TECHNICAL ASSISTANCE REPORT

GUATEMALA

Public Investment Management Assessment – PIMA and Climate-PIMA (C-PIMA)

April 2023

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ABBREVIATIONS AND ACRONYMS

AGRIP	Risk Management Analysis in Public Investment Projects
ANADIE	National Agency for Partnerships for the Development of Economic Infrastructure
AOP	Annual Operating Plan
CAPTAC-DR	Regional Technical Assistance Center for Central America, Panama, and the Dominican Republic
CDP	Proof of Budget Availability
CGC	Office of the Comptroller General of Accounts
CODEDE	Departmental Development Council
CONADUR	National Council for Urban and Rural Development
CONRED	National Coordinator for Disaster Reduction
COVIAL	Road Maintenance Executing Unit
C-PIMA	Climate-PIMA
DBCG	Directorate-General of Public Credit
DCE	Directorate of Government Accounting
DGAPF	Directorate-General of Fiscal Analysis and Policy
DGC	Directorate-General for Civil Roads
DIGAE	Directorate-General of Government Procurement
DTP	Technical Directorate of Budget
EME	Emerging Market Economies
EPI	Government Investment Agencies
FAD	Fiscal Affairs Department, IMF
FEPIP	Public Investment Project Formulation and Assessment Guide
GDP	Gross Domestic Product
GHG	Greenhouse Gases
GTQ	Quetzals
IDB	Inter-American Development Bank
IMF	International Monetary Fund
INDE	National Electrification Institute
IPSAS	International Public Sector Accounting Standards
LCE	Government Procurement Law
LOP	Framework Law on the Budget
MARN	Ministry of Environment and Natural Resources
MCIV	Ministry of Communications, Infrastructure, and Housing
MEF	Ministry of Economy and Finance
MTMFF	Medium-Term Macro Fiscal Framework
NAPCC	National Plan on Climate Change
NDC	Nationally Determined Contribution
PC	Public Corporation
PDM-OT	Municipal Development and Land Use Plan
PDV	Road Development Plan
PEI	Institutional Strategic Plan

PGG	Government General Policy
PIMA	Public Investment Management Assessment
PIP	Public Investment Program
PND	National Development Priorities
PPP	Public-Private Partnership
SAT	Superintendency of Tax Administration
SEGEPLAN	Secretariat for Planning and Programming of the Presidency
SIAF	Integrated Financial Management System
SICOIN	Integrated Accounting System
SIGES	Management Information System
SNIP	National Public Investment Information System
TN	National Treasury
UDAF	Financial Administration Unit
UGAM	Municipal Environmental Management Unit
USAID	U.S. Agency for International Development
USD	United States Dollar
VAT	Value-Added tax

Preface

At the request of the Guatemalan Minister of Public Finance, between May 30 and June 19, 2023 a team from the IMF's Fiscal Affairs Department (FAD) and the IMF's Regional Technical Assistance Center for Central America, Panama, and the Dominican Republic (CAPTAC-DR) conducted a public investment management assessment (PIMA) and the climate change module (C-PIMA). The mission was carried out in hybrid mode, with an initial virtual phase and subsequently in person. The team was led by Jean-Baptiste Gros (FAD Senior Economist) and composed of Christophe Hemous (FAD Economist), Martha Cubillo (CAPTAC-DR Long-Term Expert), Noel Gallardo (FAD Project Manager), Eduardo Aldunate, Jorge Baldrich, Rui Monteiro, and Margarita Rosas (FAD Short-Term Experts) and it received remote support from Letitia Li (Research Assistant).

A workshop to present the PIMA and C-PIMA was held remotely on April 13 with the participants of the mission and the authorities. Moreover, the preliminary results of the assessment were shared in an in-person workshop on June 13 and 14. Ana Cristina Calderón for the Inter-American Development Bank and Monica Lehnhoff for the World Bank participated in the workshops and meetings that concerned them. At the end of the mission, the team presented the preliminary results and recommendations to the Minister of Environment and Natural Resources (MARN), Mr. Gerson Barrios, the Deputy Minister for Revenue and Tax Assessment of the Ministry of Public Finance (MINFIN), Mr. Saúl Figueroa, and the Permanent Secretary for Planning and Programming of the Presidency (SEGEPLAN), Manuel Alonso Araujo.

The mission held meetings with directors of the MINFIN, Marta Ríos, Director of the Technical Directorate of the Budget, Werner de Leon, National Treasurer, Clara Luz Hernández, Director of Government Accounting, Jorge Luis Garcia, Director of the Directorate-General of Government Procurement, as well as Mr. William Morales, Deputy Director of Assistance to the Municipal Financial Administration (DAAFIM) and Jorge Escobar, Deputy Director of the Directorate of Fiscal Transparency. In addition, the mission met at SEGEPLAN with the Permanent Secretary for Investment for Development, Marco Tulio Leonardo Bailón, and directors of the Pre-Investment Planning, Investment, and Investment Monitoring areas. At the Ministry of Environment and Natural Resources (MARN), the mission met with the Deputy Minister for Environment, Miguel Esteban Piedrasanta, the Deputy Minister for Natural Resources and Climate Change, Hector Francisco Espinoza, and the Directorates of National Coordination, Climate Change, Water Basins, and Projects Unit, in the Ministry of Communications, Infrastructure, and Housing, with the Directorate-General of Roads, the Directorate-General of Posts and Telegraphs, the Directorate-General of Road Protection and Safety, and the Directorate-General of Transport, and in the Ministry of Public Health and Social Welfare, with the Strategic Planning Unit and with the Procurement and Maintenance Department. Meetings were also held with decentralized and autonomous entities and public corporations: the National Agency for Partnerships for the Development of Economic Infrastructure (ANADIE), the National Coordinator for Disaster Reduction (CONRED), the National Institute of Seismology, Volcanology, Meteorology and Hydrology (INSIVUMEH), the National Council for Urban and Rural Development (CONADUR), the Empresa Portuaria Quetzal (Puerto Quetzal), the Empresa

Portuaria Santo Tomas de Castilla (Puerto Barrios), the National Electrification Institute (INDE), the National Electricity Commission (CNEE), and the Supervisory Authority for Communications (SIT).

The mission team would like to express its appreciation for the excellent logistical organization in the office of the minister to facilitate the meetings and for the active participation of the different teams in the discussions. A special mention goes to Raimundo Rodas, Deputy Director of Economic Analysis of the Directorate of Analysis and Fiscal Policy of MINFIN, who coordinated the meetings and deliveries of information in addition to accompanying the mission to all the sessions held. Finally, the mission appreciates the availability of all the authorities and officials who have supported this mission, providing documentation and attending the meetings.

Executive Summary

Guatemala has enormous potential for economic growth that could be harnessed by increasing public investment. An analysis published as part of the 2023 Article IV by the IMF in May 2023 suggests that increasing the stock of public capital by the equivalent of 1 GDP percentage point would increase GDP by 0.3 percent in the short term and 0.8 percent in the medium term[1] thanks to the multiplier effect on foreign direct investment.

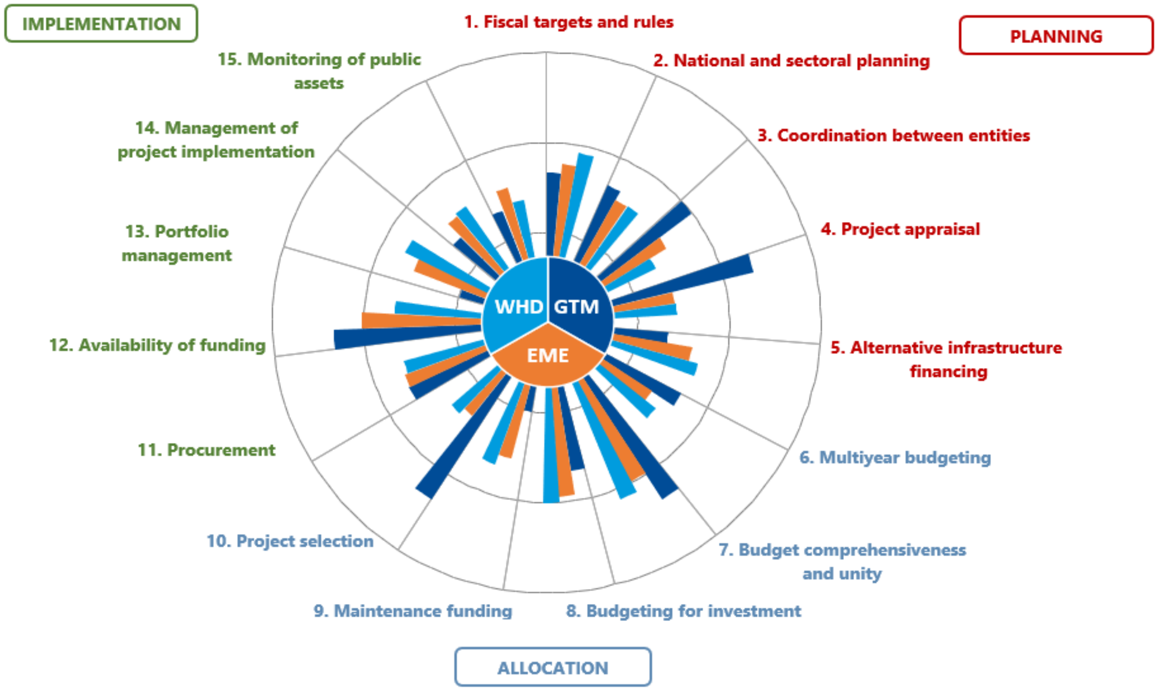
The country's fiscal commitment has not been combined with an effort to maintain fiscal space for public investment. Despite having no formal fiscal rules, the budget de facto applies a sub-2 percent deficit rule and pursues the goal of keeping debt below 40 percent of GDP. The resources devoted to public investment in relation to GDP in Guatemala, made by the central government, have been decreasing over the last 15 years and have remained at a level close to 1 percent of GDP. This average is 5 to 6 times lower than that of emerging countries and Central American countries as a whole. The percentage of total expenditure corresponding to investment has been less than 20 percent every year since 2015.

As a result, Guatemala's stock of public capital has steadily declined over the past thirty years compared to GDP, affecting the population's access to basic services. The stock of public capital represented the equivalent of 40.8 percent of GDP in 2019, when the value of this indicator was three times higher on average in emerging countries. Since then, it has not been able to increase given the relative decrease in the level of public investment by central government. While access to public educational infrastructure has been improving, it has been decreasing in the health sector. Per capita electricity production, on the other hand, has improved, but this has not reduced the gap with the average production of emerging economies.

Given the scarcity of resources earmarked for public investment, it is particular important to ensure that these resources are spent and managed as efficiently as possible. The PIMA evaluation analyzes the weaknesses and strengths of the public investment management system under two approaches: institutional strength and effectiveness. Public investment management institutions fare better in terms of institutional design than in terms of effectiveness (Figure 1.A.).

1 *Guatemala: Staff Report for the 2023 Article IV consultation*, IMF, May 2023.

Figure 1.A. Institutional Strength and Effectiveness of Public Investment Management in Guatemala



According to the PIMA scores (Table 1.A and Annex 1 for details), Guatemala stands out when compared with countries in the same region or at the same economic level due to:

- A high level of fiscal stability that allows for a medium-term view of fiscal resources for investment.
- The preparation of detailed assessment manuals (guide to the formulation and assessment of projects -FEPIP) and selection of projects that include, among others, an analysis of natural disaster risks as well as coverage of the recording of investment projects in the public investment information system (SINIP).
- The adoption of project financing rules that protect budgeted resources for investments and especially for carryover projects. The Constitution itself provides that funds allocated to investments cannot be used for other types of expenditure.

However, the public investment management system has a number of weaknesses that, if corrected, would allow for greater efficiency in spending. The main ones are:

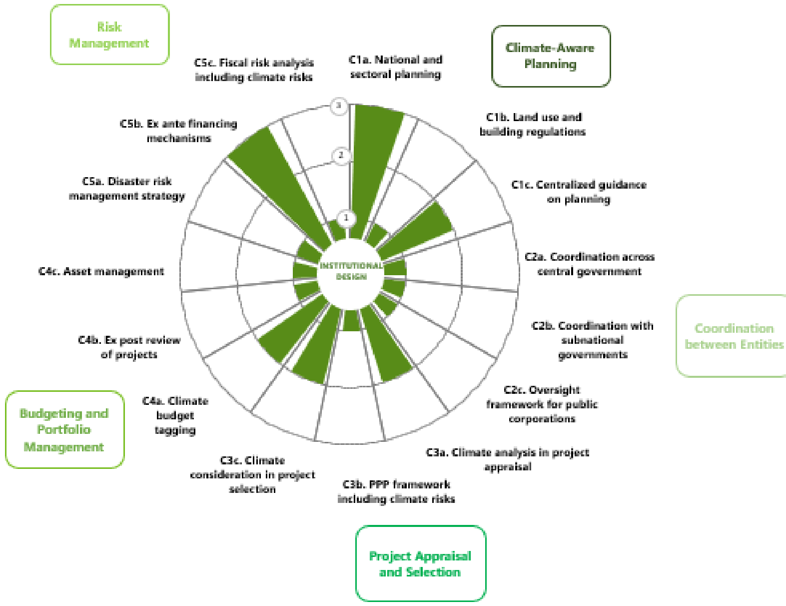
- Investment project planning that does not take adequate account of financial constraints, undermining its ability to prioritize projects for inclusion in the budget.
- The lack of continuity in existing investment projects and the multiplication of new projects resulting from (1) lack of clarity on the budget space available for new projects, (2) constant modifications to the approved budget, and (3) prioritization of projects that do not meet the selection criteria.
- The insufficiency of resources for maintenance and of criteria both to determine its amount and to establish the agencies in charge of carrying it out.

- Low level of competitiveness in procurement processes and the absence of an independent body to examine complaints.
- The lack of monitoring of the life of the projects at the central level. The monitoring carried out by the Secretariat for Planning and Programming of the Presidency (SEGEPLAN) focuses only on financial and physical execution data for the current year and does not allow for a multi-year view of the project. The Technical Directorate of (DTP) lacks analysis to evaluate the performance and costs of investment projects.
- The lack of available information on the total cost of investment projects, the modifications made to the projects, their eventual cost overruns, and any setbacks.

The adoption of a climate change approach in public investment decisions is being developed (Figure 1.B, Table 1.B and Annex 2 for the C-PIMA detailed notes). Guatemala is a country highly vulnerable to a number of natural phenomena such as floods (river, urban, coastal), earthquakes, tsunamis, volcanic activity, extreme heat, and landslides; the occurrence and cost of these disasters have increased markedly in the last 30 years with the effects of climate change. However, the country stands out for having defined principles and created norms to better take into account natural disasters and even the effects of climate change, with the development of mitigation and adaptation strategies for infrastructure, and from a Law on Climate Change to the integration of provisions in the FEPIP for project formulation and review. A climate change thematic budget classifier was created with the aim of identifying expenditures that contribute to the implementation of these strategies. Progress is most significant in the field of natural disasters in terms of the review of investment projects and the adoption of ex-ante financial instruments to manage the exposure of public infrastructure to climate-related risks.

However, the integration of climate change objectives into public investment management needs to be improved. Strategies and plans need to be implemented by all public sector actors including ministries, decentralized entities, subnational governments, and public corporations. The highly decentralized planning of public investment in Guatemala is not complemented by a coordination mechanism from a climate point of view. The lead agency for climate change, MARN, has no activities to encourage, coordinate, or even monitor climate investments, and no other entity is active in this area. SEGEPLAN also does not ensure the application of the provisions on climate mitigation and adaptation in its land-use planning guide. Although MINFIN analyzes the fiscal risks associated with natural disasters, there is still a lack of development of policies to adapt infrastructure and real assets of the public sector to climate challenges. In addition, there is a need to continue to promote the use of the thematic budget classifier developed for climate change.

Figure 1.B. Institutional Strength of the Institutions in the C-PIMA Module in Guatemala



To address the challenges of public investment management, including the integration of needs resulting from the effects of climate change, the mission recommends a series of actions (Box 1.C) that can be grouped into 7 major objectives:

- Strengthen the articulation of investment planning and programming;
- Improve project formulation methodologies with risk analysis;
- Increase the transparency of the investment and maintenance budget;
- Strengthen annual and multi-year budgeting to improve the public investment cycle and budget credibility;
- Improve competitiveness and access to procurement information;
- Establish a differentiated model for centralized monitoring and follow-up of investment projects;
- Increase the interoperability and automation of information systems, in particular between the SINIP and financial management systems.

Among the recommended actions, some are high priority:

- Prepare and approve a governmental decision of the National Public Investment System (SNIP) that incorporates the investment processes and defines the role of SEGEPLAN in programming and monitoring.
- Prioritize the completion of ongoing projects in such a way that the inclusion of new investment projects does not come at the expense of proper financing of ongoing investments. To this end, include in the budget process a stage involving calibration of a baseline scenario, which maintains ongoing policies and projects, that serves to determine the budgetary space available for incorporating new projects.

- Restrict the incorporation in the budget of projects that do not previously have a favorable technical opinion from SEGEPLAN to emergency response projects only.
- Add a clause to the Organic Budget Law (LOP) that requires projects added by Congress to be registered in the SINIP and then incorporated into the following year's budget on the basis of the availability of fiscal space.
- Estimate current and capital expenditure baselines to estimate the multi-year fiscal space available for new projects and new spending initiatives.
- Publish with the draft budget the costs of the projects, including the expenditure made in past years, the expenditure expected to be made in the current year, and the expenditure planned for future years.
- Prepare and publish a quarterly monitoring dashboard for priority investment projects presenting the cumulative physical and financial progress, cost overruns, and difficulties.
- Strengthen the mandate and capacity of MARN to effectively coordinate climate investment and monitor it from the point of view of meeting the country's climate objectives.

