extreme poor households, the overall benefit-cost ratio of SP programs is lower, mainly due to an existing coverage gap and lower participation and incidence of benefits.

**Figure IV.37. Benefit-Cost Ratio of Major Social Protection Programs by Monetary Poverty (RD\$), 2018**



Source: Data from ENCFT 2018 and ADePT.

## 7. Overlap of Social Protection

**404.** Many of the DR’s main SP programs suffer from overlapping initiatives and mandates. Overlap is common among conditional cash transfers, as they are created to address overlapping socioeconomic needs (e.g., PROSOLI). For example, of the households that received benefits from *Comer es Primero* in 2018, 36 percent also received benefits from *Incentivo a la Asistencia Escolar*, 50 percent received benefits from *Bonoluz*, and almost all received benefits from *Bonogas hogares*. (Table IV.14). Likewise, of the households that received benefits from *Incentivo a la Asistencia Escolar*, all received benefits from *Comer es Primero*, half of them received benefits from *Bonoluz*, and 98 percent received benefits from *Bonogas Hogares*.

**Table IV.14. Overlap of the Main Social Protection Programs, 2018**

	SSG	SFS RC	SVDS	ASG	CEP	ILAE	BL	BGH	PV	SFS RS	PAE
SSG	100%	94%	84%	63%	24%	10%	15%	28%	2%	33%	38%
SFS RC	100%	100%	83%	63%	24%	10%	15%	28%	2%	31%	39%
SVDS	100%	93%	100%	63%	24%	10%	15%	28%	1%	32%	39%
ASG	52%	49%	44%	100%	40%	15%	24%	46%	3%	67%	57%
CEP	50%	47%	42%	100%	100%	36%	50%	98%	8%	74%	51%
ILAE	54%	50%	47%	100%	100%	100%	49%	98%	5%	70%	75%
BL	52%	49%	43%	100%	86%	31%	100%	99%	9%	75%	49%
BGH	51%	47%	43%	100%	87%	32%	51%	100%	7%	72%	50%
PV	37%	35%	24%	100%	100%	20%	63%	100%	100%	89%	31%
SFS RS	41%	37%	33%	100%	45%	16%	27%	50%	5%	100%	45%
PAE	57%	53%	49%	100%	37%	20%	20%	41%	2%	53%	100%

Source: Data from ENCFT 2018 and ADePT.

Note: SFS RC: Seguro Familiar de Salud del régimen contributivo; SVDS: Seguro de Vejez, Discapacidad y Sobrevivencia; ASG: Social Assistance Programs; CEP: Comer es Primero; ILAE: Incentivo a la Asistencia Escolar; BL: Bonoluz; BGH: Bonogas Hogares; PV: Protección a la Vejez; SFS RS: Seguro Familiar de Salud del régimen subsidiado; and PAE: Programa de Alimentación Escolar.

## 8. Change in Living Conditions

**405. This subsection analyzes changes in the living conditions of select PROSOLI beneficiaries.** It focuses on 396,060 beneficiary households that received conditional cash transfers from at least *Comer es Primero* in 2004-2009.<sup>215, 216, 217</sup> It compares the living conditions of these households between the period of the first (before 2009) and third (2017-18) SIUBEN study.<sup>218</sup> It also provides a breakdown by ICV component and geographic location. The aim is to understand trends in poverty reduction and the emergence of the vulnerable non-poor population in the DR.

**406. Almost 80 percent of extreme poor households (ICV-1) improved their living conditions between the first and third study (Table IV.15 and Table IV.16).** Most of these 61,305 households were classified as ICV-2 (42,351), followed by ICV-3 (17,597) and ICV-4 (1,357). Between the two studies, 197,760 households improved their living conditions, which is equivalent to almost half of all beneficiaries surveyed. Only 30,966 households, or 7.8 percent, experienced a worsening of their living conditions. As a result, total net upward social mobility amounted to 166,794 households, or 42.1 percent, during this period—in line with the gradual reduction of monetary poverty since the economic crisis in 2003 and the acceleration of poverty reduction in 2012-13.

<sup>215</sup> The main ten combinations of transfers covered 97.2 percent of households in the sample.

<sup>216</sup> Of these households, 99.2 percent remained beneficiaries as of 2019.

<sup>217</sup> In addition, a beneficiary was required to: (i) be included in SIUBEN; (ii) have had an interview before becoming a beneficiary; (iii) be a head of household or spouse; (iv) live in a household with more than one but less than eleven members; and (v) live in a dwelling with no more than three households.

<sup>218</sup> Forty-five and six households were first surveyed in 2009 and 2010, respectively.

**Table IV.15. Absolute Distribution of Beneficiary Households by ICV**

First Study	Third Study				
	ICV 1	ICV 2	ICV 3	ICV 4	Total
ICV-1	15,808	42,351	17,597	1,357	77,113
ICV-2	12,923	121,321	120,676	12,412	267,332
ICV-3	955	16,300	29,868	3,367	50,490
ICV-4	2	91	695	337	1,125
Total	29,688	180,063	168,836	17,473	396,060

Source: Data from the first and third SIUBEN study and ADESS.

