Prosperity for all Saotomeans
Priorities to end poverty, promote growth, and build resilience in São Tomé and Príncipe
Systematic Country Diagnostic
DEMOCRATIC REPUBLIC OF SÃO TOMÉ AND PRÍNCIPE

PROSPERITY FOR ALL SAOTOMEANS: PRIORITIES TO END POVERTY, PROMOTE GROWTH AND BUILD RESILIENCE IN SÃO TOMÉ AND PRÍNCIPE

SYSTEMATIC COUNTRY DIAGNOSTIC
THE WORLD BANK GROUP

SEPTEMBER 2021
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Democratic Republic of São Tomé and Príncipe

GOVERNMENT FISCAL YEAR

January, 1 – December, 31

CURRENCY EQUIVALENTS

(Exchange Rate Effective as of September 29, 2021)

Currency Unit

São Tomé and Príncipe Dobra

STD 21.22: US$1.00

ABBREVIATIONS AND ACRONYMS

AFAP

Agência Fiduciária de Administração de Projectos

AALEB

Large-Scale Assessment of Basic Education (Avaliação Aferida de Larga Escala no Ensino Básico)

ACI

Air Connectivity Index

AfCFTA

African Continental Free Trade Area

AfDB

African Development Bank

AGER

General Regulatory Authority (Autoridade Geral de Regulação)

APCI

Trade and Investment Promotion Agency (Agência para Promoção de Comércio e Investimento)

ASPS

Agrosilvopastoral

CAD

Current Account Deficit

CEM

Country Economic Memorandum

CEMAC

Economic and Monetary Community of Central Africa

CSA

Climate-Smart Agriculture

DALY

Disability-Adjusted Life Year

DFS

Digital Financial Services

DHS

Demographic and Health Survey

ECCAS

Economic Community of Central African States

EEZ

Exclusive Economic Zone

EGDI

E-Government Development Index

EMAE

Empresa de Água e Electricidade

ENCO

Empresa Nacional de Combustíveis

EPA

Economic Partnership Agreement

EPI

E-Participation Index

EU

European Union

FAO

Food and Agriculture Organization of the United Nations

FAOSTAT

The Statistics Division of Food and Agriculture Organization of the United Nations

FDI

Foreign Direct Investment

GBV

Gender-Based Violence

GDP

Gross Domestic Product

GER

Gross Enrolment Rate

GHG

Greenhouse Gas

GHSI

Global Health Security Index

GIEPPA

Grupo de Economic Interest of Palaiês and Artisanal Fishermen
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<td>GNI</td>
<td>Gross National Income</td>
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<td>GoSTP</td>
<td>Government of STP</td>
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<td>GPI</td>
<td>Gender Parity Index</td>
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<td>HDI</td>
<td>Human Development Index</td>
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<tr>
<td>HIPC</td>
<td>Heavily Indebted Poor Countries</td>
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<td>ICAO</td>
<td>International Civil Aviation Organization</td>
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<td>ICT</td>
<td>Information and Communication Technology</td>
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<td>ID</td>
<td>National Identification</td>
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<td>IDA</td>
<td>International Development Association</td>
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<td>IFC</td>
<td>International Financial Corporation</td>
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<td>IIF</td>
<td>Financial Inclusion Survey</td>
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<td>IMB</td>
<td>International Maritime Bureau</td>
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<td>IMF</td>
<td>International Monetary Fund</td>
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<td>INE</td>
<td>National Statistical Institute (Instituto Nacional de Estatística)</td>
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<td>IOF</td>
<td>Household Budget Survey (Inquérito aos Orçamentos Familiares)</td>
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<td>IPCC</td>
<td>Intergovernmental Panel on Climate Change</td>
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<td>IPI</td>
<td>Intestinal Parasitic Infection</td>
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<td>ISCO</td>
<td>International Standard Classification of Occupations</td>
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<td>ISD</td>
<td>Indices of Social Development</td>
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<td>ISIC</td>
<td>International Standard Industrial Classification of All Economic Activities</td>
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<td>ITN</td>
<td>Insecticide-Treated Net</td>
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<td>ITU</td>
<td>International Telecommunication Union</td>
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<td>JDZ</td>
<td>Joint Development Zone</td>
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<td>LCPDP</td>
<td>Least Cost Power Development Plan</td>
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<td>LGBT</td>
<td>Lesbian, Gay, Bisexual, and Transgender</td>
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<td>LMIC</td>
<td>Lower-Middle-Income Country</td>
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<td>LPI</td>
<td>Logistics Performance Index</td>
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<td>MCP</td>
<td>Maximum Catch Potential</td>
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<td>MICS</td>
<td>Multiple Indicator Cluster Survey</td>
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<td>MIGA</td>
<td>Multilateral Investment Guarantee Agency</td>
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<td>MIRAB</td>
<td>Migration, Remittances, Aid, and Bureaucracy</td>
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<tr>
<td>MIT</td>
<td>Massachusetts Institute of Technology</td>
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<tr>
<td>MOPIRNA</td>
<td>Ministry of Public Works, Infrastructure, Natural Resources, and Environment (Ministério das Obras Públicas, Infraestrutura, Recursos Naturais e Ambiente)</td>
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<td>MPFEA</td>
<td>Ministry of Planning, Finance, and the Blue Economy (Ministério do Planeamento, Finanças e Economia Azul)</td>
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<td>MSMEs</td>
<td>Micro, Small, and Medium Enterprises</td>
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<td>NCD</td>
<td>Noncommunicable Disease</td>
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<td>NCE</td>
<td>National Certificate Exam (Exame Nacional)</td>
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<td>NDC</td>
<td>Nationally Determined Contribution</td>
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<td>NGO</td>
<td>Nongovernmental Organization</td>
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<td>ODA</td>
<td>Overseas Development Aid</td>
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<td>ODIN</td>
<td>Open Data Inventory</td>
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<td>PEFA</td>
<td>Public Financial Management Assessment</td>
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<td>PER</td>
<td>Public Expenditure Review</td>
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<td>PFM</td>
<td>Public Financial Management</td>
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<td>PNDS</td>
<td>National Plan for Sustainable Development</td>
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<td>PPP</td>
<td>Purchasing Power Parity</td>
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<td>PSR</td>
<td>Reproductive Health Program (Programa de Saúde Reprodutiva)</td>
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<td>R&amp;D</td>
<td>Research and Development</td>
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<td>RCP</td>
<td>Representative Concentration Pathway</td>
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<td>SARP</td>
<td>Standards and Recommended Practices</td>
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<td>SCD</td>
<td>Systematic Country Diagnostic</td>
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<td>Abbreviation</td>
<td>Full Form</td>
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<td>SFPA</td>
<td>Sustainable Fishing Partnership Agreement</td>
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<td>SIDS</td>
<td>Small Island Developing States</td>
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<td>SITC</td>
<td>Standard International Trade Classification</td>
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<td>SITE</td>
<td>Small Island Tourist Economy</td>
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<td>SMEs</td>
<td>Small and Medium Enterprises</td>
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<td>SOE</td>
<td>State-Owned Enterprise</td>
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<td>SOGI</td>
<td>Sexual Orientation and Gender Identity</td>
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<td>SPI</td>
<td>Social Progress Index</td>
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<td>STEPS</td>
<td>STEPwise Approach to NCD Risk Factor Surveillance</td>
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<td>STP</td>
<td>São Tomé and Príncipe</td>
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<td>TFR</td>
<td>Total Fertility Rate</td>
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<tr>
<td>UNCTAD</td>
<td>United Nations Conference on Trade and Development</td>
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<td>UNDP</td>
<td>United Nations Development Programme</td>
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<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific, and Cultural Organization</td>
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<tr>
<td>UNHCR</td>
<td>United Nations High Commissioner for Refugees</td>
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<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
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<td>VAT</td>
<td>Value Added Tax</td>
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<td>VFP</td>
<td>Vulnerable Families Program</td>
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<td>WASH</td>
<td>Water, Sanitation, and Hygiene</td>
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<td>WBG</td>
<td>World Bank Group</td>
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<td>WDI</td>
<td>World Development Indicators</td>
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<td>WHO</td>
<td>World Health Organization</td>
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<td>WTO</td>
<td>World Trade Organization</td>
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The preparation of the SCD Concept Note began in FY2020 before STP was mapped to its current Country Management Unit. The initial team was led by Nadia Belhaj Hassine Belghith (Senior Economist, EA2PV) under the guidance of Abdoulaye Seck (Country Director, AFCC1), Olivier J. Lambert (Country Manager, AFMAO), Elisabeth Huybens (Regional Director, EA2DR), Andrew Dabalen (Practice Manager, EA2PV), Mazen Bouri (Program Leader, AFCC1), Carin Clert (Program Leader, AFCC1), Emmanuel Skoufias (Lead Economist, EA1PV), and Solange A. Alliali (Senior Operations Officer, AFCCM).

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<td>International Finance Corporation</td>
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<td>Transport</td>
<td>Mustapha Benmaamar</td>
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<td>Water</td>
<td>Aleix Serrat Capdevila</td>
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EXECUTIVE SUMMARY

São Tomé and Príncipe (STP), a small island nation of 215,000 people in the Gulf of Guinea off the coast of Central Africa, is in many ways a country of great untapped wealth. One of Africa’s least known countries, its striking volcanic landscape is home to virgin rainforests with rich biodiversity, while its large exclusive economic zone (EEZ), approximately 160 times larger than the archipelago, is a marine biodiversity hotspot and supports high numbers of species unique to the area. It has among the lowest violence and crime rates in Africa and has had peaceful elections and transitions of power since becoming a multiparty democracy in 1991, making it an outlier in the region. It also has a young population, half of which is under 18 years of age, raising the prospect of a demographic dividend to be tapped in the years ahead.

Its economy has grown steadily over the past two decades, outpacing its high population growth. This growth reflects strong inflows of overseas development aid (ODA) and revenues from oil exploration that have enabled the government to expand public investments, particularly in infrastructure, social protection, health, and education. This has enabled STP to bridge the gap caused by years of underinvestment in local human and physical capital, a legacy of the country’s colonial past (its first secondary school was established only in 1952).

This growth model has not been able to spark the fundamental changes needed for the economy to generate resilient poverty reduction and shared prosperity. Few jobs are being created, and indicators and consultations with civil society reveal a broad sense of social exclusion even as the economy has grown. This model is not sustainable. ODA and oil exploration revenue have been waning since 2015 and the country’s small, stunted private sector is not equipped to take up the slack. ODA inflows in 2018 were equivalent to 10.8 percent of gross national income (GNI), a sharp drop from 32 percent in 2002. Hopes for a foreign revenue boom from oil discoveries have also faded, making it crucial for STP to focus on developing a stronger domestic tax base and invigorating the anemic private sector.

A new growth model is needed, one that will be able to provide more opportunities for its growing population. In the context of STP, a small nation with low capacity facing increasing vulnerabilities and in need of a new growth model, it is important to think strategically to identify an effective way forward. To this end, this Systematic Country Diagnostic (SCD) identifies the most critical vulnerabilities and constraints facing the country and, from these, a set of actionable priorities that will contribute to reducing poverty while promoting sustainable growth and shared prosperity.

GROWTH WITH LITTLE ECONOMIC TRANSFORMATION AND FEW OPPORTUNITIES

The foreign-sourced revenue streams that have fed public investments over the past 20 years have not sparked the kind of economic transformation needed to end the cycle of low human capital and lack of opportunities that maintain multigenerational poverty traps. Fundamentally, STP remains a country reliant on low-productivity activities in the primary sector, particularly in agriculture and fisheries, and in small
commerce. Nearly six out of ten households in the poorest 40 percent rely on unskilled self-employment for their well-being.

This has maintained the country's poverty rates at higher levels compared to similar countries—with about one-quarter of the population living on less than $1.90 per day before the COVID-19 pandemic, about 80 percent higher than the average rate in lower-middle-income countries (LMICs). Unemployment and low labor force participation, especially among women and youth, contribute to a high risk of poverty. Nearly half of working-age adults in the poorest quintile are not working.

Aside from employment, there are few ways for Saotomeans to break out of poverty. The country’s social safety net is limited, having recently expanded to cover about 5,000 households in 2020. In 2018, the country budgeted less than 0.65 percent of gross domestic product (GDP) to social safety nets, well below the African regional average of 1.2 percent. Recent progress in this area, including the rollout of a new program and temporary COVID-19 measures, is reflected in higher spending in 2020 (1.3 percent of GDP). Meanwhile, remittances—an important revenue lifeline for many Small Island Developing States (SIDS)—are low by international standards.

The lack of jobs and better opportunities arises from a difficult investment climate that limits investment opportunities in the country's stunted private sector. STP’s public sector has become increasingly dominant in the economy, with public administration, education, and health spending accounting for more than one-third of growth from 2016 to 2020 compared to only 7 percent in the 10 years from 2000. The public sector is the country’s main source of formal employment and absorbs more than 70 percent of workers with post-secondary education. But its low institutional capacity hinders effective service delivery, undermines potential for economic and social inclusion, and reduces the gains from public investment, in turn undermining job creation and more opportunities.

Despite substantial public investments in infrastructure, serious challenges remain. Foremost is the electricity sector, hampered by the high costs associated with its mostly thermal generation as well as the low capacity of the state-owned utility company. The inadequate provision of electricity constrains economic activity directly and indirectly as it also limits the expansion of the digital economy. Further, the sector’s continued arrears accumulation is the main vulnerability for the country’s public finances and its external position.

The effects of geographic isolation are exacerbated by an inadequate port and airport, key to connecting to international markets, while the country has only begun to tap into the potential of the digital revolution. Infrastructure in general remains underdeveloped - the poorest Saotomeans are particularly affected as only 22 percent of people in the poorest quintile have access to sanitation, 57 percent to electricity, and 69 percent to improved water.

STP has made strides in improving basic education access in recent years, but low levels of schooling still limit employment opportunities. More than 75 percent of Saotomeans of working age have nine years of education or less, including 38 percent with less than six years of education. While some of this low stock is a legacy of earlier
generations’ limited access, today’s youth continue to drop out of school at high rates linked to poor quality of schooling, high teenage pregnancy rates, and low aspirations. The lack of jobs and economic opportunities feeds directly into these low aspirations, with youth unable to visualize the link between school and a good job, a rarity in the Saotomean economy.

This fosters troubling cycles of exclusion, with women and youth disproportionately left out of the labor market. The limited opportunities for women and youth constrain the potential contribution to economic growth from a rapidly growing labor force and create a vulnerability that risks the continued entrenchment of poverty and exclusion and creates conditions for social conflict.

STP faces many of the structural challenges common to small island states, including the higher vulnerability to shocks that comes with its lower ability to diversify risk—both economically and geographically. The effects of climate change are already being felt, with big implications for fishing and agriculture. At the same time, future economic prospects are also vulnerable to the continued deterioration of the rich natural capital tightly linked to economic activity in the key sectors of agriculture, fishing, and tourism. STP lacks the institutional and governance systems to ensure a balance between the use of these resources to anchor economic activity and progress and the tools that ensure their preservation.

More recently, the COVID-19 pandemic has further illustrated the country’s vulnerability to shocks, though the wider socioeconomic impact may be less severe than initially feared. STP has been heavily affected on a per capita basis, with 2,476 confirmed cases and 37 deaths by mid-August 2021. The pandemic has exposed the country’s inadequate health sector, including limited testing capacity and insufficient equipment for case management and infection prevention. With international support, STP had fully vaccinated 5.5 percent of its population by early August, outperforming the Sub-Saharan Africa vaccination rate of less than 2 percent. Employment among household heads dropped by 24 percentage points in the first five months after the first COVID-19 case in the country. The self-employed and micro, small, and medium enterprises (MSMEs) were hard hit: nearly 90 percent of households with income from nonagricultural family businesses, as well as 71 percent of households with income from agriculture, reported a decrease in earnings. There was an increase in police reports of gender-based violence against women and girls during the lockdowns. Though the country lost tourism revenue for most of 2020, GDP growth remained positive owing to increased donor inflows to support its COVID-19 response. The government rolled out several response programs, such as distribution of food baskets and cash transfers to vulnerable families, that have helped alleviate the impact on poorer households. Surveys suggest that food insecurity did not rise during 2020. And schools were closed for a relatively short period, mitigating the likely impact on learning outcomes and dropout rates.
REDUCING POVERTY REQUIRES TACKLING THE COUNTRY’S CRITICAL VULNERABILITIES AND BINDING CONSTRAINTS

The immediate binding constraints for poverty reduction are low human capital and a small private sector, both limiting Saotomeans’ economic opportunities

➤ **Low human capital.** STP has made significant strides toward improved health and education services in recent years. However, it falls far short of its human capital potential due to gaps in its health care and education systems. These sectors in turn suffer from cross-sectoral challenges such as low efficiency of spending, weak capacity, and a lack of safe drinking water, electricity, and sanitation that further undermine the provision of services. Low access to clean water and sanitation contributes to high rates of childhood anemia and exacerbates the effects of malnutrition and undernutrition. Despite the improvement in access to education, learning outcomes in the core subjects of math and reading/writing remain low. Schools lack basic infrastructure, such as improved sanitation, and resources like books and other learning materials. This, together with low aspirations and high teen pregnancy rates, contributes to STP’s high school dropout rate and low enrollment in tertiary education.

➤ **A small private sector.** A poor investment climate and inadequate infrastructure have stunted the development of STP’s private sector, resulting in a lack of economic opportunities. This has led to reliance on low-productivity self-employment in sectors like agriculture, fisheries, and small commerce. The lack of access to finance and payment systems and weaknesses in the regulations and justice system (slow contract and collateral enforcement which constrains access to credit) are important aspects that hurt business development and private investment. In 2017, more than 82 percent of MSMEs did not have a bank account and few could access credit because they did not meet financial system requirements (such as having collateral). Reforms implemented in recent years have improved the environment for foreign investors, but the process for foreign direct investment (FDI) remains cumbersome and opaque, discouraging foreign flows into the private sector.

Inadequate electricity and low connectivity in STP constrain the development of a robust private sector and cut off Saotomeans from opportunities—both locally and abroad

➤ **A costly yet deficient electricity sector.** The electricity sector is a fundamental binding constraint for poverty reduction, reducing private sector growth and undermining public service delivery. In addition to frequent power outages, the country experienced severe energy crises in 2018 and again in 2021 linked to poor infrastructure maintenance, resulting in power supply being cut by as much as 75 percent. The effects of unreliable energy are felt throughout the economy. It results in a lack of cold storage and adequate processing facilities for the agriculture and fisheries industries, while also hindering the development of tourism, digital connectivity, and entrepreneurship. It has slowed the development of STP’s digital and financial infrastructure. Frequent power outages and poor energy access also reduce the effectiveness of public service provision, including in key sectors like health and education.
STP’s state electric utility is also its greatest source of fiscal vulnerability. It ran up large arrears to its foreign-owned fuel supplier, which were restructured under highly concessional terms in 2019. Given the electric utility’s continued underperformance and inefficiency, arrears are likely to continue building, creating an acute fiscal vulnerability for the country as a whole.

➢ Isolation and low connectivity. STP’s remote island geography limits its access to international capital and acts as a further brake on the development of the private sector. Besides increasing the costs of trade and narrowing international market access, the country’s isolation limits its access to information on best practices and international expertise. Unreliable electricity, an inadequate road network, and problems with the main port and airport also hamper connectivity and private sector activity. STP’s geographic disadvantage due to long distances from shipping hubs is exacerbated by its shallow port which lacks space to expand. The airport suffers primarily from a lack of compliance with international safety norms. The spread of digital connectivity has been slowed by high costs and the country’s unpredictable power supply. The government has taken a fragmented approach to deploying digital service delivery platforms, slowing their rollout. Although many of STP’s connectivity problems are due to its geography, there are ample opportunities to mitigate them through technology and effective policies.

Even as it has expanded and led economic growth, the public sector has been unable to address these constraints

➢ Limited institutional capacity. STP’s government has limited human and institutional capacity to manage the country’s resources, apply them effectively toward economic and social objectives, and correct its course when needed. The low quality and coverage of public services increases business costs, reduces productivity, and feeds both poverty and low inclusion. The result is an overall lack of confidence and trust in the government’s ability to deal with critical challenges. Public finance planning processes are inadequate, limiting the budget’s potential to be used as a strategic economic tool. The government’s forecasts of revenues and spending are often unrealistic, leading to poor budget execution. It also suffers from a lack of data, monitoring, and research capabilities needed to make and implement well-informed policy decisions. The country’s small tax base and heavy reliance on ODA pose another challenge to effective public administration. Because ODA sources are fragmented and the funds tend to be project specific, the inflows are difficult to plan around and align with national priorities.

Threats to its natural capital and a growing population add urgency to building capacity and generating opportunities

➢ Climate change and resource mismanagement. As a small island nation, STP is among the countries most vulnerable to climate change. The same rich natural resources and geography that can support a Blue Economy growth model also represent a major vulnerability as the effects of climate change increase. The two islands are already feeling its impact as the dry season becomes longer with more extreme rainfall events, threatening the year-round availability of fresh water. Crucial coastal infrastructure, such as roads, is increasingly at risk from erosion and
inundation. Climate change also threatens to significantly reduce the production of key crops like cacao, pepper, and maize while reducing fish stocks—threatening both the income and food sources of the poorest. Overexploitation of resources is threatening the country’s ability to achieve this sustainable path. Increased conflicts of use, territorial expansion of traditional fishing activities, and declining catches of some high-value species indicate that effects of overfishing are already being felt.

- **Demographic risks stemming from the low economic inclusion and empowerment of girls and women.** A young and growing population means that poverty reduction in STP requires higher growth than would otherwise be the case and that there is an urgency for jobs to absorb this youth bulge. Without economic opportunities, the country’s youth can transform from a potential demographic dividend to deeply entrenched social unrest. Behind this population pressure is high fertility (4.3 births per woman) including among adolescents (95 births per 1,000 women ages 15 to 19). This is closely linked to STP’s low social and economic inclusion of women, which depresses economic activity and increases poverty. Social norms and expectations in STP reinforce gender inequality and make it harder to enact positive change. Heavy household pressures on women’s time reduce their ability to do paid work, while high fertility and adolescent pregnancy rates add to their health risks, barriers to education, and vulnerability to poverty.

**Fostering a Jobs-Oriented Economic Transformation in STP**

Fundamentally, the analysis shows that reducing poverty in STP requires the country to undergo a jobs-oriented economic transformation. This is a critical next step for STP to be able to leverage the past 20 years of public investment into resilient poverty reduction and inclusive growth. But the analysis also shows that this economic transformation requires building capacity and resilience.

Given the low capacity and small size of the country, priorities need to be few and feasible within the constrained environment and address multiple constraints and vulnerabilities simultaneously. In moving from constraints and vulnerabilities to policy priorities, three impacts are considered: (a) the contribution to jobs, (b) the impact on resilience, and (c) and the enhancement of capacity (Figure 1). Within each priority and cross-cutting area, the SCD identifies actionable entry points. In this way, the priorities that are identified can generate jobs in a credible way that can begin to be implemented now.
The four priorities and two cross-cutting areas set the stage for a jobs-oriented economic transformation over the near term while building the country’s resilience (fiscal, environmental, and social). Transformation of the electricity sector addresses an immediate constraint to private sector development and service provision, while also stabilizing the country’s fiscal outlook. STP can tap into the potential provided in the Blue Economy growth model, but this requires better management of its natural resources, including its depleting fish stocks. Meanwhile, agriculture, threatened by climate change, will continue to be a crucial sector, not only for its importance for exports but also for food security and employment.

Under the third priority, the focus shifts to human potential—another underutilized asset of STP. Economic inclusion and empowerment of women and youth, including through a jobs-skill agenda, build more effective small and medium enterprises (SMEs) (the main vehicle for private sector development) while preparing the labor force for better jobs and improving overall capacity. Finally, the fourth priority is the platform necessary for transforming these opportunities into jobs. This platform targets key obstacles that hinder private sector development.

None of these priorities can be accomplished without increasing institutional capacity, including taking steps to increase the effectiveness of ODA flows and coordination. The promotion of a national dialogue as part of the preparation of an updated national development plan is an opportunity to foster better coordination, both internally within the government as well as with development partners. Digital development represents an important opportunity to support these priorities and improve human and institutional capacity.

**Priority 1: Transforming electricity into a green, efficient, and effective sector**

To support poverty reduction through jobs-oriented economic transformation, STP needs to reduce its dependence on thermal energy, improve the reliability of the electricity sector, and expand access particularly to hard-to-reach rural communities. The lack of reliable electricity is itself a binding constraint, directly contributing to the
four constraints identified in the SCD—reducing service provision to build human
capital, increasing business costs and limiting opportunities, contributing to
connectivity issues including low digital development, and undermining institutional
capacity. Improving the electricity sector is also crucial for the country’s macro fiscal
resilience. Despite the technical and financial support already being received by the
country, tangible improvements on the performance of the energy sector have not
materialized due to low implementation capacity of the government.

Priority 2: Leveraging natural capital to support sustainable and inclusive growth

The second priority is to maintain STP’s pristine environment as an economic growth
strategy. STP’s challenges as an isolated small island state can be turned into
strengths by leveraging its natural capital to support a Blue Economy development
model complemented by a resilient agriculture sector. To successfully implement this
model, STP must act to mitigate the impacts of climate change and manage its natural
resources effectively. STP’s natural wealth is its comparative advantage—hence, it is
important that the country is able to implement sustainable uses and effective
monitoring and enforcement mechanisms. Key entry points include establishing rules,
monitoring, and enforcement mechanisms for the fishing sector; implementing
climate-smart adaptations to protect the poorest and vulnerable in STP, especially in
agriculture (where climate change can reduce the production of essential crops,
including cocoa, pepper, and corn, by 30 percent); and implementing a modern land
registry to improve land management (while encouraging private investment and
access to credit).

Priority 3: Realizing individual potential and building human capital through the
inclusion and empowerment of women and youth

After nearly two decades of significant public investment, low levels of human capital
continue to be a constraint for poverty reduction in STP. The third priority is a cross-
sectoral approach to increasing the country’s human capital—including early
childhood interventions, building the aspirations and empowerment of youth, and
targeting a jobs-oriented skills agenda toward the groups least included—women and
youth. The economic and social value of investments in human capital are amplified
through social inclusion and empowerment. Boosting the agency and inclusion of girls
and young women is particularly important for reducing poverty because of the links
between teenage pregnancy and human capital and economic outcomes. Jobs-
oriented skills are an important input to increase the opportunities of youth and
women.

Priority 4: Creating an enabling environment to boost job-generating private
investment

This priority aims to create a platform needed for the private sector to tap into the
growth opportunities created through the first three priorities. This priority focuses on
addressing critical elements needed for a functioning market that are currently
missing in STP: an effective and fair regulatory framework, access to finance, and
adequate infrastructure, especially airports and ports. Creating an enabling
environment for private investment will require improving the timeliness of judicial
process and reducing the administrative burden, including on FDI. Digital financial services (DFS) represent important opportunities to increase access to credit and support private investment of small and microenterprises—but they require expansion of digital services. Training in financial capabilities trainings and expanding the universe of collateral to include movable assets would also support increased access to finance. Finally, even marginal improvements of the port and airport can reduce bottlenecks and commercial costs of exportation.

*Cross-cutting opportunity 1: Improving institutional capacity to deliver critical services in a constrained fiscal environment*

A common element in the vulnerabilities and the constraints identified in this SCD has been the lack of capacity to effectively deliver essential public services and goods. STP’s significant public spending needs and high fixed costs of many public services—characteristics of most SIDS—make it paramount that STP increases efficiency of spending to achieve fiscal sustainability. The first cross-cutting opportunity area is to improve the capacity of the public sector to deliver critical services, particularly in a context of dwindling foreign financing. In particular, three areas stand out as entry points. The first one is improving public finance management so that STP can increase efficiency of spending and its targeting, thus ‘doing more with less’. Given the importance of ODA to public investments, the second entry point is improving the implementation of ODA-financed projects by increasing the capacity of the *Agência Fiduciária de Administração de Projectos* (AFAP), a centralized implementation agency. The third area is improving coordination both internally within the public sector, which could imply reducing fragmentation across ministries, and externally with development partners and donors.

*Cross-cutting opportunity 2: Inclusive digital development*

Digital technologies are a significant opportunity to directly address STP’s small island state connectivity challenges while also improving service delivery and supporting several priority areas. If done in an inclusive manner, digital development can also directly reduce poverty and boost shared prosperity. Yet, digital development is at a nascent stage in STP. Key entry points include creating a national coordination to drive the strategic development of the sector, including market-making measures; developing frameworks for sharing infrastructure and interoperability to support competition; and broadening access to broadband and mobile digital services.
1. SETTING THE STAGE

Key messages

- **Small island state**: Small island state with significant natural wealth as well as challenges related to its geography and size
- **Initial conditions**: Colonization resulted in centuries of underinvestment in human capital, the local economy, and essential institutions
- **Youth bulge with the potential to reap demographic dividend**: With the median age of 18.6 years, STP is in the early stages of a demographic transition, experiencing both high fertility rates and increasing life expectancy.

1.1 A SMALL ISLAND STATE WITH NATURAL WEALTH

São Tomé and Príncipe (STP) is a small island country of about 215,000 people off the coast of West Africa in the Gulf of Guinea. The country’s two main islands are São Tomé (the larger of the two) and Príncipe, home to about 5 percent of the country’s population. Its combined surface area of 1,001 km$^2$ makes it the second smallest country in Africa, after the Seychelles. However, it has a large exclusive economic zone (EEZ) (160,000 km$^2$), approximately 160 times the archipelago’s landmass, with maritime borders with Nigeria, Gabon, and Equatorial Guinea. Despite its location, its closest ties are with Portugal and Angola, due in large part to shared language and colonization history. Nearly three-quarters of the population (73 percent) lives in urban areas including about one-third of the population in and around the capital city of São Tomé. Its population density, 219.8 people per km$^2$, is relatively high but well below that of other small states.1

STP has rich biodiversity, both on land and in the sea, including a United Nations Educational, Scientific, and Cultural Organization (UNESCO) Biosphere Reserve recognized in 2012. Home to a unique ecosystem including virgin rainforests, the Obô Natural Park makes up 30 percent of the land area in São Tomé while the entirety of Príncipe is a recognized Biosphere Reserve. The islands are steep, with a limited plain area, and only 9 percent of land is arable. In the south and west, there are high mountains of volcanic origin, while the landscape is flat in the far north. The mountains are heavily eroded. The soil, with basalt and phonolite, is relatively fertile. STP’s EEZ falls within the Gulf of Guinea marine biodiversity hotspot and supports high numbers of coral reef fish and mollusk species that are unique to the area besides providing important breeding grounds for turtles. Overfishing and damaging fishing practices are threatening this maritime diversity (see Chapter 5). This natural wealth, if utilized sustainably, can be used to boost growth through tourism (Loureiro and Sarmento 2014) and other sectors.

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1 For example: Maldives 1,719 people per km$^2$; Mauritius 623 people per km$^2$; Barbados 667 people per km$^2$. 11
STP benefits from the lowest criminality rate on the African continent and has been spared from war and terrorism.\(^2\) In the most recent Afrobarometer survey, the majority of respondents reported feeling safe in their communities: 88 percent of respondents never feared crime in their own home and 81 percent never felt unsafe walking home (Afrobarometer 2019a). However, one-fifth of respondents reported feeling that their personal safety was worse than a few years earlier, potentially indicating deteriorating security. Some criminal markets do exist, particularly in human smuggling, arms trafficking, and cannabis production, but they are considered to be limited and manageable. Piracy is an emerging threat in the Gulf of Guinea, which has become the primary location of international piracy in recent years. According to the International Maritime Bureau (IMB), 135 maritime kidnappings were recorded in 2020—with 130 of them taking place in the Gulf of Guinea.

STP’s natural gifts come with a cost. In addition to the standard challenges faced by other LMICs, STP faces challenges related to its size and geography common to other small island states. The country’s small population and land area limit its ability to diversify, constraining its growth and development outcomes, lowering economies of scale, and creating a greater need for public spending (Box 1.1).

The island of Príncipe is burdened by double isolation. There is only irregular, unsafe, and expensive maritime connection to São Tomé, which is 148 km away. The air connection between the two islands depends on favorable weather conditions and is too expensive for most of the population. Príncipe is an Autonomous Region that has had a small local government since 1995. It has opted for a development model that prioritizes activities that respect nature, such as responsible tourism, rather than large-scale extractive activities. Despite the lack of transport infrastructure connecting the two islands, the island of Príncipe does not have any judicial presence (an activity that has not be transferred to the local government) and all court and judicial matters must be done in São Tomé.

**Box 1.1 Challenges faced by small states**

The World Bank Group (WBG) identifies 50 countries as small states, characterized by populations of less than 1.5 million people and membership in the Small States Forum, about half of which are small island states. Despite differences in income levels, economic structures, and geographic regions, these countries share challenges to growth that are directly related to their size, including the following:

- **Human capital and capacity constraints:** Limited number of workers and production capacity inadequate for local production or export at scale and inadequate specialization due to few educational facilities. A small workforce can reduce institutional capacity and multiple aid programs may overstretch the countries’ implementation capacity.