Table 1.A. Summary Assessment of Public Investment Management Institutions

Phase/Institution			Institutional Strength	Effectiveness	Reform priority
A. Planning	1	**Fiscal objectives and rules**	MEDIUM. The two fiscal targets are defined on average over 5 years. There are no fiscal rules. The MTFF aggregates current and capital expenditures.	MEDIUM. Borrowing is below target. There are no fiscal rules and the MTFF does not project disaggregated capital expenditure.	**Medium**
	2	**Sectoral and national planning**	MEDIUM. The plans have output and outcome targets, but they do not include all sources of investment and the cost projections are unrealistic.	MEDIUM. Some projects are associated with goals and are included in the budget, but the projected costs exceed 50 % of the budget.	**Medium**
	3	**Coordination between entities**	MEDIUM. There is formal coordination of investment plans with territories. Transfers are transparent. There is no standard for reporting contingent liabilities of projects.	MEDIUM. The preliminary calculations of the transfers are reliable. Territorial investment is registered in the SINIP. No contingent liabilities are reported.	**Low**
	4	**Project appraisal**	HIGH All projects should be assessed using the FEPIP Guide, which includes a chapter on disaster risk analysis.	MEDIUM. The FEPIP Guide is effectively used in project appraisal, but some studies do not incorporate all the aspects suggested.	**Medium**
	5	**Alternative financing for infrastructure**	MEDIUM. There is a favorable framework for private participation in PPPs and competition in the telecommunications and electricity sectors. Coordination with PCs could be improved.	LOW. In practice, there is limited private sector involvement, limited PPP implementation, and lack of coordination with public corporations.	**Medium**
B. Allocation	6	**Multi-year budgeting**	LOW. Capital expenditure is projected on a multi-year basis but not broken down by institution. There are no ceilings on investment spending and no project costs are published.	MEDIUM. The capital expenditure forecast error is minor. Budget documents do not include the costs of major projects.	**Medium**
	7	**Budget coverage and unity**	LOW. Expenditure of trusts is allowed. The investment of PPPs, Concessions, and PCs is not published. Current and capital expenditure are integrated.	MEDIUM. The capital expenditure of trusts is negligible. The DTP reviews more than 75 percent of project costs in the budget.	**Low**
	8	**Investment budgeting**	HIGH The rules provide that project costs are to be published, transfers from capital expenditure to current expenditure are prohibited, and the implementation of ongoing projects is prioritized.	MEDIUM. The budget does not report project costs. There are no transfers from capital to current allocations. Ongoing projects are not prioritized.	**High**
	9	**Maintenance resources**	LOW. Methodologies are not used to measure the resources required for maintenance.	LOW. There is a lack of proper classification and transparency of maintenance costs, which makes any assessment difficult.	**High**
	10	**Project selection**	HIGH The SNIP regulations require SEGEPLAN to issue a technical opinion on new projects and they must meet published criteria and be registered in the SNIP in order to be eligible for the budget.	MEDIUM. SEGEPLAN's analysis is detailed, but projects registered in the SNIP are included in the budget without having met the established requirements.	**High**
C. Implementation	11	**The Agreement**	MEDIUM. The rules promote competitiveness and establish a grievance mechanism without independence from the adjudicating body. GuateCompras with good coverage. No analytical reports are issued.	MEDIUM. Many major projects have a single bid and high-cost projects are contracted out of the central system. There are no risk detection routines or red flags for follow-up.	**High**
	12	**Resource availability**	MEDIUM. The institutions begin execution with a budget certification, an accrual quota is established, but payments are not guaranteed due to liquidity limitations.	MEDIUM. There is annual cash scheduling that is updated frequently. Invoices are paid in a timely manner in compliance with legal deadlines. External resources in TSA.	**Low**
	13	**Investment portfolio management and supervision**	MEDIUM. The legal framework governs the monitoring and financial management of projects without requiring ex-post reviews.	LOW. The monitoring and financial management by MINFIN and SEGEPLAN do not provide a multi-year vision of the projects and are inefficient.	**High**
	14	**Project execution management**	MEDIUM. Sectoral ministries have the main tools for implementation of investment projects.	LOW. Despite the existence of a person in charge and a schedule for each project, there is a lack of real piloting and an exhaustive ex-post audit.	**Medium**
	15	**Monitoring of public assets**	LOW. Fixed assets are not regularly recorded and no accounting policy has been issued to guide the process. The financial statements include the property, plant, and equipment account, but the information is partial.	LOW. The recording of fixed assets is limited, data are included in the financial statements, but without standardization of the quality of the information. No depreciation is recorded.	**Medium**

Table 1.B. Summary Assessment of Public Investment Management Institutions – Climate Change Module (C-PIMA)

Phase/Institution			Institutional Strength	Reform priority
PIMA Climate Change	C1	Planning for climate change	**MEDIUM.** The strategies translate the government's climate policy. PDM-OT and building regulations must be reviewed. There are climate risk guidelines for the formulation of new projects.	Medium
	C2	Coordination between entities	**LOW.** There is a lack of monitoring and coordination of climate investments, and the lead entity, MARN, has no mandate for coordination. Coordination hampered by the absence of central supervision of public corporations.	High
	C3	Project appraisal and selection	**MEDIUM.** There is climate analysis in the assessment of projects, but no assessment results are published. The PPP and Concessions Framework does not take into consideration climate risks. The selection of projects does not take into consideration climatic factors for prioritization.	Medium
	C4	Budgeting and portfolio management	**LOW.** There is a climate budget classifier, but it is not used. There is no ex-post review addressing climatic factors. There are no registration rules that take into consideration climate risks.	Medium
	C5	Risk management	**MEDIUM.** There is no proactive disaster risk management strategy associated with public assets. There are ex-ante financial instruments to manage infrastructure exposure to climate risk. Fiscal risk analysis does not address infrastructure.	Medium

Table 1.C. Priority Action Plan for Strengthening Public Investment Management

Recommendations	Actions	Institution	2023	2024	2025	Offenders 1.	Priority
Strengthen the linkage between investment planning and programming	Prepare and approve a SNIP Governmental Agreement that incorporates investment processes and defines the role of SEGEPLAN in the programming and monitoring of public investment projects	2,4,8 ,8,10				SEGEPLAN, MINFIN	High
	Improve the linkage between planning and programming with plans that have an overall view of the investment with all its sources, are aligned through performance targets, and include priority projects with realistic costs	2			X	MINFIN, SEGEPLAN	Medium
	Restrict the incorporation in the budget of projects that do not previously have a favorable technical opinion from SEGEPLAN to emergency response projects only.	10		X		MINFIN, SEGEPLAN	High
	Create within MIFI and SEGEPLAN a unit dedicated to the active and effective monitoring of PCs, allowing coordination between their investment plans and national priorities.	5			X	MINFIN	Medium
	Define processes for coordinating PCs' investment plans with national priorities and establish a unit responsible for them.	2		X		MINFIN	Medium
	Prepare and approve a government-level legal framework to strengthen the control and monitoring of PCs.	5			X	MINFIN	Medium
	Develop a disaster risk management strategy to strengthen the resilience of infrastructure to climate events.	C5		X		CONRED,	Medium
	Develop mechanisms for coordinating the planning and subsequent follow-up of the climate public investment of central and subnational governments.	C2	X	X	X	MARN, MINFIN	High
	Prepare a resilience and adaptation strategy for existing infrastructure, defining priorities based on the Threat and Loss Modernization Framework created in 2017 with the MPRES model.	C1, C5			X	MARN, CONRED	Medium
Improve project formulation methodologies with risk analysis	Determine implicit costs for all key parameters (in particular social discount rate and time value), publish and update them regularly	4		X		SEGEPLAN	Medium
	Improve the analysis of risks other than disasters (cost increases, demand, etc.) in the FEPIP Guide	4		X		SEGEPLAN	Medium
	Incorporate into the FEPIP Guide instructions for incorporating the costs and benefits of emission abatement where appropriate	4		X		SEGEPLAN, MARN	Medium
Strengthen annual and multi-year budgeting to improve the public investment cycle and budget credibility	Develop a Fiscal Responsibility Legal Framework that incorporates a fiscal anchor with annual limits on deficits and borrowing.	1		X		DAPF	Medium
	Integrate the fiscal risk analysis of physical investment projects from all investment sources within the fiscal risk reports	3			X	MINFIN	High
	Develop the DAPF's technical capacities for fiscal risk estimation and medium-term projections	T		X		MINFIN	Medium
	Distinguish between current expenditure and capital expenditure in the MTFF	6		X		DAPF	High
	Distribute capital expenditure across jurisdictions in the MTFF	6			X	DAPF	High
	Set budget ceilings on capital expenditure by entities	6		X		DTP	High
	Define a more active role for SEGEPLAN in the allocation of medium-term investment ceilings at the jurisdictional level	T				MINFIN, SEGEPLAN	Medium

Recommendations	Actions	Institution	2023	2024	2025	Offenders 1.	Priority
	Estimate current and capital expenditure baselines to define the multi-year fiscal space available for new projects and new spending initiatives	8			X	DAPF	High
	Calculate the funds needed for capital and routine maintenance using a methodology based on international standards	9		X		DTP, implementing units	Medium
Increase the transparency of the investment and maintenance budget	Publish pre-investment studies in the SINIP to increase the transparency of project appraisal and selection processes	4	X			SEGEPLAN	Medium
	Publish with the draft budget the costs of the projects, including the expenditure made in past years, the expenditure expected to be made in the current year, and the expenditure planned for future years	6, 8		X		SEGEPLAN, DTP	High
	Publish in the budget documents the investment projects to be executed by the trusts	7		X		DTP	Medium
	Amend the regulations by incorporating PPPs, concessions, public corporations, and trusts as entities whose financing of capital expenditure is reported in budget documents	7			X	DTP	Medium
	Add a clause to the Organic Budget Law (LOP) focused on the fact that the projects added by Congress must be registered in the SINIP and then be incorporated into the following year's budget depending on the availability of fiscal space	8			X	MINFIN, PRESIDENCY	High
	Issue a generally applicable accounting policy for the entire public sector for the recognition, measurement, and disclosure of fixed assets; their depreciation, amortization, or depletion; re-evaluation and reduction to recoverable value	15		X		DCE	Medium
	Create an asset registration and control system integrated in or interoperable with the central accounting system (SICOIN)	15		X		DCE	Medium
	Improve the open data modules of SINIP and GUATECOMPRAS with periodic, timely, and progressive publications, which take into consideration the information needs of internal and external customers, including control areas.	T		X		DIGAE, SEGEPLAN	Medium
	Correctly record maintenance expenses on the dedicated lines and publish a report on the different maintenance expenses (routine and capital)	9	X			MINFIN, implementing unit (DGC, COVIAL, etc.)	Medium
	Modify the LOP to reduce the implementation of public investments by extrabudgetary entities	7			X	DTP	Medium
	Provide traceability in SIGES for payments made, from the issuance of the invoice by the suppliers to the actual payment by the National Treasury	12		X		MINFIN	Medium
	Analyze deviations from financial programming with entities implementing projects in order to increase the reliability of the National Treasury's cash scheduling	12		X		DTP/TN	Medium
	Issue a monthly report on payment arrears, production to invoice lead times, and follow-up on the execution of commitment and accrual quotas, which allows deviations from the cash plans to be identified	12	X			TN	Medium
Improve effective competition and access to procurement information	Identify practices that restrict effective competition in public procurement, any evidence of collusion, and make a plan to address the findings and improve effective competition	11	X			MINFIN/DIGAE	High
	Improve effective competition in the procurement of major projects through the publication of the consolidated annual infrastructure procurement program	11		X		DIGAE	Medium

Recommendations	Actions	Institution	2023	2024	2025	Offenders 1.	Priority
	Amend the public procurement regulations to incorporate the independence of the complaints resolution body as well as to extend the period for filing complaints and improve the timeliness of the response.	11		X		DIGAE	Medium
	Improve information filtering routines and enable prevention flags or alarms that serve to detect inconsistencies and avoid irregular activities in procurement.	11		X		DIGAE	Medium
	Develop an information module in the Guatecompras system for the generation of parameterized (quarterly) reports and statistical analyses (balanced scorecard) that includes indicators of system performance, competence, capacities and learning, and risk flags.	11		X		DIGAE	Medium
Establish a differentiated model for centralized monitoring and follow-up of investment projects	Define a criterion for "priority investment projects" (subject to more rigorous monitoring) and establish a list of current priority investment projects, taking into account the amounts and priorities of the "Guatemala Moving Forward" plan	14	X			SEGEPLAN	High
	Prepare and publish a quarterly monitoring dashboard for priority investment projects presenting the cumulative physical and financial progress, cost overruns, and difficulties.	14	X			SEGEPLAN	High
	Include in the SNIP regulations include the requirement to appoint a person responsible for each project during its implementation and to register their data in the SINIP	14	X			SEGEPLAN	Medium
	Record all adjustments exceeding the initial amount of 20 percent and perform a new cost/benefit assessment of the projects in that case	14	X			SEGEPLAN	Medium
	Facilitate the exchange of information between the MINFIN and SEGEPLAN, on the one hand, and the sectoral ministries, on the other, in order to optimize decisions on the reallocation of funds and adjustments to the amount of projects	13, 14		X		SEGEPLAN, Jurisdictions	High
	Strengthen the mandate and capacity of MARN to effectively coordinate climate investment and monitor it from the point of view of meeting the country's climate objectives.	C2	X	X		MARN, PRESIDENCY	High
	Implement ex-post review of projects with a dedicated guide.	13			X	SEGEPLAN/ Jurisdictions	Medium
	Enter data on the total cost and physical progress of the projects in the audit reports of the Comptroller General's Office.	14		X		CGC	Medium
	Strengthen the financial strategy in the face of disaster risks by incorporating the specific exposure of public infrastructure by type of asset, location, and level of vulnerability together with the respective mitigation plan	C5		X		DAPF, MARN	Medium
Increase the interoperability and automation of systems	Make improvements in information systems to gear their design to process digitization, limiting the incorporation of text, and with greater use of catalogs and parametric events, establishing business rules to ensure compliance with standards and not only the capture of documents, consider the implementation of digital signatures, for the certification and authentication of data	T		X		MINFIN, SEGEPLAN	Medium

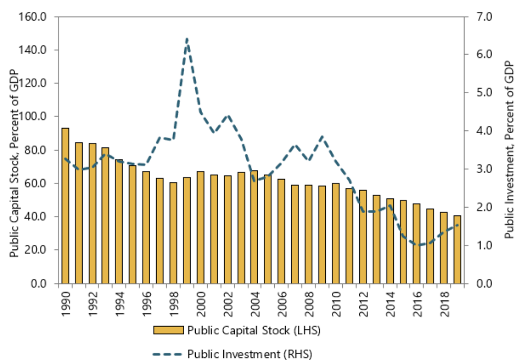
T: transversal, N.A.: not applicable

I. Trends in Public Investment in Guatemala

A. Evolution of Public Investment and Capital Stock

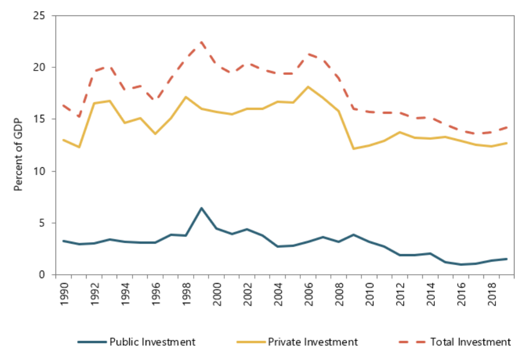
1. Public investment and capital stock have declined since 2009 and have been almost entirely financed internally. Since 2009, there has been a gradual decline in capital stock. In 1999, public investment reached an all-time high of 6.41 percent of GDP.[2] It then experienced fluctuations with a low of 2.69 percent in 2004 and a slight recovery to 3.85 percent in 2009, but since then, there has been a clear downward trend (Figure 2). This decline has not been offset by private investment (Figure 3). It should be noted that 98 percent of the country's public investments have been financed internally (Figure 4).

Figure 2. Guatemala Public Investment and Capital Stock 1990-2019 (Nominal, % of GDP)



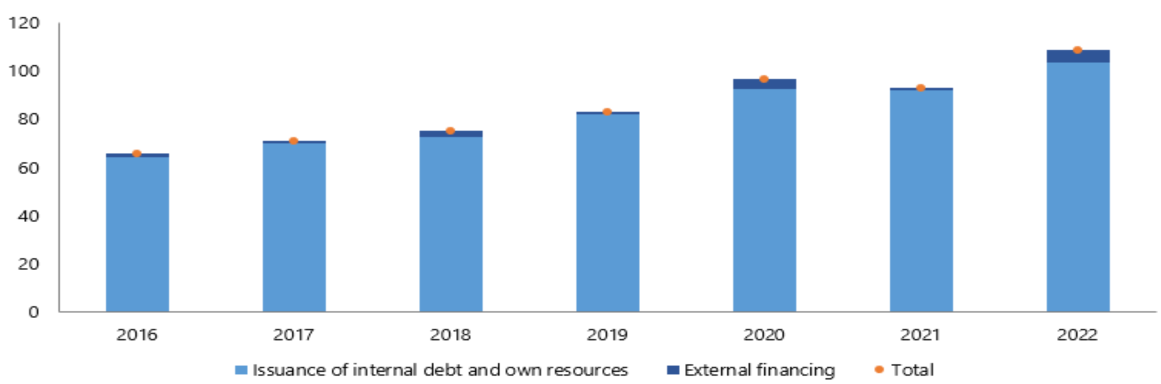
Source: IMF Staff Estimates.

Figure 3. Guatemala Investment 1990-2019 (Nominal, % of GDP)



Source: IMF Staff Estimates.

Figure 4. Sources of Financing for Public Investment Expenditure (2016-2022) (Billion GTQ)

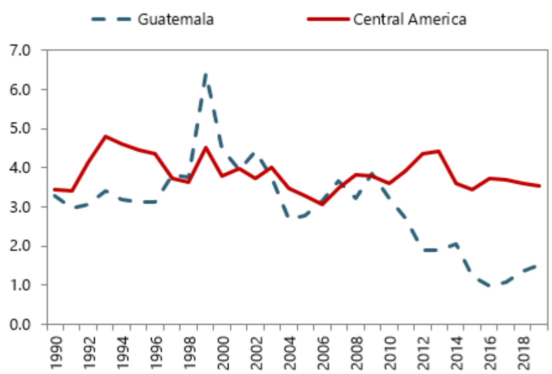


Source: Article IV Reports 2022 and 2023.