**Table IV.16. Relative Distribution of Beneficiary Households by ICV**

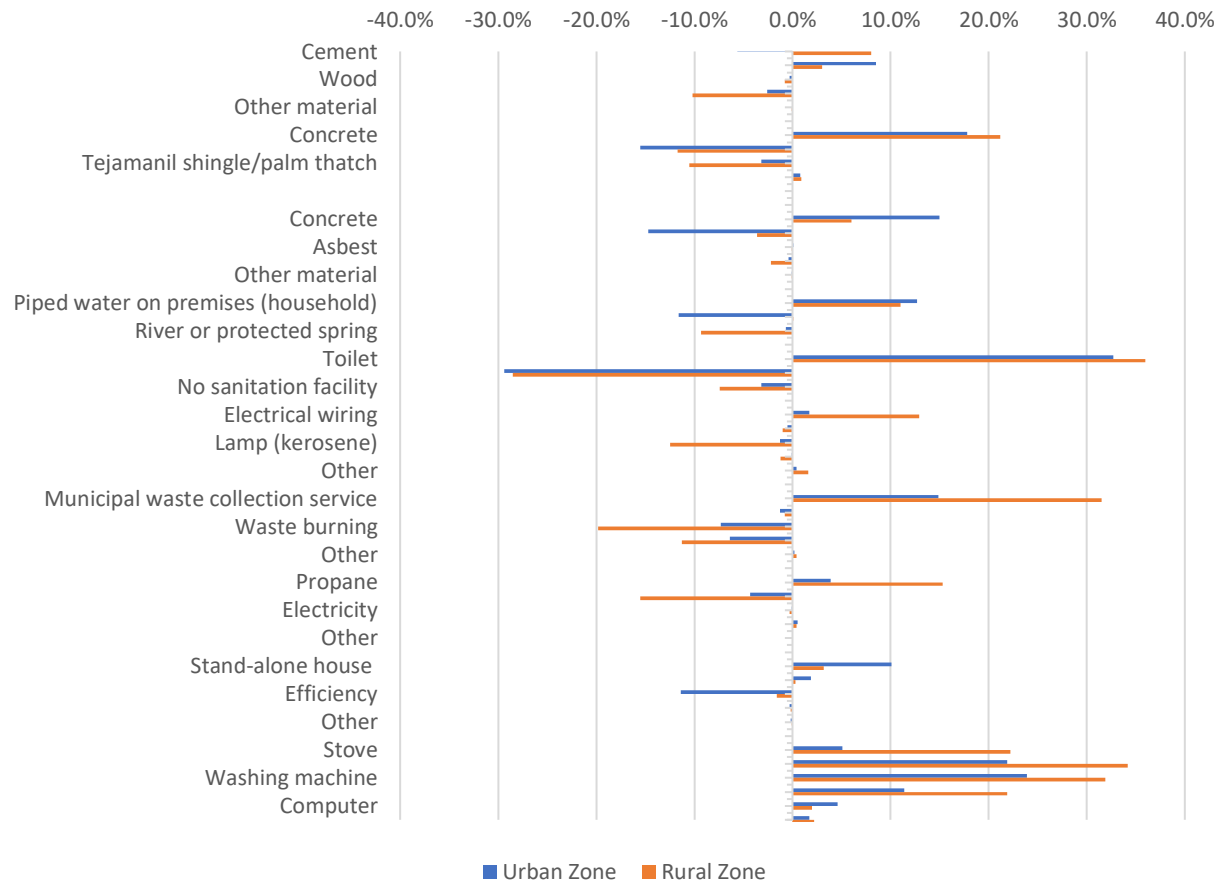
First Study	Third Study			
	ICV-1	ICV-2	ICV-3	ICV-4
ICV-1	20.5%	54.9%	22.8%	1.8%
ICV-2	4.8%	45.4%	45.1%	4.6%
ICV-3	1.9%	32.3%	59.2%	6.7%
ICV-4	0.2%	8.1%	61.8%	30.0%

Source: Data from the first and third SIUBEN study and ADESS.

**407. Between the two studies, quality-of-life improvements included better-quality housing and increased access to basic services.** First, the share of dwellings with dirt floors fell from 14.2 percent to 4.0 percent among rural households, and from 4.0 percent to just 1.3 percent among urban households (Figure IV.38). Second, the use of concrete walls for housing increased by 17.8 percentage points in urban areas and 21.2 percentage points in rural areas. Third, the use of zinc as roof material fell in both urban (14.7 percentage points) and rural (3.6 percentage points) areas, although zinc remains the main roof material for all households (70.1 percent 89.5 percent in urban and rural areas, respectively). Fourth, access to basic water services within the home increased by 12.7 percentage points and 11.0 percentage points in urban and rural areas, respectively, which mainly corresponds to less use of common water sources in the courtyard or near houses in urban areas, as well as less use of water from rivers or streams in rural areas. However, a wide gap in access to basic water services in the home remains between urban and rural households. Fifth, homes with toilets in the home increased by more than 30 percentage points in both urban and rural areas, and only 1.1 percent and 4.4 percent of urban and rural households, respectively, lacked access to sanitary services in their homes by the time of the third study. Sixth, access to the public electricity network increased from 82.7 percent to 95.6 percent in rural areas. Seventh, access to garbage collection services increased by 31.5 percentage points in rural areas, which corresponds to less burning of garbage or dumping of waste in public places. Eighth, there was increase in the use of propane gas as fuel for cooking in both rural (15.3 percentage points) and urban (3.9 percentage points) areas and an almost equal reduction in the use of charcoal or firewood for cooking (15.5 percentage points and 4.3 percentage points in rural and urban areas, respectively). Ninth, households that reported living in shared housing fell dramatically in urban areas: from 13.6 percent at the time of the first study to 2.2 percent at the time of the third study. Finally, there was a significant increase in household goods<sup>219</sup> in the period between the two studies, especially in rural areas, and computer and vehicle ownership increased for all households.

<sup>219</sup> Stove, refrigerator, washing, machine, and television, which represent a proxy variable of household wealth.

**Figure IV.38. Change in the Quality of Life of Beneficiary Households**  
(Percentage Point Change between the First and Third SIUBEN Study)



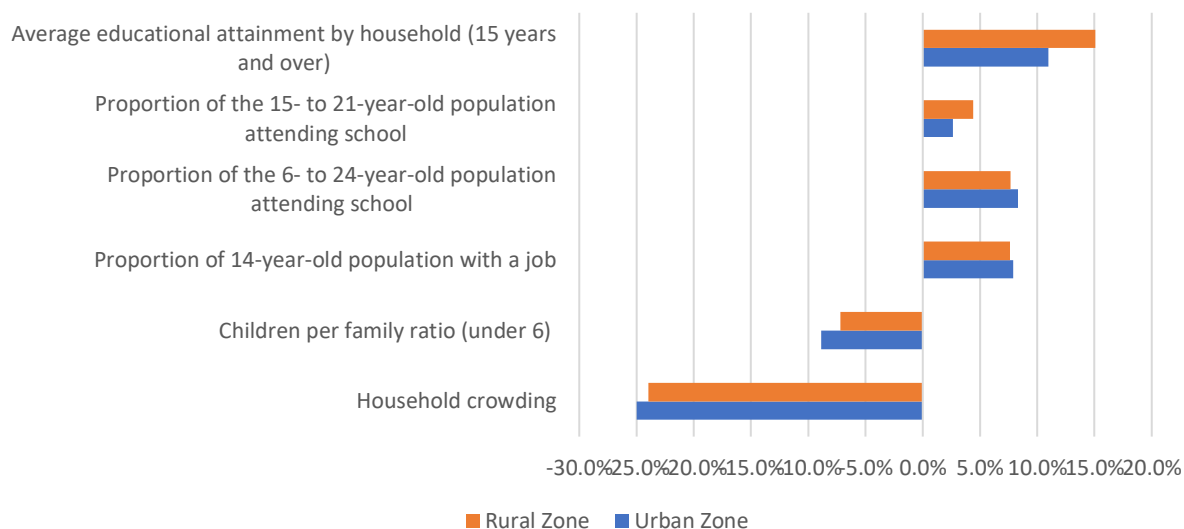
Source: Author's calculations with data from the first and third SIUBEN study.