- **Confined land area means a heightened external vulnerability:** Island nations are disproportionately exposed to the effects of climate change and more likely to experience full-country shocks due to their small size. Low sectoral diversification implies higher exposure to international economic shocks (such as tourism).

\(^2\) The Africa Organized Crime Index scores STP at 1.99.
1.2 Colonial legacy of extraction and underinvestment

Under Portuguese colonization, STP was a major global supplier of sugarcane and then cocoa. In 1470, Portugal colonized the uninhabited islands that are now STP, building the colony as a hub for the Atlantic slave trade and a source of cash crops. Portuguese colonization of the islands was motivated by a desire to expand sugar production. Eventually plantations occupied over 90 percent of arable land, mainly producing cocoa and sugarcane and, to a lesser degree, coffee. STP was briefly the largest producer of sugar in the world. After being surpassed by Brazil and the Caribbean, it pivoted to producing cocoa and coffee (Seibert and Clarence-Smith 2019). In the late nineteenth and early twentieth centuries, STP was the largest supplier of cocoa in the world.

Slavery, indentured labor, and the plantation economic system resulted in inequality in landownership and centuries of underinvestment in human capital, the local economy, and essential institutions. Research in other parts of the world shows that a history of high land concentration, as in a plantation system, leads to long-term underinvestment in human capital, a focus on unskilled industry, and a slower growth process (Galor, Moav, and Vollrath 2009). Portugal abolished slavery in 1858, but systems of indentured and forced labor persisted into the twentieth century. Throughout the colonial period, the plantations were managed by Europeans (Caldeira 2011). Limited educational opportunities and centuries of control over economic production and land by the Portuguese resulted in a dearth of human capital in the local population at the time of independence (Seibert 2016). As management responsibilities lay almost exclusively with imported workers, primarily Portuguese, little was invested in local education. The first secondary school was not established in STP until 1952, nearly a century after the implementation of secondary education in Cabo Verde, another former Portuguese colony.

The WBG has identified four priority areas of policy focus for small states: external vulnerability, natural disasters, high costs of public service, and tax system reform.

After STP achieved independence from Portugal in 1975, its alignment with communist governments led to a centrally planned economy and a sharp decline in agricultural productivity. STP became a one-party state aligned with other socialist governments, including Angola, Cuba, and the Soviet Union (Seibert 2016). Plantations previously owned by the Portuguese were nationalized as part of a network of 15 state-owned enterprises (SOEs). Many Portuguese left STP following property seizures, and the nationalization of the plantation system allowed individuals from the Forro (Portuguese for ‘freemen’) population to take leadership roles previously held by Portuguese (Box 1.2) (Ezyaguirre 1989). The government had planned to use agricultural revenues to fuel the growth of other economic sectors, but the steep decline in agricultural productivity and output due to mismanagement, lack of investment, and the loss of technical knowledge from the departure of Portuguese managers instead led to an economic contraction. Gross domestic product (GDP) fell at an annual average rate of 1.4 percent for over a decade.3 Cocoa production fell from 10,400 tons in 1974 to 3,378 in 1984.4

Box 1.2 Ethnic groups in STP

While STP’s population derives from several ethnicities, reflecting the country’s colonial history, the country does not suffer from notable ethnic tensions. The first residents of the islands included enslaved people from Benin and the Congo, Portuguese criminals, and Portuguese Jews who were expelled during the Inquisition. The Forros are the largest ethnic group, a population descended from Europeans and Africans that gained freedom before the end of slavery. The Angolares are descended from Angolan slaves who escaped captivity following a shipwreck in the sixteenth century and lived largely isolated until the late nineteenth century. Immigrants from Portuguese-speaking Africa, especially Cabo Verde, have come as laborers and some maintain dual citizenship. There is also a small population of European-descent, mostly Portuguese.


The sharp deterioration of agricultural productivity led the country to abandon central planning and the one-party system, and by 1989 it had begun its transition to a market economy. Following the end of the Cold War, STP became the first Portuguese-speaking African country to transition to a multiparty democracy in 1990 (Seibert 2016). During this transition, agriculture was privatized, agricultural productivity improved, and both external aid and loan inflows rose. After the shift, the country redistributed two-thirds of what had been plantation land to over 10,000 families on a usufruct (or temporary) basis, with the goal of developing an agricultural sector that was privatized and comprised small and medium-size farms. While agricultural productivity and output increased relative to the centrally planned era, cocoa production did not bounce back to pre-independence levels. By 2000, cocoa production was an estimated 3,418 tons, compared to the 1974 output of 10,400 tons.5 In terms of GDP, the transition into independence and a centrally planned economy resulted in STP losing ground relative to Sub-Saharan Africa as well as other middle-income countries (Figure 1.1). GDP per capita in 2000 was only 67 percent what it had been in 1980 (Figure 1.1).

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3 Ezyaguirre (1989) argues that the high productivity of the colonial period was partly the result of harsh abuses on plantations, not solely due to better management practices.

4 FAOSTAT.

5 FAOSTAT.
Following its transition to a market-based economy, economic growth accelerated in the early 2000s but began to falter in 2015. As detailed in Chapter 2, large inflows of overseas development aid (ODA) and a temporary inflow of foreign direct investment (FDI) following potential oil development in the first decade of the 2000s supported STP’s market reforms and played a pivotal role in the country’s modest economic growth over the past two decades. Importantly, this ODA has been channeled into broad public investments, particularly in human capital, leading to large improvements in health and educational outcomes that are discussed in this study as well as some key infrastructure upgrades. Despite some developments in agribusiness and tourism, the private sector remains underdeveloped and productivity remains low—2019 GDP per capita reached only the 1980 level.

1.3 SOCIAL EXCLUSION AND DEMOGRAPHIC PRESSURE

Despite the important strides made by the country over the past two decades, STP scores low on indicators of social progress and inclusion, including gender equality. Between 2014 and 2019, STP’s Social Progress Index (SPI) increased from 58.3 to 61.4, driven by improvements in sub-indicators related to basic human needs and foundations of well-being. Even with this improvement, the country scores low in areas like ‘personal freedom and choice’ as well as ‘inclusiveness’ (Figure 1.2), ranking 97 out of 149 countries (behind all structural peers except Comoros). STP scores low in the Indices of Social Development (ISD), ranking behind most peers for civic activism and gender equality, which measures gender discrimination at home, at work, and in public life (Figure 1.3). There is also a palpable insider-outsider dynamic at play in STP resulting in low confidence and trust in the public sector. This came through strongly during the country consultations (Annex 11) but can also be seen in some survey results. According to Afrobarometer (2019a), a majority of Saotomeans feel that people are not treated equally (increasing from 47 percent of respondents in 2016 to 52 percent in 2019), significantly higher than Mauritius and Cabo Verde.

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6 The SPI is prepared by the Social Progress Imperative (https://www.socialprogress.org/).
7 The ISD is prepared by the International Institute of Social Sciences (https://www.indsocdev.org/).
With the median age of the population at 18.6 years, STP is in the early stages of a demographic transition, experiencing both high fertility rates and increasing life expectancy (Figure 1.5). Between 1990 and 2017, the total fertility rate (TFR) fell from 5.8 births per woman to 4.4, child mortality also fell from 69.1 to 25.2 deaths per 1,000 live births, and life expectancy at birth increased from 58.2 to 69.9 years. Though STP’s TFR is below the average for Sub-Saharan African countries, it is high compared to the LMIC average (Figure 1.4). The progress in health indicators in recent decades, coupled with the decreasing fertility rate, has helped the country move into the early stages of a demographic transition (Figure 1.6).
STP has the potential to collect a demographic dividend—a boost in economic growth resulting from a shift in a country’s age structure—through policies that build human capital, generate economic opportunities, and support the country’s continued demographic transition. STP’s dependency ratio declined by 23 percent between 1980 and 2018, not as quickly as regional and structural peers (Figure 1.7). Current trends suggest that it will not start benefiting from the demographic dividend until around 2040, when the dependency ratio falls under two dependent people for every three working-age people.8 With a 2018 ratio of about four dependent people for every five working-age people, STP is on par with averages in Sub-Saharan Africa and pre-demographic dividend countries. But its ratio is more than double the average of aspirational peer countries and about 1.5 times greater than averages in post-demographic dividend countries and LMICs.

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8 See Annex 1 for the selection of peer countries.
However, fast population growth, high dependency ratios, and high adolescent fertility rates weigh heavily on the country’s capacity to reduce poverty in the near term. Because life expectancy increased and child mortality declined faster than fertility, STP has experienced strong population growth, peaking in 2008 at 2.9 percent before slowing to 1.9 percent by 2017. Families with large numbers of children have limited capacity to reduce poverty, and this challenge is further compounded in STP by high rates of teenage pregnancy. With an adolescent fertility rate of about 96 births per 1,000 women ages 15–19, early motherhood leads to school dropout and more births in a lifetime, particularly in poorer families. Demographic pressures pose challenges for public service provision, labor markets, and fiscal resources and can slow growth in per capita income.

International emigration may become an increasingly important reality in the coming years as more youth enter working age, representing both an opportunity and a risk for future growth. While international migration provides alternatives for young adults facing limited economic opportunities, and remittances can be an important boost for growth, it can also lead to brain drain—a challenge faced by other small island countries such as those in the Caribbean. This becomes increasingly relevant for STP’s youth as access to secondary education and higher education has grown in the past decade. Net migration trends in STP are similar to those of structural peers, but there is some evidence of recent increased emigration from STP, though the trigger of this outflow is unclear (Knowledge Gap 1). As of 2017, nearly 85,000 Saotomeans lived abroad, with the vast majority moving to Angola between 2010 and 2015 (Figure 1.8). This does not seem to be a sustained trend, however, as the emigrant stock only increased by 1,300 between 2015 and 2017. At the same time, STP receives few migrants, most of them from Cabo Verde.
Knowledge Gap 1. Understanding recent migration trends

KNOMAD data indicate a sharp spike in emigration out of STP between 2013 and 2017, when the total emigrant stock increased from 36,000 to 85,000. This spike is notable given its size: an increase in the emigrant stock on the order of 25 percent of the total population is significant. It is unclear what drove this spike or if this spike is a data issue as the topic has not been covered in academic literature, research, or local news. Based on the data, almost all these emigrants went to Angola. This flow is unlikely to be due to Angolan refugees returning after the end of the country’s civil war as STP did not have registered refugees (UNHCR 2015). It could reflect economic migration fueled by Angola’s oil boom during this period. This trend should be investigated further, particularly given the development implications of mass emigration.
2. POVERTY, GROWTH, AND SHARED PROSPERITY

Key messages

- **Accumulation of physical and human capital** supported by foreign-financed public investment drove STP’s modest economic growth and improvements in human development during the past two decades.

- The **slow growth of sectors** where STP has a comparative advantage due to its natural capital (agriculture, fisheries, tourism) suggests that spillovers from public investment to the private sector have been modest.

- **Poverty remains higher than in peer countries, with the main culprit being the lack of jobs.** Most Saotomeans make their living in low-productivity and subsistence self-employment, including 43 percent of household heads.

- Low-income families in STP have **little access to public transfers or remittances** to break out of the cycle of intergenerational poverty traps.

São Tomé and Príncipe’s economy has grown modestly over the past two decades, fueled largely by foreign financing that has enabled it to increase public investments and improve human development outcomes. ODA and oil exploration revenues have enabled a welcome catch-up from past underinvestment in human and capital infrastructure—an important step for STP following its history of underinvestment during colonialism and the destruction of agricultural production after independence. But foreign funding is on a downward trend and therefore does not represent a sustainable path forward for the economy. In contrast to the public sector, the private sector has remained weak and it fails to generate the better-paid, higher-quality jobs needed to sustain progress in poverty reduction. Most people are self-employed in low-productivity jobs, a key reason why poverty remains high in STP relative to international peers. Despite some progress in access to schooling, most citizens have only basic education and lack some of the key paths out of poverty that are available in other countries, such as a strong social safety net or income from foreign remittances.

STP is firmly on the lower end of outcomes compared to other LMICs but outperforms the average LMIC in Sub-Saharan Africa. Two-thirds of Saotomeans lived in poverty as of 2017 based on the national poverty methodology (World Bank 2019d). But for international comparison, it is useful to consider the poverty line of $1.90 per day. Based on estimates prepared for this SCD, about one-quarter of STP’s population was living on less than $1.90 per day before the COVID-19 pandemic, a poverty rate that, though below the average for Sub-Saharan Africa (42.3 percent), is nearly double (81 percent higher) the average poverty rate of LMICs. This is particularly striking since STP’s inequality in terms of consumption is not high relative to international comparisons (Figure 2.1b) and its GDP per capita level of US$1,990 is close to the average for this group of countries—US$2,180 (Figure 2.1a). This suggests a larger disconnect between GDP, closely related to foreign flows, and the economic well-being of households in STP compared to its peers. The level of poverty in STP surpasses all three structural peers—other small countries with similar levels of GDP per capita.

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9 World Bank estimates based on the Household Budget Survey (*Inquérito aos Orçamentos Familiares, IOF*) 2017. The 2017 IOF which is the most recent household survey that can be used to assess poverty provides valuable, though tentative, information about poverty and inequality in STP (see Knowledge Gap 2.1 and Annex 3 for details on data quality concerns and remedies applied).
Figure 2.1. Internationally comparable poverty rate, inequality, and GDP per capita, 2019

a. International poverty rate ($1.90 per day) and GDP per capita  
b. Gini index

Note: Figure (a) reports GDP per capita (current US$) and share of the population living on less than US$1.90 per day in 2011 purchasing power parity (PPP). For STP, two values are included: the expenditure-based poverty rate of 35.6 percent and the consumption-based rate of 25.9 percent. See Annex 3 for details on the two estimates reported for STP. The gray lines in Figure (b) represent the unweighted average inequality of each set of peer countries. Poverty and inequality are based on the most recently available data: STP (2017), CPV (2015), COM (2014), MDV (2016), MUS (2017), and LCA (2016). The average for LMICs in the Sub-Saharan region (SSA-LMIC) was calculated based on the most recent indicator reported in the WDI for the 15 countries with information since 2014. Though BLZ is a structural peer, it is not included due to lack of recent data.

Challenges with key data sources limit the analysis in this diagnostic—including in areas related to sources of growth, institutional constraints, and poverty trends over time. For example, the 2017 household survey is not comparable to the earlier survey and, due to high survey and item nonresponse rates in some key variables, results in some uncertainty around key indicators and subnational estimates (see Knowledge Gap 2.1). Even with its limitations, the household survey remains the only recent source of information for analyzing poverty, inclusion, and employment outcomes. As part of the preparation of the SCD, some new estimates were made, including the construction of a welfare aggregate less affected by nonresponse. Though the data issues undermine confidence in the exact magnitude of the measured poverty and inequality levels in STP, other evidence supports these general outcomes: moderate rates of food insecurity and relatively low inequality in human development outcomes are measured with other surveys (Section 2.3). Section 2.3 also discusses that, though a lack of comparable data over time limits our understanding of the progress made over time, improvements in human development suggest a steady increase in general welfare.
2.1 Modest real economic growth fueled by foreign-financed capital accumulation

After a decade of sharply negative and volatile economic growth during the 1980s and stagnation in the 1990s, over the past 20 years, STP’s economy has grown sufficiently to outpace its high population growth (Figures 2.3 and 2.4). STP was

Knowledge Gap 2.1. Accuracy of national and subnational estimates of poverty and inequality levels

The best and most recent source of information about poverty in STP is the 2017 IOF. However, this survey suffers from nonresponse rates of over 24 percent, with the rate varying significantly across the regions of the country from 13.6 percent to 34.8 percent. Nonresponse rates above 10–15 percent are a source of concern since they may result in biased estimates of the prevalence of poverty as well as any other variable of interest. In addition, even among households that participated in the survey, there is significant nonresponse in key variables used to calculate the welfare aggregate. This item nonresponse is not random and is particularly high in the island of Príncipe.

For this SCD, a new round of data analysis was undertaken, resulting in an updated approach to calculate welfare: while original numbers are based on a welfare aggregate that relies on expenditure data but suffers from higher nonresponse rates, the new analysis created a consumption-based aggregate which is less affected by high item nonresponse rates (detailed in Annex 3). Though the exact magnitude of poverty and inequality is still uncertain due to remaining issues in nonresponse, several tests indicate that the consumption-based welfare aggregate appears to reduce their severity. As a result, while this SCD presents poverty and inequality numbers resulting from both approaches that are labeled ‘STP - expenditure’ and ‘STP - consumption’, the analysis based on IOF 2017 presented below is based on the new consumption aggregate.

The resulting uncertainty around the estimates raises some questions about poverty in STP—including its spatial distribution. The available information suggests that poverty may be marginally higher in urban areas than rural areas (a result also found in the 2010 survey). About one-quarter of the population in urban as well as in rural areas lives on less than $1.90 per capita (2011 PPP), with rates of 26.8 percent and 24.4 percent respectively. While poverty rates vary somewhat across the four regions defined in the survey, analysis by welfare quintiles shows a fairly uniform distribution of welfare across the country (Figure 2.2). Unfortunately, the data do not allow an assessment of welfare in Príncipe separately.

2.1 MODEST REAL ECONOMIC GROWTH FUELED BY FOREIGN-FINANCED CAPITAL ACCUMULATION
particularly successful between 2001 and 2014, when its annual GDP growth averaged 5.1 percent. That translated into annual GDP per capita growth of 2.7 percent, outpacing both structural and aspirational peers. The years since have seen lower, but still positive, per capita growth. As with other key areas of socioeconomic information from the country, there are some questions about the measurement of outputs in STP (see Knowledge Gap 2.2).

Figure 2.3. Economic growth, STP and comparators, 1981–2019 (%)

Figure 2.4. Economic volatility, STP and comparators, 1981–2019 (%)

Source: WDI and IMF 2019.
Note: Volatility is measured by the standard deviation of GDP per capita growth. Data are not available for Maldives from 1981 to 1990. The average for aspirational peers for the period only includes Mauritius and St. Lucia.

Knowledge Gap 2.2. Measuring GDP in STP

STP only produces national accounts on the production side. The country’s National Institute of Statistics produces regular annual national accounts based on production accounts, which presents the aggregate value added in each sector as well as the value of taxes and subsidies to calculate GDP. However, STP does not produce income and expenditure accounts—the alternative presentations of GDP that provide information on sources of demand (consumption, investment, exports, and imports) and distribution of the proceeds of production between capital and labor. This is because STP does not collect information on salaries and company profits necessary to estimate GDP through the income approach. Its collection of information on households’ consumption and firms’ investment is insufficient for the expenditure approach (information on the fiscal and external sectors should be available). Also, STP’s national accounts do not include information on intermediate consumption used in the production process. Finally, national accounts are produced only annually and not quarterly.

The production of regular, reliable national accounts comes at a fixed cost which can be high for small countries, but it is fundamental for a sound decision-making process. The national accounts provide useful information about macroeconomic developments, which allows the authorities to formulate and implement more effective economic policies. In addition, the private sector can use macroeconomic information for better resource mobilization and allocation, which contributes to increasing economic efficiency. The cost of producing national accounts (per capita or relative to GDP) will be higher in a small country such as STP. However, simplified and standardized procedures can be used to produce accounts of acceptable quality. Closer engagement and learning from other small states could be a useful experience to improve the capacity of the statistics institute and establish an appropriate national account production process.
Growth in the 2000s was supported by high levels of external aid and oil-related FDI, which began to wane around 2015 (World Bank 2019b). External grants, which reached 31.6 percent of GDP in 2011, supported a significant expansion of public investment in both physical and human capital. A surge of oil-related FDI, which peaked in 2010 at 25.9 percent of GDP (Box 2.1), also supported capital accumulation and boosted GDP. The economy also benefited from the entry of a second mobile operator, a flourishing tourism sector that saw arrivals rise by 216 percent between 2001 and 2014, and a steep increase in cocoa prices. After 2015, external grants fell to an annual average of 13 percent of GDP, while external loans dropped off, dramatically reducing public investment from a high 35.7 percent of GDP in 2011 to 9 percent in 2018. FDI tapered off but remains higher than peer countries. As of 2019, FDI was 6.7 percent, higher than aspirational peers (4.9 percent of GDP) and structural peers (4.1 percent).10 The tourism sector’s growth momentum also slowed, cocoa exports fell, and there was a severe energy crisis in 2018 and 2019, all of which put the brakes on faster growth.

Box 2.1. The oil boom that never happened

In the early 2000s, STP seemed slated to join its neighbors Nigeria, Equatorial Guinea, and Gabon as an oil-producing nation. STP has rights over three oil exploration zones. It has the Joint Development Zone (JDZ) with Nigeria, a region offshore both countries that was expected to have significant oil reserves, and two other sole rights zones for oil exploration: the offshore EEZ and an onshore drilling zone (Segura 2006). In 2005 and 2007, STP received ‘sizable speculative signature bonuses’ from Chevron, Sinopec, and other firms that totaled more than US$70 million (Frynas, Wood, and Hinks 2017). Despite high expectations, the oil boom never materialized. STP’s oil production predictions have been revised downward and two foreign companies have withdrawn. Though other foreign energy companies have taken interest in exploring the EEZ since 2015, it is unclear how successful this effort may be (Sovacool 2015).

Despite oil production opportunities falling to materialize, STP must still reckon with challenges frequently associated with the ‘resource curse’. Despite STP’s implementation of numerous regulations to reduce the threat of a resource curse,11 excessive spending and borrowing and a focus on expected resource revenues may have resulted in a similar phenomenon which occurs even before natural resource extraction begins (Cust and Mihalyi 2017). Frynas, Wood, and Hinks (2017) found that anticipation of increased FDI in the early 2000s led to higher government spending. Additionally, concerns about corruption in relation to the anticipated resource boom have been noted: in the early 2000s, organizations from Nigeria and Angola, for example, contributed financially to political campaigns in the country.

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10 Source: Tabulations based on WDI.

11 In 2004, the Government of STP (GoSTP) created a National Petroleum Council and National Petroleum Agency, agreed to transparency guidelines in the JDZ through the Abuja Joint Declaration, and passed the Oil Revenue Management Law to govern the use of oil profits. Notably, the law establishes a Permanent Fund for Future Generations “to secure intergenerational equity and guarantee a permanent flow of resources that will foster economic development even after oil resources have been exhausted” (Segura 2006). STP is also a member of the Extractive Industry Transparency Initiative.
Accumulation of physical and human capital supported by foreign-financed public investment drove growth during the past two decades. From 2001 to 2019, STP’s real GDP growth averaged 4.6 percent, of which 3.7 percentage points (80 percent) were due to physical (1.2 percentage points) and human (2.5 percentage points) capital accumulation (Figure 2.5). During this time, STP invested heavily in the expansion of its electric power distribution capacity and in the construction, rehabilitation, and modernization of the national road system. Human capital growth is partly due to STP’s population growth, which grew on average by 2.1 percent per year over the same period. Importantly, improvements in access to education led to an increase in literacy rates and educational attainments. Health outcomes also improved (for example, a reduction in childhood mortality and higher life expectancy) as a result of heavy public investment in education and health sectors.

The public sector has increasingly driven GDP growth. Public administration, health, and education, together with the heavily publicly financed construction sector, contributed directly on average about 0.9 percentage points of the 4.5 percent growth over the period (Figure 2.6). Another 1.9 percentage points are attributable to the trade, transport, and communication sector, a major beneficiary of public investment and public sector demand. In recent years, the public sector’s role in driving growth has grown rapidly: in 2000–2010, public administration, health, and education only accounted for 7 percent of total value-added growth. In the last five years (2016–2020), however, the public sector accounted for more than one-third (35 percent) of growth.

Physical and especially human capital has been used primarily by the public sector. The high absorption of skilled labor by the public sector is a particular area of concern given its scarcity in the country. Accounting for 16 percent of all jobs in STP, the public sector is the country’s main source of formal employment, absorbing more than 70 percent of skilled workers (with post-secondary education) (Figure 2.7) as
well as more than 40 percent of workers with secondary schooling.

**This growth model is not sustainable.** With low tax revenues (12.3 percent of GDP as of 2019), the public sector has been largely financed by ODA and oil-related revenues. This is unsustainable because both those sources of funding are drying up. With the prospects of oil exploration diminishing since 2015, oil revenues may never materialize. As STP’s income levels increase, ODA has declined (Figure 2.8a). In 2019, it was equivalent to 12.3 percent of gross national income (GNI)—high relative to comparator countries (Figure 2.8b)—but a significant decline from a high of 32 percent in 2002. Due to the rapid mobilization of international funds in response to the COVID-19 pandemic, foreign grants in 2020 are estimated to have accounted for 16.2 percent of GDP and 60 percent of revenues—only representing a temporary reprieve from the structural decline in ODA seen in previous years.

**Figure 2.7. Type of employment, by skill level, 2017**

![Type of employment chart](chart)

*Source:* Based on IOF 2017.

*Note:* ‘Low skill’ includes workers who did not reach secondary school, that is, those who have only primary school or no formal schooling.

**Figure 2.8. Net ODA, STP and comparator countries**

a. STP net ODA received, 2000–2020, percentage of GNI

b. Net ODA compared, 2019, percentage of GNI

![Net ODA chart](chart)

*Source:* WDI and GoSTP.

*Note:* Estimates for 2020 are based on the GoSTP and are considered preliminary. AP = Aspirational peers; SP = Structural peers.
2.2 Slow economic transformation and continued reliance on low-productivity activities

This model of ODA-financed public investment has not led to sufficient economic transformation or job creation to generate inclusive growth. The three sectors of fastest growth during 2001–2020 are closely linked to ODA and represent investments in human and physical capital. Education grew at an annualized rate of 8.6 percent; transportation, storage, and communications grew at 6.3 percent; and utilities grew at 5.6 percent. The three slowest growing sectors had less of a direct link to ODA but are essential job generators: agriculture grew at 2.5 percent, accommodations and hotels grew at 2.3 percent, and fisheries at 1.4 percent. Agriculture and fisheries are particularly important sectors for the poorest households, while tourism represents one of its most important areas of growth potential.

Agriculture, forestry, and fishing play a critical role in the economy and are the source of most exports (Box 2.2). But productivity in these primary sectors is low, both relative to other sectors in STP (the 22 percent of workers in the primary sector only generated 9 percent of value added to growth during 2008–2019 [Figure 2.9]) and relative to similar countries (Figure 2.11). In both sectors, there is great potential to increase productivity (Annexes 7 and 8). Agricultural exports, especially products in the cocoa value chain, account for more than 50 percent of exports but primarily in their raw form.12 Most agricultural production is for local consumption, with bananas and coconuts accounting for over half of agricultural GDP in 2016. Fishing is nearly as important as agriculture, representing 40 percent of value added in the primary sector in 2019.13 However, like agriculture, it is primarily destined for domestic consumption. Fish is STP’s primary source of protein (with an estimated annual consumption of 45 kg per capita, STP has among the highest fish consumptions among the coastal countries of Africa). From 2013 to 2019, fishing accounted on average for 4.6 percent of GDP and was the main source of income in coastal areas. Yet, largely because of infrastructure limitations (both to process and export), fish products made up less than 1 percent of exports in 2018.14

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12 Cacao beans accounted for 52 percent of total exports in 2018, while chocolate and cocoa paste, products farther up the value chain, contributed only 1.5 percent. Other agricultural exports like pepper and coffee together only contributed 1.0 percent to total exports.

13 Extractives contribute the remaining 5 percent.

14 This refers to domestic fishery products. Revenue related to the tuna licenses for foreign fleets or their output (which does not enter STP) is not considered as exports.
Figure 2.9. Sectoral distribution of value added and employment share, 2008–2019

<table>
<thead>
<tr>
<th>Contribution to Value Added</th>
<th>Employment Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2019</td>
<td>2017-2019</td>
</tr>
<tr>
<td>Primary</td>
<td>16</td>
</tr>
<tr>
<td>Services</td>
<td>69</td>
</tr>
<tr>
<td>Industry</td>
<td>9</td>
</tr>
</tbody>
</table>


Note: Fisheries are included with agriculture and extractives. Value added per worker in constant 2010 US$.

Figure 2.10. Average cacao yields, 1961–2019, hectogram per hectare (hg/ha)


Figure 2.11. Value added per worker and employment share in the primary sector, 2001–2019


Note: Fisheries are included with agriculture and extractives. Value added per worker in constant 2010 US$.  

Box 2.2. Agriculture and fisheries in STP

Both agriculture and fisheries are dominated by small enterprises, smallholder farmers or artisanal fishers, with the majority working as self-employed or unpaid family workers. About 80 percent of the agricultural workforce is self-employed or unpaid family workers. Monocropping is rare and most of these small farmers produce for market as well as their own consumption. Agricultural production extends beyond agricultural households. Even in urbanized areas, many households grow food in home gardens and raise chickens.

Artisanal fishing, which occurs in areas less than 200 m deep and rarely passes beyond the continental shelf, accounted for an estimated 94 percent of the national fish harvest in 2015 (Sy and Soares 2019). Only about 22 percent of the boats used by artisanal fishermen are motorized (Sy and Soares 2019). The processing infrastructure of artisanal catches is limited, leading to post-harvest losses. About 4.6 percent of the employed workforce is in fishery, and about 90 percent of them are men, though those employed in fish processing are primarily women, known as ‘palaiês’ (World Bank 2019b).

Cooperatives and associations are important in both the agricultural and fishery sectors. Over the past decade, growth in the agribusiness sector and farmer cooperatives has led to improvements in the country’s food production index and has given smallholder farmers the opportunity to reap the benefits of scale economies. Farming cooperatives allow smallholder farmers to access favorable terms in buying inputs and negotiate better prices for their own products, leading to higher productivity and incomes. It is estimated that export-oriented cooperatives produced more than one-quarter of all the cacao beans exported. In the fishery sector, there are approximately 23 fishermen associations and 14 for fishmongers. These associations provide some benefits, such as advocacy with local government and nongovernmental organizations (NGOs), access to credit, training opportunities, and provision of lower cost supplies (Nuno and Matos 2017). A recent Food and Agriculture Organization of the United Nations (FAO) analysis suggests that ineffective commercialization of the fishing sector could be mitigated through cooperatives, especially for salted and dry fish products (FAO and MPFEA 2019).

The fishing sector also includes small-scale industrial fishing as well as foreign tuna fleets. Small-scale commercial fishing, made up of 32 vessels in 2014, is characterized by aging vessels operating further out in STP’s extensive territorial waters (Sy and Soares 2019). Foreign commercial fishing, made up of 28 tuna vessels and six long-liners licensed in 2014–2018, focuses primarily on tuna in STP’s territorial waters, which is one of the most important migration routes for tuna species in the Gulf of Guinea (Sy and Soares 2019). Foreign fleets operate in the EEZ under private licenses or fishing agreements such as the Sustainable Fishing Partnership Agreement (SFPA) with the European Union (EU).

Selling industrial tuna fishing licenses to EU vessels and private ship owners is the main source of sustainable revenue from the fisheries sector; the small domestic fisheries are largely untaxed and operate with almost no restrictions on access (World Bank 2019b). Under SFPA, the government receives about 12 percent of the declared value added from industrial fleets operating in its territorial waters. This revenue, combined with the sale of private licenses to Spanish-owned tuna vessels, reached 0.2 percent of GDP in 2017. Beyond the revenue from licenses, for which monitoring is limited and therefore quota is not properly enforced, STP receives little additional benefit. The lack of monitoring of these licenses poses a significant threat to sustainability (see Section 3.2).
Tourism, already an important source of income and foreign exchange earnings for STP, remains a small part of the economy but represents an important area of growth potential. Developing a high-end tourism sector closely integrated with local agriculture and fisheries is a key component of the country’s development strategy endorsed in the current National Development Plan and supported through the preparation of a Blue Economy National Strategy in 2019 (FAO and MPFEA 2019; MPFEA 2019). The hotel sector is essentially made up of high-end hotels dominated by three foreign-owned groups with room offerings concentrated in the capital region and the island of Príncipe. In 2018, the direct contribution of the hospitality sector to GDP was estimated at 10.6 percent (World Bank 2019b) (Knowledge Gap 2.3). With global tourism robust before the COVID-19 pandemic, the country saw the number of arrivals rise rapidly over the past decade. From 2015 to 2018 alone, international tourist arrivals grew over 30 percent (Figure 2.12). However, STP has a relatively low ratio of tourist arrivals to population, estimated at just 14.5 percent, which indicates substantial room for growth.

Knowledge Gap 2.3. The importance of tourism in the Saotomean economy

What is the domestic value added from tourism in STP? The muted impact of the COVID-19 pandemic on the São Tomé and Príncipe economy suggests that tourism per se may be less important to domestic economic activity than previously thought. A survey carried out by STP’s Central Bank in June 2020 showed that the sectors most associated with tourism were the most adversely affected by the first few months of the pandemic: while about 41 percent of firms had closed temporarily, 80 percent and 65 percent of transport and hospitality firms, respectively, closed temporarily during the same period (Central Bank of STP 2020).