[2] Central and local government investment calculated from Penn World Tables (PWT) and WEO data.

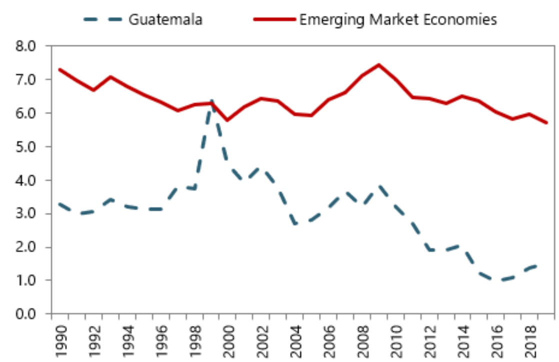
2. Overall, Guatemala has had a lower level of public investment than other countries in Central America and the emerging market economies (EMEs). Although its performance was similar to or better than that of the rest of Central America in some years, in general terms it is well below that of the other regions (Figures 5 and 6). Since 2008, there has been a steady and steeper decline in public investment in Guatemala compared to the average for Central American and the EME countries, where the decline has been less pronounced. Between 2000 and 2009, Guatemala's public investment remained consistently below the EMEs and close to that of the Central American region. During the decade 2010-2019, investment decreased to a minimum of 0.99 percent in 2016, always remaining lower than the figures of the EMEs and the Central American region.

Figure 5. Guatemala - Central America: Public Investment (Nominal, % of GDP)



Source: IMF Staff Estimates.

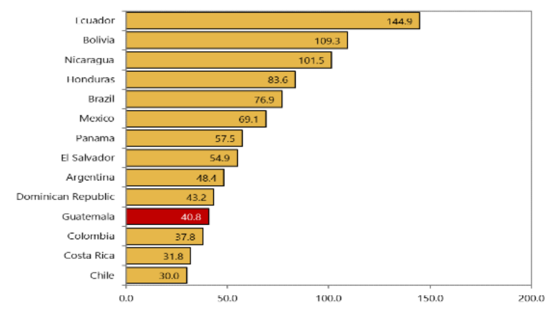
Figure 6. Guatemala – EME: Public Investment (Nominal, % of GDP)



Source: IMF Staff Estimates.

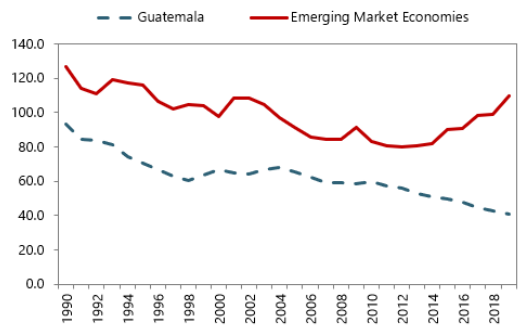
3. Guatemala is classified among the Latin American countries with the lowest stock of public capital in relation to GDP (Figure 7). As a result of the low level of public investment, Guatemala has experienced a downward trend in the stock of public capital, which has been steadily declining since 1990 and has remained below the average for countries in the region and for the EMEs (Figure 8). The upturn that this indicator has experienced in the last decade in the EMEs has not been observed in Guatemala.

Figure 7. Stock of Public Capital 2019 Compared to 13 Countries (Nominal, % of GDP)



Source: IMF Staff Estimates.

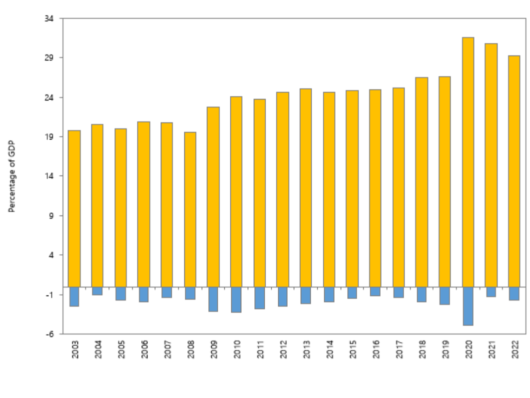
Figure 8. Stock of Public Capital Compared to Regions (Nominal, % of GDP)



Source: IMF Staff Estimates.

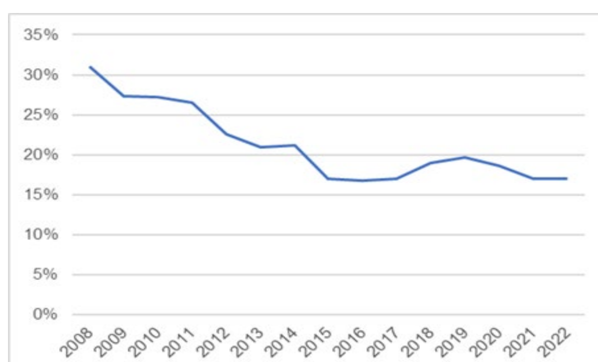
4. **Between 2010 and 2022, central government debt and the deficit have remained almost stable, mainly financing current expenditure rather than public investment.** Over the past three years, debt has been close to 30 percent of GDP, and fiscal deficits have ranged from 3 percent to 1 percent of GDP (Figure 9). Guatemala has taken a prudent approach to public spending, prioritizing fiscal stability. Taking into account the decline in public investment during that period, this result suggests that debt and the deficit have financed other types of spending. The fall in the contribution of public investment expenditures to central government expenditures from more than 25 percent in 2010 to 17 percent in 2022 highlights this prioritization of current expenditures (Figure 10).

Figure 9. Guatemala Budget Balance and Gross Debt (% of GDP)



Source: IMF Staff Estimates.

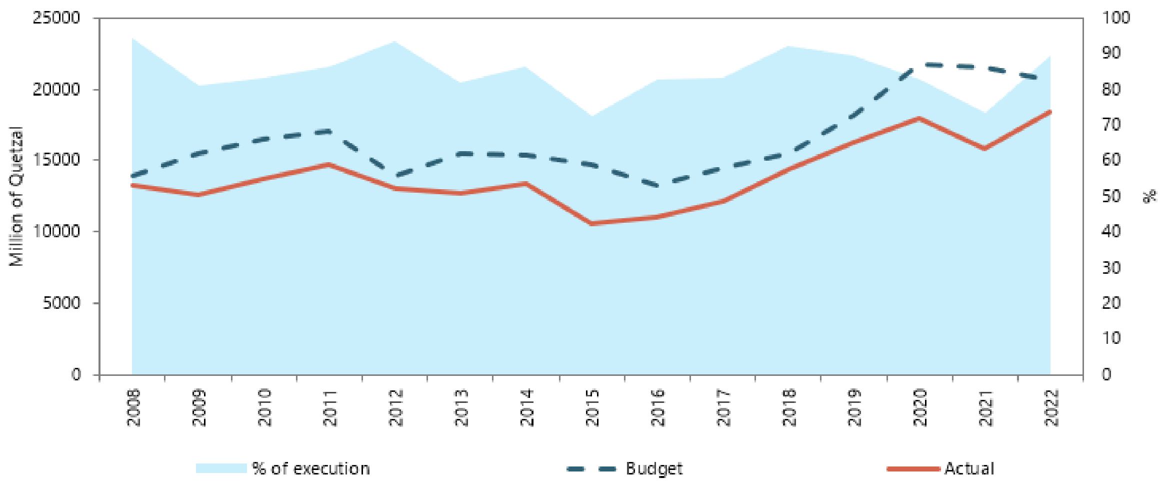
Figure 10. Ratio of Public Investment Expenditure to Total Central Government Expenditure



Source: IMF Staff Estimates.

5. **The low level of public investment is partly explained by the under-execution of this line in the budget.** In the period 2008 to 2022, the average execution rate was 85.5 percent, ranging from 72 percent to 94 percent (Figure 11). The evolution of this rate does not show a clear trend, reaching its lowest point of 72 percent in 2015 and its highest point of 94 percent in 2008. Only in 2008, 2012, and 2018 was the execution rate above 90 percent.

Figure 11. Guatemala – Budgeted and Executed Investment Expenditure of Central Government (in Million Quetzal / % of Execution)



Source: IMF Staff Estimates.

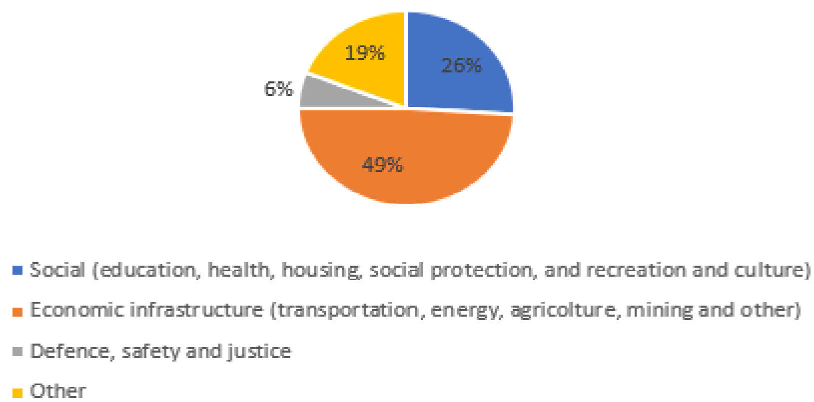
B. Composition of Public Investment

6. **In the period from 2016 to 2022, public investment in Guatemala was essentially concentrated in the areas of economic and social infrastructure.** In 2022, 49 percent of total public investment in Guatemala (0.6 percent of GDP) went to economic infrastructure, including transportation. The social sector received 26 percent (0.3 percent of GDP), covering areas such as education and health. Defense, security, and justice received 6 percent (0.1 percent of GDP), while the remaining 19 percent (0.4 percent of GDP) was allocated to other sectors such as general services, disaster response, and the environment (Box 1).

Box 1. Guatemala: Total Public Investment by Function, 2022

	% GDP	% of public investment
Economic Infrastructure[3]	0.6	49
Social[2]	0.3	26
Defense, security, and justice	0.1	6
Other[4]	0.2	19

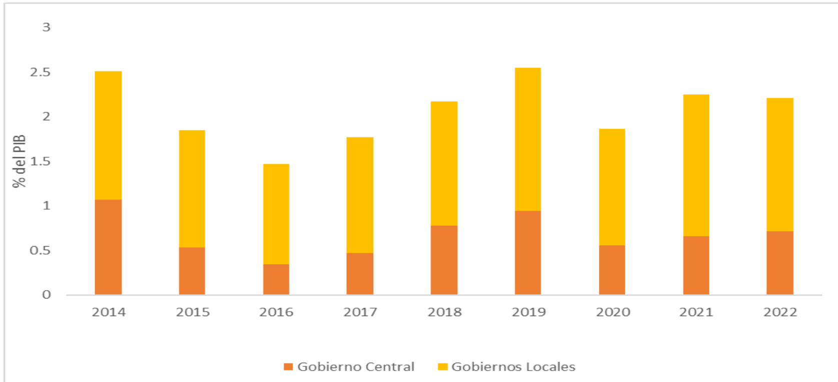
[1] The scope of total public investment used in this box includes health, education, and others, and does not refer exclusively to capital investments. It does not include the community development item corresponding to transfer to local governments.
[2] Social infrastructure encompasses public investment in education, health, housing, social protection, and leisure and culture.
[3] Economic infrastructure approximates to economic issues and includes public investment in transport, energy, and industrial infrastructure, among other components.
[4] Others include public investment in general public services, disaster response, and the environment.



Source: Mission estimates.

7. Most of general government's direct investment is made through local governments and, at the central government level, by the Ministry of Communications, Infrastructure, and Housing (MCIV). Between 2014 and 2022, general government direct investment ranged from 1.5 to 2.5 percent of GDP. Local governments accounted for an average of 67 percent of this investment (Figure 12). At the central government level, the MCIV plays a key role, contributing about 70 percent of investment in this sector.

Figure 12. Composition of Central Government Direct Investment by Level of Government 2014-2022

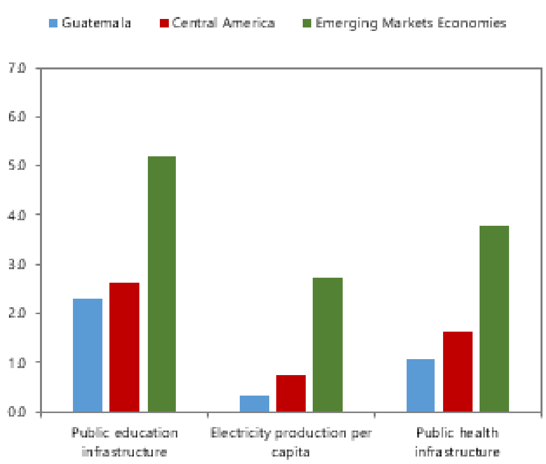


Source: IMF Staff Estimates.

II. Efficiency and impact of public investment

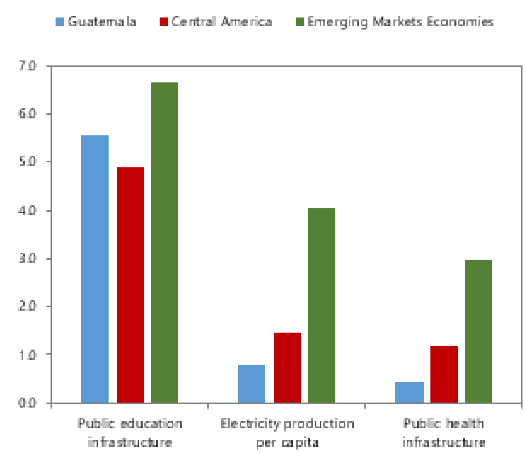
8. **In terms of access to infrastructure, Guatemala has experienced notable progress only in public education infrastructure in recent years, a result that may be related to the low levels of public investment expenditure observed in the country.** Indeed, compared to the 1990s, access to educational infrastructure has increased significantly. This progress has not been replicated in the indicators of access to electricity and public health infrastructure, where there have been major setbacks. Guatemala is below the average for the region and for countries with a similar level of economic development (Figures 13 and 14).

Figure 13. Guatemala Infrastructure Access Measures (1990s Average)



Source: IMF Staff Estimates.

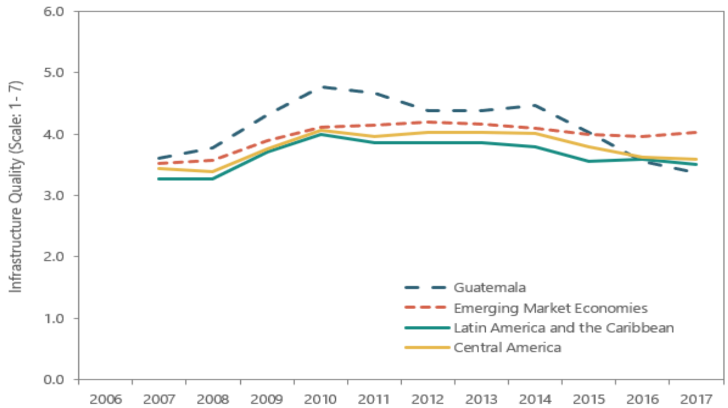
Figure 14. Guatemala Infrastructure Access Measures (Most Recent Year)



Source: IMF Staff Estimates.

9. **At the same time, the perception of the quality of infrastructure (Figure 15) has declined and ranks below similar countries**. Since the beginning of the 2010s, there has been a decline in the perception of the quality of infrastructure in Guatemala. As of 2015, this perception is below the averages for Central America and the EMEs.

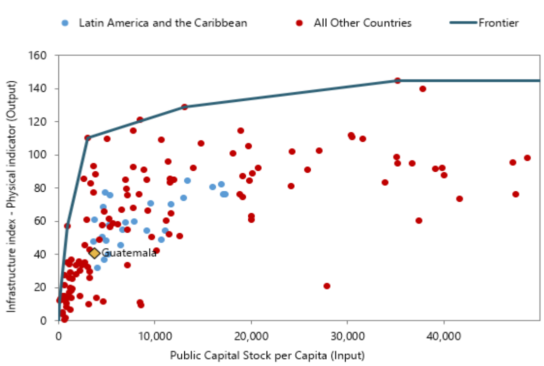
Figure 15. Guatemala Perception of the Quality of Infrastructure (2006-2017)



Source: IMF Staff estimates

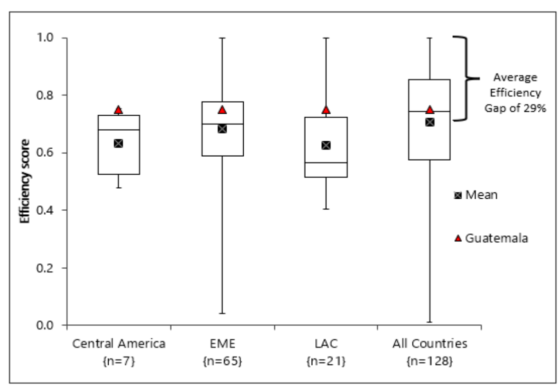
10. Guatemala has significant room for improvement in terms of the efficiency of public investment. According to the IMF's methodology for assessing efficiency, which compares quality indicators and measures of physical infrastructure with the stock of public capital, Guatemala's hybrid score[3] is below the efficient frontier, indicating that there is room for improvement (Figure 16). The efficiency gap (Figure 17) of Guatemala's public investment is estimated at 25 percent. That suggests that, for the same expense, the benefits could be 25 percent higher. This PIMA assessment identifies weaknesses in the public investment management system that, if improved, could reduce this gap.

Figure 16. Guatemala Efficiency Gap Hybrid Indicator



Source: IMF Staff estimates

Figure 17. Guatemala Public Investment Efficiency Index, Hybrid Indicator



Source: IMF Staff estimates

[3] The hybrid indicator combines physical and survey-based indicators into a synthetic index of the coverage and quality of infrastructure networks. PIE-X is the hybrid indicator that combines physical and survey-based quality indicators and rates countries on a scale of 0 to 1. A country with a score of 1 is considered to have reached the efficient frontier, meaning that it has maximized access to and the quality of its infrastructure, given its level of investment. The vertical distance of a country's score to 1 is called the investment efficiency gap. The indicators are calculated with information from 2017.