**408. There were also sociodemographic changes in beneficiary households that had a positive impact on household living conditions.** First, there was a significant decrease in overcrowding, measured as three or more household members per bedroom. Between the first and second study, overcrowding fell by 25.0 percentage points and 24.0 percentage points in urban and rural areas, respectively, mainly due to the fall in the total number of members in each household (Figure IV.39).<sup>220</sup> Second, the share of household members under the age of six fell by 8.9 percentage points and 7.2 percentage points in urban and rural households, respectively. Third, the share of working household members over the age of fourteen increased by almost 8 percentage points for all households. Almost half of all household members over the age of fourteen contributed to household income by the time of the third study. Fourth, the share of household members between the age of six and fourteen who attended school increased by 8.3 percentage points and 7.6 percentage points in urban and rural areas, respectively. By the third SIUBEN study, 98 percent of children/adolescents in this age group attended school. Fifth, the share of household

<sup>220</sup> The mean of the overcrowding variable (which equals the total number of household members divided by the total number of bedrooms) fell from 2.7 to 1.7 in urban areas and from 2.5 to 1.6 in rural areas. Moreover, the average number of members of each household fell from 4.43 to 3.38 in urban areas and from 4.44 to 3.2 rural areas. Finally, the average number of bedrooms of each household increased from 1.91 to 2.07 in urban areas and from 2.01 to 2.17 in rural areas.

members between the age of fifteen and twenty-one who attend school also increased, especially in rural areas, although less than 71 percent of the members of this age group enroll and graduate from secondary school. Finally, the average years of education for household member aged fifteen or over increased by a mere 0.7 years between the two studies, which represents an increase of 11.0 percentage points and 15.1 percentage points in urban and rural areas, respectively.

**Figure IV.39. Change in the Quality of Life of Beneficiary Households (%)**  
(Percentage Point Change between the First and Third SIUBEN Study)

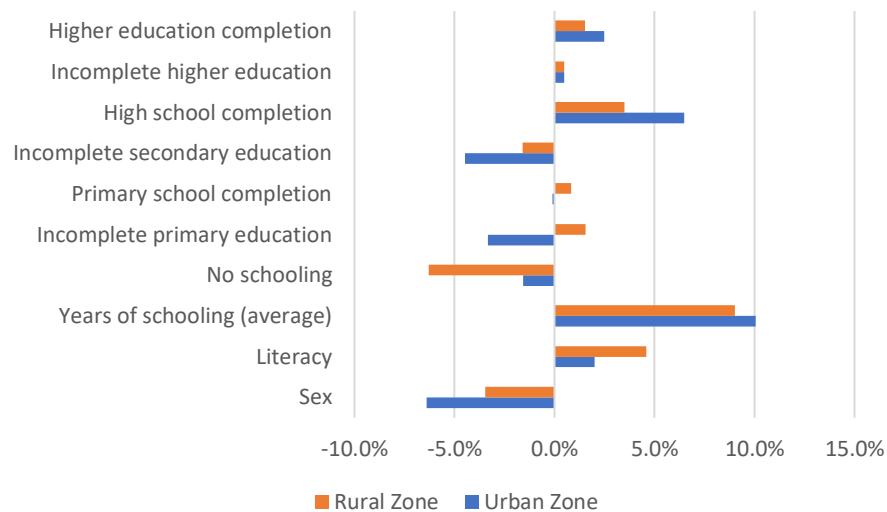


Source: Author’s calculations with data from the first and third SIUBEN study.

**409. Finally, the literacy rates and education level of heads of household improved, although there were fewer female-headed households.** By the third study, heads of household’s literacy rates had increased by 2.0 percentage points and 4.6 percentage points in urban and rural areas, respectively; and their years of schooling had increased by 10.0 percentage points and 9.0 percentage points in urban and rural areas, respectively—equivalent to about 0.6 years of schooling (Figure IV.40). Moreover, there were fewer heads of household with no education, and heads of household with completed secondary education increased by 6.5 percentage points in urban areas and 3.5 percentage points in rural areas. The lower share of female-headed households is consistent with the overall reduction of poverty, as these households are often single-parent households, which tend to be poorer than two-parent households.



**Figure IV.40. Change in Variables for Beneficiary Heads of Households (%)**  
(Percentage Points Change between First and Third SIUBEN Study)



Source: Author's calculations with data from the first and third SIUBEN study.

**410. The improved living conditions of beneficiaries between the first and third SIUBEN study are in line with data that show a fall in monetary poverty following the economic crisis in 2003-04.** While it is difficult to ascertain whether these improvements were mainly due to economic growth or the government's socioeconomic policies, the DR's SP programs—including PROSOLI's social and education-related transfers and *Progresando Unidos*'s housing initiatives—certainly contributed to the improved conditions of the country's poor and vulnerable households. Moreover, the platform consisting of PROSOLI, SIUBEN, and ADESS has been vital to target and deliver SP services, including health insurance.

## F. Final Considerations and Recommendations

**411. The DR has made significant progress in reducing poverty and raising living standards, although many households remain vulnerable to shocks.** About half of the population is still considered vulnerable, and there are vast challenges facing the SP system, especially in the current climate of the COVID-19 pandemic. The authorities need to safeguard the gains made in poverty reduction in recent years while continuing to improve the living conditions of the country's most vulnerable groups, particularly households in extreme poverty.

**412. While public spending on SP totaled 7.3 percent of GDP in 2018, more can be done to increase the impact of SP interventions.** The government has made progress in creating consolidated, wide-ranging programs and transparent mechanisms and processes for delivering benefits. However, there is also a high number of small interventions that suffer from a limited scope, inefficient institutions, and/or a lack of resources. Moreover, many of the country's large labor market programs, SP initiatives, and social care services do not have the desired impact on alleviating poverty and reducing social risks, raising questions about the allocation and prioritization of social spending. Increasing the effectiveness and efficiency of SP is more pressing in the current context of low taxes. Therefore, the government should prioritize efforts that target the most vulnerable population, and it needs to ensure the inclusion of groups that are currently excluded or benefit only marginally from SP interventions.

**413. There are various challenges facing the DR's SP system.** These include: (i) creating an effective regulatory framework and reducing regulatory gaps; (ii) establishing a clear governance structure in terms of responsibilities, decision-making processes, and mechanisms to facilitate coordination; (iii) prioritizing and ensuring the effective use of resources; (iv) eliminating programmatic and operational redundancy and making programs more effective; and, (v) establishing strategic leadership in the SP sector.

**414. Despite the broad legal framework governing the SP sector, there are many regulatory gaps.** A large portion of the country's SP-related regulations were adopted to create the institutions responsible for implementing social policies, and many of them are outdated (i.e., refer to institutions or frameworks that no longer exist) or limited in scope (e.g., Law 87-01, which only covers social security). Moreover, much of the existing institutional framework for SP, both in terms of governing bodies and service-delivery instruments, is supported by presidential decree instead of established laws, making it highly vulnerable to political leadership changes.

**415. The management of SP programs is fragmented, and there is a lack of coordination between governing bodies.** There is especially a lack of vertical integration of policies, plans, and strategies related to non-contributory SP interventions, and there is little coordination between agencies and programs. To ensure SP programs address the needs of the population, the authorities need to not only strengthen existing instruments to identify beneficiaries, deliver benefits, and monitor programs, but also employ innovative information management solutions and enable the interoperability of existing information systems.

**416. The government must prioritize programs that have the greatest impact on the wellbeing of the population, especially poor and vulnerable households.** The lack of integrated strategic direction, coupled with the fragmented management structure, makes it difficult to administer the country's social policies, which in turn will make it challenging for the authorities to effectively respond to the expected increase in poverty due to the COVID-19 pandemic. During times of crisis, when resources are scarce and opportunities to increase fiscal space are limited, it is even more important that the authorities focus on the initiatives with the greatest impact. By effectively managing the response to COVID-19 and prioritizing public spending, the DR can avoid repeating the aftermath of the 2003-04 crisis when living conditions deteriorated and poverty increased.