Given that the tourism industry is closely linked with other economic sectors, the effect of the shock to tourism was expected to spill over to the rest of the economy, affecting large and small businesses, farmers, and informal workers, especially women (Montes-Rojas and Barroso 2020). But this did not appear to materialize—national accounts estimates from 2020 show that, despite a reduction of two-thirds in tourist arrivals in 2020, GDP still grew at a rate of 3.2 percent. This is likely due to an increase in ODA to support the response to

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15 These associations constitute a national group called Grupo de Economic Interest of Palaiéis and Artisanal Fishermen (GIEPPA). Source: FAO and MPFEA 2019.
16 As of 2017, the country had just over 50 establishments providing lodging, one-third of which had five or fewer rooms and 90 percent had 20 or fewer rooms. Only three hotels had more than 40 rooms, and these were owned and operated by one of three foreign companies. While the hotels in São Tomé were almost entirely 4-star offerings, those in Príncipe were more exclusive and target the luxury market. Source: Ministério das Finanças, Comércio e da Economia Azul 2018.
17 Initial reports estimate that tourist arrivals could be fewer than 11,000 in 2020 compared to about 34,000 in 2019. //www.noticiasominuto.com/economia/1674357/sao-tome-e-principe-com-queda-de-64-8-na-entrada-de-turistas-em-2020.
the pandemic, including temporary government measures to mitigate the impact of the tourism sector shutdown on jobs and informal workers. However, the lack of more significant spillovers from tourism to the broader economy suggests that fewer synergies have been achieved—for example, if the tourism sector relies heavily on imports, it generates low demand for domestically produced goods.

2.3 HIGH POVERTY BUT NOTABLE IMPROVEMENTS IN HUMAN DEVELOPMENT OUTCOMES

Though poverty remains high, the country’s ODA-financed public investment has supported steady improvements in human development. As of 2010, STP was classified as a medium human development country. Improvements in education, health, and standards of living have pushed STP’s Human Development Index (HDI) rating from 0.45 in 1990 to 0.63 in 2019 (World Bank 2020b). While STP’s improvement in HDI mirrors that of other medium HDI countries, STP still trails the average for SIDS (Figure 2.13a) and, with a rank of 135 out of 189, is behind all peer countries except Comoros (Figure 2.13b). Most notably, at 70.4, life expectancy in STP is about three years lower than in Cabo Verde, four years lower than Belize, and six years above Comoros, its third structural peer. The HDI also suggests a low level of inequality in these outcomes: once adjusted for inequality, STP’s HDI drops by 16.8 percent to 0.52. This is a smaller adjustment than in each of the three structural peers: 22.6 percent for Belize, 22 percent for Cabo Verde (data for 2016), and 45.3 percent for Comoros.

Figure 2.13. Human Development Index in STP and comparators

a. Trends, 1990–2019

<table>
<thead>
<tr>
<th>Year</th>
<th>HDI Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>0.45</td>
</tr>
<tr>
<td>2000</td>
<td>0.52</td>
</tr>
<tr>
<td>2010</td>
<td>0.63</td>
</tr>
<tr>
<td>2019</td>
<td>0.63</td>
</tr>
</tbody>
</table>

b. Index, 2019

<table>
<thead>
<tr>
<th>Country</th>
<th>HDI Value</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>STP</td>
<td>0.63</td>
<td>135</td>
</tr>
<tr>
<td>BLZ</td>
<td>0.75</td>
<td>39</td>
</tr>
<tr>
<td>CPV</td>
<td>0.82</td>
<td>15</td>
</tr>
<tr>
<td>COM</td>
<td>0.74</td>
<td>39</td>
</tr>
<tr>
<td>MDV</td>
<td>0.82</td>
<td>15</td>
</tr>
<tr>
<td>MUS</td>
<td>0.85</td>
<td>5</td>
</tr>
<tr>
<td>LCA</td>
<td>0.75</td>
<td>41</td>
</tr>
<tr>
<td>AP</td>
<td>0.71</td>
<td>46</td>
</tr>
</tbody>
</table>

As of 2010, STP was classified as a medium human development country. Improvements in education, health, and standards of living have pushed STP’s Human Development Index (HDI) rating from 0.45 in 1990 to 0.63 in 2019 (World Bank 2020b). While STP’s improvement in HDI mirrors that of other medium HDI countries, STP still trails the average for SIDS (Figure 2.13a) and, with a rank of 135 out of 189, is behind all peer countries except Comoros (Figure 2.13b). Most notably, at 70.4, life expectancy in STP is about three years lower than in Cabo Verde, four years lower than Belize, and six years above Comoros, its third structural peer. The HDI also suggests a low level of inequality in these outcomes: once adjusted for inequality, STP’s HDI drops by 16.8 percent to 0.52. This is a smaller adjustment than in each of the three structural peers: 22.6 percent for Belize, 22 percent for Cabo Verde (data for 2016), and 45.3 percent for Comoros.

Source: UNDP 2020a.

STP’s large strides in increasing access to basic education in recent decades have resulted in a noticeable generational increase in educational attainment within households across the income distribution.18 While almost half of household heads,

18 Since achieving universal education in the first and second cycles of basic education in 2010, the past decade has seen education coverage at the preprimary and third cycles of basic education (Grades 7–9) expand massively (see Chapter 4).
who are typically older, have less than four years of schooling (including 14 percent with no formal schooling), 72 percent of households contain adult members with more than four years of schooling (Figure 2.14a). This points to the effect of an increase in access to schooling and in the number of years of compulsory education. The highest educational achiever in many households is frequently an adult child or grandchild who has advanced considerably in school compared to his/her parents/grandparents. This is an important increase in proximate literacy as more and more households can now count on literate adult members and members with more years of basic schooling (Basu, Narayan, and Ravallion 2001). This is also the case among the poorest 20 percent: the percentage of household heads who have four years or less of education reaches 64.1 percent in this group, but this drops to 24 percent when considering the adult household member with the highest level of education. In fact, the inequality in educational attainment across households over the welfare quintiles that is observed among household heads nearly disappears for the highest educated adult. Figure 2.14b shows that such intergenerational progress is much lower when it comes to higher education.

**Figure 2.14. Intergenerational mobility in educational attainment**

Despite these gains and the large public investments in infrastructure, *Saotomeans* in the poorest 40 percent have low access to basic services and are disproportionately affected by poor health, nutritional deficits, and exposure to food stress compared to the non-poor. About 60 percent of STP households are deprived of improved sanitation, a much larger share than in peer countries and the LMIC average, while access to electricity and improved drinking water is also limited, surpassing only the Sub-Saharan Africa average (Annexes 5 and 11). Only 22 percent of people in the poorest quintile have access to sanitation, 57 percent to electricity, and 69 percent to improved water, with conditions similar for the rest of the poorest 40 percent (Figure 2.15). But STP is far from being able to provide universal access to

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19 These internationally comparable indicators differ from the results of IOF 2017. Both results are reported here since IOF 2017 allows for disaggregation across welfare quintiles.
these basic services—even among the top 20 percent of welfare distribution, only 80 percent of households have access to water or electricity and just over half to improved sanitation. Food insecurity continues to be a challenge in STP, with about 10 percent of families reporting that at least one of their members had to skip a full day of meals due to lack of money, including 17 percent of the poorest 20 percent. Similar rates were found in 2020, suggesting that food insecurity did not worsen during the COVID-19 pandemic. One factor that may mitigate food insecurity in STP is a high availability of foraged wild foods such as snails—close to 80 percent of households consider foraged foods an important source of food (Carvalho et al. 2015)—as well as the small agricultural production for own consumption that takes place across both rural and urban areas and across the income distribution. The ramifications of food insecurity are severe: particularly when it is chronic, it hampers productivity and child development. Among children under five in STP, 12 percent are stunted, 5 percent are underweight, and 4 percent are wasted (Annex 5).

![Figure 2.15. Percentage of Saotomeans with access to basic services, by welfare quintile, 2017](image)

**Source:** Based on IOF 2017, consumption aggregate (see Annex 3).

**Poverty is most prevalent among households with more children and those who are headed by women.** In 2017, 30 percent of children under 15 years of age lived in households with per capita income below $1.90 per day and 46 percent were in the poorest 40 percent of the population (Figure 2.16). There is a high correlation between the number of children and the family’s poverty status. Families in the poorest quintile have more than double the number of children as families in the top quintile: an average of 2.78 children versus 1.28 (Figure 2.17). A higher number of dependents is associated with a higher risk of poverty; about 60 percent of households with four or more children under 15 are in the poorest 40 percent while just 8 percent are in the upper quintile. While about one-third of all households in STP are headed by women, they account for 42 percent of the poorest 20 percent of households in the country and only 27 percent of the wealthiest 20 percent. Only half the children live with both parents including 32 percent who live only with their mothers (INE and UNICEF 2020).
2.4 Drivers of poverty: limited employment opportunities and low human capital

The slow growth of sectors where STP has a comparative advantage due to its natural capital (agriculture, fisheries, and tourism) suggests that spillovers from public investment to the private sector have been modest. Some 78 percent of Saotomeans identify the lack of jobs as the main driver of poverty in STP, while another 8 percent report low earnings. Indeed, a lack of better opportunities leads most Saotomeans to make their living in low-productivity and subsistence self-employment, including 43 percent of household heads. The slow development of the private sector means the tax base has remained limited, curtailing the ability of the public sector to tap into a more sustainable source of financing (see Section 4.4). While big gains have been made in access to basic services like education, the expansion of government spending has not resulted in a commensurate expansion of social protection, an effective tool for poverty reduction and breaking intergenerational poverty traps.

The majority (56 percent) of households in the poorest 40 percent of the population rely on unskilled self-employment, especially in agriculture and fishing, for their income (Figure 2.18). \(^\text{20}\) Despite recent investments in increasing educational attainment, the low levels of schooling of most workers mean low human capital stock and limited employment opportunities. About 79 percent of the working-age population left school with nine years of schooling or fewer (Basic 3), including 49 percent with six years or fewer (Basic 2) (Figure 2.19). The reliance on unskilled labor is found throughout the income distribution: even among the top quintile, about 40 percent of households are dependent on low-skill self-employment while low-skill wage employment accounts for about 40 percent of households equally important for all income quintiles. Agriculture and fishing are the most important sectors of

\[^{20}\text{About two-thirds of low-skilled self-employment outside of the primary sector is mostly in services, though in the poorest quintile almost half is in the secondary sector (manufacturing, construction).}\]
employment for low-skill wage workers across all quintiles. High-skill wage employment is, as expected, more common for the household main worker in the top 40 percent of the welfare distribution—for this type of occupation, the most common sector of activity across all quintiles is education.

Figure 2.18. Occupation of household main worker by welfare quintile, 2017

Source: Based on IOF 2017, consumption aggregate (see Annex 3).

Note: ‘Main worker’ was identified as the first member of the household who works according to the following order: household head, household spouse, eldest son/daughter, other relative. ‘Low-skill’ means some secondary education or lower while ‘high skill’ refers to secondary education or higher.

Figure 2.19. Educational attainment of the working-age population (15–65) by gender, 2017

Source: Based on IOF 2017, consumption aggregate (see Annex 3).

Note: This figure is based on the population ages 15–65. Basic education in STP comprises three mandatory cycles: Basic 1: Grades 1–4, Basic 2: Grades 5–6, and Basic 3: Grades 7–9. Grades 10–12 correspond to secondary education.

The small formal sector, led by public sector employment, is associated with lower rates of poverty. The poverty headcount rate is almost 20 percentage points lower in households whose head has a formal sector job than in those whose head has informal employment. But the formal sector accounts for less than one in three

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21 Industry and construction are also an important source of low-skill employment across sectors adding up to between 10 and 20 percent in each quintile. Unspecified services that include activities like hairstyling, security, and domestic services, for example, are more important for the poorest while areas such as public administration and financial services are relatively more expressive for the richest quintile.

22 Another 2 percent of households are led by workers who are high-skilled self-employed.
workers and only one-quarter of those younger than 30. Most formal firms in the private sector are micro, small, and medium enterprises (MSMEs): only 15 percent of firms have more than 10 workers, and only about 15 firms have more than 100 workers. More than half (54 percent) of formal workers are in the public sector. Overall formal employment is 2 percentage points higher for men than women, though women are overrepresented in the public sector (See Section 3.3).

Low employment rates, particularly for women and youth, hinder prospects for poverty reduction and contribute to a higher risk of poverty. Controlling for household characteristics, a household whose head is unemployed is 22 percent more likely to be in the bottom 40 of the welfare distribution than a similar household without an unemployed head. This rate is similar for male- and female-headed households and across levels of education. In the poorest quintile, 45 percent of working-age adults (15–65 years old) are inactive, a significantly higher proportion than in the richest quintile (21 percent) (Figure 2.20a). Overall, about 32 percent of working-age people (15–65 years old) who are not enrolled in school, are unemployed (6 percent), or out of the labor force (29 percent) (Figure 2.20b). Women show lower rates of participation in the labor force through all their active years. Youth, particularly in their 20s, are out of the labor force in large numbers, a phenomenon that affects both sexes—50 percent of young women and 20 percent of young men (15–30 years old). They also suffer from higher unemployment rates (12 percent for women and 6 percent for men).

Figure 2.20. Labor force participation, employment, and unemployment

<table>
<thead>
<tr>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Q5</th>
<th>Overall</th>
</tr>
</thead>
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<tr>
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<td></td>
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<td></td>
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<td>90</td>
<td>80</td>
<td>70</td>
<td>60</td>
</tr>
<tr>
<td><strong>Unemployed</strong></td>
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<td>10</td>
<td>20</td>
<td>30</td>
<td>40</td>
</tr>
<tr>
<td><strong>Not in LF</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Based on IOF 2017, consumption aggregate (see Annex 3).

Note: Figure 2.8a considers working-age population (15–65 years old) not in school.

Families living in poverty are trapped in an intergenerational cycle of low education and limited productive opportunities. Those with low education are less likely to be working and, if they are working, more likely to be employed in low-income-generating jobs and thus have higher risk of poverty. This reinforces a vicious cycle: low adult education increases the risk of poverty by reducing employment outcomes, which in

23 Based on preliminary tabulations of the 2021 Economic Census prepared by the World Bank.
24 Authors’ estimates based on a probit regression. See Annex 6.
turn has negative implications for the educational attainment of the next generation, through both lower income and lower household human capital. Recent research finds that in STP one of the most significant factors affecting early childhood development is maternal education (Skoufias and Vinha 2020). About 23 percent of youth—and 29 percent of male youth in poor families—cite a lack of financial means as the reason they are not in school. Nearly one-fifth of poor households with children in school (18.4 percent) indicated that they had to remove their children from school due to their inability to pay education-related costs. A household of five members living on less than $1.90 per day would have to forego a month of food to be able to afford direct school costs (fees, lunchrooms, uniforms, and so on) (World Bank 2020b). Poor household children have an enrollment rate for the third cycle of basic education (Grades 7–9) or higher that is 1.3 times lower compared to children of nonpoor households (and two times lower when it comes to enrollment in Grade 10 or higher). Thus, children who grow up in poverty acquire less human capital, perpetuating the cycle of poverty.

In the context of few economic opportunities, alternative income sources become important policy tools to break intergenerational poverty traps, but low-income families in STP have little access to public transfers or remittances. Social protection programs mitigate negative coping strategies (such as removing children from school or forgoing meals) and enhance social and economic resilience of households, but almost no one in STP reported ‘help from the government’ as a strategy to cope with a shock in 2017 (Figure 2.21). This is in large part due to a limited social safety net based on a strategy defined in 2014 that called for the implementation of three programs: a social pension covering around 2,500 households with the poor elderly; a program targeting poor families with working-age members, covering about 5,000 households; and a public works program (which has not yet been implemented) (Annex 4). As of mid-2020, the total coverage was about 5,000 households—or less than half of the total poor in the country. 25 This is in large part due to insufficient budget allocation—in 2018, the country budgeted less than 0.65 percent of GDP to social safety nets, well below the African regional average of 1.2 percent. Importantly, this changed significantly in 2020, with expenditure rising to 1.3 percent of GDP.

25 Reflecting the consumption-based poverty rate (see Annex 3) that estimates 27 percent of households are poor.
In the absence of a social safety net, the most common strategy reported by Saotomeans in the event of a shock was to rely on one’s own savings closely followed by reducing spending. Close to 30 percent report no strategy in the event of a shock. The 2017 Financial Inclusion Survey (IIF) found that 53 percent of respondents did not save regularly, with almost nine out of ten (86 percent) saying that they had too little income to save. In addition, 72 percent of respondents reported running out of resources for basic living expenses and resorting to loans from family and friends. This coping mechanism corresponds with low resilience, which indicates that many households do not save for emergencies like sudden job loss, death of a family member, or illness.

Remittances, another important tool often found in small island states, are relatively low in STP (Box 2.3) and less common for the poorest 20 percent. Remittances are particularly important for female-headed, single-parent, and elderly-headed households. They are most common in the fourth quintile of the welfare distribution, where 16 percent of households report remittances and, to a lesser degree, in the third and fifth quintiles (14 percent). For recipients, remittances account for a large share of household income (62 percent of household income on average) and they are particularly important for single-parent households (among the households with 90 percent of incomes from remittances, 32 percent are headed by single parents). Reductions in remittances would have an especially large impact on female-headed households, which are more likely to receive remittances, and elderly-headed households, where remittances account for almost half of total income.

The need for a responsive and scalable social protection system was exacerbated in 2020 as the COVID-19 pandemic threatened the employment and well-being of many families. A survey conducted in August 2020, only a few months into the pandemic, showed significant reductions in employment and household income (INE 2020). The percentage of household heads reporting being employed fell from 81 percent in the pre-COVID period to 57 percent five months after the first COVID-19 case in the country, with the highly educated, women, and residents in urban areas being most affected. Family income also suffered significantly: 86 percent of households with income from nonagricultural family businesses, as well as 71 percent of households with income from agriculture, reported a decrease in earnings. As incomes fell, 51 percent of households reported an increase in the price of essential products. A follow-up survey conducted in January 2021 showed a slight improvement from July, though still far from pre-pandemic rates: almost one-third of household heads who were unemployed in July were back at work (INE 2021). In response to the pandemic, STP introduced a temporary program to support informal workers affected by the pandemic and expanded its social protection programs. A further one-month expansion of the social protection program is expected to add an additional 15,000 households in 2021 to help counteract the continued effects of the COVID-19 pandemic.
Box 2.3. International remittances in STP

The flow of remittances to STP has increased over time but remains lower than in many peer countries. From 2008 to 2018, the amount of money remitted to STP from abroad increased almost fourfold, from US$3 million to US$11 million (not adjusted for inflation). In 2020, an estimated US$6 million was remitted to the country, accounting for 1.4 percent of GDP or US$28 per capita. From 2012 to 2014, the amount of money remitted to the country increased sharply, jumping from US$6 million to US$27 million before slowing back down again (Figure 2.22). This corresponds with the spike in emigration noted in Chapter 1.

Relative to the group of structural peers, STP receives less money through remittances in terms of both per capita and percentage of GDP inflows (Figure 2.23). The majority of remittances are sent from Portugal (Figure 2.24), totaling US$11 million in 2017. Importantly, most remittances are transferred informally: more than 50 percent of remittances are sent through a third party, while less than 25 percent are sent through the banking system (World Bank 2019d). This reliance on informal channels may explain why remittances were particularly low in 2020 during the COVID-19 pandemic.

Figure 2.22. STP remittance trends, 2020

Source: KNOMAD.
Note: 2020 information is estimated.

Figure 2.23. Remittance inflows, 2020

Source: KNOMAD.
Note: 2020 data are estimated. Per capita remittance inflows were calculated using the absolute value of remittance inflows (US$) and the population for each country reported in Annex 1.

Figure 2.24. Value of remittances by origin country, 2017 (US$, millions)

Source: KNOMAD Bi-Lateral Remittance Matrix

Note: Per capita remittance inflows were calculated using the absolute value of remittance inflows (US$) and the population for each country reported in Annex 1.
3. CONSTRAINTS AND RISKS TO POVERTY REDUCTION AND ECONOMIC GROWTH

Key messages

STP faces five binding constraints that limit its ability to increase economic growth and foster shared prosperity in the coming years:

- **Low human capital**: Low levels of schooling of earlier generations, gaps in health care, and poor learning outcomes undermine STP’s human capital. Cross-sectoral challenges including water and sanitation, low coverage of social programs, and weak institutional capacity undermine service provision and reduce the efficacy of health and education investments.

- **Small private sector**: Despite its ample opportunities from natural resources endowments, insufficient investment—both by the private and public sectors—hinders private sector development and job creation. Challenges in infrastructure, business climate, and access to finance result in the majority of the private sector focusing on low-productivity activities.

- **A costly yet deficient electricity sector**: STP’s indebted and inefficient electricity sector, which continues to rely primarily on expensive thermal energy, represents a binding constraint to private sector development and service provision. It also represents a key vulnerability for the country as its continued accumulation of arrears undermines STP’s fiscal position.

- **Isolation and low connectivity**: Limited connectivity imposes costly travel and trade logistics internationally and domestically. Príncipe suffers from double isolation. Low digital connection also means less international knowledge sharing.

- **Limited institutional capacity**: Low capacity in the public sector and weak provision of services undermine essential functions of public institutions and fail to maximize the potential development outcomes of high ODA.

In addition, STP has two key vulnerabilities that undermine its resilience and threaten its ability to make sustainable economic and social progress.

- **Climate change and resource mismanagement**: STP experiences drier seasons while fresh water supplies are threatened by climate change. STP also faces a significant risk of overexploitation of natural resources, especially as related to fish stock and sustainable timber.

- **Demographic risks stemming from the low economic inclusion and empowerment of girls and women**: High rate of adolescent pregnancy increases the fertility rate, generating more demographic pressure on economic growth and higher social risks. Low inclusion of women and girls also reduces the effective level of human capital, reducing the potential for economic development and reinforcing poverty traps.

This chapter details binding constraints and vulnerabilities facing São Tomé and Príncipe in its quest to reduce poverty and foster shared prosperity. The binding constraints can be grouped into two categories—immediate constraints and underlying constraints. The immediate two constraints are the country’s low level of human capital and small private sector. These challenges to a large extent stem from a second set of underlying constraints: the country’s indebted electricity sector, its relative isolation and lack of connectivity, and a public sector that suffers from low capacity and inadequate service provision, which also result in a weak business climate that contributes to the small private sector.
STP’s status as a small island state exacerbates its level of risk in the event of a shock since it is less able to diversify—both economically and geographically. Hence, boosting resilience against economic and natural shocks is particularly important. The country’s expensive and inefficient electricity sector is the biggest source of fiscal vulnerability. In addition, there are two areas of vulnerability that stand out as constraints to poverty reduction today and have great potential to undermine the sustainability of actions taken to support poverty reduction and shared prosperity. One vulnerability that is particularly salient for an island country like STP is the natural environment, particularly climate change and the risk of overexploitation of natural resources like forests and fish stock. A key source of social vulnerability is the country’s growing young population with few economic opportunities. This is closely linked to the low inclusion of girls and women, which feeds into high adolescent fertility, lowers human capital accumulation, and reduces economic opportunities for a significant proportion of the population.

### 3.1 Low Human Capital

Despite notable progress in key indicators of health and education, few workers in STP have sufficient schooling for higher productivity jobs. Based on the consultations (Annex 11), the country is in need of a skills upgrade agenda, a challenge made more difficult by the low quality of learning outcomes. Importantly, the health and education sectors suffer from cross-sectoral challenges. While low institutional capacity reduces the effectiveness of public investments in these sectors, essential services like safe drinking water, electricity, and sanitation are still far from universal. Shortages and inequality in access to electricity, safe drinking water, and improved sanitation early in life undercut investments in health care and can contribute to the intergenerational transmission of poverty through increased incidence of malnutrition and other health-related problems among children. STP underperforms particularly in access to electricity and basic sanitation (Chapter 2). The ongoing COVID-19 pandemic poses an additional risk and could have long-term implications for human capital by overwhelming the health sector and temporarily interrupting educations.

STP’s COVID-19 outbreak, one of the worst in per capita terms in Africa, has put a strain on an already weak health care system, but worst case scenarios have been avoided. São Tomé and Príncipe ranked 192 of 195 countries in the 2019 Global Health Security Index (GHSI). Extremely worrisome scores on several components of the GHSI made it clear that STP was ill prepared to prevent and respond to public health emergencies. This has been confirmed by the current pandemic. As of August 10, 2021, there were 2,476 confirmed COVID-19 cases in STP with 37 deaths—a heavy toll in per capita terms (Johns Hopkins University and Medicine 2021). Some of the challenges faced by STP during the pandemic are limited testing capacity, a complete

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26 These include prevention (8.2, average 34.8); detection and reporting (2.7, average 41.9); rapid response (18.7, average 38.4) and health systems (7.2, average 26.4). This concern was confirmed during the Joint External Evaluation of STP’s capacity to comply with the International Health Regulations, which took place in May 2019. The evaluation showed limited capacity in all 19 technical areas, except for vaccination.

absence of laboratory capacity necessary to manage COVID-19 testing, and insufficient equipment for case management, infection prevention, and meeting control standards. Even so, with international support, STP was able to fully vaccinate 5.5 percent of its population by early August, outperforming the less than 2 percent vaccination rate of the Sub-Saharan Africa region. Importantly, surveys suggest that the pandemic has not led to increased food insecurity. School closures and a reduction in household income due to the COVID-19 pandemic could further reduce learning outcomes and increase school dropout rates, though this effect may be smaller than initially feared since STP’s schools were closed for a relatively short period.

STP has made notable gains in access to basic health care and health outcomes, though it continues to trail most of its peers (Annex 5). Prenatal care coverage rate is excellent at 98.7 percent, contributing to a steep decline in the maternal mortality ratio (from 179 per 100,000 live births in 2000 to 130 in 2017), below that of Sub-Saharan Africa and LMICs. Early childhood health has greatly improved. The under-five mortality rate more than halved from 84 per 1,000 live births in 2000 to 30 per 1,000 live births in 2019. However, about 20 percent of children in STP do not receive the recommended vaccinations at the appropriate age. Immunization is crucial in reducing morbidity and mortality, particularly for infants and children. Government efforts to fight malaria have resulted in nearly four out of five households having at least one long-lasting insecticide-treated net (ITN) (INE and UNICEF 2020), reducing cases and deaths by more than 95 percent between 2001 and 2014. Despite these gains, the rates of maternal mortality, under-five mortality, and malaria remain higher in STP than in many of its peer countries. Saotomeans also suffer from neglected tropical diseases, particularly attributed to soil-transmitted helminthiasis, lymphatic filariasis, and schistosomiasis. At the same time, noncommunicable diseases (NCDs) are assuming a significant slice of morbidity and mortality, representing 55

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28 All tests need to be sent outside the country for analysis and confirmation, requiring a minimum five-day turnaround but often taking longer because of logistical limitations in sending and receiving tests due to lockdown measures, which translates to higher costs of testing for suspected COVID-19 cases.
29 Schools in STP were closed between March and May 2020 and then again for two weeks in March 2021, affecting nearly 75,000 students across all levels of education, when alternative means of instruction such as radio and television shows were employed. A survey conducted four months after the first COVID-19 case on the island shows that in 16 percent of households, students were not performing any learning activities during the school’s closing period (COVID-19 telephone survey). For those who were involved in some kind of learning activity, the most popular options were classes on television (79 percent) followed by tutoring from a family relative (10 percent) and classes on the radio (7 percent).
30 The vaccination schedule prescribed by STP’s National Immunization Program recommends that children should be vaccinated against polio, tuberculosis, hepatitis B, measles, and yellow fever, among others, before their first birthday, but compliance has been a challenge. Data from the 2019 MICS show that only 78 percent receive the full immunization coverage as prescribed by their first birthday. While delayed, another 3 percent receive the full set of vaccinations before their second birthday, raising the proportion of fully vaccinated children to 81 percent.
31 Malaria transmission in the country occurs throughout the year, with peaks in November through January and May through June, underscoring the challenge that it presents to the country’s health sector. The government and its partners have carried out a comprehensive range of malaria control interventions over the past decade, among them, universal diagnosis and case management, community education, health system strengthening, and vector control through mass and routine distribution of long-lasting ITNs coupled with indoor residual spraying.
32 Even though the prevalence of lymphatic filariasis has decreased over the last 2.5 decades, its share of total disability-adjusted life years (DALYs) has nearly doubled from 0.23 percent in 1990 to 0.43 percent in 2015. Although the prevalence of schistosomiasis increased from 4,025.60 to 4,124.29 per 100,000 between 1990 and 2015, death from this condition has fallen over 80 percent, but further efforts are warranted. Dengue’s prevalence increased over 1,000 percent, from 1.34 cases of dengue per 100,000 people in 1990 to 15.39 cases per 100,000 in 2015.
percent of all deaths in the country. Recent morbidity data show that roughly 63 percent of all appointments are due to hypertension and diabetes.\textsuperscript{33}

**Widespread intestinal parasitic infections (IPIs) linked to low access to clean water and sanitation contribute to high rates of childhood anemia and exacerbate the effects of malnutrition and undernutrition.** Anemia rates among children under five in STP equal 65 percent, more than 20 percentage points higher than the average rates of its aspirational and structural peers, and increased 3 percentage points between 2010 and 2016 (Annex 5). These high rates of anemia are linked to widespread IPIs, which exacerbate the effects of malnutrition (Liao et al. 2016), leading to poor growth in children, vitamin deficiencies, iron deficiency anemia, and poor educational performance (Liao et al. 2016). The mortality rate attributable to unsafe water and sanitation, estimated at 11 per 100,000 people in STP, is higher than most comparator countries but lower than in Comoros and the LMIC and Sub-Saharan Africa averages.\textsuperscript{34} Malnutrition and undernutrition contribute to increased morbidity and mortality for children and can have lasting consequences on their physical and cognitive development. Among children under five in STP, 12 percent are stunted, 5 percent are underweight, and 4 percent are wasted (INE and UNICEF 2020). Investment in water and sanitation infrastructure, hygiene education, and continued water and sanitation services provision is crucial to ensure that health centers do not become hubs for disease transmission.

**STP has achieved universal access to basic education and made considerable progress in widening access to preschool and secondary education.** Enrollment at all levels of education has increased, especially in preschool, the third cycle of basic education (Grades 7–9), and at the secondary level (Grades 10–12) over the past decade (MEES 2018). Between 2007 and 2017, the preprimary gross enrollment rate (GER) more than tripled from 21.4 percent to 71.4 percent.\textsuperscript{35} For the third cycle of basic education, the GER increased from 68 percent to 114 percent, while at the secondary level the GER increased from 20.3 percent to 62.6 percent, representing an annual growth rate of 19.2 percent. An estimated 93 percent of all students who enter the first year of primary school eventually complete primary education, similar to peer countries. Secondary enrollment is slightly higher than in peer countries, particularly for girls (Figure 3.1). Enrollment in technical and professional education fields barely reaches 6 percent and STP has relatively low tertiary enrollment, which, at 13–14 percent, trails that of Belize and Cabo Verde (though outperforms Comoros) (Figure 3.2).

\textsuperscript{33}With World Health Organization (WHO) support, STP undertook the WHO STEPwise Approach to NCD Risk Factor Surveillance (STEPS) in 2019 and preliminary data show alarming prevalence for cardiovascular risk factor diseases: hypertension - 30.6 percent; hypertensive patients not on medication - 68.6 percent; overweight (BMI ≥ 25 kg/m$^2$) - 45.2 percent; obesity (BMI ≥ 30 kg/m$^2$) - 16.9 percent; blood sugar over 126 mg/dl - 13.1 percent; and 40–69 years old with a 10-year cardiovascular disease (CVD) risk - ≥ 30 percent or with existing CVD - 6.5 percent.

\textsuperscript{34}Annex 10 describes the main challenges and opportunities in the water sector in STP.

\textsuperscript{35}The GER corresponds to a ratio of the number of students enrolled in a given level of education regardless of age by the population of the age group which officially corresponds to that given level of education.
The recent increase in education has significantly changed the schooling profile of younger generations, but the educational level of most of the potential labor force remains low. Nearly one-third of 55–64-year-olds have no formal education while another 43 percent have at most four years of formal education (the earlier level of compulsory schooling) (Figure 3.3). Adult illiteracy rate remains high at 7.2 percent for 25–54-year-olds; 42.5 percent have four or less years of schooling, including 11 percent with no schooling. This contrasts sharply with younger generations: 55 percent of 15–18-year-olds have completed the third cycle of basic education (nine years) (Figure 3.4). The limited educational level of a large share of the working population has significant consequences for the capacity to learn new skills, adoption of new technologies, and business innovation and even to find enough skilled people to teach the new generations.
While there is near gender parity in primary school, boys’ enrollment in secondary school significantly trails that of girls, while girls are less likely to pursue tertiary education. As shown in Figure 3.1, girls significantly surpass boys’ enrollment in secondary school and to a much higher degree than peer countries (secondary GPI is 1.16 in STP while the next highest is Cabo Verde with 1.10, Annex 5). Lower enrollment of boys in secondary school is at least in part due to high repetition rates in primary school, which, as of 2017, exceeded the averages for aspirational and structural peers. Repetition rates are significantly higher among boys than girls (Annex 5). Although students who repeat grades may eventually finish primary school, grade repetition raises the cost of schooling for students and their parents and creates demotivation, increasing the likelihood of school dropout after a certain level. As a result, failing class or dropping out is the most common reason for boys not attending school, as cited by 40 percent of boys and 18 percent of girls ages 6–17 who are not enrolled in school (Figure 3.5). However, this gender imbalance in secondary school does not translate into more girls pursuing tertiary education. Even though in all peer countries women are more likely to be in tertiary education than men, in STP the rates are similarly low across the genders.