III. Public investment management institutions

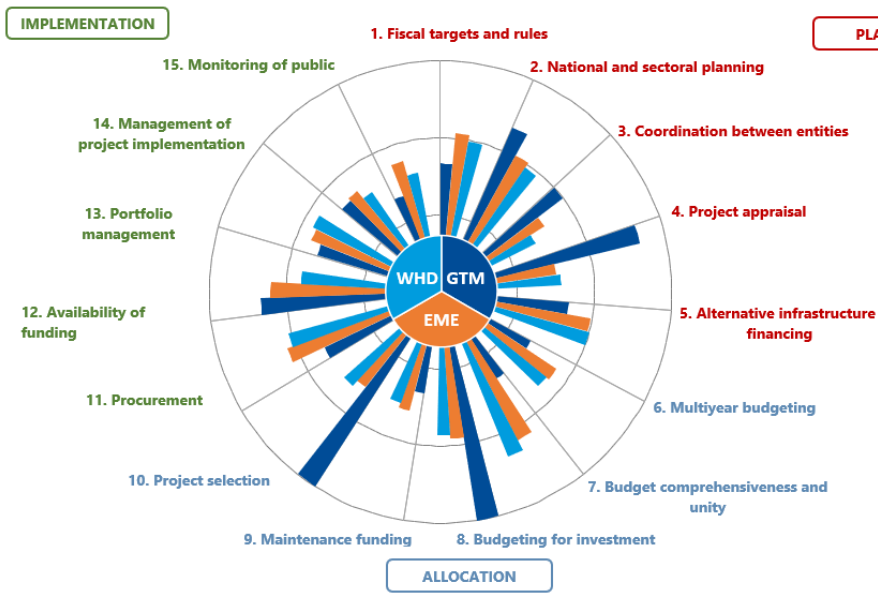
A. Assessment Overview

11. **This section assesses the institutional strength and effectiveness of the fifteen public investment management institutions according to the PIMA methodology.** The institutions are divided into three phases of the public investment management cycle: (i) ensuring sustainable levels of investment through a robust planning process; (ii) allocating resources to the right sectors and projects; and (iii) implementing investment projects in order to provide durable services and productive assets. The following sections aim to assess the strength of each institution, generally based on laws, regulations, and guidelines, as well as its effectiveness, based on the study of the country's practices, using the PIMA questionnaire in Annex 3. The assessment is based on meetings with key stakeholders as well as data and documents collected during the mission. The evaluation focuses on the perspective of central government rules and practices in terms of planning, resource allocation, project monitoring, and coordination with other entities, such as subnational governments and public corporations.

12. **Public Investment Management institutions in Guatemala are strong in institutional design but significantly ineffective (Figure 1.A and Table 1.A.).** This finding, which is common among most countries, is of particular relevance in the area of investment budgeting, and project selection, management, and monitoring (institutions 8, 10, and 13). More unusually, the effectiveness of multi-year budgeting and budget coverage and unity is greater than institutional strength (institutions 6 and 7).

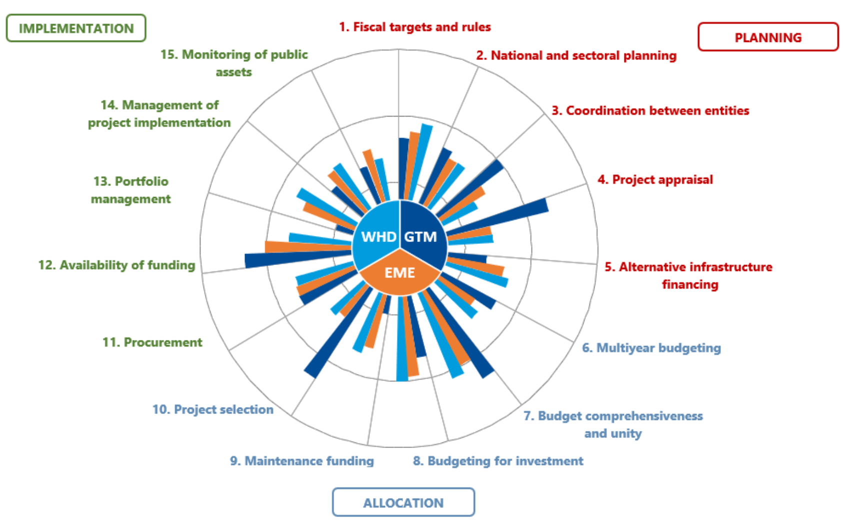
13. **Guatemala stands out with an average rating for the strength of public investment management institutions that is higher than that of the EME countries as a whole and that of the countries of South America (Figure 18).** This is largely explained by the effort made to establish standards for the assessment and selection of projects (institutions 4 and 10). It also highlights the existence of rules guaranteeing that funds earmarked for investment in the budget are not spent for other purposes, as well as the rule defining the priority accorded to ongoing projects (institution 8). On the other hand, the institutional design in terms of the multi-year budget, institutional coverage of the investment budget, maintenance, procurement, and registration of assets has room for improvement (institutions 6, 7, 9, 11, and 15).

Figure 18. Institutional Strength of Public Investment Management in Guatemala Compared to Latin American Countries (WHD) and Emerging Economies (EME)



14. The comparison of Guatemala with emerging economies and Latin American countries in terms of the effectiveness of public investment management institutions (Figure 19) is very similar to what could be observed in terms of institutional strength. However, while the country continues to have an advantage in terms of project appraisal and selection (institutions 4 and 10) compared to the average of the countries in the sample, the difference is much less marked. It can also be observed that while the investment budgeting rules were well designed in Guatemala, they are less effective than in the countries chosen for comparison.

Figure 19. Effectiveness of Public Investment Management Practices in Guatemala Compared to Latin American Countries (WHD) and Emerging Economies (EME)



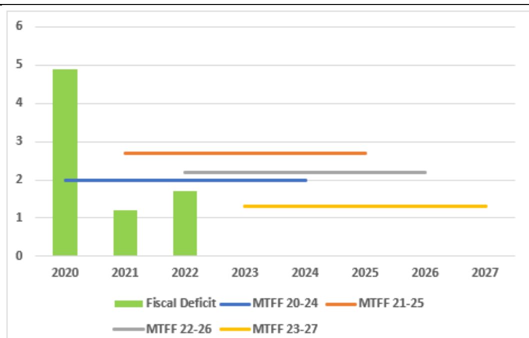
B. Planning of Sustainable Levels of Public Investment

1. Fiscal Objectives and Rules (Institutional Strength: Medium; Effectiveness: Medium; Reform Priority: Medium)

15. **Efficient investment planning requires institutions to ensure that public investment is fiscally sustainable over time.** Clear objectives to guide fiscal policy help to ensure debt sustainability and align planning, budgeting, and financing of public investment. This first institution of the PIMA assesses the existence of long-term fiscal objectives to promote debt sustainability, the existence of limits on fiscal aggregates to achieve medium-term sustainability objectives, and the development of a Medium-Term Fiscal Framework (MTFF) containing macro-fiscal objectives and forecasts consistent with the fiscal objectives and rules to align fiscal policy and the budget.

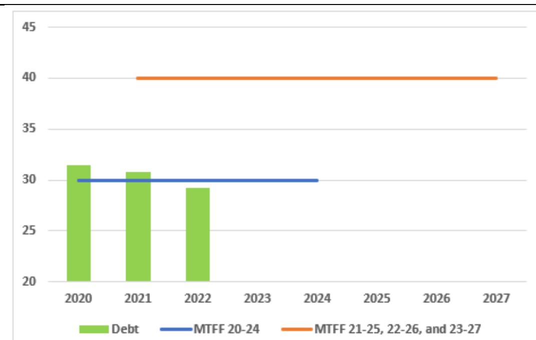
16. **Guatemala has maintained a prudent fiscal policy, although it does not have an explicit medium-term fiscal strategy.** MINFIN has both a deficit target and a borrowing limit, both defined as an average for 5 years, including the fiscal year and the following four years. The borrowing limit has remained stable over time, except when facing the COVID crisis, when the target was updated. Thus, for example, the MTFF 2023-2027 includes the objective of achieving an average central government fiscal deficit of 1.3 percent of GDP, reflecting a commitment to fiscal prudence after the pandemic, and an average borrowing level of 40 percent of GDP[4] (Figures 20 and 21). International experience suggests that having fiscal targets helps to strengthen public finances and gain credibility.[5] This is particularly relevant given Guatemala's need to create fiscal space for policies aimed at closing the infrastructure gap and attracting investment.[6]

Figure 20. Central Government Fiscal Deficit (% of GDP) and 5-Year Average Deficit Objectives by MTFF



Source: Mission estimates

Figure 21. Borrowing (% of GDP) and 5-Year Average Debt Objectives per MTFF



Source: Mission estimates

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[4] See Section 5.6 of Chapter II entitled "Fiscal Policy Targets for the Period 2023-2027."

[5] See in this regard "Fiscal Rules – Anchoring Expectations for Sustainable Public Finances," International Monetary Fund, FAD, December 2009.

[6] IMF Country Report No. 22/164, June 2022, pp.7-10.

17. There are no permanent fiscal rules to guide fiscal policy. While Guatemala has maintained a prudent fiscal policy, with an implicit fiscal deficit target of 2 percent of GDP,[7] it does not have explicit rules limiting fiscal discretion to prevent the emergence of high fiscal deficits and to prevent pro-cyclical biases from emerging.[8]

18. Since 2019, the Ministry of Finance has published the MTFF, which includes the objectives, guidelines, and targets of fiscal policy that serve as the basis for budget formulation, although it does not identify capital expenditure. In the expenditure projections, the MTFF presents the sum of operating and investment expenditure in a single aggregate. In doing so, it is not feasible to identify capital expenditure or differentiate between expenditure on new projects and carryover projects. The document presented by the MTFF is integrated into the DAPF's publication schedule.[9]

19. Ensuring that public investments are sustainable over time requires short- and medium-term measures. In the short term, the MTFF should differentiate operating expenditure from capital expenditure to give a medium-term view of the resources available for investment. Once a path for the evolution of public debt consistent with the medium-term sustainable development goals has been defined, the MTFF will be able to determine the amount of multi-year commitments to which the government can commit and that can be discussed in Congress.

2. Sectoral and National Planning (Institutional Strength: Medium; Effectiveness: Medium; Reform Priority: Medium)

20. Public investment should be guided by national and sectoral strategies that set priorities and include strategic projects with realistic costs and targets for each sector. This institution first examines whether the government prepares and publishes national and sectoral public investment strategies and plans covering public investment projects, regardless of their source of financing. It also emphasizes the importance of projecting the costs of the plans taking into account the fiscal constraint and evaluating whether to set output and outcome targets that guide public investment decisions. In terms of effectiveness, this institution evaluates the consistency between the plans and the annual programming of public investment.

21. There are national plans linked to five-year sectoral operational plans prepared by all sectors, which also include investment projects, which are not always included in the budget. A high percentage of the projects in the major public investment sectors included in the plans are not prioritized for inclusion in the budget. Each year, the sectors prepare Multi-year Operational Plans (MYOPs), which should be aligned with the K'atun Plan, the National Development Priorities (NDPs),

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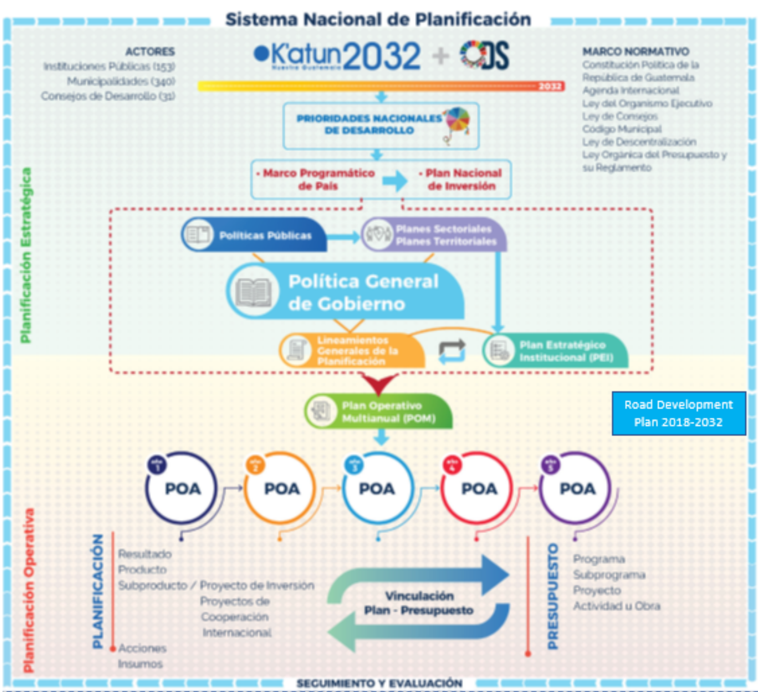
[7] See "Guatemala. Staff Report for the 2023 Article IV Consultation," May 24, 2023.

[8] See "How to notes. Fiscal policy. How to select fiscal rules. A primer," Fiscal Affairs Department, IMF, 2018.

[9] Thus, for example, the MTFF 2024-2028 is scheduled to be published on September 4, 2023. https://www.minfin.gob.gt/images/daf/documentos/cronograma2023.pdf

and Government General Policy (GGP) (Box 2).[10] The MYOPs include institutional indicators and targets and an annual and multi-year programming of the five-year national physical and financial budget. The MYOP of the MCIV[11] includes projects in the sector with their respective expenditure estimates per year. As of June 2023, only 44 percent of the 18 projects with requests exceeding Q50 million in 2021 had had an effective allocation[12] based on a diagnosis of mobility needs and a scenario analysis. The Road Development Plan (PDV) includes a list of projects organized into 22 programs for budget sources and public-private partnerships (PPPs). Of the more than 1,000 projects prioritized in the plan, only 10 percent have resources allocated in the budget between 2018 and 2023.

Box 2. Structure of Planning in Guatemala



Country program framework: an intermediate instrument between strategic planning and operational planning. This is where programs are defined and linked to strategic development instruments

The National Investment Plan: Informs prioritization, providing a strategic vision of investment. Proposes general programs

ISP: Instrument coordinating the institutional strategic contribution to the national strategic framework and to priorities, establishing courses of action for available resources

MYOP: contains institutional indicators and targets and the annual and multiyear programming of the five-year physical and financial budget.

AOP: corresponds to the annual institutional programming to achieve development results within the framework of multiyear programming and to guide the government budget

Source: Adapted by the mission based on the Normative, Conceptual, and Methodological Framework of the Planning System of Guatemala, SEGEPLAN 2022.

22. The cost projections of the national plans, MYOPs, and PDVs are unrealistic and only the GGP has aggregate costs. SEGEPLAN carried out an exercise to consolidate the costs of the GGP 2020-2024 at the strategy level and through the accountability report for the second quarter.[13] The estimated costs of the current GGP represent 1.1 times what was programmed between 2020

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[10] Within the framework of the PGG 2020-2024, government representatives also signed the cooperation agreement "Guatemala Moving Forward" with the private sector in order to attract foreign capital to increase private investment in 52 priority infrastructure projects. No explicit relationship was identified between this plan and the public investment planning and prioritization exercises.

[11] The MCIV concentrates 70 percent of physical investment for 2023.

[12] Within the MCIV budget, road investments account for 82 percent of the budget for 2023.

[13] https://cpcc.gob.gt/wp-content/uploads/2021/10/1.-Informe-Ejecutivo-Rendici%C3%B3n-de-Cuentas-2do-Cuatrimestre-SEG.pdf

and 2023 in the operating and investment budget–without borrowing and government obligations payable by the Treasury (Table 2). As for the 2019-2023 MYOP of the MCIV, its projections are equivalent to 1.8 times the investment budget allocated in that period. The 2018-2032 PDV estimates annual investments of Q4,385 million, equivalent to 2.3 times the MCIV investment budget for roads in 2023.

Table 2. Analysis of Costs of GGP and MYOP by MCIV

(in millions of quetzals)

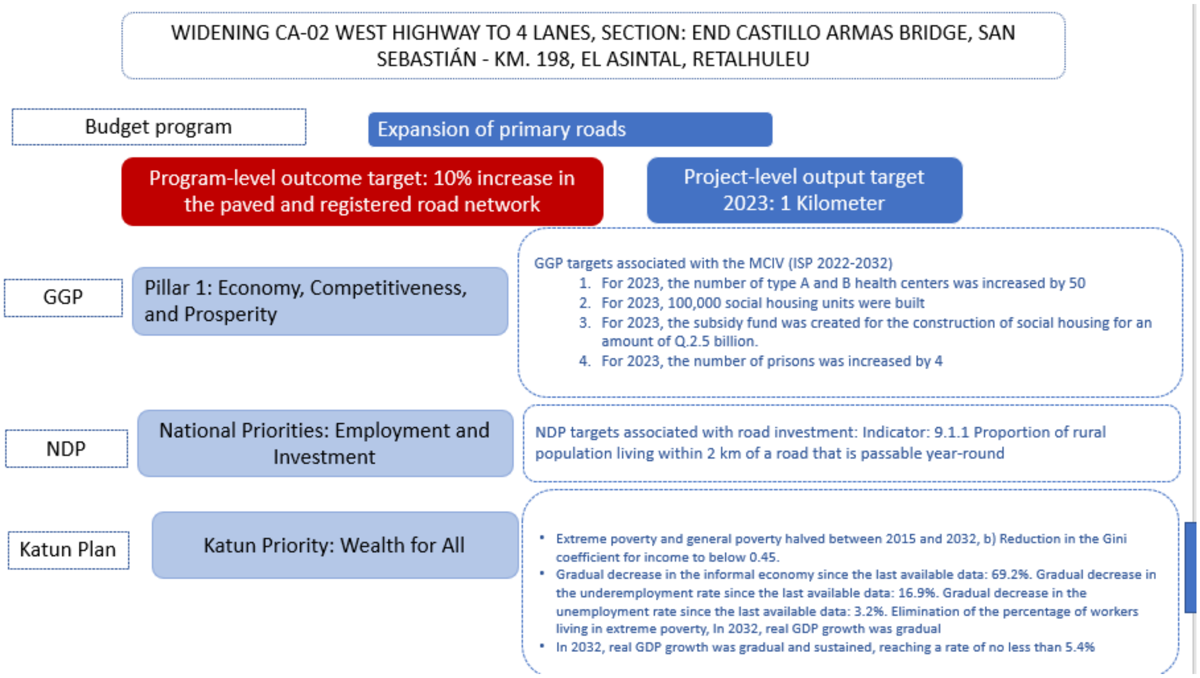
Year	Government General Policy 2020-2023 (1)	Draft Budget* (2)	(3) = (1) / (2)	Investment Projects MYOP MCIV 2019–2023 (4)	MCIV PIP Allocated Investment (5)	(6) = (4) / (5)
2019				8,901.6	4,379.1	2.0
2020	26,556	46,792	0.6	7,421.4	3,718.1	2.0
2021	66,906	55,631	1.2	4,797.9	3,977.1	1.2
2022	76,048	58,000	1.3	2,304.8	3,001.4	0.8
2023	81,817	59,048	1.4	1,461.8	2,970.2	0.5
TOTAL	251.327	219,471	1.1	24,887.4	13,666.8	1.8

* without borrowing and government obligations payable by the Treasury
Source: Mission based on official documents

23. **Although investment projects are linked to output and outcome targets, the linkage to sectoral, strategic, and national planning goals is not direct (see example in Box 3).** The program and results-based budgeting system covers the entire national budget. Each project has a programmatic classification, and the programs in turn have output and/or outcome targets. The programmatic classifications are connected to the priorities of the K'atun Plan and the pillars of the GGP and the PND, but in some cases the connection is general and indirect, which prevents the effectiveness and impact of public investment from being assessed.[14] In the particular case of infrastructure, all measures are associated with the national priority of "jobs and investment." In terms of targets, the MCIV is linked to four GGP targets, which do not include any results associated with the transport sector in terms of mobility, safety, or economic impact, among others.