**417. There are many organizations involved in delivering SP services in the DR, and many of the country's SP programs suffer from duplication of efforts and resources.** Redundancy in programs and management structures affects the efficiency and effectiveness of social policies. One hundred-five general government entities implement around 287 SP programs, and the country's 390 municipalities and municipal districts implement separate local initiatives. These programs are managed separately, with little coordination between them, and many SP programs are managed by governing authorities that are also responsible for other programs in different sectors.

**418. Finally, most governing authorities do not have access to integrated information systems to effectively monitor and evaluate SP programs.** Except for systems such as the one at PROSOLI or the General Directorate of Special Programs of the Presidency, there are few comprehensive information, monitoring, and evaluation systems that allow the authorities to evaluate the past performance of programs and make informed decisions about future initiatives. The greatest strength of public information systems and administrative databases lies in their integration, as policymakers need to understand the relationship between different pieces of household data to make informed decisions.

**419. To increase the efficiency and impact of the country's public spending on SP, the authorities should consider:**

- **Reprioritizing public SP spending to increase the benefit-cost ratio of SP programs.** This would include continuing to reduce electricity subsidies and rationalizing the large number of existing small-scale programs. The government also needs to ensure its conditional cash-transfer programs provide the necessary resources to reduce of the poverty gap and help households escape extreme poverty;
- **Improving the cost-accounting procedure of SP programs to better understand their costs, benefits, and value for money.** Currently, there are many institutions that develop and implement SP initiatives in the DR, particularly related to the labor market. The government needs to evaluate their effectiveness and allocate resources to those institutions that have been able to scale up successful interventions, especially those related to the labor market;
- **Adopting an adaptive SP strategy to ensure public institutions can quickly and effectively respond to the needs of people affected by national emergencies.** The strategy needs to include the necessary mechanisms, financing, and logistics infrastructure to reach people in need throughout the country. Additionally, it needs to ensure that people can receive support even if a national emergency has not been declared;
- **Establishing a single national law that regulates the entire SP sector.** This law should (i) regulate governing bodies; (ii) harmonize all SP regulations that have been adopted by central and local government authorities; (iii) establish the operating principles of SP programs; (iv) clarify the financing, instruments, and tools available to governing authorities; and (v) create a mandate and mechanisms for authorities of contributory and non-contributory SP programs to coordinate their policies, strategies, and programs;
- **Creating a single government authority (preferably a ministry) responsible for managing the country's non-contributory SP system.** This authority should be responsible for setting the overall strategic direction of the country's contributory and non-contributory SP programs, while governing authorities would be responsible for their respective programs, as defined by SP regulations. This institutional framework would require clear mechanisms and processes to ensure the effective management and coordination of policies and programs, as well as the articulation of non-contributory SP and social security. If it is not possible to create a separate ministry, policymakers can instead create an SP council with a similar mandate;
- **Requiring all SP-related initiatives to adhere to the proposed national SP law.** This would ensure that all public institutions involved in SP follow the guidelines issued by the relevant governing authority. These guidelines should include standardized requirements for registering and approving SP initiatives. Without the approval of the governing body, no public entity should be able to implement or receive funding for SP interventions;
- **Creating adaptive institutional instruments that allow the authorities to quickly and efficiently respond to external shocks.** The entire population needs access to SP services during times of crisis, such as the current COVID-19 pandemic or climate-related events. The authorities need to establish criteria and modalities that enable them to not only provide benefits to households in need but also effectively communicate the public strategy to the entire population;
- **Improving the design and implementation of some SP programs.** For example, the government needs to review the country's cash-transfer programs to ensure that benefits can lift poor households out of poverty. Also, it needs to create better mechanisms to identify potential beneficiaries of all SP programs, as many Dominicans lack proper identification documents. The authorities need to create a capacity to understand the determinants of vulnerability and ensure programs are aligned with people's needs at all stages of their lives. A small number of well-

designed programs that target poor and vulnerable groups is preferable to a large number of overlapping initiatives implemented by a range of central and local government authorities. The consolidation of cash-transfer programs would help to not only increase their coverage and importance but also reduce their administrative and operational costs. It is also important to maintain the purchasing power of cash transfers overtime;

- **Transforming SIUBEN into a social information system that integrates the single registry of beneficiaries of the country's contributory and non-contributory SP programs.** This system should allow the government to identify all SP beneficiaries and monitor the benefits they receive from multiple programs. Equipped with comprehensive beneficiary data, the authorities should be able to reduce redundancy and ensure benefits reach households that are vulnerable and most affected by exogenous shocks. Additionally, SIUBEN needs to include an updated mechanism to identify poor and vulnerable households to ensure they are eligible for SP benefits and services, and the beneficiaries should be encouraged to providing updated data on their socioeconomic status. For the years when surveys are not carried out, the system should use algorithms to estimate the number of families classified as ICV-1, 2, or 3;
- **Updating SIUBEN's targeting model to align it with the country's official measurement of poverty, which is based on income.** The targeting model should consider improvements in some dimensions of well-being such as connectivity, improved housing, access to health services, years of schooling, among others;
- **Establishing a comprehensive and integrated monitoring and evaluation system for the entire SP sector.** The system should include modules for monitoring: (i) outcomes, output indicators, and financial progress; (ii) benefits received by each beneficiary; and (iii) the supply of public social services. It should also include an objective population and targeting mechanism as well as a dashboard with a set of specific indicators to measure the effectiveness of interventions. This system should ensure the interoperability of the social programs' information systems (including those of contributory and non-contributory SP programs) in the medium and long term;
- **Creating an SP intelligence unit responsible for integrating data from public information systems.** This unit needs to be able to handle large volumes of data and have the analytical capacity to identify information gaps. The unit should link data from the monitoring and evaluation system with programs' administrative and operational data;
- **Institutionalizing the publication of periodic community scorecards for all SP initiatives to strengthen social oversight.** PROSOLI's experience with participatory-based community reports shows that they can promote accountability, increase the transparency and effectiveness of interventions, and strengthen public participation and social oversight. The use of modern technologies would help the authorities to automate the reporting process; and
- **Formulating a national SP plan based on a comprehensive vision of SP.** This plan should include medium- and long-term policies that recognize the interdependence of different areas of SP. For example, labor market and social security policies do not reflect the people's social assistance needs. Although there are strategic plans for the entire public sector, such as END and multi-annual strategic plans, the government needs a coherent strategy for SP that can guide the country's reform efforts. The national SP plan needs to establish medium- and long-term objectives based on a dialogue and consultations among public agencies and social organizations involved in SP.

## G. Appendix

Annex IV.I: Effectiveness indicators and analysis of the evolution of the living conditions of PROSOLI beneficiary households based on SIUBEN databases.