![Figure 3.5. Reasons for not attending school, children Ages 6–17, 2017 (%)](source: IOF 2017.)

Learning outcomes are low. In 2016, half of Grade 2 students did not have the expected competencies in mathematics and 40 percent lacked them in writing (Portuguese) while fewer than half of the students in Grade 6 had the expected math skills (Figure 3.6) (MECCC 2016). A full 10 percent of Grade 2 students scored zero on the mathematics section. The competence level deteriorated in 2019, especially in Grade 2 Portuguese and Grade 6 math. High rates of repeat test-takers (36 percent of Grade 9 and 49 percent of Grade 12 students) of the 2017 National Certificate Exam (Exame Nacional, NCE) suggest low learning outcomes for older students persist.

A lack of learning materials and classrooms conducive to learning decreases student attendance and reduces learning outcomes (World Bank and Global Partnership for Education 2020). The most commonly cited challenges among students include the lack of books and teaching materials (29 percent), crowded classrooms (25 percent) and a lack of bathrooms (24 percent) (Figure 3.7). Average classroom size is 39

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36 The Gender Parity Index (GPI) for primary school increased from 0.93 in 1977 to 0.97 in 2017.
students (preschool) and 64 students (basic), with a significant variation by region. Access to toilets is also limited, with one toilet for 98 students at the preschool level and 177 students per toilet in basic education. Most schools have limited sanitation/toilets and provide little, if any, support for menstrual hygiene management, undermining consistent school attendance by girls. A study of efficiency in the education sector finds that having a higher proportion of students with a textbook increases learning significantly in STP. A 10 point increase in the percentage of students with a textbook is associated with an increase of 6.2 percent and 2.8 percent in the average grades in Grades 2 and 4, respectively. A 10 percent decrease in class size is associated with an increase of 1.5 percent in learning outcomes.

**Figure 3.7. Challenges in education cited by students (%)**


Low coverage of social programs limits STP’s capacity to mitigate the effects of severe poverty on childhood health, while reducing poor families’ take-up of health and education. The second most cited reason for school-age children not being in school is that it is too expensive, as cited by more than one-quarter (27 percent) of those in the poorest 40 percent. Child labor, driven by poverty and social acceptance, continues to be relatively common: as of 2019, about 20.7 percent of children ages 5–17 worked, of which 13.9 percent worked under dangerous conditions (INE and UNICEF 2020). Social protection programs support poor families to invest in the human capital of their members throughout the life cycle. Improvements in the provision of health and education services will not translate into better human development outcomes unless families are able to use those services. Social safety nets exist in STP and are expanding, but overall coverage remains low, serving only around 5,000 poor and vulnerable households, that is, less than 25 percent of total poor households in the country (see Chapter 2).
Social norms and low student expectations contribute to high dropout rates and early pregnancy. Adolescence is a period when one’s lifelong aspirations are molded and when social norms and perceptions start to bind for boys and girls (World Bank 2012). As seen in Section 3.3, teenage pregnancy is an important barrier that prevents girls from pursuing their education. With a policy in place that prohibited girls from continuing their studies in the regular education system after the first trimester of pregnancy, 86 percent of pregnant adolescent girls dropped out of school in 2018. Although the policy was overturned in 2020, cultural barriers and social norms continue to impede pregnant girls from continuing their schooling. About 7 percent of girls and boys who are not attending school report that they left because they consider the content useless or not adapted to their necessities, and many more left school due to lack of academic success. Risk behaviors related to alcohol and drug consumption, most common to boys in the case of STP, contribute to lack of academic success and ultimately school dropout. In STP, once youth leave school, there are few opportunities to acquire skills that will serve them in work and life.

The ODA-financed model of public investment that supports the health and education sectors in STP results in inadequate and volatile financing, a binding constraint to an effective human capital strategy. STP’s progress on human development has been highly dependent on foreign assistance with the health and education sectors among the top beneficiaries, but some of these external funds are being reduced. In 2017, public expenditure on the education and health sectors was 6 percent and 5 percent of GDP, respectively, accounting for 19 percent and 15 percent of total public expenditure (see Figures 3.8a and 3.8b). Spending on each of these sectors as a percentage of GDP is above the average for Sub-Saharan Africa countries. The reliance on volatile ODA is an important reason for low budget execution rates for both health and education projects. In 2014, 52 percent of education, culture, and training projects were never executed, and another 30 percent were initiated but not finished. The execution rate for health projects was only slightly higher at 56 percent. Finally, some of this spending is associated with costs incurred in large part due to STP’s small size which reduces opportunities for specialization, thus requiring that some health and education services are done overseas.

The efficiency of public spending is a challenge across all sectors due to limited implementation capacity. In the education sector, for example, higher spending has not translated into better quality (Box 3.1). Teachers’ payroll has accounted for the majority of spending to the detriment of other inputs such as books and school infrastructure. Teachers’ salaries constituted the largest share of the public service wage bill, accounting for 40 percent in 2017. But 44 percent of teachers in the second cycle of basic education and more than half of secondary school teachers taught less than 14 hours of classes per week in 2016–2017 – even as 45 percent of spending is

37 Recently, there have also been significant changes in the donor landscape with the discontinuance of Taiwan, China’s aid (which averaged US$16 million annually) and the significant increase in International Development Association (IDA) financing (current portfolio of US$75 million which is around 50 percent of the country GDP) among others. Careful attention will need to be paid to areas previously largely supported by Taiwan, China particularly the area of human development.

38 As a result, a large share of the health budget is used to cover specialized medical treatments abroad while funding for a program supporting tertiary education abroad has been slashed.
used to cover the cost of overtime or for teaching in crowded classrooms (50 students or more) (Figure 3.9).

**Figure 3.8. Government expenditure in health and education**

a. As percentage of GDP (2010–2017)

![Graph a. As percentage of GDP (2010–2017)](image)

b. As percentage of total government expenditure (2010–2018)

![Graph b. As percentage of total government expenditure (2010–2018)](image)

*Source: STP Boost Database.*

**Figure 3.9. Components of teacher salaries (%)**

![Graph Components of teacher salaries (%)](image)


Similar analyses have not been done for other sectors, an important knowledge gap, particularly in sectors where public investment is highest. A general wage bill analysis across all the public sector is a necessity for better targeted spending. Even without a dedicated study, there is evidence of efficiency losses in the health sector.\(^{39}\) Despite a reasonably well-distributed network of health facilities (albeit with run-down infrastructure in many cases),\(^{40}\) spot checks suggest that the hours of service are not actually being regularly offered and that people are often unable to find the health professionals they look for, a problem that disproportionately affects rural areas. These challenges reflect institutional, and potentially governance, problems in the relevant ministries and agencies that are tasked with planning, monitoring and evaluation, as well as personnel management (see Box 3.2 for an overview of service delivery in the health sector).

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\(^{39}\) No surveys about the efficiency of spending in the health sector have ever been conducted. A report on the national accounts of the health sector for 2016–2018 (Contas Nacionais de Saúde 2016–2018) presents expenditure flows in the health sector and sources of financing.

\(^{40}\) In 2016, 70 percent of the population had access to a health facility in less than an hour of walking. However, there are difficulties in geographical and financial accessibility, more evident for the inhabitants of Príncipe Island who must travel up to 12 hours by boat to get to the Central Hospital in São Tomé (the only place to see a specialist doctor) (Ministério da Saúde 2016).
In recent years, enrollment has grown significantly at all levels of education, leading to an increase in the level of spending, but higher spending has not translated into better quality—the additional expenditure went almost entirely toward increased hiring and remuneration. Policies for teacher management are largely absent, especially with regard to recruitment and deployment. Hiring of teachers is undertaken largely on an ad hoc basis with little consideration for their efficient deployment. Although a new teacher certification process is under way, it has not yet been implemented, resulting in recruitment practices that are neither merit based nor guided by an objective assessment of pedagogical skills or competencies. To fill gaps, the government hires temporary teachers to address overcrowding (driven in part by high repetition rates) without validating their qualifications or ensuring that they meet basic minimum standards. Teachers’ salaries represent the greatest proportion of the education budget (74 percent), followed by subsidies and transfers for tertiary education (20 percent). The high share of spending on overtime pay suggests pressing questions about the use of contracted working time and their assignment criteria in districts and schools.

High spending on salaries leaves limited discretionary resources to make investments in inputs that would lead to improvements in education quality, access, and retention and help guarantee the continuation of basic educational programs. For instance, in December 2018, the school feeding program was discontinued in most schools due to lack of funds. Even though the government continues to charge fees (including for registration, school feeding, and school uniforms), the services are not necessarily provided or will not necessarily continue to be provided. The lower economic growth seen in recent years that led to a stagnation of revenues and a consequent deterioration in public accounts will exacerbate the problem, putting in doubt important structural investments and access to essential inputs.

There are significant efficiency losses in the education system. Better use of resources could, on average, increase by 6.5 percent and 23.8 percent the average learning results in Portuguese of Grade 2 and 4 students, respectively, with the same amount of school supplies. Poor learning outcomes and low internal efficiency can compromise the sustainability of public education in São Tomé. In the face of severe fiscal restrictions, the only way for São Tomé to ‘turn the tide’ is through efficiency gains at all levels.

Box 3.2. Health service delivery in STP

The STP health system comprises the central level and the peripheral level, commonly called the district level. The central level is made up of the Ministry of Health and its key administrative, financial, and technical departments and is focused on secondary care. The district level is the operational level which is focused on delivering primary health care and consists of two hospitals, one on each island, and is organized into seven health districts. Each district includes health centers, which provide inpatient care with a permanent interdisciplinary team; health posts which are extensions of health centers with a permanent nurse and periodic district team visits; and community health posts at the rural community level which provide basic first aid care and ensure health promotion. There are seven health centers, 29 health posts, and 13 community health posts in the country. The public sector provides free health care to all citizens of the country. A private sector also exists, though it is more expensive than its public counterparts. Although public health care is free for citizens, medicine is not free for the majority of the population. However, there are exemptions for a few categories (pregnant women and children under the age of five years).

The health service delivery system relies on its different levels of care to provide services to the population. The Ministry of Finance provides a direct allocation based on historical line-item budgeting to each of the seven districts and in turn, the districts allocate financing to support the delivery of primary care services. The secondary level is care financed by the Ministry of Health which receives an allocation for each of the country’s two hospitals also based on historical line-item budgeting. Tertiary care services are limited in STP and patients often have to travel overseas to access needed specialized treatment which is not available in-country. Figure 3.10 provides an illustrative view of the health service delivery structure.

Figure 3.10. Health service delivery structure in STP

3.2 A SMALL PRIVATE SECTOR

A fundamental challenge in achieving poverty reduction and shared prosperity in STP is a lack of economic opportunities, including for the country’s large youth population who have had access to more schooling but still face a labor market with few jobs. Chapter 2 describes the population’s continued reliance on small-scale low-productivity activities, especially self-employment in agriculture, fishing, and commerce. This is due to a lack of private sector development in large part stemming
from challenges in the investment climate, inadequate provision of essential infrastructure, and poor connectivity.

**Obstacles to growth acceleration in three key sectors—agriculture, fisheries, and tourism—are indicative of the challenges faced by the private sector in general.** These sectors have significant unrealized potential that could be achieved through sustainable leveraging of natural endowments (World Bank 2019b). Table 3.1 presents key challenges faced by each sector across multiple dimensions, synthesizing the sectoral analyses reported in Annexes 7 through 9. These challenges, grouped into six broad categories (transportation, other infrastructure (including electricity), property rights, financial services, climate change, and knowledge and human capital), reflect the proximate causes that hinder the creation of more and better jobs by the private sector. Shortcomings in the port and airport which limit connectivity to international markets are elaborated in Section 3.3. The challenges in property rights and knowledge and human capital are directly related to the provision of public services.

Table 3.1. Challenges faced by enterprises in agriculture, fisheries, and tourism

<table>
<thead>
<tr>
<th>Sector</th>
<th>Agriculture</th>
<th>Fisheries</th>
<th>Tourism</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transportation</strong></td>
<td>Lack of airport cargo certification to ship goods directly to Europe; must go through Angola</td>
<td>A shallow and small port</td>
<td>Lack of connections to major hubs and high cost of airfare; inadequate private and public domestic transport services; infrastructure and security needs of the airport</td>
</tr>
<tr>
<td><strong>Other infrastructure</strong></td>
<td>Limited access to appropriate warehousing and cold storage</td>
<td>Lack of cold storage, iceboxes, ice machines, and other conservation facilities persists all along the value chain; fresh fish exports not feasible; old fleet that lacks access to good quality ice, landing infrastructure</td>
<td>Tourists report lack of quality health care services; issues with water, sanitation, waste management, and food safety; inadequate roads and telecoms</td>
</tr>
<tr>
<td><strong>Access to finance</strong></td>
<td>Shallow agrifinance market, with limited credit and insurance products for farmers and agribusinesses</td>
<td>Low access to finance</td>
<td>Limited acceptance of international credit/debit cards (payment systems)</td>
</tr>
<tr>
<td><strong>Property rights</strong></td>
<td>Lack of clear and formal land titles; fragmented and outdated land cadaster</td>
<td>Lack of structured licensing and monitoring and low enforcement lead to overexploitation</td>
<td>Unclear land governance and administration and weak rule of law deter investment</td>
</tr>
<tr>
<td><strong>Climate change</strong></td>
<td>Declining rainfall/higher risk of drought</td>
<td>Risks of acidification and rising temperatures</td>
<td>Coastal erosion is a threat to tourism</td>
</tr>
<tr>
<td><strong>Institutional and human capital</strong></td>
<td>Lack of export promotion services; limited public goods and services, in particular agricultural research and development (R&amp;D) and animal/plant health services</td>
<td>Lack of coordination with international commission to manage fish stocks; insufficient data to conduct a stock assessment and develop status indicators</td>
<td>Little training in hospitality and services as well as in foreign languages</td>
</tr>
</tbody>
</table>

Lack of reliable electricity
A review of the proximate causes listed in Table 3.1 shows that most stem from insufficient investment—both by the private and public sectors. Provision of public goods and services suffers from inadequate public financing subject to ODA fluctuations as well as inefficiencies in implementation (see Section 3.5). The lack of access to finance and payment systems and weaknesses in the regulations and justice system (slow contract and collateral enforcement which constrains access to credit) are important aspects that hurt business development and private investment. Low access to finance is a challenge, particularly for MSMEs, while regulatory uncertainty (such as approval procedures, property registration, contract enforcement, and insolvency) also discourages larger private investments. International indicators confirm that STP struggles in areas related to institutional capacity and governance such as government effectiveness and regulatory quality (see Figure 3.18 in Section 3.5).

Weaknesses in the justice system result in slow contract and collateral enforcement that constrains access to credit. The Country Economic Memorandum (CEM) identified the following challenges: (a) slow judicial processes due to backlogs and outdated procedural rules, including the Code of Civil Procedures; (b) insufficient human and technical resources; (c) instances of political interference; and (d) limited judicial access to legislation and information. Insolvency proceedings are governed by the Code of Civil Procedures, which is not aligned with modern insolvency legislation. Firm reorganization is not an option and creditors have little ability to participate in legal proceedings.

Figure 3.11. IMF Financial Development Index score (100 = best)

While the business registration process has been simplified in recent years, the process to obtain approvals for foreign investment is cumbersome and can take years, discouraging FDI. Since 2010, successive governments undertook business registration and licensing reforms, which reduced barriers to entry, updated financial sector regulations, reduced court fees, improved regulations for notary and registration services; implemented a single window for trade that simplified import and export procedures; and liberalized visa requirements to increase the number of visitors to the country. The government also reformed the Investment Code to attract foreign investment, but the investment approval process remains overly complex. All investments above EUR 50,000 require an administrative investment contract authorized by the Minister of

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41 CEM Background Note 6 (Hernandez Uriz 2019).
Finance. Favorable opinions from sectoral entities are required to obtain this authorization, a process that can take months. Information is not easily available and anecdotal evidence suggests that there are instances where investors fail to complete the process or give up.

**STP's financial system is underdeveloped, and the country is heavily cash reliant.** STP has consistently performed worse than all its peer countries except for Comoros on the IMF's Financial Development Index, which assesses countries based on the depth, access, and efficiency of their financial markets and institutions (Figure 3.11). Between 2010 and 2017, STP's performance in the Financial Development Index barely changed while the group of aspirational peers recorded improvements. Most of the population is unbanked and cash is the dominant medium of payment, with 73 percent of STP residents receiving their income in cash. According to the Central Bank's 2017 IIF, 39 percent of adults (and only 15 percent of women) had a bank account, 25 percent had formal savings, 12 percent used internet banking, and 7 percent had access to formal credit. STP has high rates of bank branches (25 branches per 100,000 adults compared to the Sub-Saharan Africa average of 5) and ATMs (28 per 100,000 compared to 6 for Sub-Saharan Africa), but they are not well distributed. Only 12 percent are located outside the capital region, although 60 percent of the population lives in those areas. Financial access rates are particularly low outside of the capital area: 19 percent in Lembá, 21 percent in Caué, and 22 percent in Lobata.

**MSMEs' lack of credit histories, limited ability to adhere to documentation and regulatory requirements, and lack of assets hinder their ability to secure formal finance.** Data from the credit registry show that from March 2011 to June 2017, the largest 5 percent of firms received more than half of total corporate credit, while the largest individual borrowers received 29 percent of retail credit. Lending is highly concentrated because banks in STP rely on fixed asset-backed loans and rarely offer loans based on cash flow or start-up financing, nor do they accept moveable assets (such as inventory, equipment, and receivables). Large firms are therefore better able to meet these collateral requirements, while MSMEs cannot offer sufficient collateral on this basis. Even for those who own property, the lack of a modern title system impedes access to finance. In 2017, more than 82 percent of MSMEs did not have a bank account and few could access credit because they did not meet financial system requirements. Only 10 percent of MSMEs that applied for bank financing were approved for a loan. About 72 percent of respondents reported that accessing credit through a bank is difficult and consider their primary source of financing to be the company's or the owner's capital (63 percent) or self-financing (27 percent). Even when MSMEs do have bank accounts, 82 percent keep their income at home, which suggests a low level of financial literacy.

The country's low stock of human capital also has implications for the development of the private sector, not only in providing skilled labor but in developing

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42 The Investment Code describes the procedures to apply and obtain the necessary observations from relevant government entities: the Trade and Investment Promotion Agency (APCI), Customs and Tax Departments, and relevant directorates depending on the sector of activity. Once the contract is signed, the APCI issues a certificate of registration of private investment.

43 World Bank analysis based on the 2017 IIF.
entrepreneurial capacity and business skills. The 2017 IIF found that of the MSMEs surveyed, 86 percent reported not having had any training in the areas in which they operate, 69 percent did no market studies before starting the company and did not prepare periodic balance sheets, and 81 percent do not draw up a budget. Poor planning and preparation in starting the business have led to interruptions to activities for 32 percent of firms. For medium enterprises, organizational management is comparatively better, as evidenced by greater profitability.

3.3 A COSTLY YET DEFICIENT ELECTRICITY SECTOR

The electricity sector is a binding constraint for poverty reduction, reducing private sector growth and undermining public service delivery. Insufficient, expensive, and unreliable energy supply increases the costs of all businesses in the country. It is a key constraint for agro-processing and fisheries, which lacks cold storage and adequate processing facilities at landing docks (World Bank 2019b). Lack of reliable electricity hinders the development of tourism and related services due to the need for private on-site diesel generators while also limiting entrepreneurship since many SMEs do not have access to alternative sources of electricity. It has also slowed the development of STP’s digital and financial infrastructure, as only cash works reliably without electricity. Frequent power outages and poor energy access in some parts of the country further reduce the effectiveness of public administration and service provision, including in key sectors like health and education. The fragility of the sector was highlighted in 2018 when an energy crisis caused primarily by inadequate infrastructure maintenance cut supply by as much as 75 percent (Box 3.3). Unfortunately, in April and May 2021, the country underwent another round of rolling outages as energy production fell to 14 MW (from 19 MW a few months earlier).

Box 3.3. STP’s 2018 energy crisis

The economy was adversely affected by a severe energy crisis in the second half of 2018 with effects lingering until 2019. Energy production capacity dropped from 20 MW to as low as 7 MW as diesel generators systematically failed, as a result of inadequate infrastructure maintenance, combined with poor operational performance of the utility due to high technical and commercial losses and low revenue collection. Empresa de Água e Electricidade (EMAÉ), the state-owned energy utility, responded to the crisis by cutting the electricity supply, leaving parts of the country with energy access for only a few hours a day and other areas without power for several days. The ensuing protests and widespread popular discontent led to roadblocks that constrained fuel distribution in the country. Combined with the electoral period, the energy crisis caused a significant slowdown in economic activity that led to lower tax collection, a scarcity of goods, higher inflation, and lower foreign exchange inflows.

STP was able to bring energy production back to 16 MW in February 2019, enabling it to reduce the blackouts. A contract for procurement of around 10 MW thermal plants financed by British Petroleum was signed in August 2019, which has allowed EMAÉ to meet the full energy demand level and conduct proper maintenance of generators. On the other hand, Empresa Nacional de Combustíveis (ENCO) reduced fuel imports and raised its prices for EMAÉ due to the utility’s growing payment arrears.
Despite the high fiscal cost of the sector, access to electricity is low compared to structural peers, with a significant gap between the rural and urban population. Overall, 71 percent of the population had access to electricity in 2018—77 percent of the urban population and 56 percent of the rural population. These are substantially lower than the electrification rates of STP’s structural peers: 82 percent in Comoros and 94 percent in Cabo Verde (WDI 2019 and Brutinel et al. 2019).

The energy sector, particularly EMAE, suffers from poor planning and inadequate oversight. The country’s installed generation capacity is 26 MW, but only around 20 MW is available. This is insufficient to meet the maximum demand, which is estimated to be less than 21 MW. There is a lack of adequate investment planning, though the least cost development plan (developed in 2018) has attempted to address this by identifying priority investments to meet growing demand for electricity. The least cost development plan identifies priority small hydro sites ranging from 0.5 MW to 10 MW and solar photovoltaic of 2 MW (without storage). There are ongoing studies on renewable energy integration and potentially an update of the least cost development plan. The current plan will change the future energy mix significantly increasing the share of renewable energy from 7.8 percent in 2018 to 51 percent by 2030. Importantly, the improvement of EMAE’s management can also have important implications for water service as EMAE is also the water utility (Annex 10).

The electricity sector is not only a major constraint on STP’s development but also the country’s main source of fiscal vulnerability. While STP is considered to be in debt distress, this rating is largely due to legacy external arrears. Most of the country’s debt is on highly concessional terms and expected to remain manageable with continued access to international financing (Box 3.4). The largest and most problematic risk to STP’s public debt sustainability is the arrears to the fuel supplier, ENCO, by the government and EMAE. These equaled 26.4 percent of GDP in 2019 (Figure 3.13a). The government and ENCO agreed to restructure these arrears in a new highly concession loan (small installments, zero interest or penalties). Continued accumulation of arrears and uncertainty over repayment are the main source of debt vulnerability in STP: EMAE’s continued underperformance threatens STP’s ability to make payments under the agreement without incurring new arrears, which could put the favorable treatment by the creditor at risk.

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44 The Ministry of Planning, Finance, and the Blue Economy (Ministério do Planeamento, Finanças e Economia Azul, MPFEA) oversees EMAE’s financial performance and is responsible for approving tariffs. Although EMAE’s finances are consolidated and published in its annual report, these accounts are not audited by an independent body and accounting methods are opaque. The Ministry of Public Works, Infrastructure, Natural Resources, and Environment (Ministério das Obras Públicas, Infraestrutura, Recursos Naturais e Ambiente, MOPIRNA) oversees EMAE’s technical performance but has few technical resources of its own. The General Regulatory Authority (Autoridade Geral de Regulação, AGER) is the multisector regulatory agency with mandates in the telecommunications, water, post offices, and electricity sectors. In December 2014, it was mandated with regulating the energy sector, including regulating tariff, permitting, and overseeing long-term sector planning. A planning entity was also recently created under MOPIRNA.
Box 3.4. STP’s debt—high but manageable

STP’s debt is high but, with the exception of growing debt associated with the electricity sector, it is not a significant source of vulnerability. Heavily Indebted Poor Countries (HIPC) relief, granted in 2005, reduced the present value of STP’s public debt to 19 percent of GDP in 2008. Public debt has since grown to reach 100 percent in 2019, falling gradually in 2020 (Figure 3.12). Low domestic revenue combined with high public spending and slowing economic growth have been the drivers of this increase. Although STP is currently considered under debt distress by the IMF/World Bank, closer examination shows that the classification is due to irregularities in a small subset of external loans while another subset of loans, related to oil exploration, is disputed. Further annual debt repayments are manageable due to a high degree of concessionality across the debt portfolio. STP’s debt portfolio is detailed in Table A4.2, in Annex 4.

The main causes of the energy sector’s financial problems are high losses, both technical and commercial, and its reliance on expensive thermal capacity. Despite having one of the highest tariffs in the region with an average retail electricity tariff of US$0.22 per kilowatt hour (kWh), EMAE is unable to recover costs (Figure 3.13b) due to a generation mix that is overwhelmingly reliant on inefficient thermal (diesel) capacity and expensive fuel imports—92 percent of generation is thermal versus 8 percent hydroelectric. The sector increases pollution and contributes to climate change generators and continued reliance on kerosene and wood due to lack of reliable electricity. Due to years of underinvestment, generation and network assets are in poor condition and highly vulnerable to failure. Network losses of 37 percent, of which over 20 percent are commercial, also contribute substantially to the national utility’s worsening financial picture. The high commercial losses are largely due to inadequate billing, theft, and fraud. Theft through illegal connections is rationalized by customers. They are reluctant to pay for low-quality and unreliable power supply and hold the false belief that stealing small amounts of electricity will not jeopardize EMAE’s operational performance. Other factors include the public’s lack of trust, perceived lack of fairness, and issues with EMAE’s management, including limited transparency. A management improvement plan has been developed, but its implementation is behind schedule.

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45 Technical losses refer to losses in the transformation or distribution of electricity while commercial losses refer to metering issues and theft.

46 Reliance on generators is extremely costly and thus unsustainable in the long-term. Kerosene is a frequent recourse for lighting in both poor households (42.1 percent) and relatively non-poor households (31.8 percent). In rural areas, 73.9 percent of households remain dependent on firewood or charcoal for cooking (compared to 34.6 percent in urban areas).
Of course, the country faces other economic vulnerabilities, but they are less urgent than the electricity sector’s fiscal implications. Many stem from structural factors common to SIDS, including low diversification of exports and high dependence on imported goods. As of 2019, over 10 percent of STP’s exports consisted of cocoa beans and other cocoa products. Palm oil exports beginning in late 2019 provide for some diversification. This leaves the country highly vulnerable to external shocks from global food and fuel price fluctuations, transport costs, or supply disruptions. Similarly, the country is exposed to external and domestic disruptions to the few sectors generating local employment opportunities and export revenue, such as agribusiness and tourism. But many of its vulnerabilities result from past policy choices, including its dependence on fossil fuels for the energy sector, dependence on grant financing, and debt accumulation. For example, the public sector’s large role in the economy creates high risks related to revenue volatility—specifically, since revenue is concentrated in ODA and a narrow tax base, a decrease in ODA has a direct effect on growth.

Low domestic revenue collections and exports combined with EMAE’s poor performance and reliance on fuel imports cause STP to run large twin fiscal and current account deficits (CADs). STP, as is typical for small island states, is highly reliant on imports and due to undeveloped exports runs a large trade deficit. In 2020, its imports-to-exports ratio (trade in goods) was the highest among comparators with goods imports about eight times larger than goods exports. Though imports are highly diverse, fuel imports for electrify generation play an important role. The CAD, which had improved from a peak of
50 percent of GDP in 2008, rose to around 20 percent in 2016–2019. At the same time, STP runs large fiscal deficits (Figure 3.14) since its domestic revenue collection covers only about half of public expenditures. Tax revenues were estimated at 13.1 percent of GDP in 2020, while the total public expenditures stood at an estimated 24.7 percent of GDP. This leads to excessive reliance on external grants to finance public investment, recurrent expenditures associated with provision of public services, and, of course, deficits. Notably, this is expected to improve in the coming years as STP undertakes reforms to its tax system, including the implementation of a value added tax (VAT) (Section 3.5).

**Due to its reliance on ODA, the long-term financing of these deficits may not be sustainable.** Since ODA, in the form of both grants and concessional loans, provides most of the external financing, STP’s external debt service has remained manageable, limiting vulnerabilities. Countries that rely on capital inflows to finance large and persistent CADs are exposed to external vulnerabilities (sudden stop), though this risk is lower in the case of ODA, which is less sensitive to risk perception or market conditions. Nevertheless, STP has suffered from a reduction in external financing from 2015 to 2019 when grants fell from 12 percent of GDP to 6.6 percent, and external loans disbursements declined from 13 percent of GDP to 2 percent. During 2020, faced with the COVID-19 pandemic, STP’s economic activity, government expenditure, and foreign reserves were supported by generous inflows of external funding. However, foreign aid cannot be counted on indefinitely. Given the current reliance on ODA to provide external financing, decreased aid inflows render the country more vulnerable and threaten macroeconomic fundamentals.

### 3.4 Isolation and Low Connectivity

Low connectivity and isolation, closely related to STP’s island geography, are a cross-cutting challenge that reduces private sector development and access to human capital. Importantly, it can be mitigated through technological upgrading and effective policies. Low connectivity and isolation represent a common problem for small island states as distances from the mainland and across islands increase travel and trade costs. Beyond immediate effects on prices and access to international markets, STP’s isolation also reduces its access to information on best practices and international expertise. Isolation not only increases trade costs but also lowers access to international know-

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47 IMF World Economic Outlook database 2019.
48 Key macroeconomic and financial indicators are reported in Annex 4.
how and the ability to easily import knowledge and expertise. Technological upgrades of basic infrastructure like electricity and transport as well as digital development would reduce many of the costs and barriers associated with the country’s location.

**STP suffers from low integration into global trade and service networks, hampered by its remote location, lack of institutional arrangements (Box 3.5), and low international transport connectivity, especially maritime** (World Bank 2019b). Beyond distance, the primary explanation for STP’s high trade costs is low transport connectivity (both maritime and air) and low logistics performance, particularly in trade facilitation, services, and infrastructure. STP ranked 89 out of 160 countries in the World Bank’s 2018 Logistics Performance Index (LPI), ahead of Comoros, and close to two of its aspirational peers, Maldives and Mauritius, which ranked 86 and 78, respectively. While STP performed relatively well on customs (57th place), it scored poorly on international shipments (121st) and infrastructure (106th) (Figure 3.15). Particularly problematic for an island nation is STP’s low maritime connectivity, ranking 137 out of 163 countries in the Liner Shipping Connectivity Index, tied with Cabo Verde.49 STP’s Air Connectivity Index (ACI) has improved over the past decade but remains similarly low, with the country ranking 205 out of 219 nations as of 2019.50

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**Box 3.5. A lack of institutional arrangements for trade integration**

*São Tomé and Príncipe does not belong to any international or regional trade block or free trade area.* Though an observer to the World Trade Organization (WTO) since 2001, STP is one of a few countries around the world which are not yet members.51 STP products are eligible to access the EU market duty free or with reduced duties as part of the Cotonou Agreement,52 but STP has not finished negotiating the Economic Partnership Agreement (EPA) with the EU—something other small states like Belize, Fiji, Mauritius, Seychelles, and St. Lucia have completed. EPAs go beyond unilateral preferential regimes and include disciplines on nontariff measures, provisions on trade facilitation, and efforts in trade capacity building and to continue deepening the agreement in other areas of reform. In terms of regional integration, STP is among the 44 African nations that signed the agreement of the African Continental Free Trade Area (AfCFTA) in March 2018 in Kigali, Rwanda, and became the 25th African country ratifying the AfCFTA in June 2019. STP is also part of the regional integration projects under the Economic Community of Central African States (ECCAS) of which the archipelago is a full member and an observer member of the Economic and Monetary Community of Central Africa (CEMAC), of which STP has been considering becoming a full member. The country is already economically linked to CEMAC through a trade agreement signed in 2004 under the ongoing negotiation of the EPA with the EU. Although regional trade agreements have the potential to expand STP’s market, the fact that the entire Central Africa region is constrained by its marginal position in global logistics networks and unbalanced trade flows limits possibilities. Also, many prerequisites

49 WDI.
51 The country expressed interest to join the WTO in 2005 and a Working Party was established that year but little progress has been achieved in a possible accession. Comoros applied for membership in 2007 and is further along the process, having concluded several rounds of negotiations.
52 Source: International Trade Administration, US Department of Commerce
needed for a successful integration, such as infrastructure for the transport of goods, have not been considered.