[14] The analysis of major projects with resources allocated in 2023 shows that all road projects have output objectives in terms of kilometers of road built or included in measures. The outcome target of progress in increases in the country's paved roads is also an indicator of output and not of outcome. For example, result indicators would be a reduction in mobility time, road safety, economic development, or promotion of tourism.

Box 3. Analysis of the Relationship of Goals and Plans for a Large Investment Project in Guatemala



Source: Prepared by the Mission based on the various plans and documents of the 2023 budget.

24. **Improving the linkage between planning and programming requires sectoral and/or national investment plans that are aligned through outcome goals and include strategic projects with realistic costs.** An adequate costing of the objectives and targets of the NDP and GGP, which includes all sources of financing for the projects, would make it possible to define achievable and bankable output and result targets. During the programming of the budget, the investment plans enhance the role of SEGEPLAN and MINFIN in assigning institutional ceilings that are better aligned with fulfillment of the plans. It is necessary to improve sectoral plans for investments in road, education, health, and water infrastructure with horizons of more than four years and linked to the output targets defined in medium- and long-term plans such as the NDP, GGP, or the K'atun Plan. These capital investment plans, as well as the MYOPs, should also take into account infrastructure gaps by sector, their absorption capacity, and medium-term fiscal constraint. In particular, the PDV must improve the linkage between the physical progress of the works and the expected outcomes at the country level in terms of road safety, travel time, people with access to paved roads, economic growth, and tourism.

3. Coordination between Entities (Institutional Strength: Medium; Effectiveness: Medium; Reform Priority: Low)

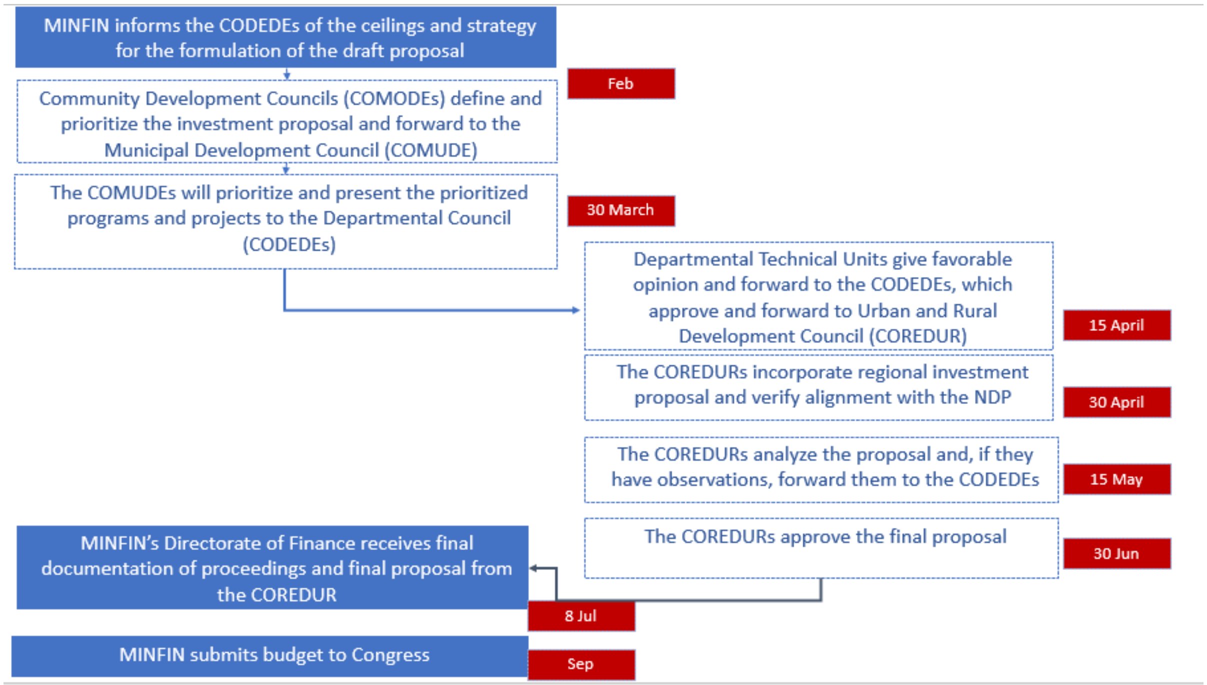
25. **The different levels of government, within the scope of their autonomy, must coordinate their investment plans and decisions to ensure the consistency and complementarity of projects, as well as the predictability of resources and the quantification of risks.** This institution first assesses the level of coordination between the central government and subnational governments. It analyzes whether formal coordination mechanisms are in place and whether it is possible to assess investments in a comprehensive manner. Second, the institution assesses

whether the central government uses a transparent, rules-based system to make capital transfers to subnational governments in a timely manner. It also analyzes whether there is an institutional framework that mandates the consolidation of data, the reporting of information, and the disclosure of the central government's exposure to fiscal risks related to investment projects carried out by other public entities at the national or subnational level (subnational governments, PCs, concessions, and PPPs).

26. Most municipal and national investment projects and plans can be consulted in an integrated system, but only one-third of them are coordinated through a formal discussion mechanism. One-third of municipal investment resources are coordinated with the national level under the formal mechanism of the CODEDE and about two-thirds of total municipal investment resources correspond to projects registered, prior to their execution, in the Public Investment Information System (SINIP), which are not formally discussed. The country's municipalities receive, *inter alia*, 2.5 percentage points of Value Added Tax (VAT), the rate of which is 12 percent. One and a half percentage points go directly to the municipalities and one percentage point to the Departmental Development Councils (CODEDE).[15] For these resources, there is a formal and well-organized[16] mechanism for prioritizing investments that allows for the linkage and coordination of investments among the 5 levels of government.[17] It begins with the identification and prioritization of projects in an investment proposal that starts at the community level (Box 4) and ends with their inclusion in the general budget. In addition, municipalities, in accordance with the rules of the National Public Investment System (SNIP), must register projects in the SINIP. An analysis of its records shows that in 2023 there are projects with allocated resources of Q6.97 billion, equivalent to 60

[15] For 2023, the resources allocated to the CODEDE amount to Q 3.392 billion, which represents 29 percent of the total resources that are transferred for investment.
[16] Decree 11/2002.
[17] These are the national, regional, departmental, municipal, and community levels.

Box 4. Resource Approval Stages CODEDE Peace Law

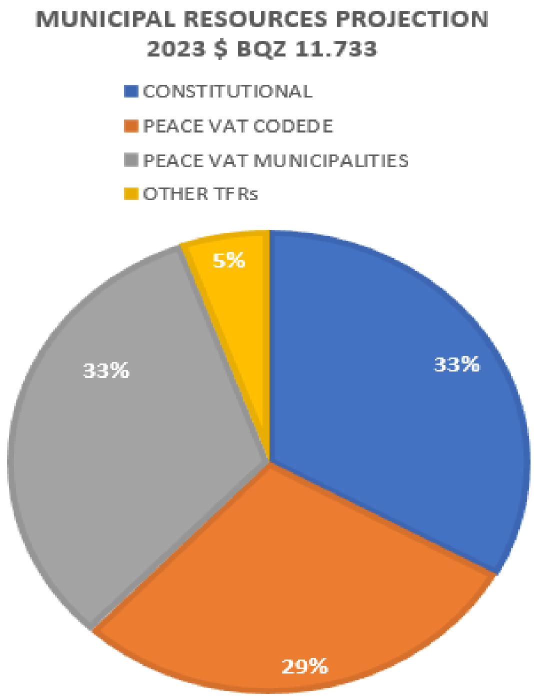


Source: Mission based on MINFIN documents[18]

27. Transfers of capital resources to subnational governments have clear and transparent rules, but, with the exception of the Peace VAT resources, their availability is not communicated sufficiently in advance. There are five types of municipal transfers: Income from the CODEDE Peace Tax, the Municipal Peace Tax, the Constitutional Contribution, the Tax on the Distribution of Petroleum Derivatives, and the Tax on the Circulation of Vehicles. The percentage allocated to the municipalities is laid down by law (Figure 22) and the rules of the constitutional contribution laid down in Decree 12-2002 (Box 5) apply to all of them. For the resources of the CODEDE Peace VAT Law, an indicative distribution is delivered in February of the previous year and a definitive one before June 30. For constitutional contribution resources, pre-calculations are made in the month of September, which are used for the distribution of resources from the budget. The final allocation of constitutional resources is communicated once the fiscal year has begun. For the years 2022 and 2023, the total distribution of the pre-calculated amount remains unchanged compared to the final calculation. Only some municipalities show variations of less than 1 percent between the amounts reported in September and the final amounts allocated during the first five days of the fiscal year.

[18] https://www.minfin.gob.gt/images/ejes_presupuesto_abierto/2020/3proceso_codede.pdf

Figure 22. Estimate of Municipal Investment Resources 2023



Source: Mission calculations based on budget information and MINFIN documents. It is assumed that the resources of the municipalities mainly cover current expenditure.

Box 5. Rules for the Allocation and Distribution of Municipal Transfers

Source Type	Allocation Rule	Distribution Operation v. Investment	Distribution Rule
Peace VAT Tax Revenues (Source 21)	Article 10 of Decree No. 27/92, Law on Value-Added Tax. 1.5% of the 12.0% VAT rate will be allocated to the municipalities of the country	25% Operation 75% Investment	Pursuant to Article 119 of Decree No. 12/2012 • 30.0% distributed in proportion to the total population of each municipality • 35.0% distributed in equal parts to all municipalities • 25.0% distributed in proportion to each municipality's own per capita revenues • 10.0% distributed directly in proportion to the number of villages and hamlets.
Ordinary Income from Constitutional Contribution (Source 22)	Article 257 of the Political Constitution of the Republic of Guatemala: contribution to the country's municipalities equivalent to 10.0% of the ordinary revenue budget	90% for programs and projects in education, preventive health, infrastructure works, and public services that improve the quality of life of the inhabitants. 10% may be used to finance operating expenses	
Tax on the Distribution of Crude Oil and Oil Derivatives (Source 29)	Article 23 of Decree No. 38/92 and Law on the Tax on the Distribution of Crude Oil and Fuels Derived from Oil: of the tax levied on superior gasoline (Q4.70), Q0.10 per gallon will be earmarked for the Municipality of Guatemala, while Q0.20 per gallon will be earmarked for the rest of the municipalities.	100% Investment	
Tax on the Circulation of Land, Maritime, and Air Vehicles	Decree No. 70/94: Law on the Tax on the Circulation of Land, Maritime, and Air Vehicles, municipalities are allocated 50.0% of the tax on land vehicles, 20.0% of the tax on maritime vehicles, and 30.0% of the tax on air vehicles.	90% Investment 10% Salaries	

Source: Mission based on analysis of laws and decrees on transfer and MINFIN information.

28. The national government does not have a clear map of the risks that certain investment projects in the country may represent in the event that serious problems arise, and its intervention is required. There is no legal requirement for the systematic reporting of contingent liabilities of investment projects of municipalities, public corporations (PCs), concessions, or PPPs. The various institutions are not required to report or maintain information on the contingent liabilities of investment projects. MINFIN, for its part, does not request information or prepare analyses of contingent liabilities arising from investment projects.

29. Developing a comprehensive analysis of the fiscal risks arising from investment projects independent of the source of financing is necessary to improve risk management. Legislation is required to require PCs, subnational governments, and investments with private participation (PPPs or concessions) to submit to MINFIN an estimate of the contingent liabilities of projects. MINFIN's risk analysis would be strengthened if estimates of contingent liabilities by sector, entity, and investment project were included in the fiscal risks chapter of the budget documentation. This consolidation will allow MINFIN to run different risk scenarios (growth, inflation, terms of trade, exchange rates) and to itemize the fiscal risks associated with guarantees, legal rulings, and operation of trust funds, investments by PCs, concessions and PPPs, and subnational governments.

4. Assessment of Projects (Institutional Strength: High; Effectiveness: Medium; Reform Priority: Medium)

30. Assessment analyze the benefits and costs of projects and their contribution to the achievement of the objectives set out in national or sectoral plans. To be useful, assessments should be conducted before projects are included in the budget, ideally even before they are included in development plans. In addition to providing useful information (indicators) for deciding the value of the project to the country, they lay the groundwork for implementation planning, thus contributing to effective and efficient implementation. The first dimension of this institution examines whether projects are systematically evaluated. The second studies the existence and use of a standard methodology for project formulation and assessment. And the third dimension deals with the consideration of risk in project appraisals.

31. All projects, regardless of their size, are systematically subject to technical, economic, and financial analysis. To this end, Guatemala has the SNIP regulations[19] and the Public Investment Project Formulation and Assessment Guide (FEPIP).[20] The SNIP regulations define four cost ranges for projects and establish the level of detail of the study required to obtain a technical opinion from SEGEPLAN. The levels of study are two types of profile with different requirements, pre-feasibility study and feasibility study. The Government Investment Agencies (EPI) carry out the studies and register them in the SNIP information system (SINIP), but they are not published. Box 6 presents the main aspects to be included in pre-investment studies according to the SNIP regulations. A review of project appraisals showed that not all of them address all the aspects required by the FEPIP Guide.

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[19] The standards are updated and published annually by SEGEPLAN. See: https://sistemas.segeplan.gob.gt/guest/SNPPKG$PL_DOCUMENTOS.DOC_NORMAS_SNIP

[20] Available at: https://sistemas.segeplan.gob.gt/guest/SNPPKG$PL_DOCUMENTOS.DOC_MANUAL_FORMULACION

Box 6. Content of Pre-Investment Studies

1. Assessment of the current situation
2. Identification of the project including an analysis of alternatives
3. Market survey
4. Technical Analysis
5. Study of administrative aspects
6. Legal analysis
7. Financial study, analysis, and assessment
8. Analysis of the social and economic benefits to be obtained from implementation of the project
9. Environmental study in accordance with the provisions of MARN, including the mitigation measures in the technical study.
10. Risk analysis with the AGRIP tool, incorporating what is appropriate into the technical study (including climate change analysis).

Source: SNIP regulations 2023

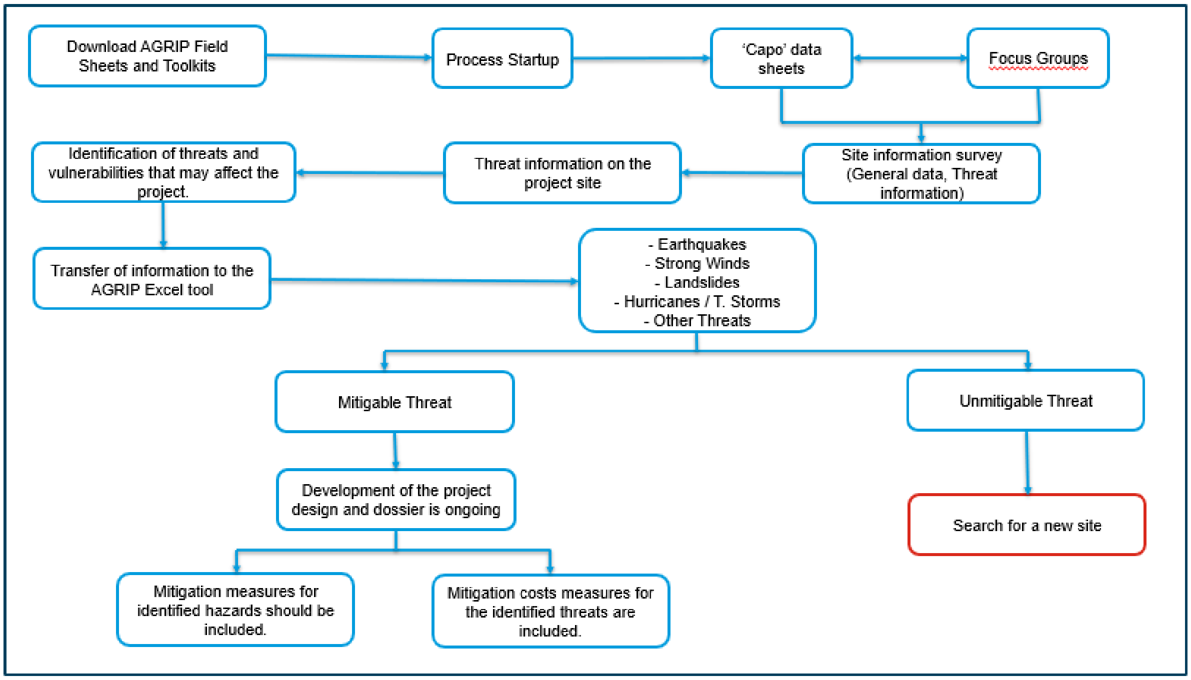
32. **The FEPIP Guide is the standard methodology for project appraisal and is effectively used for all project typologies and levels of study.** It covers all relevant aspects of the formulation and the economic and social assessment of a project in accordance with international best practices. There are no sector-specific methodologies, except for the use of HDM-4[21] for road projects. Some accounting price ratios (RPCs) have been calculated for use in economic assessments, but key social prices such as the social discount rate and the value of time have not yet been determined.[22] SEGEPLAN provides support for the application of the FEPIP Guide to EPIs through training and technical assistance.