**Table IV.17. Cash Transfers in RD\$ (US\$) and PROSOLI Beneficiaries – 2018<sup>1</sup>**

Key Cash Transfers	Amount RD\$ (US\$) <sup>2</sup>	Frequency	Average Number of Beneficiary Households 2018 <sup>4</sup>
<b>CEP</b>	825 (17)) or 1,000 (20) <sup>3</sup>	Monthly	819,832
<b>ILAE:</b>			
First two children	600 (12)	Bimonthly	232,897
Three children	900 (18)		
Four children or more	1200 (24)		
<b>Bonogas Hogares (Household Gas Subsidy)</b>	228 (5)	Monthly	944,957
<b>Bonoluz (Household Electricity Subsidy)</b>	Up to 444 (9)	Monthly	445,064
<b>Elderly Protection Program</b>	400 (8)	Monthly	82,875
<b>Other cash transfers:</b>			<b>Average Number of Beneficiary Households 2018<sup>2</sup></b>
Bonogas Driver	3420 (69)	Monthly	14,678
Tertiary education incentive	500 (10)	Monthly	23,905
Police bonus	928 (19)	Monthly	19,558
Dominican Republic Armed Forces bonus	928 (19)	Monthly	4,155

Source: ADESS: <http://www.adess.gob.do>.

1) The Student Progress Bonus (BEEP) was not delivered in 2018. Before its restructuring in 2019, the BEEP paid between RD\$ 500 and RD\$ 1,000 per month, depending on the beneficiary student schooling and high school format.

2) Amounts in effect in 2018 at this year's current prices. Amount in US\$ rounded.

3) Beneficiary households under Progresando Unidos initiative begin to receive RD\$ 1,000 per CEP as of September 2009.

**Table IV.18. Coverage of Social Protection Programs by Income Quintile - 2018**

	Total	Q1	Q2	Q3	Q4	Q5
<b>Global Social Protection</b>	90.2	93.4	92.1	89.5	89	87.1
<b>Global Social Security</b>	57.4	44.5	52.9	57.5	62.3	69.9
Contributory Health Insurance Scheme	53.9	40.4	49.4	54.3	59.7	65.7
SDVS Contributory Scheme	48.4	29	45.5	50.3	56.3	61
<b>Global Social Welfare</b>	69	88.5	81.1	72.6	62.5	40.5
<b>Global PROSOLI</b>	32.4	43.6	41.4	36.6	25.6	14.8
CEP	27.9	38.7	36.7	31.3	20.7	12.2
ILAE	10.2	17.7	14.3	10.5	5.9	2.6
Bonoluz (Household Electricity Subsidy)	16.4	20	21.4	18.7	13.9	7.7
Bonogas Hogares (Household Gas Subsidy)	31.6	40.3	40.5	36.1	25.9	15.5
Elderly Protection Program	2.4	3	2.9	3.1	1.7	1.1
Other transfers	0.4	0.5	0.6	0.6	0.3	0.2
Subsidized Health Insurance	46	59	54.5	49.3	41.5	25.8
School Feeding Program	39	69.1	49.4	36.1	26.3	14.3

Source: Based on ENCFT 2008 and ADePT Software.

**Table IV.19. Coverage of Main Social Protection Programs by Income Quintile (%) – 2018**

	Total	Q1	Q2	Q3	Q4	Q5
<b>Global Social Protection</b>	90.2	93.4	92.1	89.5	89	87.1
<b>Global Social Security</b>	57.4	44.5	52.9	57.5	62.3	69.9
Contributory Health Insurance Scheme	53.9	40.4	49.4	54.3	59.7	65.7
SDVS Contributory Scheme	48.4	29	45.5	50.3	56.3	61
<b>Global Social Welfare</b>	69	88.5	81.1	72.6	62.5	40.5
<b>Global PROSOLI</b>	32.4	43.6	41.4	36.6	25.6	14.8
CEP	27.9	38.7	36.7	31.3	20.7	12.2
ILAE	10.2	17.7	14.3	10.5	5.9	2.6
Bonoluz (Household Electricity Subsidy)	16.4	20	21.4	18.7	13.9	7.7
Bonogas Hogares (Household Gas Subsidy)	31.6	40.3	40.5	36.1	25.9	15.5
Elderly Protection Program	2.4	3	2.9	3.1	1.7	1.1
Other transfers	0.4	0.5	0.6	0.6	0.3	0.2
Subsidized Health Insurance	46	59	54.5	49.3	41.5	25.8
School Feeding Program	39	69.1	49.4	36.1	26.3	14.3

Source: Based on ENCFT 2008 and ADePT Software.

**Table IV.20. Average per capita transfer to Beneficiary Households, by Quintile and Major Social Protection Programs (RD\$) - 2018**

	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q5</b>
<b>Global Social Protection</b>	1,068	909	914	1,014	1,403
<b>Global Social Security</b>	703	715	783	924	1,459
Contributory Health Insurance Scheme	603	565	555	578	585
SDVS Contributory Scheme	154	217	290	425	1,072
<b>Global Social Welfare</b>	794	569	514	492	482
<b>Global PROSOLI</b>	344	359	381	432	483
CEP	208	229	256	308	355
ILAE	66	67	66	69	78
Bonoluz (Household Electricity Subsidy)	104	119	132	155	176
Bonogas Hogares (Household Gas Subsidy)	53	61	69	82	95
Elderly Protection Program	107	135	143	190	194
Subsidized Health Insurance	135	132	132	134	135
School Feeding Program	667	497	485	537	622

Source: Based on ENCFT 2008 and ADePT Software.

**Table IV.21. Average per capita transfer by Major Social Protection Programs (RD\$) - 2018**

	Total	Multidimensional Poverty				Monetary Poverty		
		ICV1	ICV2	ICV3	ICV4	Extremely poor	Moderately poor	Non-poor
<b>Global Social Protection</b>	955.3	556	806.5	947.2	1,200.50	1,169.90	872.2	959.5
<b>Global Social Security</b>	547.5	150	262.2	505	986.9	273	333.1	626
Contributory Health Insurance Scheme	310.8	92.2	178.3	330.4	452.7	233.6	253.2	331.2
SDVS Contributory Scheme	236.7	57.8	83.9	174.5	534.2	12.5	55	294.2
<b>Global Social Welfare</b>	407.8	406	544.3	442.2	213.6	938.9	564.1	316.4
<b>Global PROSOLI</b>	124.1	139.9	201.9	128.4	36.7	163.2	151.1	115
CEP	70.3	84.6	116.7	71.6	19.5	79.2	82.4	66.8
ILAE	6.9	6.7	11.5	7	2.1	11.4	11.5	5.5
Bonoluz (Household Electricity Subsidy)	21.2	18.9	33.2	22.9	7	15.5	22	21.2
Bonogas Hogares (Household Gas Subsidy)	21.4	22.6	33.2	22.9	6.9	18	22.5	21.2
Elderly Protection Program	3.4	7.1	6.6	2.9	0.4	1.8	3.6	3.4
Other transfers	0.9	0.1	0.9	1.1	0.8	0.6	1	0.9
Subsidized Health Insurance	61.5	51.4	87.1	67.1	28.7	93.2	77.8	55.9
School Feeding Program	222.2	214.6	255.3	246.7	148.2	720.3	349.3	153.5

Source: Based on ENCFT 2008 and ADePT Software.