STP lacks online presence, having no one-stop investor portal available on the internet in English or other foreign languages. The country has not participated frequently on high-level investor forums or relevant trade shows. STP is not included in many databases and sources such as the World Economic Forum that are used by investors.


A lack of adequate transportation infrastructure hinders job creation and contributes to the country’s low connectivity. While STP’s geographical isolation and topography explain some of the challenges related to transportation, costs are exacerbated by an inadequate road system within the country and issues with the airport and port. The airport and port are the primary vectors connecting STP physically to the rest of the world, through travel, exports, and imports. The port is shallow (3.5 m), meaning that barges must transship cargo between vessels and the port, a costly and time-consuming process. There is insufficient container storage, including a lack of storage for frozen cargo, and limited equipment for container handling. The port’s location in the city center limits its accessibility and potential for expansion. The airport, meanwhile, suffers primarily from a lack of compliance with international safety norms, which have resulted in a lack of EU security accreditation. STP cannot ship goods directly to Europe by air, its main export destination, having to go through Angola instead, a process that raises costs and travel time.

Distance and low transport connectivity result in São Tomé and Príncipe’s comparatively high trade costs. For example, Spain’s trade costs with STP are 125 percent higher than with Cabo Verde, 82 percent higher than with Mauritius, and 52 percent higher than with Madagascar (World Bank 2019b). These high trade costs not only thwart private sector potential, deterring FDI and private investment, but also increase costs of imported necessities—that is, reducing local income opportunities while increasing prices. STP’s geography exacerbates this challenge, but it can be mitigated through targeted investments and policy reforms.

Lack of adequate transport infrastructure and high transportation costs also limit expansion of the agricultural and fishing sectors in the country, with Príncipe suffering from double isolation due to a lack of affordable air and maritime connections between the two islands. Poorly maintained roads and limited transport services constrain access to markets, inputs, and economic opportunities. STP’s population and economic activities are concentrated along the coastlines, where the primary road network is located. Indicators of transportation accessibility in rural areas are similar to those of peer countries. However, STP’s road infrastructure suffers from chronically poor maintenance. Poor road conditions contribute to a high

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53 The APCI, the investment promotion agency, has a website but only in Portuguese and with limited information.
54 STP ranks among the lowest nations in terms of compliance to Standards and Recommended Practices (SARP) of the International Civil Aviation Organization (ICAO). In terms of implementing SARP, which result in an effective regulatory oversight, STP reached about 18 percent compared to the world average of 60 percent, at its latest audit by ICAO.
55 The Netherlands, Portugal, and Belgium are the top three destinations for exports, accounting for almost two-thirds of all exports.
number of fatal accidents. STP’s road accident mortality rate was 33.1 deaths per 100,000 people in 2015, the highest among peer countries. The island of Príncipe is further isolated: the maritime connection between the islands is irregular and insufficient (it can take between four and twelve hours depending on the boat and the sea conditions) while the air connection depends on favorable weather conditions and is too expensive for most of the population.

**Digital development is an important avenue to help STP overcome some of its small island isolation challenges and to better connect with external partners and clients.** Improved digital connectivity can help boost access to financial services (through mobile money, for example), improve marketing and services connected to international clients and tourists, and improve public sector service delivery. The establishment of a digital identification system would also contribute to strengthen the country’s ‘digital stack’. However, STP is at a nascent stage of harnessing the advantages of digital technologies, lacking both supply of digital services and demand (World Bank 2020a). A National Strategy for Digital Governance has been recently finalized, showing a positive movement toward a more holistic approach and the establishment of an E-Government Network connecting the government institutions.

**STP’s digital infrastructure is constrained by cost, competition, and insufficient power supply** (World Bank 2020a). Fixed broadband penetration stands at about 13.5 percent. About half of the fixed broadband subscribers are businesses, indicating that only about 2 to 3 percent of households have fixed broadband. While fixed broadband prices have gone down in STP since 2013, the high cost of services coupled with limited demand discourages infrastructure investments to broaden access to networks. Internet services are dominated by mobile broadband, which is 3G and reaches 95 percent of the population in major cities, but rural connectivity is sparse. Príncipe’s digital connectivity with São Tomé (which is connected to the international network) is expected to surpass capacity in two to three years and will require the installation of additional internet capacity through connection to the submarine cable network. Unpredictable power outages are an additional barrier to developing a thriving digital economy ecosystem.

**The country’s low levels of internet uptake are due to the high cost of access and limited income levels as well as the absence of local service providers and network unreliability.** Only about 36 percent of the population currently has access to mobile broadband, but their usage is at relatively low levels as indicated by the small quantity of international bandwidth consumed relative to comparable nations (World Bank 2020a). There is no competition yet in the fixed broadband market and little competition in the mobile sector.  

56 The Internet Price Basket of the International Telecommunication Union (ITU) shows that a mobile voice and data plan with 1.5 GB of data per month would cost about 6 percent of monthly income in 2020, while a fixed broadband package costs about 19 percent.  

The government has taken a fragmented approach to designing and deploying digital public platforms, which has delayed the implementation of digital solutions to service delivery challenges. It lags internationally across several e-government surveys related to information and communication technology (ICT): (a) 155 out of 193 countries in the UN EGDI (2020), (b) 179 out of 193 countries in the E-Participation Index (EPI) 2018, and (c) 166 out of 178 countries in the Open Data Inventory (ODIN) 2018. STP has been losing ground compared to most of its peers since 2010 as a result of a worsening score on digital public platforms (Figure 3.16). STP has some digital platforms and services, but the vast majority are analog and manual. There is no central data center in STP and shared digital infrastructure and interoperability are nonexistent, with individual servers and databases scattered across government ministries. Cybersecurity and data protection remain a concern because civil servants rely on public email domains to conduct official government.

3.5 LIMITED INSTITUTIONAL CAPACITY

Capacity constraints cut across all of STP’s development challenges. They are acute in the public sector—so are their implications—limiting the capacity of the government to mobilize and manage resources and apply them effectively toward priority economic and social development objectives, leading to poor outcomes. As seen above, low access and low quality of critical public services and public goods increase business costs, reduce productivity, and feed intergenerational poverty traps. The public sector is also responsible for the electricity and water company, and the airport and port, which limit connectivity and growth potential in agriculture, fisheries, and tourism (Box 3.6). Even though the public sector absorbs a majority of college-educated workers in STP, human resources remain a constraint, likely due to inadequate training and a lack of specialized skills. As in many countries, it can be difficult to distinguish between poor institutional performance due to low capacity and poor governance. The evidence suggests that both are at play in STP.
Box 3.6. STP’s state-owned enterprises

SOEs in agriculture, financial services, and telecommunication were privatized in the 1990s during the country’s move away from the central planning model. Today, the GoSTP still owns 100 percent of four SOEs which have monopolies in (a) water and electricity services (EMAE), (b) the major port (ENAPORT), (c) the national airport (ENASA), and (d) the postal service. The state also holds minority stakes in four other companies: the main telephone, mobile, and internet company; the country’s largest commercial bank; the national airlines; and the oil and fuel importer. 58

The four fully public SOEs have serious problems related to efficiency, financial viability, and transparency that threaten both their operational capacity and the country’s public finances. EMAE in particular has incurred severe losses in recent years (see Section 3.1), while the other three companies have barely broken even. One common challenge faced by the four fully public SOEs is that they are overseen by multiple ministries, complicating coordination. The minority-owned SOEs, however, are managed professionally and have private shareholders. The four SOEs are thinly capitalized, unable to finance themselves, and heavily reliant on the state or international donors for their investments. Due largely to their deteriorating financial performance and inability to run their business autonomously, SOEs have been facing serious operational problems, hampering their ability to provide quality services.


Poor governance, including corruption, likely plays a role in undermining the effectiveness of the public sector. For example, results from the Afrobarometer perception surveys show that about 65 percent (up from 46 percent in 2016) think that the government handles fighting corruption badly and 61 percent (up from 48 percent) perceive corruption as having increased (Afrobarometer 2016 and Afrobarometer 2019). 59

While corruption is recognized as a crime in STP, there is no dedicated anti-corruption body to which cases of alleged public sector corruption can be reported. About 80 percent of the population is concerned about retaliation if they report corruption, higher than the regional average of 70 percent and the proportions in Cabo Verde (62 percent) and Mauritius (73 percent) (Figure 3.17). There is an overall lack of confidence in the

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58 The STP government has a 49 percent stake in the Companhia Sãotomense de Telecomunicações, the country’s provider of landlines and majority of wireless and internet connections; a 48 percent stake in the Banco Internacional de São Tomé e Príncipe, STP’s largest commercial bank, which owned 62 percent of bank assets as of June 2018; a 38 percent stake in the national airline Transportes Aéreos de São Tomé e Príncipe; and a 16 percent stake in the oil and fuel importer and distributor Empresa Nacional de Combustíveis e Óleos.

59 STP outperformed almost two-thirds of countries (ranking 63 of 176 countries) in Transparency International’s 2020 Corruption Perceptions Index.
government’s ability to deal with critical challenges: over 80 percent of the population believes the government handles income gaps badly, 80 percent thinks the government handles job creation badly, and 73 percent considers that the government is failing to improve the living conditions of the poor.

**International indicators confirm that STP struggles in areas related to institutional capacity and governance.** In terms of transparency, accountability and corruption in the public sector STP scores a 3.5 (on a scale of 1 to 6 being the highest) trailing Cabo Verde but outperforming Comoros (Figure 3.18a). In 2020, STP’s score both on public sector management (Figure 3.18a) and efficiency of revenue mobilization were downgraded to 3.0 (on a scale of 1 to 6 being the highest) from 3.1 and 3.5 respectively. STP lags all structural and aspirational peers in property rights (Figure 3.18b).

**STP’s economic development is held back by its low central capacity to plan, formulate policy, coordinate implementation, monitor performance, and course correct.** These and other challenges are well documented in the 2019 Public Financial Management Assessment (PEFA) which, based on 2016–2018 performance, found significant weaknesses across all facets of public financial management (PFM). A total of 31 indicators were assessed. All were rated D or C (where A is the highest score and D is the lowest), and only one indicator (monitoring of arrears) showed improvement since 2013. Planning and budgeting are generally inadequate and do not allow for the budget to be used as a strategic and credible instrument for control and decision-making. The assessment highlighted that annual budgets are not closely linked to the government’s strategic plans and, furthermore, weakness in fiscal discipline means that these budgets are not followed and lead to significant uncontrolled internal debt. Government forecasts of revenues and expenditures, particularly over the medium term, are neither effective nor realistic, so the government does not have all the information needed to put together a credible cash flow plan. This leads to low budget execution, including in the social sectors, and large budget variances in both revenue and expenditure categories, so the budget cannot effectively be used as a tool to discipline the management of STP’s public resources. The PEFA also found that shortcomings in the procurement system undermined service provision, especially in key sectors like education, health, and agriculture, and that efficiency of use of resources was further undermined by a lack of annual achievement targets or objectives as well as a lack of financial reporting. STP also has low levels of budget transparency and information sharing. With a score of 24 out of 100, well below the global average of 45, STP ranks poorly on budget transparency according to the 2019 Open Budget Survey (International Budget Partnership 2019).

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60 Source: GovData360 (World Bank).

61 The assessment considered budget reliability, transparency, management of assets and liabilities, policy-based fiscal strategy and budgeting, predictability and control in the budget execution, accounting and reporting, and external scrutiny and audit.
Low institutional capacity reduces revenue and the effectiveness of existing revenue flows like ODA, but the country’s small tax base and reliance on ODA are themselves challenges to building institutional capacity and government effectiveness. The largest component of government revenues are grants and the main expenditures are payroll and investments, but investment’s share has been declining due to reductions in ODA. STP’s low institutional capacity explains in part the limited internal revenue mobilization and the excessive reliance on ODA. STP has the lowest tax burden among comparator countries, though the country has been adopting and implementing a VAT and excise tax to increase tax revenue (Box 3.7). From a PFM perspective, ODA is a double-edged sword. It finances around a half of public expenditures, mostly for investment. But ODA is highly fragmented—between 2010 and 2016, STP had aid relations with 18 donors, with annual partners fluctuating between 7 and 13 (World Bank 2018c)—which makes for high transaction costs and volatile budgets. Grants are primarily in the form of project support (80 percent of all grants between 2010 and 2016) rather than the ‘easier to absorb’ budget support (World Bank 2018c). It is difficult to plan and execute policy in this kind of environment. It also stymies the alignment of national priorities with the availability of resources and further complicates the management of payments at the treasury, leading to arrears, delays, and high implementation costs.
Box 3.7. Taxation in STP

Tax revenues in STP are low at 12.7 percent of GDP (2016–2020 average), not enough to finance even half of public expenditures of 28.1 percent (2016–2020 average). STP’s 2015 tax burden was equal to 14.3 percent of GDP, lower than Cabo Verde and Mauritius. The 2017 Public Expenditure Review (PER) for STP identified the root causes of fiscal weakness and suggested that the country could increase domestic revenue by 3–5 percentage points of GDP by reforming its tax policy and improving the country’s tax administration. In 2019, 65 percent of tax revenue was generated by indirect taxes, including stamp, import, and consumption taxes; direct taxes levied on personal income, corporate income, and property accounted for just 35 percent of total tax revenue.

A VAT with a rate of 15 percent, approved by the legislature in 2019, is under implementation as of mid-2021, and legislation for a complementary excise tax (for example, tobacco, alcoholic beverages) is expected to be approved in 2021. Introduction and implementation of the VAT system, including its design, the development of necessary IT systems, the hiring and training of necessary staff, the equipping of the tax centers to administer the VAT, and the awareness and communication campaign have been financed and supported by technical assistance from the IMF and the World Bank. Already running behind schedule due in part to the political cycle as well as need for close implementation support, the outbreak of COVID-19 in early 2020 seriously delayed the preparation work. Once the VAT and excise tax are fully implemented, tax revenues as a percentage of GDP are expected to increase from a baseline of 12.7 percent to at least 15 percent.

The supporting political environment is peaceful but unstable, which may play a role in undermining capacity and good governance in the public sector. The multiparty democracy holds elections regularly with a high compliance of political norms. However, elected governments tend to lose confidence rapidly leading to a high rotation of prime ministers, ministers, and other appointed staff. The perceived lack of meritocracy and politicization of the public sector was an issue also brought up by several participants in the consultations undertaken during the preparation of this SCD (Annex 11). These recurrent changes in Government likely contribute to challenges in planning and implementation as well as negative perceptions of effectiveness (Box 3.8).
Box 3.8. STP’s peaceful but unstable politics

STP’s politics are peaceful but unstable: only one government has been able to complete its term over the past 30 years. Since 1991, when multiparty democracy was introduced, legislative and presidential elections in STP have been held regularly and peacefully followed by peaceful transitions of government. Five times, in 1994, 2002, 2006, 2010, and 2014, legislative elections resulted in a peaceful change of government, something rather unique in African politics. However, the inability of governments to remain in office for their full elected term has resulted in political instability—from 1991 to 2014 the country had 18 different governments headed by 14 different prime ministers. In 2018, for the first time, a government was able to complete its term and was replaced after elections by the current administration.

The frequent changes of government have provoked a high turnover of ministers and other senior office holders. This, in turn, has likely debilitated already fragile government institutions. A feeling of lack of continuity in government exists, with occasional episodes of inadequate handover of files during changes of government which block the continuity of policies by incoming governments.

Political parties that do not differ in terms of ideology but rather represent competing interest groups may undermine institutional development and likely contribute to citizens’ negative views of government effectiveness and corruption. Election campaigns have often been dominated by mutual accusations of corruption, mismanagement, and incompetence rather than by issues of political ideology or substance. These facts likely contribute to the negative perceptions citizens have of the government’s work and a failure to understand the government’s programs and policies. The impression that these groups are mostly fighting for power and access to state resources rather than to implement any clear policy program and that they associate in any convenient way can also give rise to suspicions of corruption. Most governments were coalitions with changing compositions, with former political allies becoming rivals and erstwhile adversaries becoming partners.

Source: Seibert 2016.

Knowledge gaps

A key public good that is lacking in STP is information: a lack of data, monitoring, and research undermines the ability to develop well-informed policy and effective implementation. In this regard, STP lacks both administrative data needed for day-to-day public sector functions (such as identification, land registry, tax base) and statistical data necessary for planning and monitoring. Most of the available data are not digitized, making it harder to find and apply effectively. Though most of the civil registry has been digitized in recent years, STP’s current citizen ID system is manual and fragmented; data are inconsistent or missing, resulting in problems of double and fake identities. Land registration is equally problematic—the current land information system is manual, paper-based, and disconnected from other government systems, leading to data that are both outdated and fragmented. Cadastral data are similarly outdated or lacking. Despite commitments to address STP’s economic and social challenges, without statistical evidence to guide the planning, targeting, and

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62 A significant portion of the civil registry was digitized through the SIGA system beginning in 2017, but other records (death and marriage) stopped being digitized after the project closed.
monitoring of reform strategies, the government cannot effectively implement or assess the effectiveness of the strategies.

**Statistical information is either lacking or outdated for fundamental macroeconomic and microeconomic indicators.** STP scores 60 out of 100 in the 2018 Statistical Capacity Indicator. While this is slightly higher than the Sub-Saharan Africa average of 57, it is much lower than many comparator countries. Failure to update national account data makes it impossible to analyze the demand drivers of growth. There are no labor force or enterprise surveys—though, notably, an Economic Census is being finalized in 2021—and data that are available do not follow international standard classifications, such as the International Standard Industrial Classification of All Economic Activities (ISIC), Standard International Trade Classification (SITC), or International Standard Classification of Occupations (ISCO). As a result, there are no studies on labor productivity and limited information to assess challenges to private sector development. On gender, the data gaps are such that, according to the UN Women Data dashboard, only 22.5 percent of indicators needed to monitor sustainable development goals from a gender perspective are available, with many data gaps in areas such as physical and sexual harassment, unemployment, gender pay gaps, and skills. Furthermore, challenges with the 2017 household survey, the main source of socioeconomic information for the country, limit the extent to which poverty and inequality can be accurately understood, as noted in Chapter 2 and Annex 3.

**A thorough mapping of the current structure of government is also missing and could contribute to improve the fit between institutional design and the characteristics of STP as a small island state.** The weak coordination with ODA providers, misalignment of national priorities with budgetary allocations, challenges in treasury management, deficiencies in service delivery, and difficulties that are observed in the management of SOEs all are likely to derive from faulty and incomplete processes, the allocation of functions and responsibilities, or the misallocation (or lack) of human resources. Mapping of the current structure of government could help identify options for improvement, in line with good practices in small island states. This mapping could include (a) the allocation of functions and responsibilities, (b) processes within and across government bodies, (c) civil service capabilities allocation, and (d) mechanisms of reporting and accountability.

**Knowledge gaps and lack of research also impose challenges for private sector development, particularly the sustainable growth of agriculture and fishing.** STP’s last agricultural census was done in 1990. A few household surveys have since tried to capture information on farming communities but have not provided a comprehensive view of the sector. As a result, there is a gap in the information that the government needs to formulate and evaluate policies in relation to climate-smart adaptations, including agricultural yields and productivity, inputs, land use, market prices of agricultural products, and to conduct a stock assessment and develop status indicators. In fishing, after a decade of interruption, FAO support in 2015 made it possible to again collect fisheries data. However, national authorities do no regular research on fisheries, and there are little catch data collected from the national fleet.
Similarly, there is no system to ensure compliance with catch size agreements by foreign fleets as STP lacks the vessels and data collection tools to monitor activities.

3.6 CLIMATE CHANGE AND RESOURCE MISMANAGEMENT

STP’s rich biodiversity, natural environment, and geographical location can be leveraged to boost growth and private sector development through a Blue Economy model centered on high-end ecotourism and fisheries while building resilience in agriculture. But the sustainability of these sectors depends on the extent to which the country can address the effects of climate change and protect against overexploitation. The very characteristics that make the agricultural, fisheries, and tourism sectors potential high-growth sectors for STP also make the country highly vulnerable to weather disturbances and poor resource management. The viability of these sectors depends heavily on what the country chooses to do today to mitigate and adapt to the effects of climate change, steps that would reduce risk and uncertainty for farmers and private investors.

STP’s Nationally Determined Contribution (NDC) to the Paris Agreement on Climate Change reflects the dichotomy of the country’s importance as both a greenhouse gas (GHG) sink and one of the countries most affected by climate change. The proposed NDC adaptation actions target sustainable management of forests and agroforestry systems, illegal deforestation, climate-resilient crop varieties, and coastal protection, among others. The NDC also targets a 24 percent reduction in national GHG emissions, compared to 2005 levels, conditional on external support.63

As a small archipelagic country, STP is vulnerable to natural hazards such as coastal and river flash floods, storms, and droughts—and these are expected to get worse as a consequence of climate change. Even if spared from potentially devastating natural disasters such as earthquakes, tsunamis, volcanic eruptions, or hurricanes, STP is confronted virtually every year by the consequences of small- to medium-impact weather-related events. Frequent flash floods, landslides, coastal erosion, and severe storms threaten lives, infrastructure, and livelihoods. The country’s geography—high mountain with steep slopes in the center and flat areas mainly along the coast—means that both economic activities and assets are concentrated in coastal areas (including the airport and large part of the national primary road network), a pattern common to most small island states.

Climate-related natural hazards mainly occur in coastal areas. With economic activity wedged between eroding shorelines, unstable slopes, and areas of high value for nature conservancy, there is not much space for development in STP. Most of the land suitable for agriculture is already occupied. The airport and a large part of the national primary road network are located along the coast where stronger and increasingly unpredictable spring storms, combined with extensive sand mining, have led to high rates of coastline erosion (about 0.2–1.2 m a year), which exacerbates the threat to the coastal infrastructures. The country’s coastal roads, including the urban road along the waterfront of São Tomé city, are particularly exposed to coastal hazards:

63 The NDC was under review for revisions as of mid-2021 and may be updated.
erosion and inundation from submersion and wave overtopping. Before the GoSTP’s recent initiative with support from the African Development Bank (AfDB) to prepare a national land use plan, development planning did not fully consider disaster risk and climate change. As a result, the location and design of today’s infrastructure are not well adapted to deal with these challenges.

**Impacts of climate change are already being felt in STP in the form of higher climate variability and rising temperatures.** Between 1951 and 2010, average annual temperature in STP increased 1.5°C—faster on the island of Príncipe than on São Tomé (Figure 3.19). As temperatures have risen, annual rainfall has decreased, with mean annual precipitation down by an average of 1.7 mm per year between 1951 and 2010. The first wet season of the year has become drier—seasonal rainfall from March through May has decreased at an average of 10.5 mm per month since 1960 (Figure 3.20). The dry season has become longer but with more extreme precipitation events, occurring now in unprecedented periods. Without steps to expand water sources and storage capacity, keeping fresh water available throughout the year could become increasingly difficult. A comprehensive water security diagnostic, with special emphasis on managing climate risks and its impacts and the links with productive sectors, is necessary given uncertainty of water resource supplies due to climate change and variability and the lack of an integrative picture.

**Climate change is a real threat to the country’s agricultural productivity and the livelihood of the most vulnerable segments of its population.** STP has been listed as the 15th most vulnerable country to climate change and has a low readiness to improve resilience. Changes in precipitation and temperature are a major threat. Climate change could reduce the production of key crops, including cacao, pepper, and maize by at least 30 percent (Tjou-Tam-Sin et al. 2017). Since farming households are more likely to be poor than families with other sources of income, this will have its most severe impact on those who are already the most vulnerable.

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64 Data from the World Bank Climate Change Knowledge Portal (https://climateknowledgeportal.worldbank.org/).
Increased conflicts of use, territorial expansion of traditional fishing activities, and declining catches of some high-value species indicate overfishing. Reduced fish stocks from climate change could lead to further competition and conflict. STP lacks controls aimed at dissuading overexploitation, such as restrictions on the number of fishermen, boats, or catch sizes. The GoSTP sells fishing licenses to foreign countries but does little to monitor and enforce international boats’ catches. Maintaining the level of fish stocks needed to support much of STP’s population will be difficult unless sustainable management policies are enacted and enforced.

Even in the best-case scenarios, climate change will cause major changes to STP’s fisheries, but precisely estimating the effect on production is difficult. Sea-level rise and associated flooding mean that coastal areas need to develop adaptation strategies. Changes in ocean currents, higher temperatures, and acidification will affect the marine and coastal ecosystems on which fish stocks depend, changing both the volume and the distribution of fish stocks. In a high GHG emission scenario, STP’s maximum catch potential (MCP), which estimates the highest possible catch of a species in an ecosystem, could decrease by up to 53 percent by 2050 and up to 82 percent by 2100. Even in a low GHG emission scenario, the country’s MCP is forecast to decrease by up to 32 percent by 2050.

The country also faces significant risk of overexploitation of natural resources. Boosting economic development in STP relies on reliable access to renewable resources, water, trees, and fish stocks, and a pollution-free environment, especially in coastal areas. However, over- or mis-exploitation of those resources threatens the country’s capacity to sustain future development in those areas. Despite its large forest cover, sustainable trees for timber and sustainable sources of aggregates (especially sand) are already too scarce to meet STP’s infrastructure development needs. The lack of alternative construction materials confronts STP with the dilemma of either importing those resources or possibly causing irreversible damage to its natural capital to develop sectors which depend on it. Natural resources, even if protected by regulations, are also threatened by illegal exploitation due to limited capacity for law enforcement, low awareness, and lack of alternatives.

3.7 Demographic risks stemming from the low economic inclusion and empowerment of girls and women

With a young and fast-growing population, and a labor market unable to absorb it, STP faces the risk of rising unemployment, increased frustration, and even social unrest if more economic opportunities cannot be generated (Filmer and Fox 2012). While STP has the potential to collect a demographic dividend, its fast population growth and slow reduction in fertility rates have resulted in a youth bulge that the private sector has been unable to absorb—a challenge that can continue to grow in the coming years if current trends persist. Behind this demographic pressure is high

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66 Representative Concentration Pathway (RCP) 2.6 from the United Nations Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report. The high GHG emission scenario corresponds to RCP 8.5.
fertility, which often begins in adolescence, closely linked to the lack of economic inclusion of women and girls.

Beyond the longer-term demographic risks, high fertility and adolescent pregnancy exacerbate health risks, especially in poorer households, as well as vulnerability to poverty. The TFR, 4.3 births per woman, is higher in STP than in all comparator countries, exceeding the average fertility rate of structural peers by 1.4 children and aspirational peers by 2.7 children (Annex 5). Fertility rates are especially high among poorer families—the TFR is 1.8 times higher among households in the poorest wealth quintile compared to those in the richest quintile. Poorer households have higher adolescent birth rates, higher prevalence of nutritional deficits, higher child mortality, and lower vaccination rates for children ages 12–23 months. The higher number of children in these families will likely perpetuate the health risks and human capital deficits and will contribute to the persistence of vulnerability (Annex 5). STP’s adolescent fertility rate of 95 births per 1,000 women ages 15–19 is also much higher than any of its aspirational peers, which include Mauritius (26 births) and higher than any of its structural peers, including Belize (68 births). Early pregnancy is a significant barrier preventing girls from finishing their education, especially those from poorer households: among girls and young women ages 14–19 not studying, 43 percent cite pregnancy or motherhood as a key reason preventing them from attending school.67

The low economic inclusion of women depresses economic activity, increases poverty, and delays the country’s demographic transition. Women have lower labor force participation rates and higher rates of unemployment. The labor force participation rate is 58.7 percent for women ages 15–65, compared to 87.5 percent for men, while unemployment is nearly double for women (7.9 percent compared to 4.1 percent). Even after controlling for individual characteristics, like age and educational attainment, women are 13 percent less likely to be in the labor force than similar men (Figure 3.21). Married women are at a particular disadvantage, being 32.3 percent more likely to be out of the labor force and 4.8 percent more likely to be unemployed.

Among those who work, there are gender gaps in the quality and vulnerability of employment. Though information on earnings is incomplete, women are most severely underrepresented in the small formal private sector but overrepresented in the public sector and in the most vulnerable types of employment—domestic work and

67 More poor teenage girls (51 percent) report dropping out school due to early pregnancy than those from better-off families (44 percent). Source: Based on IOF 2017.
unpaid work (Table 3.2). Women made up 38 percent of employed Saotomeans in 2017 and were overrepresented in the public sector (where they are 43 percent of workers) as well as in unpaid work (typically in family enterprises, 42 percent) and paid domestic work (45 percent). 68 Self-employment is the major source of employment and is equally important for men and women, especially for those with no schooling or only four years of schooling—half of whom are self-employed.

**Household pressures on their time is an important factor affecting female employment in many countries, resulting in lower economic activity rates, worse employment outcomes, and lower productivity in self-employment, both in agriculture and entrepreneurship** (World Bank and ONE Campaign 2014). Women continue to bear a disproportionate burden of domestic work and childcare, impeding their active participation in the labor force. This likely plays a significant role in depressing the labor force participation rates of married women (see Figure 3.21.) A 2017 report estimated that women spent significantly more time than men on unpaid work, which includes childcare and collecting water and wood for fuel (INPG 2017). Over 96 percent of the population does not have access to clean energy for cooking, relying instead on fuel sources like wood that generate pollution and health risks. Analysis from the IOF data confirms this, showing that women who report being employed still dedicate over 16.8 hours a week to domestic work, caring for dependents and collecting water and fuel, while this number is only 4.2 hours for men. For reference, the average number of work hours in employment is 45.5 per week for men and 39.5 for women.

**Table 3.2. Type of employment, by gender, 2017**

<table>
<thead>
<tr>
<th></th>
<th>% of workers who are female</th>
<th>Distribution by gender</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Share of male workers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Share of female workers</td>
</tr>
<tr>
<td>Dependent workers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public sector/SOEs</td>
<td>43</td>
<td>15</td>
</tr>
<tr>
<td>Private sector, Formal</td>
<td>27</td>
<td>13</td>
</tr>
<tr>
<td>Informal</td>
<td>34</td>
<td>12</td>
</tr>
<tr>
<td>Independent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>With employees</td>
<td>37</td>
<td>7</td>
</tr>
<tr>
<td>Self-employed</td>
<td>37</td>
<td>38</td>
</tr>
<tr>
<td>Family and domestic work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paid</td>
<td>45</td>
<td>6</td>
</tr>
<tr>
<td>Unpaid</td>
<td>42</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>38</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

**Source:** Based on IOF 2017.

**Note:** Dependent workers are salaried or wage workers. The category “Family and domestic work” is mostly made up of household employees both paid, such as domestic workers, and unpaid, as well and employees in family enterprises. About half of domestic workers reported being unpaid which, combined with the phrasing of the question, suggests there may be an overlap with unpaid workers of family enterprises. See Annex 3 regarding adjustments made to the IOF for this analysis.

**Inadequate legal protections as well as norms that reinforce gender biases contribute to lower economic participation of women as well as adolescent pregnancy.** Some forms of sexual exploitation of children, including the growing problem of transactional sex with minors, are not recognized in STP as child sexual

---

68 The category ‘family and domestic work’ is mostly made up of household employees both paid, such as domestic workers, and unpaid, such as employees in family enterprises. About half of domestic workers reported being unpaid which, combined with the phrasing of the question, suggests there may be an overlap with unpaid workers of family enterprises.
exploitation and abuse.\textsuperscript{69} Despite STP’s commitment to justice reform and prioritizing the issues of crime, domestic violence, and the sexual exploitation and abuse of minors, the legal boundaries between sexual relationships with minors and child sexual exploitation and abuse remain ambiguous. In 2019, 5.4 percent of women in their early 20s reported having been in a union before the age of 15 and 28 percent by the age of 18 (MICS 2019), with anecdotal evidence suggesting that most of these unions are with older men. Social norms that reinforce gender biases are prevalent in STP, manifesting in various forms of violence and discrimination against women and girls. Girls are often blamed for sexual exploitation and sexual harassment, including in situations of school-related gender-based violence (GBV) (Parkes et al. 2013; Reilly 2014; Spear 2019).

Figure 3.22. Gender inequality in STP and Cabo Verde, gender gap indicators and perceptions, 2019 (%)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>STP</th>
<th>CBV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opinion: Women and men have equal chance of paying job (agrees or strongly agrees)</td>
<td>90.2</td>
<td>81.3</td>
</tr>
<tr>
<td>Opinion: Women and men have equal chance to earn income (agrees or strongly agrees)</td>
<td>85.3</td>
<td>81.6</td>
</tr>
<tr>
<td>Gender Development Index</td>
<td>90.6</td>
<td>97.4</td>
</tr>
<tr>
<td>Unemployment gender gap</td>
<td>11.7</td>
<td>11.1</td>
</tr>
<tr>
<td>LFP gender gap</td>
<td>12.3</td>
<td>32.6</td>
</tr>
</tbody>
</table>

Source: Based on WDI and Afrobarometer 2019a.