33. **The FEPIP methodology includes a chapter on risk analysis, another on sensitivity analysis, and is complemented by the AGRIP tool.** The AGRIP includes forms for risk analysis for: volcanic events, landslides or cave-ins, floods, hurricanes, climate change, and other types of threats (Figure 23). The AGRIP is complemented by an Excel application that records the information and presents the aggregated results of the risk analysis, helping to verify whether the project is well located and adapted to the risks of natural disasters. According to the SNIP regulations and the FEPIP Guide, all projects must include natural disaster risk mitigation measures and these must be costed and included in the assessment. The impact of other types of risks, such as variation in costs or demand, is captured through the sensitivity analysis. A review of feasibility studies shows that this is done in practice in most, but not all, studies.

[21] HDM-4 is a software package that supports the decisions relating technical and economic assessments of projects, investment in roads. In particular, the software helps to efficiently determine the improvement and maintenance strategy.

[22] The FEPIP Guide explains the use of the social discount rate (SDR), but the value of SDR is not included in the guide and the mission did not receive any document indicating its value and indicating how it was calculated.

Figure 23. Diagram of the Process of Analysis of the AGRIP Tool



Source: AGRIP Presentation 2023

34. International best practices indicate that pre-investment studies should be public,[23] **which is not the case in Guatemala.** Likewise, it is good practice for pre-investment studies to include disaster risks but a good analysis of the risks that implementation of the project may face from other causes is also required. In this regard, the FEPIP methodology can be improved. In addition, in order to facilitate and standardize social assessments, implicit costs for all key parameters are required to be published and updated regularly.

5. Alternative Financing of Infrastructure (Institutional Strength: Medium; Effectiveness: Low; Reform Priority: Medium)

35. This institution assesses the modes of participation of the private sector, concessions, PPPs, and public corporations in infrastructure. The private sector offers additional resources to finance projects, but the authorities must implement mechanisms to monitor and manage fiscal risks in order to mitigate them. Within this framework, the first dimension assesses whether there is a solid regulatory framework that promotes competition in the different infrastructure-related sectors. The second dimension highlights the political and legal framework for concessions and PPPs. The third dimension examines the supervisory mechanisms for PCs and the level of coordination of their investments with national priorities.

36. There is effective competition in the telecommunications and electricity subsectors, which are open to private initiative. The legal framework incentivizes private participation in only

[23] See for example www.infrastructureaustralia.gov.au

two infrastructure subsectors and there are some technical regulators. In Guatemala, there is no general competition law. It is the sectoral laws that govern the functioning of the different infrastructure sectors (Table 3). In most sectors (water, [24] ports, roads, or airports), public corporations or ministry operators[25] operate directly with little or no private sector involvement. However, there are mechanisms that facilitate the participation of the private sector in certain transport subsectors. Ports can grant container operations to private companies through concessions. Concessions can also be granted for highways.[26] In the telecommunications sector, two private companies share the mobile telecommunications market and there is effective competition between multiple internet service companies. In the electricity sector, the legal framework favors competition in subsectors, especially in electricity generation,[27] under the supervision of a regulator. In practice, public corporations (the main one being the INDE)[28] and private companies compete through tenders to obtain long- and short-term contracts with distributors.

Table 3. Design of the Electricity and Telecommunications Markets

Sector	Sectoral law	Technical Regulatory Body	Main competitors and market shares[29]
Electricity	General Law on Electricity (Decree 93/96 and Government Decisions 68/2007 and 69/2007)	Comisión Nacional de Energía Eléctrica	More than 60 companies operate in the generation subsector including INDE (~15%), Jaguar (~15%), Renace (~7%), San José (~57%), Caribe (~5%), Oraaluz (~53%), Caribe (~5%), Renace (~5%), and Biomass (~5%), among others
Telecommunications	General Law on Telecommunications (Decree 94/ 96, as amended by Decrees 115/97 and 3/23)	Superintendency of Telecommunications (MCIV agency)	In mobile services: Tigo and Claro. In the Internet sector: more than one hundred companies.

Source: Mission based on data from the study “Estructura y poder de mercado en los sectores de la generación de electricidad y telefonía celular” (G. Diaz, 2021).

37. Although there is a legal and institutional framework for PPPs and concessions, the country's experience in the area is limited. There is only one PPP contract signed, and no concessions. With the aim of incentivizing PPPs, the Law on Partnerships for the Development of Economic Infrastructure, passed in 2010, has established the main rules for competitive tendering, the award of contracts, supervision and operation of PPPs.[30] There is a decentralized entity – the National Agency for Partnerships for the Development of Economic Infrastructure (ANADIE) – that

[24] Although there are options for the participation of private companies in the water sector, in practice, it is provided by municipal public corporations.

[25] Notably the public corporation - FEGUA - for the railways and several public corporations in responsible for the ports. Other infrastructure, such as La Aurora International Airport, are managed directly by a government entity (the Directorate-General of Civil Aeronautics in the case of the airport).

[26] As was the case with the Palín-Escuintla highway concession.

[27] The distribution subsector has only two private companies and more than ten municipal enterprises.

[28] INDE is responsible for the electricity grid and the generation of part of the country's electricity.

[29] Data for the electricity generation sector.

[30] Article 37 requires the Ministry of Public Finance to carry out a study on the impact of the project on public finances (estimation of the budgetary and financial impact as well as the obligations to be incurred by the government under the contract).

provides technical[31] support to government entities that want to contract a PPP. It also has an inspection directorate that monitors compliance with service levels. However, there is no implementation strategy. ANADIE publishes information on PPPs on its website, notably a detailed presentation of the portfolio that contains seven projects in the study phase, with a total investment value estimated at 1.8 percent of GDP (Table 4). Five of them are in the design phase and another in the tender prequalification phase. Only the Escuintla Puerto Quetzal toll highway project was approved by Congress at the end of 2021.[32]

Table 4. Portfolio of Public-Private Partnership Projects

Project	Category	Contracting Institution	Status	Contract duration	Estimated investment (US$m)	Probable financial structure
Modernization, Efficiency and Safety of La Aurora International Airport Guatemala City	Ports and airports	Ministry of Communications Infrastructure and Housing	Previous studies	20 years	158	Private partner capital contributions: 30% Bank leverage: 70%
Road Interconnection and Urban Passenger Transportation of the North-South Axis of Guatemala City.	Transportation	FEGUA and Municipality of Guatemala	Previous studies	30 years	770	Private partner capital contributions: Government participation
Mass Public Transportation System of the East-West Axis of the Metropolitan Area of Guatemala.	Transportation	Municipality of Guatemala	Previous studies	o be determine	o be determine	To be determined
State Administrative Center in Guatemala City	Public Buildings	Ministry of Public Finance	Prequalification of bidders	23 years old	240	Government participation
Construction, expansion and improvement of the Libramiento a la Ciudad de Guatemala.	Road Infrastructure	Ministry of Communications Infrastructure and Housing	Previous studies	28 years old	310	Private partner capital contributions Bank leverage Government participation
Intermodal Dry Port Tecún Umán II	Ports and airports	Ministry of Economy	Previous studies	23 years old	40	Private partner capital contributions
Escuintla - Puerto Quetzal Highway	Road Infrastructure	Ministry of Communications Infrastructure and Housing	Preconstruction	25 years	125	Private partner capital contributions

Source: *Strengthening the supervision of fiscal risks* (IMF TA mission, April 2023).

38. **The government has information on the investment projects of PCs, but a process is needed to coordinate them with national priorities.** There are eight national non-financial enterprises and sixteen municipal enterprises. These entities play a significant role in the area of public investment, with PCs[33] implementing about one-quarter of all public sector investment projects. Ninety percent of the total investment of public corporations is made by the national port company Santo Tomas de Castilla, Empresa Portuaria Quetzal, and INDE. According to Article 47 of the Organic Budget Law (LOP), companies with majority government capital must transmit to MINFIN the amounts and purposes of their investments. For its part, the Directorate of State Accounts (DCE) receives, every year, the financial statements of all PCs (national and municipal). The authorities provide an assessment of the profitability, financial liabilities, and financial liquidity of PCs on an annual basis in the Fiscal Risks Report. That centralized report does not include a review of the PCs' investment plans. However, while PE boards are staffed by representatives of the government and ministries (who may be directly ministers or appointees of the president), there is a lack of a

[31] Upon receiving a project, it notably conducts a pre-feasibility study to determine if it can be a PPP, organizes prioritization among the different projects, and carries out a prequalification process with public corporations.

[32] The project does not provide for government guarantees.

[33] 90 percent of the total investment of public corporations is made by the national port company Santo Tomas de Castilla, the Empresa Portuaria Quetzal, and INDE.

dedicated process or unit to ensure the coordination of PCs' investment plans with national priorities and central-level investments.

39. Strengthening alternative financing of public infrastructure requires more active monitoring of the status of PCs and greater involvement of private companies. The coordination of PCs' investments with national priorities could be improved. This requires definition of the government's objectives as a shareholder, active and effective monitoring of PCs by a dedicated unit, and publication of an annual report outlining the investment projects of the PCs and their outcomes. Greater competition in the infrastructure subsectors and the use of PPPs (only when the cost-benefit analysis demonstrates that they are appropriate) would increase the level of private investment in infrastructure in Guatemala. It is necessary to investigate[34] the reasons for the rarity of PPPs and concessions in Guatemala and the incorporation of the necessary changes, studying for example the experiences of the most successful countries in this area, such as Chile, Colombia, or Mexico.

C. Allocate Investments to the right Sectors and Projects

6. Multi-Year Budgeting (Institutional Strength: Low; Effectiveness: Medium; Reform Priority: Medium)

40. This institution aims to assess the transparency and predictability of investment by ministries, programs, and projects in the medium term. Major public investment projects take more than a year to implement and expenditure is not evenly spread throughout the construction phase. This complicates capital budgeting. The first dimension examines whether multi-year global estimates of the resources available for public investment expenditure are published. The second dimension examines the existence of multi-year limits by ministry or sector. Since most major projects are proposed by sectoral ministries, projects can be prioritized more effectively if the multi-year funding constraint is brought to their level. The third dimension determines whether the total construction cost of major projects and the expenditure required for each year within that total are published.

41. The budget includes the budget for the following fiscal year and the multi-year budget.[35] It presents a projection of aggregate capital expenditure for the budget year and the following four years, without distributing this expenditure by ministries or sectors.[36] Projected capital expenditure covers physical investment and capital transfers to municipalities and CODEDEs. The multi-year budget projects aggregate central government investment expenditure for the next 4 years by classification by type and subgroup of expenditure. Expenditure projections are based on the MTFF and are framed within a budget constraint determined by the medium-term revenue projection and

[34] In particular, it would be useful to see whether Parliament's approval of PPPs or the lack of sufficient ANADIE resources constitute obstacles to the use of PPPs. It is also possible that the authorities know little about the PPP tool and its use scenarios.

[35] The multi-year budget is prepared by MINFIN as established in Article 8 of the LOP.

[36] For fiscal year 2022, the multi-year budget was presented as Annex 6 of the document "Draft General Budget of State Revenues and Expenditures for the fiscal year 2022 and multi-year 2022 – 2026." See: https://www.minfin.gob.gt/images/archivos/proypre22/Inicio.htm

financing policy. However, multi-year capital expenditure projections are a relatively recent product that began with the 2021 budget and the 2022-2025 multi-year budget.[37] Previous budgets only projected investment expenditures at the aggregate level and by *type of expenditure*, so the projections totaled both physical investment and capital transfers and financial investment, making it impossible to identify the investment of budgetary entities. Consequently, and given that the 2021 budget was not approved, it is only possible to compare the capital expenditure projections that were made for the year 2023 in the 2022 budget with the capital expenditure appropriations actually incorporated in the 2023 budget (Table 5).

Table 5. Physical Investment Budget Appropriations and Physical Investment Projections for the Same Years (Million GTQ)

Projections	2022	2023
Budget 2021	Not available (1)	Not available (1)
Budget 2022		4,416
Capital Expenditure Appropriation Approved	4,388	4,371
Appropriation 2023 budget / Projection made in 2022 budget		-1.02%

(1) The 2021 budget was not approved and governed the previous year's budget.

Source: DTP of MINFIN

42. **The budget process includes the communication of institutional aggregate expenditure ceilings without identifying specific ceilings for capital expenditure.** Institutional ceilings are established in the budget formulation process by the DTP. Then, the Presidency issues a document that describes the policies and guidelines that the institutions of the central administration and the decentralized entities must observe for the formulation of the preliminary draft budget.[38] The DTP supplements these instructions by issuing forms and methodologies that guide the formulation of institutional budgets. In each institution, the UDAFs are responsible for analyzing the consistency of the programming presented in the budget with the established ceilings.[39] One aspect to highlight is the five-year projection that the multi-year budget makes of the main budget programs of the different ministries.[40]

43. **Estimates of construction costs for major projects are not published.** The draft budget only includes the costs to be accrued in the fiscal year, although the LOP provides that the costs of multi-year projects must be included. The budget includes total investment disaggregated into physical investment, capital transfers, and financial investment. In addition, the budget documents include a chapter referring to the physical investment program that contains both the works to be executed by ministries and the investment projects to be executed by the CODEDEs. The investment program is presented classified by department, work, municipality, entity, executing unit, SNIP code, and source of financing. However, the monetary units refer to the amounts appropriated by the budget law and there is no reference to the total costs of the projects included.[41] On the other hand, the PIP published by SEGEPLAN includes the universe of new and carryover projects, covering, in

[37] Although it was not approved by Congress, it was published by MINFIN based on the previous year's budget.
[38] Budget Formulation Manual, Chapter 1. Ministry of Finance, January 2005.
[39] Budget Formulation Manual, Chapter 5. Ministry of Finance, January 2005.
[40] See, "Multi-year Budget 2023 – 2027," pp. 15-18.
[41] The same is true for investment in equipment, which is classified by institution.

addition to budgetary entities, public corporations and CODEDEs. It includes both projects with a favorable technical opinion from SEGEPLAN and those pending approval but presents the programmed amounts of the projects and does not include estimates of their total cost. The projects presented in the 2023 PIP amount to Q 14.398billion, while the investment projects in the budget of the same year total Q 3.352 billion for the budget entities and Q 3.392 billion for the Development Councils (Table 6).[42] The MINFIN web portal includes a page for the list of works of approved investment programs, but the information has not been updated in recent years.[43] Article 15 of the LOP provides that when there is investment expenditure whose execution goes beyond a fiscal year, the budget must report the amount executed in previous years and the amounts that are expected to be executed in future years. This information, however, does not appear in the budget documents.

Table 6. Budget 2023: Total Investment and Investment in Projects (Million GTQ)

	Total Investment	Investment in projects
Total	**20,316**	**6,744**
Physical Investment	**4,371**	
Works of government ministries	3,352	3,352
Equipment	1,018	
Capital transfers	**15,924**	
of which: CODEDE Projects	3,392	3,392
Financial investments	**20**	

Source: Budget 2023

44. **The MTFF needs to be improved by distinguishing between operating and capital expenditure and this could be done in the short term.** Capital expenditure projections in the multi-year budget should include a breakdown by ministries or sectors. The budget process should include the communication of aggregate investment ceilings and institutional ceilings for institutions to comply with the funding constraints laid down by the MTFF. Project costs, which include expenditure incurred in past years, expected expenditure in the current year, and expenditure planned for future periods, should be disclosed in the budget documents.

7. Budget Coverage and Unity (Institutional Strength: Low; Effectiveness: Medium; Reform Priority: Low)

45. **This institution assesses the extent to which capital expenditure and related recurrent expenditure are considered in the budget process.** All capital expenditure proposals should be evaluated together as part of the budget documentation, regardless of the type of entity or funding source, in order to allocate funds in the most efficient manner. First, it examines the level of capital expenditure that is channeled through extrabudgetary entities and how it is reported. Secondly, it analyzes how the information on capital expenditure made through PCs, PPPs, and external

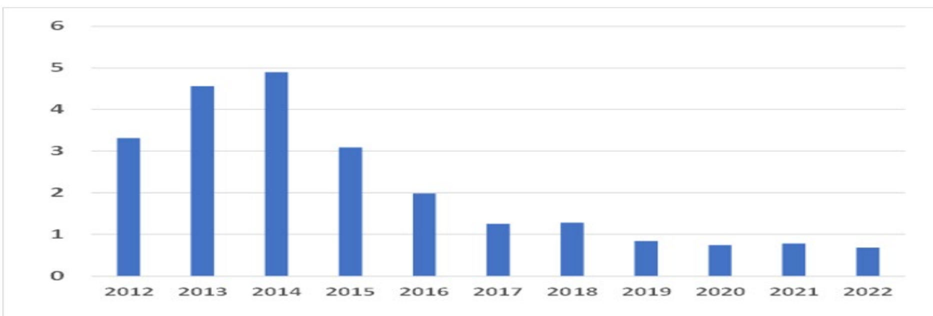
[42] See 2023 Budget. It is relevant to mention that in the 2023 budget, physical investment amounted to 4.371 billion Q, of which 3.352 billion are projects to be executed by entities.