**Table IV.22. Incidence of Major Social Protection Program Beneficiaries by Multidimensional and Monetary Poverty (%) - 2018**

	Multidimensional Poverty				Monetary Poverty		
	ICV1	ICV2	ICV3	ICV4	Extremel y poor	Moderate ly poor	Non - poor
<b>Global Social Protection</b>	4.2	24.7	46	25.1	8.1	23.8	68.1
<b>Global Social Security</b>	2.4	17.4	46.7	33.5	2.6	18.3	79.1
Contributory Health Insurance Scheme	2.2	17.1	46.9	33.7	2.3	17.3	80.4
SDVS Contributory Scheme	2.6	17.4	46.1	33.9	0.8	14.1	85.1
<b>Global Social Welfare</b>	4.8	30	49	16.2	8.4	26.3	65.3
<b>Global PROSOLI</b>	5.1	38	48.2	8.7	5.1	27.8	67.1
CEP	5.5	40.7	46.4	7.5	4.6	28.3	67.1
ILAE	5.1	42.3	45.5	7.1	4.9	33.8	61.3
Bonoluz (Household Electricity Subsidy)	4	39.5	48	8.5	3	25.3	71.8
Bonogas Hogares (Household Gas Subsidy)	5	38.4	48	8.6	3.4	26.2	70.4
Elderly Protection Program	9.9	47.1	38.8	4.3	2.3	27.3	70.4
Subsidized Health Insurance	4.5	34	48.1	13.4	4.6	25.3	70
School Feeding Program	5.4	31	48.2	15.4	10.8	32.1	57.1
<b>Beneficiary group as percentage of population</b>	<b>6.7</b>	<b>24.6</b>	<b>42.7</b>	<b>26</b>	<b>2.2</b>	<b>15</b>	<b>82.8</b>

Source: Based on ENCFT 2008 and ADePT Software.

**Table IV.23. Incidence of Major Social Protection Program Beneficiaries by Income Quintile (%) -2018**

	Q1	Q2	Q3	Q4	Q5
<b>Global Social Protection</b>	20.7	20.4	19.8	19.7	19.3
<b>Global Social Security</b>	15.5	18.4	20	21.7	24.4
Contributory Health Insurance Scheme	15	18.3	20.1	22.1	24.4
SDVS Contributory Scheme	12	18.8	20.8	23.3	25.2
<b>Global Social Welfare</b>	25.6	23.5	21.1	18.1	11.7
<b>Global PROSOLI</b>	26.9	25.6	22.6	15.8	9.2
CEP	27.7	26.3	22.4	14.9	8.7
ILAE	34.7	28.1	20.6	11.5	5.1
Bonoluz (Household Electricity Subsidy)	24.5	26.2	22.9	17	9.5
Bonogas Hogares (Household Gas Subsidy)	25.4	25.6	22.8	16.3	9.8
Elderly Protection Program	25.4	24.8	26.5	14	9.2
Subsidized Health Insurance	25.6	23.7	21.4	18.1	11.2
School Feeding Program	35.4	25.3	18.5	13.5	7.3

Source: Based on ENCFT 2008 and ADePT Software.

**Table IV.24. Incidence of Major Benefits under Social Protection Programs by Income Quintile (%) - 2018**

	Q1	Q2	Q3	Q4	Q5
<b>Global Social Protection</b>	20.9	17.5	17.1	18.9	25.6
<b>Global Social Security</b>	11.4	13.8	16.5	21	37.3
Contributory Health Insurance Scheme	15.7	18	19.4	22.2	24.8
SDVS Contributory Scheme	3.8	8.4	12.3	20.2	55.3
<b>Global Social Welfare</b>	34.4	22.6	18.3	15.1	9.6
<b>Global PROSOLI</b>	24.2	24	22.5	17.8	11.6
CEP	22.8	23.9	22.8	18.2	12.3
ILAE	34.1	28	20.2	11.9	5.9
Bonoluz (Household Electricity Subsidy)	19.6	24	23.2	20.3	12.9
Bonogas Hogares (Household Gas Subsidy)	20	22.9	23.4	19.8	13.8
Elderly Protection Program	19	23.3	26.5	18.7	12.5
Subsidized Health Insurance	26	23.4	21.1	18.2	11.4
School Feeding Program	41.5	22.1	15.8	12.7	8

Source: Based on ENCFT 2008 and ADePT Software.

**Table IV.25. Incidence of Major Benefits under Social Protection Programs by Income Quintile (%) - 2018**

	Multidimensional Poverty				Monetary Poverty		
	ICV1	ICV2	ICV3	ICV4	Extremely poor	Moderately poor	Non-poor
<b>Global Social Protection</b>	3.1	21	44.1	31.8	9.4	21.2	69.4
<b>Global Social Security</b>	1.5	11.9	41	45.6	1.9	13.5	84.6
Contributory Health Insurance Scheme	1.6	14.2	47.3	36.8	2.7	17.6	79.7
SDVS Contributory Scheme	1.3	8.8	32.8	57.1	0.2	4.8	95.1
<b>Global Social Welfare</b>	5.4	33.1	48.3	13.2	14.3	29.4	56.3
<b>Global PROSOLI</b>	6.1	40.4	46.1	7.5	4.6	25.1	70.3
CEP	6.5	41.2	45.3	7	3.6	23.8	72.6
ILAE	5.2	41.5	45.7	7.6	4.8	33.3	61.9
Bonoluz (Household Electricity Subsidy)	4.8	38.8	48	8.3	2.2	20.7	77.1
Bonogas Hogares (Household Gas Subsidy)	5.7	38.5	47.6	8.2	2.5	21	76.5
Elderly Protection Program	11.3	48	37.7	3.1	1.5	21.2	77.3
Subsidized Health Insurance	4.5	35.2	48.5	11.8	4.9	25.5	69.6
School Feeding Program	5.2	28.5	49.4	16.9	16.7	31.8	51.6
<b>Relative share as a percentage of total population</b>	<b>6.7</b>	<b>24.6</b>	<b>42.7</b>	<b>26</b>	<b>2.2</b>	<b>15</b>	<b>82.8</b>

Source: Based on ENCFT 2008 and ADePT Software.