\textbf{A more fundamental challenge to gender equality may lie with local perceptions and norms that do not recognize the extent to which women face additional barriers.} The persistence of gender inequality is rooted in slowly changing social norms and how they affect what happens in the household. Women and men internalize social norms and expectations in ways that affect not only their own aspirations, behaviors, and preferences but also those of their children (World Bank 2012). Despite STP’s relatively low outcomes in gender equity (internationally low gender equity indicators and worse economic outcomes for women; low representation in decision-making, including unmet quotas as presented in Chapter 5), Saotomeans do not recognize the barriers faced by women—85 percent of them agree or strongly agree that women and men have equal rights in owning assets and accessing jobs and have the same income opportunities (Figure 3.22). This appears to indicate a striking disconnect between outcomes and perceptions in STP. In Cabo Verde, for example, perceptions of gender equality are lower than in STP, even though its gender gaps are substantially smaller than STP’s and it scores better on the Gender Development Index. Women in STP also overwhelmingly do not report barriers, with 96 percent reporting that they never

\textsuperscript{69} The minimum age of consensual sex is 18, but local norms only consider sex under age 14 to raise concerns of consent (United States Department of State 2021).
experienced gender-based discrimination. Ingrained beliefs—such as nearly one in five women considering wife-beating acceptable for certain reasons—add to the difficulty of women developing their agency (Knowledge Gap 3.1).

Knowledge Gap 3.1. Prevalence of gender-based violence in STP

Recent survey data about the presence and acceptance of GBV suggest either a dramatic improvement in the last decade or a measurement/comparability issue between different data sources. Data about GBV in STP are available from two main surveys: the 2008/09 Demographic and Health Survey (DHS) and the 2019 Multiple Indicator Cluster Survey (MICS) (Table 3.3).70 Though the surveys are not directly comparable, the questions are similar but significant differences between the 2008/09 DHS and the 2019 MICS are puzzling. The 2008/09 DHS found that one in every three women has been a victim of physical domestic violence since the age of 15 (33 percent), a phenomenon particularly acute among low-income women, of which almost half (46 percent) have suffered of physical domestic violence. Moreover, 21 percent reported having been victims of physical domestic violence in the past 12 months. However, the 2019 MICS found that only 13 percent of women have ever been victims of domestic violence in their lives (16 percent for the poorest quintile) and that only 4 percent of women were victims of domestic violence in the past 12 months—a significant shift in only 10 years.

It is difficult to assess whether these improvements are due to efforts to address GBV in recent years (the 2019 MICS found that only 9 percent of victims sought help), methodological differences (even though the wording of the questions is not exactly the same in the surveys, it is close enough so that results should be comparable), or an issue in data collection. One reason to suspect it does not reflect a change in GBV prevalence is that information on acceptance of GBV has not shifted significantly across the surveys. The 2008/09 DHS found that 20 percent of women think wife beating is acceptable for at least one of five possible reasons while the comparable indicator was 19 percent in 2014 MICS and 18 percent in the 2019 MICS. At the same time, there was an increase in police reports of gender-based violence against both women and girls during the COVID-19 lockdowns (United States Department of State 2021). Further research will be needed to better understand how the GBV situation in STP is shifting.

Table 3.3. Selected GBV indicators, DHS 2008/09 and MICS 2019

<table>
<thead>
<tr>
<th>Question</th>
<th>DHS 2008/09</th>
<th>MICS 2019</th>
<th>%</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Victim of physical domestic violence since the age of 15</td>
<td>33.4</td>
<td>Ever in her life being victim of physical domestic violence</td>
<td>12.5</td>
<td></td>
</tr>
<tr>
<td>Victim of physical domestic violence since the age of 15 - poorest quintile</td>
<td>46.0</td>
<td>Ever in her life being victim of physical domestic violence - poorest quintile</td>
<td>16.0</td>
<td></td>
</tr>
<tr>
<td>Victim of domestic violence in the last 12 months</td>
<td>21.1</td>
<td>Women that suffered violence in past 12 months</td>
<td>3.6</td>
<td></td>
</tr>
<tr>
<td>Women think wife beating is acceptable for at least one of five possible reasons</td>
<td>19.5</td>
<td>Women think wife beating is acceptable for at least one of five possible reasons</td>
<td>17.7</td>
<td></td>
</tr>
</tbody>
</table>

70 The 2014 MICS did not report data on GBV prevalence but rather only about opinions.
Legislation and a lack of law enforcement contribute to the persistence of social exclusion. For example, early marriage is facilitated by statutory law, which, despite a standard minimum age of 18 to marry, allows girls as young as 14 and boys as young as 16 to marry under special circumstances (Kirkwood 2019.). Also, the country still has not made paternity leave available. Such laws are particularly important because rigid social norms dictate the societal roles of women. Laws authorizing paid leave for fathers reinforce the role of men in rearing children and provide them greater incentives to share the burden of childcare. Legal restrictions on women's employment have also contributed to women working in low-quality and vulnerably jobs. However, STP’s 2019 labor code lifted restrictions on the number of hours women could work and allowed women to work in industries/occupations that are often higher paying but were deemed hazardous, such as nighttime work and mining.⁷¹

GBV is a pertinent example of lax enforcement of laws in STP. The country has laws against domestic violence, sexual harassment, and rape, but there are no data on prosecutions or convictions (United States Department of State 2021). Law enforcement, appropriate service provision, and funds are still lacking to safely and properly assist GBV survivors. Similarly, while there are legal and national strategies in place, a lack of implementation means that social exclusion of groups persists, including those with disabilities, women, and sexual orientation and gender identity (SOGI) minority populations (Box 3.9). With regard to sexual and reproductive health, STP has one program (Reproductive Health Program [Programa de Saúde Reprodutiva, PSR]) which incorporates activities related to family planning, prenatal and postnatal care of pregnant women and children in the first 24 months, vaccination, and nutrition. Despite the progress made by the PSR, family planning methods are still not widely used.

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⁷¹ Women workers were largely absent from jobs in extractives, construction, and transport, and even when they are well represented in a sector, they had been concentrated in less prestigious jobs.
Box 3.9. Low enforcement of inclusion regulations in STP extend beyond women’s inclusion

While there are legal and national strategies in place to foster social inclusion, including access for individuals with disabilities and political participation of women, these have not been successfully implemented. Despite efforts in the National Strategy for an inclusive education system (for example, Sim-Sim and Vera Cruz 2010), only half of disabled children under the age of 12 frequent school, with children who experience mobility problems having the lowest rates of school attendance. Similarly, even though the National Assembly adopted a resolution that set a quota for 30 percent of parliamentary seats to be held by women in 2009, the quota has not been enforced, and parliamentary elections in October 2018 in fact reduced women’s representation from 18 percent to 13 percent, with women occupying only 7 of 55 seats. The situation is worse in local governments, especially in rural areas, where it is estimated that women account for only 9 percent of local councilors.

Similarly, while STP’s laws and social attitudes toward SOGI individuals are relatively progressive, scoring above the averages for both aspirational and structural peer groups (Figure 3.23), sexual and gender minorities face widespread discrimination. STP was a signatory to the 2008 UN General Assembly statement supporting LGBT rights, decriminalized homosexuality in 2012, and has also ratified the International Covenants on Civil and Political Rights and on Economic, Social, and Cultural Rights, which prohibits discrimination on the grounds of SOGI. However, STP has not explicitly recognized same-sex marriage, civil unions, or domestic partnerships, and there is still no legal protection against LGBT discrimination in employment, housing, or other social services. The limited research in this area suggests that discrimination against SOGI groups begins at a young age, negatively affecting educational outcomes. Only 40–50 percent of SOGI minority groups have completed lower secondary education, over 25 percentage points less than the national average. While data are scarce, it appears that many SOGI individuals rely on temporary jobs, mostly in tourism or sex work, and are likely overrepresented in the poorest 40 percent of the population. The country lacks any organizations specifically working in support of SOGI populations, ultimately hindering advancement and inclusion. This social exclusion of the SOGI population is likely exacerbated by the country’s unique geography, which results in the lack of exposure to global networks.

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4. PRIORITIES AND ENTRY POINTS

The diagnostics in the earlier chapters identify the challenges undermining growth and poverty reduction in STP. The analytical framework adopted for SCDs revolves around the economic and institutional fundamentals necessary for eradicating poverty and boosting shared prosperity. The diagnostics presented in the previous chapters show that challenges remain:

- **Growth has not been sufficient or inclusive.** Rather, the growth model relies on a combination of foreign-financed public investment and low-productivity economic activities, generating few economic opportunities which have left much of the population dependent on low-skill self-employment and informal activities.

- **The country faces multiple vulnerabilities.** Beyond the vulnerabilities that are heightened due to the country’s smallness, STP faces fiscal risks from its struggling electricity sector, threats from climate change and overexploitation of natural resources, and population pressure stemming from high fertility and low human capital due to the country’s low inclusion of girls and women.

The analysis also makes it clear that STP has strong fundamentals and significant untapped potential. Importantly, STP is a peaceful democracy that does not suffer from high violence or social unrest. The past 20 years have seen significant investments both into human capital and physical capital, building an important base to support economic development. By leveraging its natural endowments and foreign financing more efficiently, STP can spur economic development and generate more and better opportunities for its people. With these opportunities, it can leverage its young population and collect a demographic dividend—a unique chance to spur economic development.

Fundamentally, the analysis shows that reducing poverty requires more and better jobs and economic opportunities—that is, to support STP’s economic development, the key objective should be fostering a jobs-oriented economic transformation. This is a critical next step for STP—to be able to leverage the past 20 years of public investment into a productive private sector. The challenge is to activate the private sector so that it can absorb the human capital of its young and increasingly educated population and invest in productive assets to generate higher value-added activities. Currently, the underdeveloped private sector is unable to absorb the 4,500–5,500 young Saotomeans entering working age each year (MEES 2019). Nearly one-quarter of Saotomeans report that the single most significant challenge facing the country is a lack of good jobs, resulting in unemployment and low income (Figure 4.1). Moreover, only a more vibrant private sector can generate higher productivity growth and the tax revenues that are needed to finance government expenditures in a sustainable manner.
**Figure 4.1. Most important problems for government action, 2019 (%)**

<table>
<thead>
<tr>
<th>Problem</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployment and low income</td>
<td>24</td>
</tr>
<tr>
<td>Electricity and water</td>
<td>18</td>
</tr>
<tr>
<td>Infrastructure / Roads</td>
<td>12</td>
</tr>
<tr>
<td>Health</td>
<td>12</td>
</tr>
<tr>
<td>Poverty, food insecurity</td>
<td>11</td>
</tr>
<tr>
<td>Management of the economy</td>
<td>6</td>
</tr>
<tr>
<td>Education</td>
<td>6</td>
</tr>
</tbody>
</table>

*Source: Afrobarometer 2019a.*

*Note:* ‘Employment and earnings’ combines the original categories wages, incomes and salaries, and unemployment. ‘Poverty and food insecurity’ combines poverty/destitution and food shortage/famine. ‘Electricity and water’ combines electricity and water supply. The following categories were not included in the figure due to their small size (each was 2 percent of less): corruption; crime, and security; housing; services (other); transportation; loans and credit; and political instability and ethnic tensions.

With the key objective of fostering a jobs-oriented economic transformation, the prioritization exercise is based on understanding the relationship between the various constraints and vulnerabilities to pinpoint cross-cutting priority areas. The prioritization process was done over two phases: (a) compilation of existing research and new analysis, including international benchmarking and (b) rounds of discussions and consultations to filter from the myriad challenges to the concrete priority areas.

To the extent possible, this process has relied on data-driven analysis, but the prevalence of data gaps and lack of country-specific analysis mean that it is informative though incomplete (Box 4.1). Consultations have been important in this process, both internally across the various World Bank teams working in STP and externally with key informants across the public and private sectors (Annex 11).

**STP’s small size and low capacity suggest a necessity for strict prioritization**, to focus only on a few cross-cutting policy areas that (a) can feasibly be tackled in the near to midterm and (b) will generate complementarity, tackling multiple constraints to poverty reduction. In moving from constraints and vulnerabilities to policy priorities, three channels were considered: (a) the contribution to jobs, (b) the impact on resilience, and (c) the enhancement of capacity (Figure 4.3). Within each priority and cross-cutting area, the SCD identifies actionable entry points. In this way, the priorities that are identified can generate jobs in a credible way that can be implemented now. The priorities and the cross-cutting areas provide through their actionable entry points a road map to help implement the vision of the government under the existing National Development Plan (Box 4.2) and can serve as an input into the next plan.

**Box 4.1. International benchmarking is useful though incomplete**

International benchmarking highlights some key areas where São Tomé and Príncipe trails its structural peers. While STP outperforms its peers in indicators such as ‘control of corruption’ and ‘expected years of schooling’, it underperforms in indicators related to health outcomes (maternal mortality, sanitation), women’s economic outcomes (ratio of female to male labor force participation and unemployment rate), digital access (mobile...
cellular subscriptions, internet access), rule of law, financial development, and reliance on foreign aid (Figure 4.2). However, significant data gaps both for STP and its structural peers mean that this is an informative though incomplete ranking.

Figure 4.2. Benchmarking against structural peers, 2019

![Chart showing various indicators with Weaker and Stronger categories.](image)

Source: Based on WDI December 2020.

Figure 4.3. Filtering from the constraints and vulnerabilities to the priorities

![Diagram showing filtering constraints and vulnerabilities to priorities.](image)
Box 4.2. STP’s National Plan for Sustainable Development 2020–2024

The National Plan for Sustainable Development (PNDS – Plano Nacional de Desenvolvimento Sustentável) of São Tomé and Príncipe 2020–2024 is an instrument for implementing the government’s program and the international sustainable development agendas. The PNDS implementation is based on a set of 34 thematic programs as well as the cross-cutting General Management and Administration Program. The PNDS has an estimated budget of EUR 1.97 billion and four macro objectives:

1. **Transform São Tomé and Príncipe into a dynamic economy of service delivery**, that is, make STP an economy of excellence services for the African region and the world, namely for the countries of the Atlantic. The strategy will focus on promoting investments to prepare the workforce for an economy based on providing high-quality services and carrying out continuous structural reforms to attract private investment, promote sustainable growth, and build physical and digital connectivity. The sectors identified are tourism, maritime, air, commerce and industry, financial, and digital technology and innovation.

2. **Promote inclusive economic growth and environmental sustainability** which includes tourism development and the diversification of production and exports, with emphasis on the following sectors: fisheries, agriculture, light industry, entrepreneurship and employability, culture and creative industries, business environment, public finance and fiscal policy, infrastructure, energy efficiency and water, and protection of the environment and national ecosystems.

3. **Guarantee social inclusion and protection and reduce social inequalities and regional asymmetries**, including improvement of living conditions and social inclusion, excellence education and vocational training, and integrated health and social protection system.

4. **Strengthen sovereignty, deepen democracy, and renew diplomacy for development.** The objective includes democracy, state reform (including modernization of public administration and of judicial system), and external policy.

**PRIORITY 1: TRANSFORMING ELECTRICITY INTO A GREEN, EFFICIENT, AND EFFECTIVE SECTOR**

Beyond being the country’s key fiscal vulnerability, the electricity sector has challenges that constrain economic development, limiting private sector development as well as service delivery. The lack of reliable electricity directly contributes to the four constraints identified in the SCD—reducing service provision needed for human capital, increasing business costs and limiting opportunities, contributing to connectivity issues including low digital development, and undermining institutional capacity. Energy crises in recent years have led to rolling blackouts in 2018/19 and 2021 and are a major source of citizen dissatisfaction, including some social unrest. Achieving reliable and affordable electricity access is a key factor for the sustainability of growth in the economy as a whole and social stability. In addition, the country’s reliance on thermal energy, particularly generators relying on diesel fuel, increases pollution locally.
To support poverty reduction through jobs-oriented economic transformation, STP needs to reduce its dependence on thermal energy, improve the reliability of the electricity sector, and expand access particularly to hard-to-reach rural communities. In recent years, with support from development partners, the government has developed a least cost power development plan (LCPDP), quality standards, a concession contract, and a management improvement plan for EMAE. Development partners have also provided grants and concessional loans to finance infrastructure for power generation and distribution. Despite the technical and financial support, tangible improvements on the performance of the energy sector have not materialized due to low implementation capacity of the government.

Due to the criticality of energy supply for the economy, long-term reforms focusing on the physical energy infrastructure need to be grounded on effectively solving the short-term challenges the sector faces. A point of departure is to take measures to improve the oversight and capacity of EMAE as well as the identification of immediate actions that will turn around the current situation. Addressing the short-term challenges will build confidence and credibility to face the medium- and long-term agenda. It will also help propel digital development. Though it has an array of tools to improve the energy sector governance, regulation, and EMAE’s management as well as resources for power generation and distribution, it lacks the institutional, managerial, and technical capacity to implement these tools. For this, the country needs continued implementation and technical support from external partners to address the challenges in this integral sector. Importantly, given its dual function as an electricity and a water company, improving EMAE’s performance would also result in improved water service, with potential implications for improving health outcomes.

**Key entry points to support Priority 1**

- **Green energy**: Reduce dependence on oil to generate energy (currently 92 percent) and begin relying more on renewable energies—which are more cost-effective and sustainable. The LCPDP identified the development of the limited hydro potential combined with solar and thermal power plants. The private sector has also shown some interest in the development of solar power generation and, to a lesser extent, biomass generation. While there is good potential for solar generation with storage despite the small size of the overall system, the potential for biomass generation in STP will require additional studies.

- **Reliability of the network**: Currently, the country has an installed capacity of 26 MW to satisfy a demand of about 21 MW, but only about 20 MW is available due to inadequately maintained generators. Poor maintenance of the network leads to high technical losses.

- **Rural access**: As of 2018, about 3 in 10 Sao Toméan households did not have electricity. Given the dispersed nature of São Tomé’s rural population and high poverty levels, major extensions of the grid are unlikely. Off-grid solar and hydropower offer the greatest potential to meet these needs, particularly if financed through private investment. This has the potential to directly reduce poverty and support private sector development in rural areas. For example, innovative off-grid solutions could facilitate access to energy for fishing communities, ensuring better conservation of fisheries products and reducing post-harvest losses.
PRIORITY 2: LEVERAGING NATURAL CAPITAL TO SUPPORT SUSTAINABLE AND INCLUSIVE GROWTH

The second priority is to maintain STP’s pristine environment as an economic growth strategy. STP’s challenges as an isolated small island state can be turned into strengths by leveraging its natural capital to support a Blue Economy approach coupled with resilient agriculture. Through sustainable leveraging of its natural capital, STP can support the development of ‘low volume, high value added’ activities in its key sectors of economic potential—agriculture, fisheries, and tourism. Given high trade and travel costs due to STP’s small scale and geographical isolation, exports targeting the premium markets in these sectors, including ecotourism, are an important area of growth potential for the country. There are important synergies between tourism and other sectors—tourism increases local demand for services and high-quality products, including locally grown food and fish, and generates other sources of revenue (like boat and farm tours). Demand for tourism can in turn benefit from these same links, for example, by linking it to STP’s cocoa value chain, already recognized for its unique identity, sustainable rainforest management, and pristine pesticide-free growing conditions. But a successful ecotourism strategy requires that development in other sectors protects the country’s natural environment (Loureiro and Sarmento 2014). Importantly for poverty reduction, agriculture, fisheries, and tourism are sectors that can absorb relatively low-skilled workers, which means that they can support households that are the most vulnerable to poverty. Still a minimum of basic skills will be needed to absorb the poor and vulnerable, as discussed under Priority 3.

Building a tourism sector integrated into local supply chains is part of STP’s economic growth strategy, but long-lasting effects of the COVID-19 pandemic on this sector cannot be ruled out. While they may decrease the potential for tourism globally, they may also represent an entry point for a relatively undiscovered destination like STP. For example, preferences may shift toward destinations with perceived lower health risks or toward socially responsible and environmentally sustainable tourism. Ecotourism in a small, isolated country might also appeal to this group of travelers. The long-term implications of the pandemic on global tourism will become clearer over the coming months. In the meantime, the focus on agriculture, fisheries, and the broader Blue Economy agenda provides STP with other growth vectors.

To support inclusive growth, STP must act to mitigate the impacts of climate change and improve its resource management. STP’s natural wealth is its comparative advantage—hence, it is important that the country is able to implement sustainable uses and effective monitoring and enforcement mechanisms. Given STP’s vulnerability to climate change, it is also crucial to implement climate-smart adaptations to protect the poorest and vulnerable in STP, especially in agriculture (where the production of essential crops, including cocoa, pepper, and corn, can be reduced by 30 percent) and fishing (where the MCP may fall by as much as 53 percent over the next 30 years) (Chapter 3.2).

A lack of enforcement mechanisms to support sustainable fishing practices heightens these risks by allowing overfishing, putting at risk the viability of this essential sector for food security (fish is the primary source of protein in STP) as well as economic growth potential. There are no rules or monitoring of the number of
vessels or catch sizes for artisanal and small-scale domestic fishing and, though the number of foreign vessels and their catch sizes are technically regulated by a licensing system, there is no system in place to oversee compliance as STP lacks the vessels and data collection tools to monitor and enforce these activities independently. Efforts to increase production of fishery resources will require investment to obtain information on fish stocks to better understand the potential of these resources and accurately estimate how much fishing is sustainable. Thus, improving the capacity of public agencies to collect data on the number of fishing boats and the volumes and types of species being fished is essential.

Key entry points to support Priority 2

- **Rules, monitoring, and enforcement mechanisms for the fishing sector:** These include establishing clear and enforceable rules and regulations for the different segments of the fishery sector. STP already has fishery and fishmonger associations—building up these community associations to manage fishing rights can be an effective mechanism for introducing new management measures, local surveillance, stock enhancement measures, and participatory surveillance and most importantly can change incentives away from maximizing catches. Sharing resources (research and monitoring, control, and surveillance) and exchanging lessons and experiences with neighboring countries could help STP better manage its stock and ecosystem. Improved regional cooperation could also allow STP and other countries to have greater bargaining power in negotiations of fishing agreements (typically with EU-based companies).

- **Climate-smart agriculture (CSA) technologies and practices:** These include the use of water management for irrigation, conservation agriculture, and drought-resistant crops. One of the water management technologies that is particularly relevant for STP is putting in place structures to collect runoff for irrigation purposes. This helps reduce runoff velocity, which mitigates the risk of flooding in low-lying areas and allows for harvesting of rainwater that can be used during the dry season to reduce variability of agricultural yields. Conservation agriculture practices valuable for STP include crop rotation, intercropping, minimum tillage, and use of crop residues as permanent soil cover as this both reduces soil erosion and improves soil moisture retention.

- **Land management:** This includes implementation of a modern land information system, with accurate government records of land tenure and ownership, to encourage investment and access to credit. Not to exacerbate gender disparities, special care must be taken to facilitate registration of land to women, including improving the legal framework to protect women's property rights regardless of their marital status, monitoring disaggregated gender data, and introducing gender-sensitive procedures to promote in practice adequate property registration in joint or sole ownership. Agro-ecological zoning policies to ensure that agricultural land, particularly palm and cocoa plantations, does not encroach on protected areas, reducing deforestation in protected areas.

**PRIORITY 3: REALIZING INDIVIDUAL POTENTIAL AND BUILDING HUMAN CAPITAL THROUGH THE INCLUSION AND EMPOWERMENT OF WOMEN AND YOUTH**

The third priority proposes a cross-sectoral approach to increasing the country's human capital—including early childhood interventions, building the aspirations and
empowerment of youth, and targeting a jobs-oriented skills agenda toward the groups with worst employment outcomes—women and youth. After nearly two decades of significant public investment, low levels of human capital continue to be a constraint for poverty reduction in STP. As the analysis in Sections 3.3 and 4.1 shows, it is not enough to invest in public spending targeting health and education to address this challenge. The economic and social value of investments in human capital are amplified through social inclusion and empowerment. Inclusion and empowerment allow an individual to convert his or her human capital into well-being.

Preparing the future of STP involves focusing on building human capital of its young and growing population from an early age. Early childhood interventions in health and education are an important tool for this. They can also help with the inclusion of women in the labor market who often bear the costs of childcare on their own. One recurring theme from the in-country consultations was the prevalence of single-parent households and absentee fathers as one of challenges contributing to the intergenerational prevalence of poverty and a constraint for poor women and children. The recently implemented Vulnerable Families Program (VFP) social program is being positioned by the GoSTP to ‘restructure’ families not just by reducing poverty but also by promoting positive behaviors including parental education, keeping boys and girls in school, and preventing teenager pregnancy, among other benefits. Moreover, investments in the early years, especially for children from the poorest households, will need to range from clinical approaches delivered through the health system to multisectoral approaches such as deworming through the school system and behavioral actions through community-level engagement.

Building aspirations and creating opportunities for youth, male and female, is essential to building the human capital stock and an inclusive society. Low aspirations may reflect differently for girls and boys. Gender stereotypes, school-related GBV, early sexual and co-living relations between girls and, often, older men, and early union formation affect girls at a crucial stage in their lives leading them to drop out of school. Although there are no studies on girls’ aspirations in STP, work done in other countries suggests that adolescent pregnancy can be a consequence of lack of interest in school and a lack of economic opportunities, leaving motherhood to be seen as a more fulfilling path. Boys are more likely to struggle in school and turn to alcohol or other substances, yet results are similar—high rates of secondary school desertion and low economic engagement. In the case of girls, by avoiding adolescent girls dropping out of school, there is the potential to reduce early adolescent pregnancies. To be effective in the prevention of early pregnancies requires understanding of the societal and behavioral causes leading to early fertility and expanding economic opportunities to offer girls alternatives. In this regard, there is a need to strengthen the operational and technical capacities of the public sector in designing and implementing girls’ empowerment tools that are aligned with country multisectoral policies such as education, early pregnancy prevention, and GBV. For example, providing financial assistance to girls at risk of dropping out of school or who have already dropped out, for example, through the VFP, could be an incentive for staying in or returning to school.
Jobs-oriented skills are an important input to increase inclusion and economic opportunities of youth and women. As a small country with low levels of college attendance, STP lacks specialized skilled labor—as an extreme example, there were only two surgeons active in the country in 2016. But the shortage of skills is broader—informants in the consultations mentioned lack of skilled labor like plumbers and electricians, lack of management and accounting skills (both in the private and public sector), and low financial literacy. They also said that, though reliant on the sea for their livelihood, many fishermen do not know how to swim (posing obvious safety concerns). A perceived lack of relevance of the basic school curriculum to the economic activities in the country leaves many students without the necessary skills and, critically, less interested in school and continuing their education. Some participants suggested rethinking the curriculum to better address the needs of STP specifically, including hands-on training related to agriculture, fishing, and local ecology. Entrepreneurship training would also help economic integration of women who frequently run informal business with no knowledge of business skills and often just repeating what they learned from their mothers and grandmothers.

Key entry points to support Priority 3

- **Early childhood interventions:** While fertility rates remain high, it remains essential to improve childhood and maternal health, including addressing high rates of intestinal worms related to the high rates of anemia, and increase early education so that Saotomeans get a strong start. Early education through preschool and daycare can reduce the childcare burden on mothers and can help increase their economic participation.

- **Aspirations and empowerment of youth:** Actively targeting interventions to address the social and economic pressures that lead to high rates of teenage pregnancy and secondary school desertion among both boys and girls. One option could be adding financial incentives targeted to this age group, possibly through tuition waivers, registration/completion bonuses, or some other targeted bonus to support continued education (for example, making the VFP conditional on school enrollment). Improving the quality and relevance of basic schooling through strengthening the core education curriculum (for those higher-order cognitive skills and socioemotional skills that employers increasingly demand) and organizing on-the-job training for those more specialized skills that private sector employees are best placed to impart can provide a visible link between education and improved employment outcomes.

- **Jobs-oriented skills agenda:** Support technical training, including small enterprise management skills and agricultural skills, to increase the productivity of the self-employed, with a focus on connecting women and youth to economic opportunities.

**PRIORITY 4: CREATING AN ENABLING ENVIRONMENT TO BOOST JOB-GENERATING PRIVATE INVESTMENT**

Priority 4 aims to create the platform needed for the private sector to take advantage of the growth opportunities created through the first three priorities. This priority addresses strategic market elements missing in STP that will support a robust private sector. MSMEs play a pivotal role in STP’s private sector—even after removing the

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73 Ministério da Saúde 2016.
informal sector and considering only the formal sector, only 15 percent of firms have more than 10 workers, and only 15 firms have more than 100 workers.\textsuperscript{74} There are many challenges, but three broad areas stand out both in the analysis and in discussions with representatives of the private sector during the country consultations: a difficult regulatory framework, low financial development, and infrastructure that hinders international trade, especially issues with the airport and port.

The findings of the country consultations add further context to STP’s poor business environment. In general, participants agreed that the private sector is primarily self-employment and microenterprises and that the larger enterprises are almost exclusively foreign owned. Private sector participants also reflected on how public institutions could better support the private sector. One participant reported the impression that the public sector acted like it was competing with the private sector, rather than supporting it. Another repeated sentiment was that public servants did not understand the needs of the private sector and most lacked relevant technical skills, for example, in accounting. In addition, there is an incompatibility between the business reality and the rigidity of the labor code. The lack of appropriate infrastructure was repeatedly identified as a cross-cutting challenge for all economic sectors. While in the long term, large investments are needed, in the near term, marginal improvements of the port and airport are needed to reduce bottlenecks and commercial costs of exportation (Annex 12 presents policy recommendations for short-, medium- and long-term time frames, including for improving the port and airport).

A key challenge is a lack of access to credit and, more broadly, a continued reliance on cash for most activities. Currently, cash dominates as the medium of payment and 73 percent of individuals reported receiving their income in cash. Until mid-2021, international credit cards were only accepted at large hotels, severely limiting tourism expenditure at local businesses.\textsuperscript{75} The expansion of nontraditional financial institutions and services is an opportunity to better serve Saotomeans. The microfinance sector is emerging, in part due to the passage of the microfinance law in 2018. Digital financial services (DFS) are likely to grow in importance with the National Payment Systems Regulation, which establishes rules for mobile money operations by introducing provisions for authorization and conduct of business by payment service providers and assigning oversight to the Central Bank. DFS can reduce transaction costs and help provide access to small accounts for unbanked low-income individuals and MSMEs. Given that 85 percent of the adult population own a mobile phone and mobile money operations are typically supported by a network of agents, challenges in financial inclusion could be greatly reduced.

\textsuperscript{74} Based on preliminary tabulations of the 2021 Economic Census prepared by the World Bank.

\textsuperscript{75} The government announced in April 2021 that international Visa credit and debit cards were now being accepted in selection locations in STP and that Mastercard would be accepted beginning in the second half of the year. Source: Lusa News Agency, April 28, 2021.
While the proposed entry points are critical for creating an enabling environment, a key issue remains—where will private investment come from? National savings rates are low, few households have savings, and public investment is largely financed from external financing. Besides access to finance, MSMEs will need private capital. Some countries create funds, often with external help. FDI could play an important role in supporting this need, particularly in employment-intensive tourism or export-oriented agriculture sectors. This is an important entry point for IFC and MIGA. IFC has the capacity to bring capital directly at the project finance level (sponsored locally or as part of FDI) which can foster the development of various sectors, to include agribusiness and banking. MIGA could potentially leverage its capital optimization product to boost access and availability of finance for SMEs. However, this would require improvements in the domestic investment climate.

**CROSS-CUTTING OPPORTUNITY 1: IMPROVING INSTITUTIONAL CAPACITY TO DELIVER CRITICAL SERVICES IN A CONSTRAINED FISCAL ENVIRONMENT**

While low institutional capacity is a common challenge in LMICs, addressing this challenge is especially important in small countries like STP where the lack of economies of scale reduces the potential for private sector solutions. A common theme throughout the vulnerabilities and the constraints identified in this SCD is the lack of capacity to effectively deliver essential public services and goods. This issue touches on poor human capital outcomes (through sectors like education, health,

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76 Air traffic can be significantly increased to 500,000 passengers per year, a fivefold of today’s traffic, without any major extension of the runway. However, there is a need to extend the existing terminal capacity and enhance aviation safety including (a) development of runway safety end areas (RESA) or 300 m runway extension, (b) installation of an updated non-precision instrument approach (very high frequency omni-directional range, VOR), automatic dependent surveillance–broadcast (ADS-B) receiver, and very high frequency (VHF) communication, and (c) repair of security wall and fence, X-ray machine.
water), social inclusion (through ineffective implementation of measures), vulnerability to climate change and resource management (through ineffective enforcement), and source of high business costs (inadequate provision of electricity, airport, and port services). Improvements in institutional capacity can support diversifying the economy, broadening the tax base, increasing human capital, and creating the buffers to manage uncertainty.

**Improving the performance of the public sector is also important for increasing inclusion and building confidence among the population, many of whom feel that the government is not responsive to their needs and is not able to address the needs of the country.** These perceptions reflect not only low capacity but also experiences of exclusion noted repeatedly in the consultations. Within the public sector itself there is a perceived lack of meritocracy and excessive politicization as well as marginalization arising from a lack of coordination across ministries. Some private sector representatives felt that the public sector sees the private sector as competition rather than partners and clients. The regional government of Príncipe similarly reflected a general impression of being overlooked and not prioritized.