[43] https://www.minfin.gob.gt/index.php/presupuestos-aprobados/programas-de-inversion-aprobados

financing is presented. Thirdly, it assesses whether the capital expenditure and recurrent expenditure budgets are prepared and presented together in the budget to ensure coordination.

46. The regulatory and normative framework allows trusts to make capital expenditure but does not require such expenditure to be included in budget documents, however the capital expenditure of trusts in 2022 was less than 1 percent of central government capital expenditure. The capital expenditure of trusts is negligible and their relative importance has been declining.[44] The capital expenditure of trusts is not disclosed in the budget documents. The number of current central government trusts is falling over time, having decreased from 36 in 2015 to 19 in March 2023. Consequently, the budget execution of trusts measured as a percentage of the budget execution of central government fell from 4.9 percent in 2014 to 0.7 percent in 2022[45] (Figure 24), although the expenditure of these entities is mostly oriented towards subsidies and not investment. In order to establish a public trust, MINFIN, following technical opinions from the Directorate of Trusts and the DTP, must issue an opinion.[46]

Figure 24. Budget Execution of Trusts as a Percentage of Central Government Budget Execution



Source: Monthly report of public trusts in force. March 2023.

47. The LOP provides that items of budget expenditure must identify their source of financing. Consequently, externally financed capital expenditure can be identified at the project level in the Investment Program that accompanies the budget.[47] Investments made by PCs, concessions, and PPPs are not included or commented on in the budget documents. The budget has a chapter called "Physical Investment, Capital Transfers, and Financial Investment Program," which identifies externally sourced financing for investment classified by type of work, department, municipality, entity, and executing unit.

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[44] The capital expenditure made by trusts in the year 2022 was equivalent to 0.03 percent of the capital expenditure of central government.

[45] "Monthly Report of the Current Public Trusts", No. 12, 2022, as of December 2022. Ministry of Public Finance; The investment levels of central government and trusts in 2022 were Q4.61 billion and Q537 million, respectively. For its part, the budget execution of central government and trusts in 2022 amounted to 108.593 billion Q and 760 million Q, respectively.

[46] The opinion must be drafted by the Ministry's Legal Department. See https://www.minfin.gob.gt/images/subsitios/fideicomisos/archivos/constitucion.pdf

[47] The LOP provides that budgetary entities must budget all their expenditures and identify the respective sources of financing based on the budget revenue classifier (LOP Articles 10 and 12)

48. The current budget and the capital budget are presented under a programmatic and functional classification and are coordinated, but this coordination is not carried out for the investment projects that Congress adds to the budget at the time of voting on it and, therefore, a relevant part of capital expenditure lacks coordination.[48] MINFIN is responsible for formulating the budget in coordination with SEGEPLAN.[49] MINFIN consolidates the general budget of the public sector after each of the institutions submits to it their preliminary draft institutional budgets.[50] In order to align budget and planning, SEGEPLAN and MINFIN, in a coordinated manner, provide the entities with the guidelines that make the plan compatible with the budget.[51] A central aspect of this coordination is that before February 28 of each year, SEGEPLAN submits a report that assesses the government's general policy and, on this basis, MINFIN proposes to the entities the guidelines for the preparation of the budget for the following fiscal year.[52] Current expenditure and capital expenditure, however, are not fully interrelated. This is particularly the case with the numerous investment projects that are added to the budget by Congress at the time the budget is voted on, a practice that prevents the DTP from analyzing them at the budget preparation stage.[53]

49. It is recommended to make the investment projects added by Congress part of the budget process and to publish investment projects to be executed by the trusts, PPPs, and EPs in the budget documents and, in the medium term, it is advisable to modify the regulations so that extrabudgetary entities cannot make public investment. It is also recommended that the regulations incorporate PPPs, concessions, and PCs as entities whose financing of capital expenditure is reported in the budget documents. It is very important to move forward in restricting the practice of Congress incorporating projects whose budget programming has not been carried out in order to ensure that the execution of current and capital expenditure is parsimonious and complementary. The incorporation of projects carried out by Congress occurs not only at the time the budget is received by Congress, but also during the fiscal year. In 2022, for example, while the budget voted on included investment expenditure of GTQ 4.388 billion, in March, Congress issued Decree 21 by which investment projects in the amount of GTQ 3.191 billion were added. Progress should be made in a reform of the LOP by which the projects added by Congress when the budget is voted on must enter SEGEPLAN for evaluation if they have not been evaluated and, in addition, must not be included in the budget that is being voted on but be incorporated into the following year's budget bill. In this way, these projects will have adequate financing the following year, given that the budget bill presented by MINFIN has all its revenues financing expenditures, and there is no room to include additional expenditure.

[48] Congress added projects for 499 million Q to the 2023 budget proposal (7.4 percent of the total of 6.744 billion for the projects included in the Budget).
[49] Organic Law on the Budget, Art. 9, subsection b.
[50] Organic Law on the Budget, Art. 21.
[51] Implementing Regulation of the Organic Law on the Budget, Art. 16.
[52] Implementing Regulation of the Organic Law on the Budget, Art. 23 and Chapter 1 of the "Budget Formulation Manual", January 2005, MINFIN.
[53] For the 2023 budget, Congress added investment projects for Q499 million, which represents 11 percent of the investment projects in the budget bill sent by the Presidency. (See Articles 122, 123, and 125 of the 2023 budget).

8. Investment Budgeting (Institutional Strength: High; Effectiveness: Medium; Reform Priority: High)

50. This institution focuses on protecting funding in the budget for multi-year projects to ensure that resources are available when they are needed during construction. Funds may not be available to complete a project on time, which may occur because the total funding requirements were not well estimated when the project was first approved, or because of the approval of new projects that result in reductions in funding for ongoing projects. In addition, pressures may arise to shift budget authorization from capital expenditure to current expenditure, limiting the financing of some projects. To avoid this situation, strict rules are necessary, including approval by the legislature. The first dimension of the institution analyzes whether the investment commitments implied by the projects are found in the budget documents. The second dimension focuses on whether appropriate capital expenditure in the budget can be reduced. Finally, the third dimension asks whether ongoing projects are effectively prioritized.

51. The regulations require budget documents to report on the total costs of projects. The LOP provides that, for investment projects whose execution exceeds one fiscal year, the budget must include information on the amounts executed in the past and those expected to be executed in the future.[54] However, this information is not published in the budget documents. As mentioned for institution 6, the budget includes investment projects, but only the amount that is expected to accrue in the fiscal year and not their total cost.

52. The Constitution of the Republic of Guatemala provides that funds may not be transferred from investment programs to operating programs or to pay off government debt. Consequently, the overall amounts appropriated for investment cannot be reduced during execution and this is effectively complied with, as can be seen in Table 7. MINFIN must authorize transfers between investment items when they involve transfers between programs.

Table 7. Allocated, Current, and Accrued Investment Budget for 2021 and 2022 (Million GTQ)

Purpose of the expenditure	2021			2022		
	Assigned	Actual	Accrued	Assigned	Actual	Accrued
Lands and Properties	153	34	7	0	36	9
Production Machinery & Equipment	2	3	0	22	18	18
Office furnishings and equipment	50	56	33	33	45	30
Medical and laboratory equipment	217	215	133	148	232	174
Educational, cultural, and recreational equipment	27	85	56	59	82	70
Transportation equipment	172	217	86	443	237	209
Communications equipment	20	40	14	52	24	17
Construction machinery and equipment	21	12	12	13	38	37
Computer equipment	89	188	81	147	324	295
Other machinery and equipment	179	419	197	506	415	364
Construction of national assets for common use	2,936	3,106	2,850	2,031	3,140	2,578
Construction of national assets for non-common use	652	454	158	631	952	701
Intangible assets	5	5	2	3	0	0
Military and security equipment	269	15	14	294	7	6
Military Construction	0	14	14	0	6	6

[54] LOP, Article 15.

Other	0	0	0	1	1	0
Total	**4,791**	**4,861**	**3,655**	**4,386**	**5,557**	**4,514**

Source: MINFIN / DTP.

53. The Constitution provides that when multi-year works are procured, future budgets must provide sufficient funds for the completion of these[55] works and the LOP lays down a similar requirement.[56] In practice, however, a high percentage of ongoing projects do not receive sufficient funding. Article 29a of the LOP provides additional guidelines to ensure the availability of funding for ongoing projects by establishing that prior to contracting construction, transportation equipment, and computer equipment, UDAFs must issue a CDP. In the case of multi-year works, the CDP for the fiscal year must be issued for the amount of the budget appropriation for that year, while for subsequent years it will be issued for each fiscal year indicating the amounts executed in the previous years. The availability of CDPs allows line entities to support and justify the distribution of the resources granted to them by the Budget Execution Programming Committee, in order to ensure the availability of financial quotas to execute the works. In this sense, having CDPs is a requirement for entities to execute the financial commitment quotas. Despite these regulatory safeguards, MCIV officials explained to the Mission that between 30 and 40 percent of carryover projects are not sufficiently funded.

54. It is recommended to move forward to improve integration of the investment plan with the budget by estimating current and capital baselines that serve to determine the available fiscal space. This requires that, in a joint effort between the DTP and the DAPF, progress be made in defining and projecting the baselines of current and capital expenditures in order to project the fiscal space available to incorporate new investment projects on a multi-year basis (example in Box 7). This approach would help with the task of providing financing to ongoing projects according to the work schedules and would provide a sound frame of reference where SEGEPLAN can have a multi-year perspective of the expected financing for new investment projects.

[55] Constitution of the Republic, Article 2F38, letter h.

[56] LOP, Chapter 1.

Box 7. Integration Model, Investment Plan, and Budget

Step 1: Projection of budget revenues. The multi-year revenue projection, generally carried out by macro-fiscal units, as is the case with the DTP in Guatemala, is the first step. Taxation departments, such as the SAT, collaborate in this work, and in some countries the central bank participates and/or revises the projections.

Step 2: Determination of the budget constraint (aggregate ceiling). The overall aggregate expenditure ceiling results, for each year of the multi-year projection, from adding the fiscal budget balance target to the revenue projection (the expected budget deficit is added or the expected surplus is subtracted).

Step 3: Analysis, quantification, and projection of the current expenditure baseline. This step consists of analyzing where and in which goods and services each of the ministries and entities are currently making their expenditures, quantify them, aggregating them for all the ministries and projecting them for the fiscal year and the following 4 years *on the understanding that no changes are made in expenditure policy*. This projection is called the current expenditure baseline and crucially depends on the quality of the information provided by the budget programs.

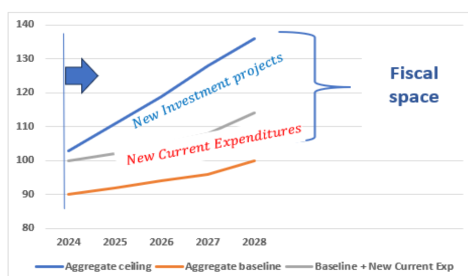
Step 4: Analysis, quantification, and projection of the capital expenditure baseline. This step is similar to the previous one but restricted to capital spending. It is a central stage in the process of integrating the investment plan into the multi-year budget and has two relevant requirements. First, that in the programming of the multi-year budget, the line entities include, for each year, a financial appropriation for projects that reflects in an unbiased way the technical schedule for the execution of the works. Secondly, at the end of the year in which the budget is prepared, all committed and unaccrued capital expenditure should be allocated to the following year's budget appropriations.

Step 5: Determination of fiscal space. Fiscal space arises from subtracting the current and capital baselines from the aggregate budget constraint.

Step 6: Distribution of fiscal space between new current expenditures and new projects. This stage requires the allocation of the available fiscal space to *new current expenditure policy initiatives* and the incorporation of *new investment projects* into the budget. To select which new projects will be incorporated into the budget, countries follow two methodologies. The first is that ministries choose projects from a list of projects that have been economically assessed and are eligible for implementation. The second methodology involves the secretariat or ministry of planning ranking the projects according to their cost effectiveness and this ranking gives rise to the prioritization criterion.

Step 7: Issuance of a budget circular communicating the ceilings for current expenditure and capital expenditure. This stage is the one that makes it possible to arrive at the convergence path between the constraint of the available budget, conditional on the fiscal target (top down), and the requirements of the entities to finance public programs (bottom up).

		2024	2025	2026	2027	2028
	Budget Process FY 2024 (programming in 2023)					
(1)	Projection of budget revenues	100	108	115	124	131
(2)	Fiscal policy objective (deficit)	3	3	4	4	5
(1) + (2) = (3)	**Aggregate budget constraint**	**103**	**111**	**119**	**128**	**136**
(4)	Current expenditure baseline	70	74	79	85	92
(5)	Capital expenditure baseline	20	18	15	11	8
(4) + (5) = (6)	**Aggregate baseline**	**90**	**92**	**94**	**96**	**100**
(3) - (6) = (7)	**Fiscal space**	**13**	**19**	**25**	**32**	**36**
(8)	New current expenditures	10	10	11	12	14
(9)	New investment projects	3	9	14	20	22
(10)	Budget ceiling current expenditure	80	84	90	97	106
(11)	Budget ceiling capital expenditure	23	27	29	31	30
(10) + (11) = (12)	**Aggregate ceiling**	**103**	**111**	**119**	**128**	**136**
	New current expenditures	100	102	105	108	114
	New investment projects	103	111	119	128	136



Source: Mission.

9. Resources for Maintenance (Institutional Strength: Low; Effectiveness: Low; Reform Priority: High)

55. This institution focuses on how the government assesses the maintenance needs of major infrastructure assets when preparing the budget. In order for infrastructure to be able to provide long-lasting services, they need to be properly maintained. This requires the allocation of sufficient funds for maintenance and the measurement of funding needs using methodologies. The first two dimensions assess the existence of methodologies or guidelines for regular or routine maintenance (classified as current expenditure) and for capital maintenance (major improvement of fixed assets, i.e., renovations, reconstructions, and expansions). The third dimension, on the other hand, focuses on the availability of information in the budget on the amount of funds allocated to maintenance.

56. There is no standard methodology that allows an assessment to be made of the resources needed for the routine maintenance of major public assets. Sectoral ministries point out that they do not have methodologies, guides, or manuals for routine maintenance. The FEPIP Guide only provides that pre-investment studies should determine maintenance costs and gives examples of maintenance expense flow schedules. MINFIN indicates that they do not follow the maintenance costs of each project.[57] The lack of transparency regarding the various maintenance costs (see below) and practices relating to the depreciation of government assets make precise quantification difficult. However, a mission estimate shows that total maintenance expenditures (including regular and capital) are insufficient to maintain the value of the road infrastructure.[58]

57. Although there are no methodologies on capital maintenance, the government has recently strengthened funding for the maintenance of strategic infrastructure. The improvement of infrastructure, notably school buildings and transportation, is a priority in the K'atun development plan.[59] Within this framework, the government has a recovery plan for the country's road network and a law to strengthen the maintenance and construction of strategic infrastructure approved in March 2022. At least four of the twelve largest current public investment projects concern the improvement of transport infrastructure and 60 percent of the expenditure of the Directorate-General of Roads of the MCIV (DGC) is for highway reconstruction. The DGC and COVIAL are in the process of implementing the use of the HDM-4 tool to evaluate new investment projects and maintenance costs of the road network.[60] However, sectoral ministries do not have standard methodologies for the expenditure required for the improvement of buildings or water, health, and education infrastructure.

58. The way maintenance spend is classified is often wrong and affects the measurement of fiscal outcomes and transparency. Regular maintenance costs are identified within the budget at a detailed level between lines 161 and 176. In some entities, capital maintenance expenditure is

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[57] The authorities stress that they stopped tracking these expenditures more than ten years ago.

[58] Total maintenance costs (approximated by the sum of investment costs for improvement and replacement and maintenance recorded by the MCIV) per km of the road network are one third of the average for a representative sample of countries (taken from the PIMA guide).

[59] The K'atun development plan highlights the objectives of developing and financing the maintenance of schools with a dedicated budget, as well as the maintenance of the road network.

[60] A DGC document refers to "studies" to justify a cost per km of road maintenance.

consolidated into several items dedicated to activities under the heading of "improvement" or "replacement." In practice, COVIAL[61] carries out regular maintenance projects and capital maintenance projects, recording them both only between lines 161 and 176, while the DGC carries out capital and regular maintenance projects, recording them only in lines dedicated to public investment (Table 8). There is no consolidated report of regular maintenance expenditure on the one hand and capital maintenance expenditure on the other. Therefore, there is no transparent and consolidated view of the amounts of regular maintenance and capital maintenance expenditures, which prevents resource allocation decisions based on reliable data.

Table 8. Summary of the Recording in the Budget of the Different Maintenance Costs and Responsible Units

<table>
<tr><th>Type of maintenance</th><th>Dedicated lines according to the budget classifications manual</th><th>Lines used in practice</th><th>Main units carrying out maintenance</th></tr>
<tr><td>Current/regular</td><td>161 to 176
(operating expenses)</td><td>161 to 176
(operating expenses)
Other lines</td><td rowspan="2">DGC
Covial
Government building construction unit
Social Solidarity Fund</td></tr>
<tr><td>Capital
(improvement, replacement)</td><td>Within lines 331 and 332
(capital expenditures for construction)</td><td>161 to 176
(operating expenses)
331 and 332
(capital expenditures for construction)</td></tr>
</table>

Source: Mission

59. In the face of the challenges that exist in terms of the quality of the road network, having standard methodologies for regular and capital maintenance and the transparent presentation of these expenditures in the budget is a high priority. With the support of specialized advisors, sectoral ministries should establish standard methodologies quantifying the necessary expenditure for regular and capital maintenance according to international standards. For example, HDM-4 can be used for that purpose in the road sector. Moreover, the different types of maintenance expenses should be identified with more transparency within the budget, allowing for maintenance reporting and tracking.

10. Selection of Project (Institutional Strength: High; Effectiveness: Medium; Reform Priority: High)

60. To increase the effectiveness and efficiency of public investment, there must be a portfolio of projects that have been duly evaluated and prepared for implementation, from which those to be included in the budget are selected. In addition, there should be defined procedures for selecting those that will make the greatest contribution to the objectives defined in a development plan. Another important condition is that the projects in the portfolio should have been duly assessed and the assessments analyzed in detail to provide reliable data and indicators for the application of the selection method (example in Box 8). It is also desirable that the selection

[61] However, the legal framework provides that Covial is responsible only for the regular maintenance of roads of less than 20 km in length.

procedure should be centralized, at least for major projects, in order to avoid the existence of parallel selection pathways. All of the above aspects are discussed in this institution.