**Table IV.26. Relative Incidence of Major Social Protection Programs by Multidimensional and Monetary Poverty (%) - 2018**

	Total	Multidimensional Poverty				Monetary Poverty		
		ICV 1	ICV 2	ICV 3	ICV 4	Extremely poor	Moderately poor	Non-poor
<b>Global Social Protection</b>	8	8.1	11.2	9.7	5.6	45.6	18.9	6.2
<b>Global Social Security</b>	4.6	2.2	3.6	5.2	4.6	14	8.1	4.2
Contributory Health Insurance Scheme	2.6	1.3	2.5	3.4	2.1	12.2	6.3	2.3
SDVS Contributory Scheme	2	0.8	1.2	1.8	2.5	0.7	1.4	2
<b>Global Social Welfare</b>	3.4	5.9	7.6	4.5	1	39.8	13.1	2.1
<b>Global PROSOLI</b>	1	2	2.8	1.3	0.2	8.8	3.8	0.8
CEP	0.6	1.2	1.6	0.7	0.1	4.5	2.1	0.5
ILAE	0.1	0.1	0.2	0.1	0	0.7	0.3	0
Bonoluz (Household Electricity Subsidy)	0.2	0.3	0.5	0.2	0	0.9	0.6	0.1
Bonogas Hogares (Household Gas Subsidy)	0.2	0.3	0.5	0.2	0	1	0.6	0.1
Elderly Protection Program	0	0.1	0.1	0	0	0.1	0.1	0
Subsidized Health Insurance	0.5	0.8	1.2	0.7	0.1	5.2	2	0.4
School Feeding Program	1.9	3.1	3.5	2.5	0.7	32.4	8.5	1
<b>Relative share as a percentage of total population</b>		<b>6.7</b>	<b>24.6</b>	<b>42.7</b>	<b>26</b>	<b>2.2</b>	<b>15</b>	<b>82.8</b>

Source: Based on ENCFT 2008 and ADePT Software.

**Table IV.27. Relative Incidence of Major Social Protection Programs by Income Quintile (%) - 2018**

	Q1	Q2	Q3	Q4	Q5
<b>Global Social Protection</b>	8	8.1	11.2	9.7	5.6
<b>Global Social Security</b>	4.6	2.2	3.6	5.2	4.6
Contributory Health Insurance Scheme	2.6	1.3	2.5	3.4	2.1
SDVS Contributory Scheme	2	0.8	1.2	1.8	2.5
<b>Global Social Welfare</b>	3.4	5.9	7.6	4.5	1
<b>Global PROSOLI</b>	1	2	2.8	1.3	0.2
CEP	0.6	1.2	1.6	0.7	0.1
ILAE	0.1	0.1	0.2	0.1	0
Bonoluz (Household Electricity Subsidy)	0.2	0.3	0.5	0.2	0
Bonogas Hogares (Household Gas Subsidy)	0.2	0.3	0.5	0.2	0
Elderly Protection Program	0	0.1	0.1	0	0
Subsidized Health Insurance	0.5	0.8	1.2	0.7	0.1
School Feeding Program	1.9	3.1	3.5	2.5	0.7

Source: Based on ENCFT 2008 and ADePT Software.

**Table IV.28. Adequacy of Major Social Protection Programs by Multidimensional and Monetary Poverty (%) - 2018**

	Total	Multidimensional Poverty				Monetary Poverty		
		ICV1	ICV2	ICV3	ICV4	Extremely poor	Moderately poor	Non-poor
<b>Global Social Protection</b>	9	12.7	12.8	10.6	6.3	46.8	20.2	7
<b>Global Social Security</b>	6.8	8	8.5	8.2	5.6	30.2	15.5	6.2
Contributory Health Insurance Scheme	4.4	5.5	6.3	5.8	3.1	29.4	13.2	3.7
SDVS Contributory Scheme	3.5	3.4	3.2	3.4	3.6	4.8	4	3.5
<b>Global Social Welfare</b>	6.6	11.3	9.6	6.5	3.4	41.5	15	4.4
<b>Global PROSOLI</b>	4.6	7.1	6.0	4.1	2.7	16.5	8.4	3.8
CEP	3.1	4.9	3.8	2.8	2.0	10	5.3	2.7
ILAE	1	1.4	1.2	0.9	0.7	3.7	1.7	0.8
Bonoluz (Household Electricity Subsidy)	1.5	2.2	1.8	1.4	1.0	4.9	2.7	1.4
Bonogas Hogares (Household Gas Subsidy)	0.8	1.2	1.0	0.8	0.5	2.7	1.4	0.7
Elderly Protection Program	1.8	2.3	2.0	1.6	1.0	5.6	2.9	1.6
Subsidized Health Insurance	1.5	2.1	2.0	1.5	0.8	7.5	3.4	1.2
School Feeding Program	7.4	11.9	9.4	7.5	5.0	37.1	13.2	4.9
<b>Relative share as a percentage of total population</b>		<b>6.7</b>	<b>24.6</b>	<b>42.7</b>	<b>26.0</b>	<b>2.2</b>	<b>15</b>	<b>82.8</b>

Source: Based on ENCFT 2008 and ADePT Software.

**Table IV.29. Adequacy of Major Social Protection Programs by Income Quintile (%) - 2018**

	Q1	Q2	Q3	Q4	Q5
<b>Global Social Protection</b>	30.5	15.5	10.9	8.2	4.7
<b>Global Social Security</b>	18.1	11.6	9	7.3	4.6
Contributory Health Insurance Scheme	15.7	9.2	6.4	4.6	2.1
SDVS Contributory Scheme	4.1	3.6	3.4	3.4	3.5
<b>Global Social Welfare</b>	22.9	9.7	6.1	4.0	2.1
<b>Global PROSOLI</b>	9.8	6.1	4.5	3.5	2.3
CEP	6	3.9	3.1	2.5	1.7
ILAE	1.9	1.2	0.8	0.6	0.4
Bonoluz (Household Electricity Subsidy)	2.9	2.0	1.6	1.3	0.8
Bonogas Hogares (Household Gas Subsidy)	1.6	1.0	0.8	0.7	0.5
Elderly Protection Program	3.1	2.3	1.7	1.6	1.1
Subsidized Health Insurance	4	2.3	1.6	1.1	0.6
School Feeding Program	19.2	8.3	5.7	4.3	2.8

Source: Based on ENCFT 2008 and ADePT Software.



**Table IV.30. Impact on Poverty and Inequality Indicators - Main Social Protection Programs - 2018**

	<b>Overall Poverty</b>	<b>Poverty Gap</b>	<b>Severity of Poverty</b>	<b>Gini Coefficient</b>
<b>Effective Indicators 2018</b>	0.227	0.067	0.029	0.439
<b>Indicators without Transfers or Program:</b>				
<b>Global Social Protection</b>	0.309	0.114	0.061	0.471
<b>Global Social Security</b>	0.26	0.08	0.036	0.447
Contributory Health Insurance Scheme	0.252	0.077	0.034	0.448
SDVS Contributory Scheme	0.235	0.069	0.03	0.438
<b>Global Social Welfare</b>	0.275	0.098	0.051	0.462
<b>Global PROSOLI</b>	0.241	0.074	0.033	0.445
CEP	0.235	0.071	0.031	0.443
ILAE	0.228	0.068	0.029	0.44
Bonoluz (Household Electricity Subsidy)	0.229	0.068	0.029	0.44
Bonogas Hogares (Household Gas Subsidy)	0.23	0.068	0.029	0.44
Elderly Protection Program	0.227	0.067	0.029	0.439
Subsidized Health Insurance	0.234	0.071	0.031	0.442
School Feeding Program	0.253	0.086	0.043	0.453

Source: Based on ENCFT 2008 and ADePT Software.