**STP’s significant public spending needs and high fixed costs of many public services—characteristics of most SIDS—make it paramount that STP increase efficiency of spending as well as its tax revenues to achieve fiscal sustainability.** As ODA and FDI inflows have fallen and are projected to continue falling in the near term even as the need for public investment will continue—half of the fast-growing population is under 18 years of age—being able to ‘do more with less’ becomes increasingly important. The wage bill—a major and growing component of the budget—needs to be better understood to identify cost-savings, for example, through a better allocation of human resources, a simplification of processes, and organizational structure to fit the size of the country and availability of human resources. The public sector absorbs the majority of skilled workers in the country—greater efficiency can liberate human resources for investment, growth, and employment in the private sector. However, given the need to invest in public infrastructure and human capital and the structurally higher cost of many public services in a remote, small island setting, expenditure reductions alone cannot ensure fiscal sustainability, making a more robust tax system a priority. This priority is already being addressed, particularly through the implementation of a VAT planned for 2021.

**Improving coordination, both internally within the public sector and externally with international partners, is another area that was frequently cited during the consultations.** Key priorities like the electricity company and the Blue Economy agenda are hampered in part due to a lack of coordination across the various ministries and public agencies involved. As of 2020, STP had 13 ministries and three secretariates. The Blue Economy agenda, for example, is owned by the Ministry of Finance (aptly named the Ministry of Planning, Finance, and Blue Economy), but there is also the Ministry of Agriculture, Fisheries, and Rural Development; the Ministry of Infrastructure and Natural Resources; and the autonomous Maritime and Harbor Institute (IMAP) and the Coast Guard. Coordination could be done more effectively by combining these functions under fewer authorities, for example the Ministry of the Sea in Cabo Verde. Given the importance of ODA for STP’s development and the extent to
which this ODA is fragmented, improving the coordination with donors and multilateral institutions is also essential. Participants were unanimous that this coordination needs to be spearheaded by the government to target ODA to the country’s own development priorities.\footnote{Donors could also consider how to reduce the strain on the government by, for example, simplifying processes and providing extra support during the design and implementation phases and combining finance to reduce the number of individual projects that need to be implemented when possible.} When done collaboratively and with wide national ownership, national development plans can be ‘part of a process of communicating and negotiating national ideals with internal and external audiences’ (Chimhowu, Hulme, and Munro 2019). In this way, the promotion of a national dialogue towards the preparation of a national development plan is an opportunity to foster better coordination, both internally within the government as well as with development partners. Building up the capacity of the centralized implementation unit (Agência Fiduciária de Administração de Projectos, AFAP) could lead to improved ODA outcomes. Given the number and range of projects, AFAP’s stretched capacity can be a bottleneck during implementation stages.

### Key entry points to support cross-cutting opportunity 1:

- **Improve PFM:** Key to improving efficiency of spending is addressing fundamental challenges in PFM, including budget design and monitoring, and linking expenditures to cash flow to reduce arrears.

- **Increase capacity of AFAP:** This is the implementation unit for World Bank investment projects and an increasing number of AfDB and other partner projects. Donors can support it by providing more technical support (in areas like financial management, procurement, safeguards, and monitoring) and simplifying implementation processes when possible. Additionally, technical capacity should also be built at the various project beneficiary agencies to ensure ownership and smooth implementation.

- **Increase internal and donor coordination:** Fostering a national dialogue to prepare an updated national development plan is an important opportunity to foster better coordination, both internally within the government as well as with development partners. Actively seek to simplify government coordination by reducing the fragmentation of key policy areas across ministries and agencies. Implement regular meetings with all key donors to coordinate ODA and target to policy priorities.

Several knowledge gaps, cited throughout this study, would need to be filled to better assess STP’s progresses and challenges (Table 4.1). One that needs to be prioritized is a better understanding of the efficiency of public investment and implementation challenges. The study cited in Section 3.1 on the efficiency of education spending is an important, though rare, analysis of the extent to which the quality of public investments could be improved. Thorough analyses of public sector spending in the social and infrastructure sectors, in particular, are needed to develop strategies to increase the effectiveness of public investments. This includes a closer examination of hiring and payroll practices in the public sector.
Table 4.1. Knowledge gaps cited in this SCD

<table>
<thead>
<tr>
<th>Knowledge gaps</th>
<th>Notes</th>
</tr>
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<tbody>
<tr>
<td>Wage bill study of the public sector</td>
<td>Supports cross-cutting area 1</td>
</tr>
<tr>
<td>Sectoral studies on efficiency of public investment</td>
<td>Supports cross-cutting area 1</td>
</tr>
<tr>
<td>Administrative data including a consistent ID and land registration systems</td>
<td>Supports Priority 2 and cross-cutting area 1; Urban land registration system is being implemented through World Bank project</td>
</tr>
<tr>
<td>Poverty and inequality estimates</td>
<td>Next survey planned post population census (in 2023); in the meantime, some estimates are being developed using satellite data</td>
</tr>
<tr>
<td>Measuring GDP in STP</td>
<td>Some improvements to national accounts methodology and data inputs being undertaken in 2021 and 2022</td>
</tr>
<tr>
<td>The importance of tourism in the Saotomean economy</td>
<td>Might be informed through the recent Economic Census</td>
</tr>
<tr>
<td>Lack of labor force and enterprise surveys</td>
<td>Economic Census is being completed in 2021 (INE)</td>
</tr>
<tr>
<td>Lack of research and data supporting primary sector development, including an up-to-date agricultural census and regular research on fisheries</td>
<td>Supports Priority 2; Agricultural census is planned for 2022 (INE)</td>
</tr>
<tr>
<td>Prevalence of GBV in STP</td>
<td></td>
</tr>
<tr>
<td>Understanding recent migration trends</td>
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</table>

CROSS-CUTTING OPPORTUNITY 2: INCLUSIVE DIGITAL DEVELOPMENT

Digital technologies are a significant opportunity to directly address STP’s small island state connectivity challenges while also improving service delivery and supporting several of the priority areas (Box 5.3). If done in an inclusive manner, digital development can also directly reduce poverty and boost shared prosperity. These outcomes are generated to the extent that digital technology adoption results in more jobs and higher incomes for lower-skilled workers, higher returns to MSMEs, and improved service delivery and more affordable goods and services for poorer households, including health and education services. Many digital technologies, such as financial services for the unbanked and microentrepreneurs, voice and video-based services for informal farms and firms, and user-friendly applications that do not require reading and numeracy skills are particularly well suited for STP, a country with low levels of formal schooling (Choi et al. 2020). These technologies can serve to enhance the productivity of low-skilled workers.

Box 4.3. Areas of opportunity supported by digital development are broad and cross-cutting

Health care: Remote diagnostics and telemedicine are estimated to be able to address 80 percent of health issues of patients in rural parts of the Sub-Saharan Africa region (Manyika et al. 2013). Access to proper patient electronic records could allow for the use and scale-up of mobile health services, allowing the few health practitioners in the country (or even internationally) to work with clients from remote locations, review clients’ medical histories, and write prescriptions.

Education: Adaptive learning software is expected to increasingly replace textbooks and other learning materials in the classroom. Digital technologies can supplement teachers, offering access to high-quality materials when students need to develop skills that their teachers lack or do not teach (World Bank 2016b). Digital technologies can also connect students in STP to international trainings and courses, supplementing local upper education and supporting greater specialization.
**Social protection system:** Through integrated social registries that harmonize multiple programs using common intake and registration gateways, citizens can gain access to a broad array of benefits and services, with far lower transactions costs (Leite et al. 2017). These registries can connect people to public services across sectors and prioritize the poorest (Georgieva 2018). Digitalization of payments will allow a more efficient, transparent, and accountable way to deliver payments to social protection beneficiaries and promote the financial inclusion of poor and vulnerable households.

**Tourism:** The proliferation of digital media and its global reach offers STP a channel to raise awareness and promote itself as a unique tourist.

**Financial inclusion:** DFS providers such as banks and nonbanks can provide financial services profitably in areas with no available bank branches and ATMs to underserved communities. Mobile money has been a main driver of DFS in Africa and can contribute greatly to tourism development and financial inclusion in STP. Digitization of cash transfer payments can also increase the efficiency of social assistance programs and digital and financial inclusion of poor and vulnerable groups.

**PFM and revenue administration:** Basic and meaningful initial steps include investing in (a) obtaining and expanding relevant information available to tax and customs administrations, (b) instituting better mechanisms for effectively sharing information across institutions, and (c) using digital technologies to fill capacity gaps in core functions such as data analysis, modeling, and audit selection. Extending e-filing options can bring important benefits in improving the business environment and help generate revenue.  

Source: Choi et al. 2020.

Yet digital development is at a nascent stage in STP. The World Bank’s recent Digital Economy Assessment has identified key entry points to jump-start STP’s digital development. They are creating a national coordination to drive the strategic development of the sector, including market-making measures; developing frameworks for sharing infrastructure and interoperability to support competition; strengthening the government’s technical capacity; and broadening access to broadband and mobile digital services.

**Key entry points to support cross-cutting opportunity 2:**

- **Coordination:** Create a central Coordination Committee for the Digital Economy that can drive the strategic development of the digital economy in the country. The lack of capacity and strong institutional leadership has led to a proliferation of digital technology solutions in a manner that is not always strategic or sustainable.

- **Sharing infrastructure:** Develop a framework by which operators and the government (or fiber providers) are incentivized to share infrastructure (presently they each have replicated the fiber networks three times). Sharing of infrastructure can also include sharing other utilities’ physical networks or even combining road and ICT under ‘dig once’ policies.

- **Interoperability:** Develop an integrated data interoperability framework to help ensure price transparency, quality of service, and nondiscrimination for mobile money platforms. In STP, there are issues with calling across different operators as

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78 A recent simulation analysis suggests that reducing the distance to the digitization frontier by one-half can raise median VAT revenue by 1.7 percent (and median tariff revenue by 0.5 percent) in low-income developing countries (IMF 2018b).
they have different pricing, so it ends up being expensive. On public platforms, there is a need to consolidate e-services in one platform that can ‘talk’/interoperate with different systems. Particularly for such a small country, replication makes services less sustainable and more expensive to deliver.

➢ Broaden access: Ensure larger segments of the population have access to reliable internet, including increasing Príncipe’s connection by expanding the internet broadband capacity between the two islands. Establish partnerships with private internet service providers and implement broadband connection in public spaces for all populated areas in STP, to promote the use of ICT applications. Finally, steps should be taken to ensure that devices and access are available to all segments of the population and that digital skills are developed with a focus on closing gender gaps.


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79 People (who can afford it) have two SIM cards to only make calls within the same operator. These types of issues generate distortion in the market and increase opportunities for CST to dominate the market.
ANNEX 1. INTERNATIONAL BASELINES: ASPIRATIONAL AND STRUCTURAL PEERS

To compare STP’s performance and structural features, four groups were identified: (a) LMICs, (b) Sub-Saharan African countries, (c) structural peers, and (d) aspirational peers. When data were available, other groups of countries, such as small island states or pre-youth-dividend countries were added to the analysis. Structural and aspirational peers were chosen based on the following:

Criteria for aspirational peers:
- These countries provide good examples of development for STP. They were selected based on the following criteria in 2000–2018:
  - Island country, population less than 1.5 million
  - Upper middle income to high income
  - GNI per capita: US$8,000 or more
  - GDP growth higher than 4%
  - Tourist to population ratio >100%
  - Merchandise trade to GDP >40 percent
  - Part of the Blue Economy

Criteria for structural peers:
- These countries have similar characteristics to STP. They were selected based on the following criteria in 2000–2018:
  - Small island country, population less than 1 million
  - Lower middle income to upper middle income
  - GNI per capita: US$1,000–5,000
  - Contribution of agriculture to GDP >10%
  - Contribution of tourism to GDP >4%
  - Part of the Blue Economy

Table A1.0.1. Indicators considered in the selection of peers

<table>
<thead>
<tr>
<th></th>
<th>Aspirational peers</th>
<th>Structural peers</th>
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<tr>
<td></td>
<td>STP</td>
<td>MDV</td>
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<tr>
<td>GNI per capita, Atlas method, current US$ (2019)</td>
<td>1,960</td>
<td>9,650</td>
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<tr>
<td>GNI per capita, PPP, constant international $ (2017)</td>
<td>3,904.2</td>
<td>16,564.4</td>
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<td>Merchandise trade, %GDP (2019)</td>
<td>37.5</td>
<td>56.7</td>
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<tr>
<td>Tourists (%Population)</td>
<td>15.8</td>
<td>287.8</td>
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<tr>
<td>Tourism (%GDP) (2018)</td>
<td>10.6</td>
<td>38.9</td>
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<tr>
<td>Agriculture, forestry, fishing, value added, %GDP (2018)</td>
<td>11.4</td>
<td>5.6</td>
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<tr>
<td>Income group</td>
<td>Lower middle</td>
<td>Upper middle</td>
</tr>
<tr>
<td>Lending group</td>
<td>IDA</td>
<td>IDA</td>
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</table>

Sources: 2019 population data for all countries is from World Bank, Health, Nutrition, and Population Statistics. 2019 Merchandise trade data from WDI. Tourism as a percentage of GDP is from the World Travel and Tourism Council/WBG TC360 data portal.
## Annex 2. Data Sources

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<th>Institution</th>
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<tr>
<td>Afrobarometer Wave 6</td>
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<td>Afrobarometer Wave 7</td>
<td>Afrobarometer Wave 7</td>
<td>2019</td>
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<tr>
<td>Banco Central de STP</td>
<td>Financial Inclusion Survey (IIF)</td>
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<tr>
<td>Food and Agricultural Organization of the United Nations</td>
<td>FAOSTAT Statistical Database</td>
<td>2021</td>
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<tr>
<td>Instituto Nacional de Estatística</td>
<td>Inquérito Demográfico e Sanitário, São Tomé e Príncipe</td>
<td>2010</td>
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<td>Instituto Nacional de Estatística</td>
<td>Inquérito aos Orçamentos Familiares, IOF 2010</td>
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<td>Instituto Nacional de Estatística</td>
<td>Inquérito aos Orçamentos Familiares, IOF 2017</td>
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<td>Instituto Nacional de Estatística</td>
<td>Características socioeconómicas dos idosos, IV RGPH-2012</td>
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<td>Instituto Nacional de Estatística</td>
<td>Mulheres em São Tome e Príncipe, IV RGPH-2012</td>
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<td>Instituto Nacional de Estatística</td>
<td>Inquérito de Indicadores Múltiplos MICS 5</td>
<td>2014</td>
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<td>Instituto Nacional de Estatística</td>
<td>População portadora de deficiência, IV RGPH-2012</td>
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<td>International Budget Partnership</td>
<td>Open Budget Survey</td>
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<td>International Institute of Social Sciences</td>
<td>Indices of Social Development</td>
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<tr>
<td>International Monetary Fund</td>
<td>Financial Development Index Database</td>
<td>2020</td>
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<td>International Monetary Fund</td>
<td>World Economic Indicators</td>
<td>2019</td>
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<td>Massachusetts Institute of Technology</td>
<td>MIT Observatory of Economic Complexity</td>
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<td>Ministério da Educação, Cultura, Ciência e Comunicação</td>
<td>Avaliação Aferida De Larga Escala No Ensino Básico</td>
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<td>Avaliação Aferida De Larga Escala No Ensino Básico</td>
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<td>Social Progress Imperative</td>
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<td>2020</td>
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<td>Transparency International</td>
<td>Corruption Perceptions Index</td>
<td>2020</td>
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<td>United Nations Department of Economic and Social Affairs</td>
<td>World Population Prospects</td>
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<td>World Bank Group</td>
<td>World Development Indicators</td>
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<td>World Bank Group</td>
<td>Worldwide Governance Indicators</td>
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ANNEX 3. UPDATED WELFARE AGGREGATE

Due to previously identified challenges in the IOF 2017 (World Bank 2019d), an analysis was undertaken as part of the preparation of the SCD to assess the IOF 2017. Three potential problems that could affect the quality of the welfare aggregate were identified: (a) high item nonresponse for consumption from own production; (b) high survey nonresponse rates biasing the distribution of households, and (c) questionnaire design or implementation issues. Consultations were held with INE and the World Bank team which led the implementation and initial analysis of the IOF 2017 to better understand each of these challenges and guide the new analysis.

Based on the analysis undertaken for the SCD, a new welfare aggregate was constructed. This aggregate reduces the reliance on the measurement of consumption from own production, a variable with particularly high item nonresponse rates. This is a departure from the original welfare aggregate constructed from the IOF 2017, which was based on an expenditure-based welfare aggregate that relied in part on the variable measuring consumption from own production. The new welfare aggregate, though based on consumption, is not dependent on this particular variable.

The new poverty and inequality estimates differ from the original estimates. In order of impact on the differences between the two welfare aggregates, the adjustments made during the new analysis were the following:

1. Consumption aggregates were recalculated assuming that total quantities consumed by the household were correctly reported and are the new benchmark for estimating consumption. This allowed for the use of the residual to supplement the high item nonresponse of consumption from own production. This tends to increase estimated consumption and lower the poverty rate. However, for some households, the new consumption estimates were reduced due to the periodization of purchased values or other differences in estimates (for example, cleaning of outliers).

2. Survey weights were adjusted to take into account the higher nonresponse rate among sampling areas with higher welfare. Without this adjustment, results would be biased toward lower-welfare households due to the bias in nonresponse rates.

3. Households with no food consumption or no nonfood consumption were dropped from the sample, as these are assumed to be reporting errors and nonresponses rather than actual cases of zero consumption.

Table A3.1 reports the poverty and inequality indicators from the two 2017 welfare aggregates as well as the 2010 IOF, which is not strictly comparable, and international benchmarking of key poverty and inequality indicators.
Table A3.0.1. Comparing 2017 IOF results with 2010 IOF and peer countries

<table>
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<tr>
<th></th>
<th>$1.90</th>
<th>Gini</th>
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<tr>
<td>IOF 2010</td>
<td>34.6</td>
<td>32.3</td>
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<tr>
<td>IOF 2017, expenditure</td>
<td>35.6</td>
<td>56.3</td>
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<tr>
<td>IOF 2017, consumption</td>
<td>25.9</td>
<td>40.8</td>
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<tr>
<td>Cabo Verde</td>
<td>3.2</td>
<td>42.4</td>
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<tr>
<td>Comoros</td>
<td>17.6</td>
<td>45.3</td>
</tr>
<tr>
<td>Angola</td>
<td>49.8</td>
<td>51.3</td>
</tr>
</tbody>
</table>

Source: WDI, IOF 2017.

Inspection of the adjusted welfare aggregate gives us reasons to be more confident in the welfare aggregate based on consumption:

- When households are ranked by nonfood consumption, the patterns are as expected, with the food share decreasing strongly as the quintile increases. This is consistent with the hypothesis of missing information on food consumption, which was leading some households to be wrongly ranked in the bottom consumption quintile due to incomplete information on household food consumption.

- When households are ranked by nonfood consumption instead of total household consumption, consumption from own production is strongly decreasing in the consumption quintile, as would be expected.

- Consumption outside of the home is higher in urban areas and increasing for richer quintiles. This is normal and expected. This result corrects one of the anomalies that had been observed in the original estimates, where outside consumption was highest in the poorest rural quintile.

Benchmarking against earlier surveys and peer countries:

- The consumption-based Gini is better aligned with 2010 results. The 2010 IOF, which was similar to the 2017 IOF though not strictly comparable, yielded a Gini index substantially lower than that of the expenditure-based 2017 and more aligned with the consumption-based 2017 indicator.

- Adjusted international and national poverty rates and the Gini index are better aligned with peer countries: The $1.90 (2011 PPP) poverty rate for STP falls from 35.6 percent to 25.9 percent with the consumption-based methodology. The lower poverty rate aligns with the country’s relatively low levels of stunting and malnourishment as reflected in the SCD. The adjusted poverty rate remains higher than Comoros, a country that underperforms in most human development outcomes relative to STP. The rate is also significantly higher than Cabo Verde, though this country outperforms STP across most dimensions.

- The original Gini estimate for 2017 was higher than Angola, well known for its high inequality, while the consumption-based Gini is similar to the other two small island states. This is more aligned with the results of the inequality adjusted HDI, which shows that STP has much lower inequality in human development outcomes than Cabo Verde and Comoros.
## ANNEX 4. MACROECONOMIC AND FINANCIAL INDICATORS

### Table A4.0.1. Key macroeconomic and financial indicators

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<td>GDP at constant prices</td>
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<td>Consumer prices (Period average)</td>
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<td>7.9</td>
<td>7.8</td>
<td>9.9</td>
<td>7.3</td>
<td>7.9</td>
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<tr>
<td>Total revenue</td>
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<td>HIPC Initiative-related social expenditures</td>
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<td>Overall balance</td>
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<td>(1.3)</td>
<td>(0.3)</td>
<td>(1.7)</td>
<td>(2.7)</td>
<td>(1.5)</td>
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<td>Domestic primary balance, excl. oil</td>
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<td>(3.1)</td>
<td>(1.8)</td>
<td>(3.6)</td>
<td>(3.5)</td>
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<tr>
<td>Base money</td>
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<td>0.8</td>
<td>(7.4)</td>
<td>31.0</td>
<td>(11.6)</td>
<td>1.3</td>
<td>13.8</td>
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<td>Credit to the economy</td>
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<td>(1.6)</td>
<td>3.2</td>
<td>(1.6)</td>
<td>0.4</td>
<td>4.7</td>
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<td>Central Bank reference interest rate (percent)</td>
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<td>Average bank lending rate (percent)</td>
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<td>19.9</td>
<td>19.1</td>
<td>N.A</td>
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<td><strong>External sector</strong></td>
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<tr>
<td>Current account balance (incl. official transfer)</td>
<td>(13.2)</td>
<td>(12.3)</td>
<td>(12.4)</td>
<td>(13.3)</td>
<td>(10.3)</td>
<td>(7.6)</td>
<td>(5.0)</td>
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<tr>
<td>Current account balance (excl. official transfer)</td>
<td>(24.2)</td>
<td>(20.9)</td>
<td>(18.8)</td>
<td>(23.9)</td>
<td>(20.1)</td>
<td>(12.7)</td>
<td>(10.1)</td>
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<td>Gross international reserves</td>
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<td>35.1</td>
<td>40.4</td>
<td>67.6</td>
<td>63.5</td>
<td>70.4</td>
<td>72.2</td>
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<td>Months of imports</td>
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<td>5.6</td>
<td>5.4</td>
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<tr>
<td>Exchange rate (new dobras per US$, annual average)</td>
<td>21.7</td>
<td>20.7</td>
<td>21.9</td>
<td>21.5</td>
<td>19.8</td>
<td>19.6</td>
<td>19.5</td>
<td>19.5</td>
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<tr>
<td>Exchange rate (new dobras per US$, end of period)</td>
<td>20.7</td>
<td>21.6</td>
<td>22.1</td>
<td>20.1</td>
<td>20.7</td>
<td>21.3</td>
<td>21.7</td>
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<td><strong>Memorandum item</strong></td>
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</tr>
<tr>
<td>Gross Domestic Product</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Millions of new dobra</td>
<td>8,231</td>
<td>8,619</td>
<td>9,424</td>
<td>10,247</td>
<td>10,750</td>
<td>11,282</td>
<td>11,976</td>
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<tr>
<td>Millions of U.S. dollars</td>
<td>379.4</td>
<td>415.6</td>
<td>430.7</td>
<td>477.4</td>
<td>542.1</td>
<td>576.3</td>
<td>613.2</td>
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<tr>
<td>Per capita (in U.S. dollars)</td>
<td>1,919</td>
<td>2,060</td>
<td>2,091</td>
<td>2,271</td>
<td>2,526</td>
<td>2,631</td>
<td>2,742</td>
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Sources: São Tomé and Príncipe Authorities and WB and IMF staff estimates and projections
### Table A4.0.2. Debt composition

(As of end 2020)

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<td>Total PPG debt (incl. EMAE’s arrears to ENCO, but excl. gov’s arrears to EMAE)</td>
<td>283.0</td>
<td>305.9</td>
<td>349.5</td>
<td>415.1</td>
<td>412.5</td>
<td>433.7</td>
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<td>Central government direct and guaranteed debt (excl. EMAE’s arrears to ENCO, but incl. gov’s arrears to EMAE)</td>
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<td>258.8</td>
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<td>Multilateral Creditors</td>
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<td>Angola1</td>
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<td>Government’s arrears to external suppliers</td>
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<td>Domestic debt</td>
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<td>119.3</td>
<td>116.0</td>
<td>94.5</td>
</tr>
<tr>
<td>ENCO (oil importing company; regularized arrears)</td>
<td>48.4</td>
<td>43.9</td>
<td>38.5</td>
<td>37.8</td>
<td>37.4</td>
<td>34.7</td>
</tr>
<tr>
<td>Government’s arrears to domestic suppliers</td>
<td>3.4</td>
<td>8.4</td>
<td>8.4</td>
<td>36.5</td>
<td>33.6</td>
<td>33.6</td>
</tr>
<tr>
<td>CST (telecom)</td>
<td>3.4</td>
<td>5.8</td>
<td>5.8</td>
<td>6.6</td>
<td>6.6</td>
<td>6.1</td>
</tr>
<tr>
<td>EMAE (water and electricity)</td>
<td>0.0</td>
<td>2.6</td>
<td>2.6</td>
<td>4.8</td>
<td>5.0</td>
<td>3.5</td>
</tr>
<tr>
<td>Other suppliers</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>25.2</td>
<td>22.0</td>
<td>24.0</td>
</tr>
<tr>
<td>Arrears from EMAE to ENCO</td>
<td>0.0</td>
<td>0.0</td>
<td>18.8</td>
<td>32.4</td>
<td>32.4</td>
<td>26.2</td>
</tr>
<tr>
<td>Memorandum items:</td>
<td>63.6</td>
<td>77.3</td>
<td>93.4</td>
<td>109.7</td>
<td>110.5</td>
<td>123.3</td>
</tr>
<tr>
<td>Pre-HIPC legacy arrears</td>
<td>46.3</td>
<td>54.9</td>
<td>54.9</td>
<td>54.9</td>
<td>60.3</td>
<td>60.3</td>
</tr>
<tr>
<td>Italy4</td>
<td>24.3</td>
<td>24.3</td>
<td>24.3</td>
<td>24.3</td>
<td>24.3</td>
<td>24.3</td>
</tr>
<tr>
<td>Angola</td>
<td>22.0</td>
<td>30.6</td>
<td>30.6</td>
<td>30.6</td>
<td>36.0</td>
<td>36.0</td>
</tr>
<tr>
<td>Nigeria (Disputed Loan)</td>
<td>30.0</td>
<td>30.0</td>
<td>30.0</td>
<td>30.0</td>
<td>30.0</td>
<td>30.0</td>
</tr>
</tbody>
</table>

**Source:** Country authorities, EMAE, ENCO, and IMF staff estimates

1 Including the 4.8 million USD debt with Angola contracted after the 2007 HIPC debt relief.
2 Arrears to domestic suppliers were reduced significantly in early 2021 using funds from World Bank budget support among others.
3 Including the arrears from HidroEquador S.A. to ENCO.
4 Commercial debt guaranteed by the government.
Table A4.0.3. External debt service, 2020–2025 (US$, millions)

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multilateral</td>
<td>2.8</td>
<td>2.8</td>
<td>2.9</td>
<td>3.0</td>
<td>4.4</td>
<td>3.7</td>
</tr>
<tr>
<td>IMF</td>
<td>0.4</td>
<td>0.6</td>
<td>0.8</td>
<td>0.8</td>
<td>2.0</td>
<td>0.3</td>
</tr>
<tr>
<td>World Bank</td>
<td>0.3</td>
<td>0.3</td>
<td>0.3</td>
<td>0.4</td>
<td>0.4</td>
<td>0.7</td>
</tr>
<tr>
<td>AfDB</td>
<td>1.1</td>
<td>1.1</td>
<td>1.1</td>
<td>1.1</td>
<td>1.1</td>
<td>1.9</td>
</tr>
<tr>
<td>Other multilaterals</td>
<td>1.0</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
<td>0.8</td>
<td>0.7</td>
</tr>
<tr>
<td>Official Bilateral</td>
<td>3.3</td>
<td>3.8</td>
<td>3.7</td>
<td>6.3</td>
<td>6.3</td>
<td>6.2</td>
</tr>
<tr>
<td>Paris Club</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Non-Paris Club</td>
<td>3.2</td>
<td>3.7</td>
<td>3.7</td>
<td>6.3</td>
<td>6.2</td>
<td>6.1</td>
</tr>
<tr>
<td>External Commercial Debt Service</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Others (including external suppliers)</td>
<td>0.9</td>
<td>0.4</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>0.6</td>
</tr>
<tr>
<td>Total external debt service</td>
<td>7.0</td>
<td>7.0</td>
<td>7.6</td>
<td>10.3</td>
<td>11.6</td>
<td>10.5</td>
</tr>
</tbody>
</table>


Figure A4.1. Debt service-to-revenue ratio, 2021–2031 (%)
ANNEX 5. HEALTH, EDUCATION, AND INFRASTRUCTURE INDICATORS

Figure A5.1: Health indicators

a. Malnutrition and child mortality rates

b. Maternal mortality per 100,000 live births, 2017

c. Anemia in children under five, 2010–16, Percent

d. Incidence of malaria, 2018 (per 1,000 population at risk)

e. TFR, 2018 (total births per woman 15-49 years)

f. TFR and selected health indicators in STP by mother’s education and wealth quintile, 2019

Source: MICS 2020 (f), WDI 2021 (a, b, c, d, e).
Notes: A child is defined as stunted, underweight, or wasted when height-for-age, weight-for-age, or weight-for-height is more than two standard deviations below the WHO Child Growth Standards median. Rates are for MDV (2009), LCA (2012), STP (2019), BLZ (2015), COM (2012). Under-five mortality rate refers to the probability (per 1,000 live births) of a newborn dying before reaching age five. Rates in A are for 2019. Adolescent birth rate, Figure F, is defined as the number of births to women ages 15–19 divided by the average number of women in this age group, expressed per 1,000 women.
Figure A5.2: Education indicators

a. Gender parity in gross primary and secondary education, 2017

Source: WDI 2021.
Note: Gross secondary enrollment data for the Maldives are for 2018.
Gross tertiary enrollment data for the Maldives and Comoros are for 2014.
Secondary gender parity in Maldives is for 2018.

b. Primary repetition rate by gender, 2017 (%)

Source: WDI 2020.
Figure A5.3. Access to basic services (%)  

a. Access to electricity, 2018  

b. Access to basic drinking water, 2017  

c. Access to basic sanitation, 2017  

d. Mortality rate attributed to unsafe water and sanitation and lack of hygiene, 2016  

Source: WDI 2021.
## ANNEX 6. REGRESSION RESULTS

### Table A6.0.1. Being in the bottom 40 percent of income distribution given certain household characteristics

<table>
<thead>
<tr>
<th>Being in the bottom 40%</th>
<th>Coefficient</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household head unemployed</td>
<td>2.486***</td>
<td>(0.709)</td>
</tr>
<tr>
<td>Household head out of labor force</td>
<td>1.586***</td>
<td>(0.271)</td>
</tr>
<tr>
<td>Household head, female</td>
<td>1.004</td>
<td>(0.122)</td>
</tr>
<tr>
<td>Household head age</td>
<td>0.994</td>
<td>(0.00440)</td>
</tr>
<tr>
<td>Household head, no education</td>
<td>6.062***</td>
<td>(2.461)</td>
</tr>
<tr>
<td>Household head, Basic 1</td>
<td>6.676***</td>
<td>(2.611)</td>
</tr>
<tr>
<td>Household head, Basic 2</td>
<td>4.449***</td>
<td>(1.792)</td>
</tr>
<tr>
<td>Household head, Basic 3</td>
<td>3.045***</td>
<td>(1.216)</td>
</tr>
<tr>
<td>Household head, secondary</td>
<td>1.707</td>
<td>(0.856)</td>
</tr>
<tr>
<td>Household size</td>
<td>1.483***</td>
<td>(0.0490)</td>
</tr>
<tr>
<td>Household dependency ratio</td>
<td>1.481***</td>
<td>(0.108)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.0227***</td>
<td>(0.0106)</td>
</tr>
</tbody>
</table>

**Source:** World Bank estimates based on IOF 2017, consumption aggregate (see Annex 3).

**Note:** Logistic regression adjusted using survey weights. Dependent variable is a dummy that identifies those in the bottom 40 of income distribution. Robust standard errors are reported in parentheses.

***p < 0.01, **p < 0.05, *p < 0.1
Table A6.0.2. Participation in the labor force/employment given certain individual characteristics

<table>
<thead>
<tr>
<th></th>
<th>In the labor force</th>
<th>Employed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>-0.705***</td>
<td>-0.773***</td>
</tr>
<tr>
<td></td>
<td>(0.144)</td>
<td>(0.269)</td>
</tr>
<tr>
<td>Married</td>
<td>1.243***</td>
<td>1.137***</td>
</tr>
<tr>
<td></td>
<td>(0.161)</td>
<td>(0.291)</td>
</tr>
<tr>
<td>Female*married</td>
<td>-1.722***</td>
<td>-0.948***</td>
</tr>
<tr>
<td></td>
<td>(0.196)</td>
<td>(0.357)</td>
</tr>
<tr>
<td>Age</td>
<td>0.225***</td>
<td>0.0817**</td>
</tr>
<tr>
<td></td>
<td>(0.0155)</td>
<td>(0.0345)</td>
</tr>
<tr>
<td>Age²</td>
<td>-0.00266***</td>
<td>-0.000463</td>
</tr>
<tr>
<td></td>
<td>(0.000174)</td>
<td>(0.000440)</td>
</tr>
<tr>
<td>No education</td>
<td>-0.721**</td>
<td>-0.617</td>
</tr>
<tr>
<td></td>
<td>(0.338)</td>
<td>(0.586)</td>
</tr>
<tr>
<td>Basic 1</td>
<td>-0.720**</td>
<td>-0.617</td>
</tr>
<tr>
<td></td>
<td>(0.331)</td>
<td>(0.561)</td>
</tr>
<tr>
<td>Basic 2</td>
<td>-0.253</td>
<td>-0.687</td>
</tr>
<tr>
<td></td>
<td>(0.339)</td>
<td>(0.579)</td>
</tr>
<tr>
<td>Basic 3</td>
<td>-0.269</td>
<td>-1.071*</td>
</tr>
<tr>
<td></td>
<td>(0.334)</td>
<td>(0.551)</td>
</tr>
<tr>
<td>Secondary</td>
<td>-0.159</td>
<td>-1.008*</td>
</tr>
<tr>
<td></td>
<td>(0.360)</td>
<td>(0.585)</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.349***</td>
<td>1.101</td>
</tr>
<tr>
<td></td>
<td>(0.439)</td>
<td>(0.789)</td>
</tr>
</tbody>
</table>

Observations: 5,197 (1) 3,611 (2)

Source: Based on IOF 2017, consumption aggregate (see Annex 3).

Note: Logit regression adjusted using survey weights. Dependent variable (1) is a dummy that identifies those in the labor force, and dependent variable (2) is a dummy that identifies those employed. Robust standard errors are in parentheses.

***p < 0.01, **p < 0.05, *p < 0.1
ANNEX 7. OPPORTUNITIES AND CHALLENGES IN AGRICULTURE

The cocoa value chain and nontraditional agricultural exports, such as pepper and spices, natural cosmetics, essential oil extracts, and cacao spirits, have shown promising growth potential as exports owing to key competitive characteristics and robust demand from high-income countries. Among the competitive characteristics are (a) high value-to-weight ratios, (b) easy transportability for tourists, (c) low perishability and easy storage, (d) resilience to climate change, and (e) STP’s unique positive social and environmental image. Value chains benefiting from some of these characteristics offer private sector opportunities, if an enabling business environment that allows them to reach their potential is created (World Bank 2019a). The cocoa value chain, along with the nontraditional agricultural exports noted, is well matched to high-income country demand that puts a premium on products that are environmentally friendly, organically produced, and sustainably grown.

The close link between agriculture and the growing tourism industry provides opportunities for a larger market, increased links, and an avenue to bypass current challenges in agrologistics and further reinforces STP’s reputation as a source of sustainable, high-quality agricultural products. The increase in ecotourists provides the agricultural sector both a platform to reinforce its reputation as a country that produces high-quality, environmentally friendly products, and a channel to introduce other nontraditional exports, such as peppers and other spices, essential oils, and cacao spirits to a broader audience. Tourists bringing back agricultural gift products to their countries of origin also allows the sector to bypass traditional means of exporting, which involves considerable amounts of time and substantial transport costs. Lacking an active export agency, tourists can also raise awareness of the country and its premium agricultural products in their countries of origin, which could encourage more tourists and reinforce the synergy between agriculture and tourism.

There is potential for the sector to grow through agricultural intensification, closing large yield gaps to alleviate poverty, especially in rural farming households. Since the supply of land is limited, closing productivity gaps would provide ample growth to the agricultural sector and reduce rural poverty. Raising agricultural yields to the average level of neighboring West African countries or comparable SIDS could result in estimated growth in agricultural GDP of at least 10 percentage points, raising household farming income above the poverty line (World Bank 2019a). One way to promote agricultural intensification is to conduct land surveys to determine soil type and quality. Ensuring that the crops planted are well matched to the type, quality, and fertility of the soil can substantially raise agricultural yield. Installing water harvesting infrastructures, which lower variability of water supply, could also raise agricultural output.

The agribusiness sector has substantial potential for growth, strengthening backward and forward links and producing higher value added products. However, it suffers from high transport costs, reducing profitability and threatening its sustainability. Agribusinesses can have substantial positive effects on agricultural productivity, income generation, and food security. It can also strengthen the link between tourism and agriculture and is integral to increasing STP exports.
Agribusinesses are also able to make capital investments, which would allow them to add more value to products before they are exported, opening up opportunities for both employment and upward mobility of labor. However, sector growth is constrained by factors such as the lack of (a) soft infrastructure that could significantly reduce costs, (b) secure land rights that would facilitate access to credit, and (c) basic services, such as agricultural R&D and export promotion services, that could raise awareness of STP products in international markets.

Challenges related to agrologistics in the country have been identified by farmers and agribusinesses as the most frequent and recurrent issue in the sector, causing the largest losses, and are the biggest source of risk and uncertainty in the sector. The government has attempted to address some of these challenges by investing in hard infrastructure, such as road building, rehabilitation, and extension projects, but there is yet no clear public policy or investments in improving the logistics network and in soft infrastructure, such as security scanners at the airport, warehouses, and cold storage. Despite rising revenues and a potentially large export market, the growth and sustainability of agribusinesses and farmer cooperatives are threatened by the cost and uncertainty brought about by the country’s agrologistics system. Because the airport lacks a security scanner, agribusinesses and cooperatives cannot ship products directly to Europe and instead must go through Angola first, increasing the time it takes to reach consumers and raising export costs. Because there is no adequate warehouse receipt system, producers only receive payment once their goods reach the destination country, which heightens risks related to price variability and constrains cash flow. Lack of an active export promotion agency means that agribusinesses must themselves create awareness of their product in export markets, adding to their costs. The lack of secure and formal property rights compounds these problems, as it constrains their access to credit.

The absence of an effective land information system and data collection has caused information gaps that undermine both the creation of a unified policy on agriculture and efforts to strengthen land governance. The current land information system is outdated and fragmented. Moreover, STP’s last agricultural census was done 30 years ago in 1990. A few household surveys have since tried to capture information on farming communities but have not provided a comprehensive view of the sector. As a result, there is currently an important gap in the information that the government needs to formulate and evaluate policies in relation to agricultural yields and productivity, inputs, land use, and the market prices of agricultural products.

The lack of formal titles and a weak framework governing land tenure heighten uncertainty over property rights, disincentivize productive investments by the private sector, and constrain access to finance. Uncertainty about assignment and enforcement of property rights disincentivizes productive investment, especially for the agriculture and tourism sectors, as both require long-term investments. The lack of clear and formal land titles also inhibits the use of land as collateral, constraining access to credit. As a result, land is neither efficiently allocated nor utilized, productive investment is disincentivized, productivity is lowered, innovation is dampened, and overall growth is constrained.
**STP is particularly vulnerable to problems caused by climate change because of its location and limited land resources.** Since the 1950s, rainfall has been declining and average temperatures have been rising. For farmers, the risk of drought is an underlying concern and a source of risk. Analysis of possible water deficits due to climate change indicates that production of cocoa, pepper, and maize could potentially decline by 30 percent. Being able to adapt to climate change is crucial for the sector to stay competitive, and climate-smart practices, such as installing water harvesting infrastructure, adopting water and soil conservation techniques, and developing an Agrosilvopastoral (ASPS) system, should be considered.80

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80 ASPS relates to agriculture that features crops, forestry, and the pasturage of animals. ASPS is a collective name for land use systems, which imply the combination of a woody component (such trees) with livestock in the same site. These systems are a model of production based on silvicultural practices complementary to preexisting agricultural activities.
Economic benefits from fisheries can be increased without increasing stress on fishing stocks through better catch utilization. Reducing the inefficiencies of post-harvest losses is a straightforward opportunity to increase the value from current catches. Post-harvesting processing is limited to low-value-added activities like salting and drying. The limited contribution to STP from foreign tuna fishing fleets also needs to be reevaluated.

Given concerns over the depletion of the existing fish stock, the development of fishery cannot rely on higher levels of exploitation of these resources but rather on diversification of the targeted species (for example, tuna and tuna-like species) and the improvement of the value chain and value added (for example, conservation, processing, and exports). This could entail the development of a new fleet suited for tuna and tuna-like resources, which would operate from São Tomé and Príncipe, unloading its catches on the island to supply the local market and eventually exports. Additionally, private sector investment for better processing and value added could be encouraged and lead to export of fisheries products, generating a new type of revenue for STP.

Constructing new post-harvesting facilities could result in higher levels of value addition. The lack of cold storage, iceboxes, ice machines, and other conservation facilities persists all along the value chain. Most fishers do not use ice or insulated containers on board their vessels and there is a lack of landing sites equipped with conservation facilities and reliable electricity. Low-cost techniques like salting and smoking are applied out of necessity, resulting in little value addition and negatively affecting product quality. Even the capital city’s central market, where about 70 percent of fish production is sold, lacks conservation facilities. Well-designed landing and processing centers that provide services and facilities for fishing communities with reliable energy for cold preservation would increase opportunities for artisanal fishers.

Providing a premium product could bring value within a Blue Economy approach. The growth of tourism offers the prospect of higher demand and income generation. Supplying hotels and tourist-oriented restaurants with high-quality fresh local fish will bring greater income to artisanal fishers and contribute to the image of STP as an ecologically pristine country. Additionally, income from providing experiences like boat tours could provide a new source of revenue, creating an additional incentive for long-term preservation of the environment.

Exporting tuna and other high-value fish from STP would require costly investments in port infrastructure. STP is already at a structural disadvantage because it is a remote island distant from shipping hubs. The current port is shallow, has a small hinterland, and lacks area to expand because of its location within the city. Most ocean vessels have to anchor 1 to 1.5 miles offshore and use barges for unloading, making it costly and time-consuming. The small port hinterland makes it difficult to maneuver and store cargo and containers. In addition, the port lacks structure for refrigerated cargo so fresh-fish exports are not feasible. Significant analysis is needed before
deciding whether to reform the current port or build a new one, which would require complementary investments which include road accessibility as well as energy and water connections. With the high cost of exporting, products must command high prices internationally to be economically viable. STP produces few high-value products except for small quantities of mollusks, such as scallops and octopus, but such exports are gaining prominence, yielding a comparative advantage. Lowering shipping costs and making refrigerated cargo possible will significantly improve STP’s ability to export fish products and increase fishing incomes.

Investments in fleet capacity are also needed. If the small-scale semi-industrial fishing fleet in STP is supported, it can provide competition and increase value compared to foreign fleets. The small-scale fleet of 10 active vessels operates around the island of Príncipe where there is an abundance of demersal resources and within Gabon’s EEZ. The fleet is old and often recurring breakdowns limit its performance. It also lacks access to good-quality ice, landing infrastructure, and financing. However, domestic tuna long-line fishing could be encouraged, given the vast untapped value of the resource, which currently provides limited value to STP. In addition to landing infrastructure, vessel support and revisiting agreements with foreign fleets could create space for domestic tuna to thrive.

Addressing overfishing, marine pollution, and climate change effects and maximizing the social and economic benefits of oceanic resources over the long term are central to the Blue Economy approach. STP fisheries are vulnerable to climate change. The severity of the impacts of climate change on fisheries is not yet known, but there are numerous channels, including acidification and rising temperatures, that can negatively affect STP. Impacts will be felt first on fish stocks themselves and second on the marine and coastal ecosystems on which those fish stocks depend. Fishing will be affected not only by rising sea levels and changes in the distribution of fish resources but also by changes in the phenology and physiology of marine resources. An ongoing study of the impact of climate change on African marine fisheries estimates that by the end of the century, STP’s MCP could decrease by 40 percent. Pollution and coastal development present an additional threat as waste can affect yields and contaminate catches.

Currently, fishery licensing is not structured in a way that promotes sustainable fishing, and monitoring capacity is quite limited. For artisanal and small-scale fishing, there is a fee for registering a boat, but there is no control on the number of fishermen, the number of boats, or catch sizes, which contributes to overexploitation. With this system, each individual fisherman has no incentive or obligation to regulate his catch to maintain a healthy stock. Lack of data inhibits effective government management of stocks and makes it hard to create new policies to reduce ecosystem strain.

Strategies in which the government shares management responsibility with local communities could be effective for sustainability. Community management of fishing rights can be an effective mechanism for introducing new management measures, local surveillance, stock enhancement measures, and participatory

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81 The World Bank defines the Blue Economy as the sustainable and integrated development of maritime economic sectors.
surveillance; most importantly, it can change incentives away from maximizing catches. However, this is a bottom-up process that requires behavioral change and considerable efforts to raise awareness and strengthen the capacities of local actors. Co-management has been successful in communities that were socially cohesive, where community tenure rights were clear, and when accompanied by an increase in the overall level of income of the community.

**Improved regional cooperation for research, management of shared resources, data sharing, monitoring control and surveillance, and negotiation of fishing agreements could improve STP’s ability to work with foreign fleets.** Currently, regulation and enforcement of foreign fleet activities in STP’s territorial waters are ineffective. The number of foreign vessels and their catch sizes are technically regulated by a licensing system (STP-EU SFPA), but there is no system to ensure compliance as STP lacks the vessels and data collection tools to monitor activities independently. STP is a member of the International Commission for the Conservation of Atlantic Tunas and the Gulf of Guinea Regional Fisheries Commission. By sharing resources (research and monitoring, control, and surveillance) and exchanging lessons and experiences, STP could better manage fish stocks and the ecosystem. Besides, improved regional cooperation could also allow STP and other countries to have greater bargaining power in negotiations of fishing agreements.
Annex 9. Opportunities and Challenges in Tourism

Tourism receipts can reduce STP’s dependence on external sources of finance. Foreign exchange earnings from tourism can help reduce the country’s reliance on remittances, external aid, and external loans. This would help STP shift away from the migration, remittances, aid, and bureaucracy (MIRAB) type of economic development and move to a small island tourist economy (SITE) type, which is a more sustainable path to growth. Earnings from tourism allow the country to accumulate foreign exchange reserves, ease foreign exchange constraints, and provide a more sustainable way to finance imports, which is especially important for a small island economy. It also allows the country to import capital goods to increase its competitiveness, efficiency, and productivity.

Tourism has the potential to generate large spillover effects to other sectors of the economy, spurring growth and development. More tourist arrivals can equate to higher demand for local goods and services, expanding economic opportunities for a broader segment of the population. Earnings from tourism flow directly to businesses that cater to tourists, such as hotels, transportation providers, tour services, and restaurants and indirectly to firms and individuals that provide goods and services to tourism-related businesses. By catering to the demand of a larger market, the industry could mobilize entrepreneurship, become an important source of job creation, and promote upward labor mobility.

Digital channels are a relatively inexpensive way to promote tourism. The proliferation of digital media and its global reach offers STP a channel to raise awareness and promote itself as a unique tourist destination known for its biodiversity and pristine environment.

Gaps in connectivity and the lack of connections to major hubs constrain growth in the tourism sector. The sole connecting hub between STP and Europe is in Portugal, which means that most tourists would have to travel through Lisbon before setting foot in STP. The lack of connectivity raises tourist travel costs and increases the time they spend in transit, which may deter some travelers from visiting the country. Small improvements in connectivity, such as one additional weekly flight from a major hub like London, could have an outsized impact on the sector. At the same time, to receive airplanes with larger capacity, the airport’s landing strip would need to be extended.

The sector share of credit is disproportionate to tourism’s contribution to GDP, constraining productive investments in the sector. Despite the tourism sector directly contributing 10.8 percent to GDP in 2017, it only received 0.2 percent of credit, in stark contrast to construction, which received 34 percent of credit, and consumer lending to households, which received 21 percent of credit. This undermines the ability of entrepreneurs to scale their businesses and make capital investments.

Weak land governance and vague policies that govern foreign concessions of land also deter investment in the sector. Currently, foreign concession of land is permitted for projects authorized by the Ministry of Agricultural and Rural Development. However, these policies are not comprehensive, and guidelines regarding important details of these concessions, such as their length and maximum allowable size, are
left unclear and subject to interpretation. This raises uncertainty about land tenure, which could dissuade foreign investors from investing in tourism projects, which often require long-term commitments.

**Gaps in infrastructure weaken connectivity, constraining growth in the sector.** For small island states, connectivity is key, and there are several improvements that could raise the country’s tourism capacity. Relatively inexpensive investments in soft infrastructure to bolster air safety and security could alleviate current airport problems and expand tourist capacity. Among these are replacement of runway lights, perimeter fencing around the whole airport, and new navigation and communication equipment. At 148 out of 154 countries, STP ranks near the bottom of the ACI. The country’s ACI score of 0.58 is less than the average score of structural peers (0.86) and aspirational peers (1.12). Limited air connectivity, inadequate public and private infrastructure, and shortages in tourist information severely limit the potential of tourism.

**Tourists have identified other barriers to the growth of tourism,** among them the high cost of airfare due to the scarcity of flights; lack of access to quality health care services; issues with hygiene, sanitation, waste management, and food safety; inadequate infrastructure (for example, energy, roads, signage, beach access, hotels, and restaurants); and the limited acceptance of international credit/debit cards. Moreover, inadequate human resources and difficult conditions for entrepreneurs also restrict the offer of goods and services for tourists, thus constraining the impact of tourism on income opportunities. There is little training for hospitality and service industry workers and few pathways to employment. Addressing these barriers to productivity will build the capacity and employability of Saotomeans who are unemployed and underemployed and will help ensure that tourism develops in a responsible, inclusive, and economically viable manner.

**While efforts have been made to strengthen the business environment in STP, more effort is needed to promote its tourism sector.** STP has carried out various reforms to improve the business environment, but there is room to improve the regulatory and institutional environment for businesses. Recent reforms include adopting online visa procedures and eliminating visa requirements for short-term visitors, reducing the time needed to register a company to 24 hours, reducing the cost and time to obtain permits, and launching an electronic platform to process imports and exports. Among new regulations in the tourism sector are a daily tourist tax, new guidelines for the car rental and games of chance industries, hotel licensing fees, and legal requirements for travel agents and tour guides.
ANNEX 10. IMPROVING THE PERFORMANCE OF THE WATER SECTOR

Adequate provision of water supply and sanitation is essential for economic and human development and the reduction of the impacts caused by COVID-19 and other waterborne diseases that affect STP’s population. While institutional reforms, policy dialogue, and large investments are required in the sector to ensure adequate provision of water services to the STP population, considerable gains can be made by investing in EMAE’s reforms, improving water, sanitation and hygiene (WASH) services in schools and health centers, and hygiene education through behavior change activities. Ensuring resilience of water resources and infrastructures is also crucial, given the climate vulnerability that STP is exposed to.

Significant gains can be made by EMAE in improving the service provision, with small investments in improving operation and management of the water utility on delivery of water supply and sanitation services. Based on the EMAE water utility diagnostic carried out in April 2021, revising the water tariff and improving customer relations and monitoring and evaluation systems on provision of water supply services could bring gains in service delivery. There is also a need for a robust business plan development, which will identify the needs in the medium and long term to ensure the utility financial, technical, and institutional sustainability. In addition, the business plan will inform policy recommendations required not only at the utility level but also at the water sector level.

Institutional reforms and policies geared toward the strengthening and professionalization of a ring-fenced water utility with an autonomous identity (within the water and energy utility, EMAE) will ensure that tariffs on water supply and sanitation services provision cover the investments on the sector and will allow the utility to focus on improving water service delivery and customer satisfaction. In addition, considering that the utility also provides electricity, common indicators important for monitoring service delivery and customers satisfaction may be developed. Thus, institutional reforms focused on the water utility side aimed at establishing a regulatory system for the water sector, establishing a tariff system that considers the needs of all customers, and defining sanitation services that can be provided by the utility, considering conventional and nonconventional options, should be pursued. These reforms will ensure the enabling context is strengthened to clarify mandates and secure resources for the operation and maintenance of WASH service provision, including targeted planning for provision of service in schools and health centers. In parallel, with growing demand and to extend the service delivery countrywide, elaboration of a road map of necessary investments, including for (a) expansion and improvement of infrastructure for basic access to water supply and sanitation, for both urban and rural contexts, and (b) water resources and climate resilience to support productive sectors and economic growth, has to be carried out.
Annex 11. In-country Consultations

Two rounds of consultations were undertaken in 2019 and 2021 as part of the SCD preparation process. The first round was organized as a series of individual meetings with key informants primarily in the public sector (the Ministry of Agriculture and Rural Development, Directorate of Fisheries, Ministry of Tourism, Directorate of Planning, and the United Nations Development Programme [UNDP]). These meetings were carried out by the World Bank’s Poverty and Equity team in-country on September 4 and 5, 2019 and included meetings.

The second round of consultations, held between May 17 and June 3, 2021, was carried out virtually due to the travel restrictions imposed by the COVID-19 pandemic. This round of consultations was broader, counting on the participation of representatives from many facets of Sao Tomean society and the full SCD team was invited. The consultations began with a presentation to the Prime Minister and the Council of Ministers to present the overall storyline of the SCD and proposed priorities for verification and comments. The ministers endorsed the storyline, the priorities, and the plan for continued consultations. Over the next days, the team met with representatives from the public sector, members of Parliament, civil society, and international donors with a focus on better understanding the constraints and how to tackle the priorities (Table A11.1).

Table A11.1. List of meetings held for the consultations

<table>
<thead>
<tr>
<th>Topic</th>
<th>Date</th>
<th>Participant Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Council of Ministers</td>
<td>May 17</td>
<td>Prime Minister, all ministries</td>
</tr>
<tr>
<td>Social sector</td>
<td>May 18</td>
<td>Ministry of Health, Ministry of Education and Higher Education</td>
</tr>
<tr>
<td>Economic sector</td>
<td>May 18</td>
<td>Central Bank, Directorate of Planning, Directorate of Budget, INE, Debt Office, Directorate of Tourism and Hospitality</td>
</tr>
<tr>
<td>Infrastructure and environment</td>
<td>May 19</td>
<td>National Institute of Meteorology, Directorate of Natural Resources and Energy, ENAPORT, ENASA, IMAP STP, INAE, Renewable Energy Promotion Project - STP</td>
</tr>
<tr>
<td>Private sector</td>
<td>May 20</td>
<td>Grupo Empresarial Socogesta, CECAB, Valúdo, Ecobank, BISTP, BGFIBank STP, Brainsoft, Dr. Empreendedorismo, APCI</td>
</tr>
<tr>
<td>Session with members of Parliament</td>
<td>May 21</td>
<td>Permanent Specialized Commission of the National Assembly - Economic, Financial Affairs, Transparency, and Public Administration</td>
</tr>
<tr>
<td>Women and youth groups</td>
<td>May 26</td>
<td>STP Journalists Association, STP Women Entrepreneurs and Professionals Association, STP Women Lawyers Association, Young Entrepreneurs and Entrepreneurial Initiatives Association (AJEIE)</td>
</tr>
<tr>
<td>Regional Government of Príncipe (RAP)</td>
<td>June 10</td>
<td></td>
</tr>
</tbody>
</table>


82 The team would like to acknowledge the valuable guidance and support during the in-country consultations provided by Ana Maria Carvalho (Senior Operations Officer, AEMAO) and Wilson Piaassa (External Affairs Associate, AEMAO) as well as the excellent overall support and contributions to the consultations provided by Sandro Trigueiros (Liaison Officer, AEMAO) and Aninia Sousa da Graça (Team Assistant, AEMAO).
RESULTS

The objective of these consultations was to present the initial diagnostic developed by the WBG team and collect feedback from stakeholders. Overall, the diagnostic was well received, with a widespread recognition of the relevance of underlying hypotheses and a recognition of the priorities proposed.

The issues most frequently mentioned by stakeholders were connected to the country's structural problems: (a) tackling the energy sector crisis, (b) improving infrastructure including the port and airport, (c) improving human capital through skills training in different areas and better quality of teaching, (d) improving overall capacity of the government.

A few other messages were strongly voiced during the consultations:

- There were several mentions of an insider/outsider dynamic with relation to the public sector and the government. Participants across various meetings felt that the public sector/government did not work to support them and did not prioritize their needs. One common concern is a perceived lack of meritocracy and excessive politicization of the public administration. There was also a perception that the public sector may see the private sector as competition, rather than as a client and an important vehicle for growth that needs public sector support.

- The conversation with the Regional Government of Príncipe suggested serious challenges for the island, including the lack of any judicial presence and lack of regular, affordable, and safe transportation to the main island of São Tomé. Overall, there was a sentiment of being left behind.

- The country is in need of a skills upgrade agenda, a challenge made more difficult by the low quality of learning outcomes of the basic education system. The lack of skilled labor was mentioned several times (such as a need for plumbers, electricians, and construction workers), including a lack of basic skills needed for small enterprises and primary sector activities, such as basic accounting and business management, and even lack of swimming, which poses risks especially for those who rely on fishing or other employment on boats.

- The importance of the sea as an asset that is not currently being adequately exploited was raised repeatedly, with some citing a lack of coordination in the government to support an integrated Blue Economy agenda. It was also noted that, despite these opportunities, fishing communities are the main pockets of poverty in STP.

- The smallness of the private sector, including several mentions of it not really existing yet or being fundamentally led by foreigners, was repeated across several meetings and tied to the quality of the business environment and the governance framework.

- Teenage pregnancy was highlighted as an important and complicated issue related to poverty and aspirations that goes beyond information and access to contraception, both of which are already being provided.
The need for better donor coordination and better adequacy of development projects was also discussed. There was unanimous concurrence that this coordination needs to be owned by the government.
### Annex 12. Key Recommendations from the Country Economic Memorandum

<table>
<thead>
<tr>
<th>Policy level</th>
<th>Policy recommendation</th>
<th>Time frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macroeconomic</td>
<td>Replace the existing limited consumption taxes with a dual system composed of a broad-based VAT and an excise tax</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Build the capacity of the tax administration office to administer the VAT</td>
<td>Long</td>
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<tr>
<td></td>
<td>Formally establish a large-taxpayer unit and apply modern audit techniques to ensure tax compliance among large taxpayers</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Control expenditures by avoiding salary increases and refraining from hiring new public sector workers</td>
<td>Short</td>
</tr>
<tr>
<td></td>
<td>Improve revenue forecasts and strengthen cashflow management to avoid taking on unmanageable financial commitments</td>
<td>Long</td>
</tr>
<tr>
<td>Structural</td>
<td>End the state monopoly on port operation to allow the entry of private port operators and vertically integrated shipping companies</td>
<td>Short</td>
</tr>
<tr>
<td></td>
<td>Review the rules and fees for storage and customs clearance outside the port to enable the establishment of dry ports and create an expedited customs clearance process</td>
<td>Short</td>
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<tr>
<td></td>
<td>Update commercial and civil laws and conduct a legal study to assess the pros and cons of accession to OHADA or adoption of its standards</td>
<td>Medium</td>
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<tr>
<td></td>
<td>Train judges and court staff to specialize in commercial justice cases</td>
<td>Medium</td>
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<tr>
<td></td>
<td>Introduce case management techniques at the courts, including the collection of statistics to identify opportunities for efficiency gains</td>
<td>Medium</td>
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<tr>
<td></td>
<td>Automate judicial procedures by using information technology systems and equipment</td>
<td>Medium</td>
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<tr>
<td></td>
<td>Create an online registry for movable collateral to allow borrowers to secure loans with movable assets (for example, equipment and machinery, receivables, and vehicles)</td>
<td>Medium</td>
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<tr>
<td></td>
<td>Create a risk-sharing facility to increase banks’ risk appetite for small-business lending</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Improve the credit information system by upgrading the credit registry and expanding financial reporting by businesses</td>
<td>Medium</td>
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<tr>
<td></td>
<td>Create a parcel-based land information system and ensure that cadastral processes are integrated with ownership information through a unique identification number</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>Implement the Management Improvement Plan for the national water and electric utility (EMAE)</td>
<td>Short</td>
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<tr>
<td></td>
<td>Launch a competitive bid for the first two energy generation projects identified in the LCPDP</td>
<td>Medium</td>
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<tr>
<td></td>
<td>Implement demand-side management measures in the electricity sector such as investments in energy-efficient lighting</td>
<td>Short</td>
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<tr>
<td></td>
<td>Ensure stable funding for road maintenance through the National Road Fund</td>
<td>Medium</td>
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<tr>
<td></td>
<td>Acquire restacking equipment to allow more containers to be stored at the port and open space in the port hinterland</td>
<td>Short</td>
</tr>
<tr>
<td></td>
<td>Equip the port with infrastructure to handle frozen cargo</td>
<td>Short</td>
</tr>
<tr>
<td></td>
<td>Obtain the EU certification (ACC3) for air cargo exports</td>
<td>Short</td>
</tr>
<tr>
<td></td>
<td>Acquire safety and security equipment for the airport</td>
<td>Short</td>
</tr>
<tr>
<td>Sectorial</td>
<td>Improve the capacity of public agencies to collect data on the number of fishing boats and the volumes and types of species being fished</td>
<td>Short</td>
</tr>
<tr>
<td></td>
<td>Introduce co-management of landing site infrastructure</td>
<td>Medium</td>
</tr>
</tbody>
</table>


*Note: OHADA = Organization for the Harmonization of Business Law in Africa (Organisation pour l’Harmonisation en Afrique du Droit des Affaires).*
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PROSPERITY FOR ALL SAOTOMEANS
PRIORITIES TO END POVERTY, PROMOTE GROWTH, AND BUILD RESILIENCE IN SÃO TOMÉ AND PRÍNCIPE
SYSTEMATIC COUNTRY DIAGNOSTIC

STRONG FOUNDATION WITH SIGNIFICANT UNTAPPED POTENTIAL

HUMAN POTENTIAL
The population is young, half being under 18 years of age, and has made significant strides in improving health and education, setting the stage for sustaining growth for years to come.

NATURAL WEALTH
Rich biodiversity and unique ecosystems account for an economic zone that is 160 times larger than the archipelago and supports species and wildlife indigenous to the area.

PEACEFUL
With one of the lowest violence and crime rates in Africa, their multiparty democracy has a history of peaceful elections and transitions of power.

GROWTH
Steady economic growth supported by international support and oil-exploration has fueled significant investments into the people and infrastructure.

REDUCING POVERTY REQUIRES TACKLING BINDING CONSTRAINTS AND CRITICAL VULNERABILITIES

CONSTRAINTS
- LOW HUMAN CAPITAL
- LIMITED INSTITUTIONAL CAPACITY
- ISOLATION AND LOW CONNECTIVITY
- SMALL PRIVATE SECTOR

VULNERABILITIES
- COSTLY & DEFICIENT ELECTRICITY SECTOR
- CLIMATE CHANGE & RESOURCE MANAGEMENT
- LOW INCLUSION OF WOMEN AND GIRLS

... IT REQUIRES CREATING MORE AND BETTER JOBS WHILE INCREASING CAPACITY AND RESILIENCE THROUGH 4 ACTIONABLE PRIORITIES AND 2 CROSS-CUTTING AREAS:

PRIORITIES

TRANSFORMING ELECTRICITY INTO A GREEN, EFFICIENT, AND EFFECTIVE SECTOR
- Reduce dependence on oil to generate energy and rely more on renewable energies— which are more cost-effective and sustainable
- Increase reliability and efficiency of the network
- Achieve universal access

LEVERAGING NATURAL CAPITAL TO SUPPORT SUSTAINABLE AND INCLUSIVE GROWTH
- Establish and implement rules, monitoring, and enforcement mechanisms for the fishing sector
- Climate-smart agriculture
- Land and forest management

REALIZING INDIVIDUAL POTENTIAL AND BUILDING HUMAN CAPITAL THROUGH THE INCLUSION AND EMPOWERMENT OF WOMEN AND YOUTH
- Early childhood interventions to improve health and learning
- Aspirations and empowerment of youth to reduce early pregnancy and keep youth in school
- Improve skills, particularly for women and youth

CREATING AN ENABLING ENVIRONMENT TO BOOST JOB-GENERATING PRIVATE INVESTMENT
- Strengthen regulatory framework in order to increase national and international investment
- Improve access to credit, particularly for micro and small firms
- Expand capacity of port and airport

CROSS-CUTTING AREAS

IMPROVING INSTITUTIONAL CAPACITY TO DELIVER CRITICAL SERVICES IN A CONSTRAINED FISCAL ENVIRONMENT

INCLUSIVE DIGITAL DEVELOPMENT TO SUPPORT ACCESS TO OPPORTUNITIES AND SERVICE DELIVERY