**Table IV.31. Groups of Transfers Received by Households in the Beneficiary Panel**

<b>Transfer Group</b>	<b>Freq.</b>	<b>%</b>	<b>Cum.</b>
PCP, ILAE, BEEP, BGH and BL	124,630	31.50%	31.50%
PCP, BGH and BL	64,145	16.20%	47.70%
PCP, ILAE, BGH and BL	57,829	14.60%	62.30%
PCP, ILAE, BEEP and BGH	36,182	9.10%	71.40%
PCP and BGH	27,839	7.00%	78.40%
PCP, ILAE and BGH	20,036	5.10%	83.50%
PCP, BGH, BL and SA	18,870	4.80%	88.30%
PCP, ILAE, BEEP, BGH, BL and SA	17,041	4.30%	92.60%
PCP, ILAE, BGH, BL and SA	12,405	3.10%	95.70%
PCP, BGH and SA	6,028	1.50%	97.20%

Source: based on the First and Third SIUBEN Studies and ADESS Benefits History.

**Table IV.32. Predominant materials of the physical structure of the house**

Structure	Material	Urban zone		Rural zone	
		First ESH	Third ESH	First ESH	Third ESH
Floor	Cement	94.40%	88.80%	84.40%	92.40%
	Granite	1.20%	9.70%	0.40%	3.40%
	Wood	0.50%	0.20%	1.00%	0.20%
	Dirty	3.90%	1.30%	14.20%	4.00%
	Other material	0.00%	0.00%	0.10%	0.00%
Walls	Concrete	57.70%	75.50%	29.60%	50.80%
	Wood	33.50%	18.00%	44.80%	33.10%
	Tejamanil shingle/palm thatch	6.50%	3.30%	23.60%	13.10%
	Other material	2.40%	3.20%	2.10%	3.00%
Roof	Concrete	14.10%	29.10%	3.90%	9.90%
	Zinc	84.80%	70.10%	93.10%	89.50%
	Asbest	0.60%	0.70%	0.50%	0.40%
	Yagua	0.40%	0.00%	2.40%	0.20%
	Other material	0.10%	0.00%	0.10%	0.00%

Source: First and Third SIUBEN Studies.

**Table IV.33. Type of Sanitation Facility**

Sanitation Facility	Urban Zone		Rural Zone	
	First ESH	Third ESH	First ESH	Third ESH
Toilet	43.80%	76.50%	7.50%	43.50%
Latrine	51.30%	21.90%	80.70%	52.20%
No sanitation facility	4.90%	1.70%	11.80%	4.40%

Source: First and Third SIUBEN Studies.

**Table IV.34. Type of Indoor Lighting Systems**

Indoor Lighting	Urban Zone		Rural Zone	
	First ESH	Third ESH	First ESH	Third ESH
Electrical wiring	97.70%	99.40%	82.70%	95.60%
Generator or power inverter	0.60%	0.10%	1.10%	0.10%
Lamp (kerosene)	1.40%	0.10%	13.60%	1.10%
Solar panels	0.10%	0.00%	2.20%	1.00%
Other	0.10%	0.50%	0.50%	2.10%

Source: First and Third SIUBEN Studies.

**Table IV.35. Methods of Waste Disposal**

Method of waste disposal	Urban Zone		Rural Zone	
	First ESH	Third ESH	First ESH	Third ESH
Municipal waste collection service	77.30%	92.20%	21.10%	52.60%
Private garbage disposal service	1.60%	0.30%	1.20%	0.40%
Waste burning	10.70%	3.40%	57.80%	38.00%
Illegal dumping	9.40%	3.00%	19.50%	8.20%
Other	0.90%	1.10%	0.40%	0.80%

Source: First and Third SIUBEN Studies.

**Table IV.36. Cooking fuels**

Cooking fuels	Urban Zone		Rural Zone	
	First ESH	Third ESH	First ESH	Third ESH
Propane	90.00%	93.90%	65.10%	80.40%
Charcoal/firewood	9.00%	4.70%	33.70%	18.20%
Electricity	0.10%	0.00%	0.30%	0.00%
No stove	0.80%	1.30%	0.80%	1.20%
Other	0.10%	0.10%	0.10%	0.10%

Source: First and Third SIUBEN Studies.

**Table IV.37. Type of housing**

Type of housing	Urban Zone		Rural Zone	
	First ESH	Third ESH	First ESH	Third ESH
Stand-alone house	84.70%	94.80%	95.60%	98.80%
Apartment	0.90%	2.80%	0.00%	0.30%
Efficiency	13.60%	2.20%	2.10%	0.50%
Shanty	0.50%	0.20%	0.50%	0.30%
Other	0.30%	0.10%	0.10%	0.00%

Source: First and Third SIUBEN Studies.

**Table IV.38. Ownership of household appliances and other assets**

Electrical Appliances and Other Assets	Urban Zone		Rural Zone	
	First ESH	Third ESH	First ESH	Third ESH
Stove	91.80%	96.90%	70.20%	92.40%
Fridge	56.70%	78.60%	34.30%	68.50%
Washing machine	50.30%	74.20%	34.20%	66.10%
TV set	73.10%	84.50%	55.90%	77.80%
Computer	0.90%	5.50%	0.20%	2.20%
Private vehicle	3.60%	5.30%	2.80%	5.00%

Source: First and Third SIUBEN Studies.



**Table IV.39. Description of Beneficiary Households by Sociodemographic Characteristics**

Household characteristics	Urban Zone		Rural Zone	
	First ESH	Third ESH	First ESH	Third ESH
Overcrowding (average)	2.66	1.75	2.52	1.57
Household crowding	38.90%	13.90%	33.50%	9.50%
Children per family ratio (under 6)	13.30%	4.40%	11.00%	3.80%
Proportion of 14-year-old population with a job	43.10%	51.10%	42.60%	50.20%
Proportion of the 6- to 24-year-old population attending school	89.20%	97.50%	90.10%	97.80%
Proportion of the 15- to 21-year-old population attending school	68.30%	70.90%	64.10%	68.50%
Average educational attainment by household	6.48	7.19	5	5.76

Source: First and Third SIUBEN Studies and Authors' Estimates.

**Table IV.40. Sociodemographic characteristics of the head of the beneficiary's household**

Characteristics of Head of Household	Urban Zone		Rural Zone	
	First ESH	Third ESH	First ESH	Third ESH
Sex	76.00%	69.60%	61.90%	58.40%
Literacy	81.10%	83.10%	70.00%	74.60%
Years of schooling (average)	5.73	6.31	4.22	4.79
No schooling	16.10%	14.50%	25.60%	19.30%
Incomplete primary education	46.30%	43.00%	52.60%	54.10%
Primary school completion	12.20%	12.10%	8.70%	9.60%
Incomplete secondary education	18.30%	13.80%	9.70%	8.10%
High school completion	3.60%	10.10%	2.00%	5.50%
Incomplete higher education	2.00%	2.50%	0.80%	1.30%
Higher education completion	1.50%	4.00%	0.60%	2.10%

Source: First and Third SIUBEN Studies and Authors' Estimates.

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