Box 8. Review of Pre-Investment Studies for Major Projects in Ireland

In Ireland, the rules for the assessment of investment projects distinguish three classes of project, according to size. The assessment of the largest (with a threshold varying over time) is subject to review by the Department of Public Expenditure and Reform (DPER), with input from outside experts as needed. DPER has an in-house assessment team, which is part of the Irish Government Economic and Evaluation Service (IGEES), a network of 200 economists from various departments that provides central support for the application of assessment methodologies across government.

The questions that DPER answers in its review of pre-investment studies are:

- Were the requirements of the Public Expenditure Code and sectoral guidelines met?
- Were all necessary approvals obtained at key decision points?
- Was the appropriate assessment methodology chosen?
- How accurate was the project's financial analysis and cost profile?
- How accurate were the project's assumptions as set out in the business case?
- Was there enough identification of viable options to achieve the goal?
- Did other potential options become apparent as the project developed?
- How effective was scenario analysis in anticipating potential changes in project conditions?

The assessment includes an analysis of the risks of adverse conditions and the potential uncertainty associated with each option. The realism of the assumptions is analyzed and measures to manage risk and uncertainty are required as part of the assessment process.

Source: Department of Public Spending and Reform (2019) *Public Spending Code: A Guide to Evaluating, Planning and Managing Public Investment*.

61. **Project appraisals are analyzed in detail by SEGEPLAN, which issues a reasoned technical opinion on them.**[62] An analysis carried out by the mission of unfavorable technical opinions issued by SEGEPLAN showed that the review is detailed and demanding, focused above all on the conformity of the documents transmitted with the provisions of the SNIP regulations and the FEPIP Guide. The effectiveness of this review is demonstrated by the low percentage of projects that obtained a favorable opinion on first admission in 2022 (Table 9). However, some projects are included in the budget without having yet obtained a favorable prior technical opinion from SEGEPLAN, especially from Congress during the discussion of the budget, which weakens the process. In addition, in the case of COVIAL there are items of capital maintenance expenditure that are classified as operational, so SNIP regulations do not apply and such projects are not assessed,[63] but these represent a small percentage of the total investment.[64]

[62] Technical opinions can be: Approved, Pending, Rejected, and No assessment applies. See SNIP regulations, section 5.
[63] See Institution 9.
[64] Details of how many COVIAL projects correspond to capital expenditure are not available, but in the 2023 budget COVIAL's total budget, including operations, represents only 6.8 percent of the total investment budget in Guatemala, from which it can be deduced that the significance of this problem is minor.

Table 9. Projects that Received a Favorable Technical Opinion from SEGEPLAN in 2022

ENTITIES	Favorable opinion on first admission to the SNIP		Favorable opinion after two or more admissions to the SNIP	
	Number	Percent	Number	Percent
Central Government	4	1.67%	235	98.33%
Development Tips	455	15.19%	2,541	84.81%
National Public Corporations		-	186	100.00%
Non-Enterprise Autonomous Entities		-	2	100.00%
Non-Enterprise Decentralized Entities		-	10	100.00%
Legal-Administrative Control Bodies		-	9	100.00%
Overall total	**459**	**13.34%**	**2,983**	**86.66%**

Source: SINIP SEGEPLAN

62. **The criteria that a project must meet in order to be selected are published in the SNIP regulations and are verified in the review carried out by SEGEPLAN, recording the result in the SINIP.** The choice of which projects will be included in the draft budget of an EPI is the responsibility of the EPI, but always complying with the established requirements. The document "Project Prioritization Criteria for the Public Investment Program Fiscal Year 2023 and Multi-year Budget 2023-2027" defines the criteria and procedure[65] to be followed to prioritize projects, but there is no record of their use. Box 9 presents the criteria that projects must meet in order to receive a favorable technical opinion from SEGEPLAN and be eligible for funding as well as the criteria for prioritizing projects according to the Guide. However, the EPIs consider their own priorities when selecting which projects registered in the SINIP will be included in the draft budget. In addition, the effectiveness of the project selection process is affected by the inclusion in the budget of projects that are registered with the SNIP but that do not yet have a favorable technical opinion from SEGEPLAN. However, these projects cannot be executed until they have fulfilled the requirements laid down in the SNIP and have obtained a favorable technical opinion.

[65] The proposed methodology is based on the application of weightings to each of the components and subcomponents of a Prioritization Matrix.

Box 9. Project Selection and Prioritization Criteria

Necessary documentation and criteria to be met in order to obtain a favorable technical opinion from SEGEPLAN	Prioritization criteria to be used
1. Letter requesting a technical opinion 2. Funding request 3. Project document 4. Endorsement by the sectoral entity 5. Certification of property ownership 6. Environmental certificate 7. Resolution of CONAP (National Council of Protected Areas) 8. AGRIP Analysis 9. Care for people with disabilities 10. Opinion of the Ministry of Culture 11. Water Quality Certificate 12. Compliance with technical criteria a. It demonstrates its link with current planning guidelines, Government General Policy, and National Development Priorities, and indicates how the project contributes to the achievement of the outcome to which it is associated (baseline). b. It demonstrates that the project is registered in strategic and operational planning. c. All digital information is recorded in the system; it must correspond to the name of the proposed project. d. The investment proposal corresponds to the sector of the EPI and/or has the endorsement of the lead entity. e. The problem to be solved, the unsatisfied demand, and the population to be benefited are identified. f. It demonstrates its legal and technical feasibility, in accordance with regulatory requirements, according to the type of project. g. It complies with the priorities defined by CONADUR for projects contributed by the Development Councils.	1. Technical evaluation by SEGEPLAN 2. Linkage with PGGs, National Development Priorities, and RED 3. Territorial disparities approach 4. Linkage to development plans 5. Relationship with public policies and other instruments, and 6. Prevention of natural disasters

Source: SNIP 2023 rules and Guide to Project Prioritization Criteria for the Public Investment Program

63. **All projects proposed by entities at the central and subnational levels are registered in SINIP, regardless of the financing modality and cost.** Some institutions do not have enough projects properly prepared to carry out prioritization, financing all those that meet the selection requirements and have the favorable opinion of SEGEPLAN. On the other hand, other sectors have a large portfolio of ready-to-implement projects that exceeds the availability of resources, allowing for medium-term programs.

64. **It is good practice for the criteria for the selection and prioritization of projects and the process followed in the selection of projects and their prioritization to be clearly established and publicly known.** This contributes to the transparency of the process. However, the fact that in Guatemala projects are incorporated into the budget that, although registered with the SNIP, do not have the favorable technical opinion of SEGEPLAN distorts the selection process and affects its transparency. It is important that this practice be eliminated or at least limited to emergency projects duly classified as such by the competent authorities.

D. Implementation of Public Investment Productive and Durable Public Assets

11. Public Procurement (Institutional Strength: Medium; Effectiveness: Medium; Reform Priority: High)

65. **This institution addresses the need for appropriate procurement practices that promote the efficient use of public resources and improve the effectiveness of capital budget**

execution. It first assesses the competitiveness, openness, and transparency of the tendering process. It then determines whether the procurement system ensures proper oversight and the existence of a standard procurement and reporting database. Finally, it analyzes the complaint mechanisms of the procurement process and whether complaints are examined by independent bodies in order to improve the reliability and credibility of the public procurement system. The institution covers all public procurement of the central government, including the contracting of concessions and PPPs.

66. The regulatory framework for procurement is broad in its coverage and promotes competitive and transparent open tendering; however, the number of bids in public works tenders is low. The legal framework for procurement and contracting is defined in the Law on Government Procurement (LCE) and its implementing regulation.[66] Most of the tendering processes associated with public investment are formally competitive; however, the number of bids in each tender is very limited. Between January 2022 and April 2023, out of a sample of 13 projects tendered by the MCIV for amounts exceeding GTQ 200 million, nine received only one bid, two received two bids, and only one received four bids.[67] The administration has not identified the reasons for the lack of competition in the bidding for major projects, but they have confirmed that the rules used include the automatic elimination of abnormally low tenders, without verification of their feasibility, which facilitates collusion. Only in the electricity sector, where auctions are used, without eliminating bidders, has effective competition been identified for major projects.

67. The procurement process is carried out on the Guatecompras computer platform–a very complete database–but it does not have analytical reports that allow the degree of efficiency to be determined and support transparency. The system is administered by the Directorate-General of Government Procurement (DIGAE), a unit that is attached to the office of the Deputy Minister for Fiscal Transparency and Government Procurement of MINFIN. The platform includes the procurement management process and has a series of statistical information available to users, which is not exportable and does not present analysis that facilitates understanding. The search for information or the use of filters requires prior knowledge of its structure, so it is not geared to citizen oversight. For example, it is not possible to find information on public investment projects if the NOG[68] or SNIP codes are not known beforehand, in addition to the fact that in some cases the projects are not identified by the SNIP. A positive feature is that it is linked to the financial management system (SIGES) feeding into the budgeting and accounting processes.

68. The LCE puts in place the mechanism for the submission of complaints, but the procurement system does not require an independent body to receive, analyze, and resolve

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[66] The LCE provides that it must be applied by the government, decentralized and autonomous entities, executing units, municipalities, and municipal or government public corporations. Exceptions are made only in the case of donations received by the government, its agencies, institutions, and municipalities, whatever their origin, which are governed by the agreements between the parties. It also provides that in the case of international conventions or treaties to which the Republic of Guatemala is a party, the rules shall be applied in a supplementary manner, provided that they do not contradict the conventions or treaties concerned.

[67] Data extracted from Guatecompras using as a filter: Seek award of infrastructure contracts with public resources-procuring entity-Ministry of Communications, Infrastructure, and Housing.

[68] Guatecompras Operation Number.

complaints. The legislation does not require the existence of a body independent of the entity that participated in the process that is the subject of the complaint, to deal with the request. Each procuring entity resolves applications for review through administrative channels. Once this avenue has been exhausted, the complainant may resort to a judicial challenge. Over the past three years, the percentage of complaints upheld at the administrative stage varied between 23 percent and 25 percent. Complaints operate in a timely manner, are published in the Guatecompras system, and are resolved and implemented by the procuring entity without an independent opinion.

69. The procurement system should promote open, real, effective, and transparent competition. In the short term, an analysis and report is needed on the causes of the very low level of competition in major public works, with proposals for correction. It may be the result of multiple factors, including regulatory discrimination, collusion on the part of bidders (token bidding, bid suppression, rotation of bidders, market sharing arrangements), restricted access to information portals, tender documents that are confusing and/or with high requirements for the supply market, tender documents with little information (little or no vision of innovation on the part of the procurer), and collusion of civil servants. The regular issuance of analytical reports, with recommendations on the efficiency and transparency of the system, is a reform of high priority. Guatecompras should enable the generation of periodic information, with indicators that facilitate the analysis of procurement and allow monitoring of and recommendations on the effectiveness of the system and improvements. Moreover, improving information filtering routines and enabling prevention flags or alarms will serve to detect inconsistencies and avoid irregular activities in procurement. In an upcoming revision of public procurement regulations, independence for the complaints resolution body could be incorporated, as well as greater timeliness in the response.[69]

12. Availability of Resources (Institutional Strength: Medium; Effectiveness: Medium; Reform Priority: Low)

70. This institution evaluates the systems, processes, and tools in place to ensure the availability of cash when needed to make payments for public investments. The first dimension evaluates the cash flow forecasting process. The second dimension reviews the existence of cash management arrangements to ensure timely payments. Finally, the third dimension analyzes whether external financing flows are integrated with the government's bank account structure that is under the supervision of the Treasury or the Ministry of Finance. Capital expenditure should be committed in accordance with reliable cash flow forecasts, and cash should be available when needed to meet contractual payment obligations. If payments are delayed, there are delays in the implementation of projects. A systematic accumulation of arrears could seriously affect the government's financial reputation and the costs of capital projects as well as the supply of goods and services.

71. The implementing units may initiate administrative procurement supported by a certificate of budgetary availability (CDP) and the cash plans incorporate the disbursement requests of the implementing units, however, the actual payment is subject to the availability of resources. The regulations require the issuance of certificates of budgetary and financial

[69] Through the Citizen Network Entity and with the support of USAID, work is being done on the implementation of the open contracting partnership standard in Phase I and Phase II. Work is also underway on the implementation of flags.

availability in order for administrative procurement to begin. For multi-year projects, the CDP is issued by the annual content of the approved budget. Implementing entities submit their physical and financial implementation proposals to the DTP. Implementation and payment installments are defined by the Committee for the Programming of Budget Implementation (COPEP),[70] whose resolutions are formally established in the minutes of meetings. Decisions are made on the basis of the cash position and commitment quotas are established quarterly, with monthly periodicity for accrued and paid quotas. This provides certainty of implementation but is conditional on the availability of cash when payment is requested. If required, entities implementing infrastructure projects may request the DTP to release a higher quota than the amount allocated for the following four-month period.

72. The deadline for the payment of invoices and the electronic deposit of cash is established by regulation; however, there is no systematic monitoring that allows the identification of payment arrears. The administrative procurement regulations lay down 30 days for payment, once the good or service has been accepted, and as a quality standard, the National Treasury (TN) has established a maximum of 78 hours for a bank deposit to the account of the final beneficiary, once it has been ordered in SIGES,[71] by the corresponding entity. As a quality standard, the TN monitors through SICOIN a liquidity indicator that reflects the payment response time.[72] Moreover, the LOP provides that unpaid accruals at the end of the fiscal period can be paid in the following year from the budgetary availability of each entity, thus providing continuity to management and legal certainty to creditors. However, there is no information on the payment arrears occurring from receipt of the invoice by the contracting entity, its inclusion in the SIGES system, and the ordering of payment, information that would allow the efficiency of the system to be measured and irregular conduct to be detected.

73. External financing for investment projects is fully incorporated into the Treasury Single Account (TSA). The structure of the TSA includes resources from external sources of financing, classifying them into individual registry accounts by implementing unit and source of financing. The monetary deposits that support these records are held at the Bank of Guatemala (BANGUAT) in accounts separate from national resources or treasury resources. They are kept in the original currency of disbursement (dollars, quetzals, and euros) and disbursements are processed without delays. The TN has indicated that payments for externally financed infrastructure projects are not determined by the overall liquidity of the treasury, which is why resources from external disbursements are kept in separate accounts at BANGUAT. The funds from donations are incorporated into the TSA only if the agreements with the donor agencies allow it, otherwise they are deposited in monetary accounts in commercial bank in the name of the beneficiary entity.

74. Having timely and clear information on the progress of payment management from the receipt of invoices to the cash deposit in the creditor's accounts makes it possible to measure the effective availability of financial resources. SIGES must allow traceability of the payments made from the issuance of the invoice by the suppliers to the actual payment by the TN. Identification

[70] collegiate body made up of the Deputy Ministry of Financial Administration, the DTP, DCP, DAPF, DCE, and TN (Ministerial Agreement 66/2014),

[71] Cash Management Process. ISO 9001:2015 certification as of 2018.

[72] The average for the month of April 2023 was 1.27 days.

of delays in payment and the reasons for them will make it possible to make processes transparent and strengthen the scheduling of accrual and cash quotas. The numerous budgetary amendments reveal difficulties in budget implementation and probably a lack of precision in the estimates of financial needs. Analyzing deviations from financial programming with the entities implementing projects could identify the need to strengthen good financial programming practices. The more accurate the estimates of financial resource requirements for projects, the more reliable the TN cash program will be.

13. Management and Supervision of the Investment Portfolio (Institutional Strength: Medium; Effectiveness: Low; Reform Priority: High)

75. This institution is dedicated to analyzing the management and proper monitoring of the investment portfolio. The first dimension assesses whether major projects are centrally tracked against financial and physical goals. The second dimension examines whether there are rules and regulations for reallocating funds between projects. The third dimension focuses on the existence of ex-post reviews of major projects that will be used to adjust policies and procedures for project formulation, evaluation, and implementation.

76. SEGEPLAN monitors the implementation of public investment projects, but without a specific focus on larger projects or an analysis of their cumulative progress. The legal[73] framework provides for the SEGEPLAN to carry out adequate monitoring with the aim of measuring efficiency in the use of public spending, including that dedicated to public investment. SEGEPLAN provides Parliament with a quarterly report on the fulfilment of targets and produces a monthly report dedicated to the monitoring of public investments, aggregating data on the projects in the SNIP. These reports show the financial and physical execution of public investment at the aggregate level by sector, department, and entity.[74] At the project level, it is possible to see in the SNIP the stage of the cycle[75] in which a project is located. However, the monitoring of financial and physical[76] implementation is carried out only with respect to the annual budget. The follow-up of the SEGEPLAN lacks a multi-year vision of the cumulative execution of public investment and a formal assessment of the cumulative physical and financial execution, explaining delays and overspending. In addition, there is no specific focus on larger projects, nor are they identified as such.

77. The legal framework establishes rules and processes for the reallocation of funds between investment projects. Article 32 of the LOP governs budgetary transfers and modifications, including the reallocation of funds between investment projects and works during the execution of the budget. The reallocation process requires DTP approval for transfers between different institutions and, within an institution, for transfers affecting investment projects from different programs. In the case of transfers between works within the same investment project or subprogram, only the approval of the sectoral ministry is required. All transfers must be notified to Congress and the Office of the

[73] Organic Budget Law and its implementing regulations

[74] Central administration, decentralized, autonomous entities and control bodies, local governments.

[75] Registration, ongoing, finished.

[76] There are references to annual physical targets, but it is not clear whether they are those of the initial contract or others revised during the implementation of the project.

Comptroller General of Accounts. Sectoral ministries can request up to four transfers per month,[77] but there are no ceilings on the authorized amount of transfers. In practice, the amounts of the transfers are significant (Table 10) and MINFIN approves most of the transfers, checking only whether they meet the conditions of the legal framework, without analyzing their economic rationale. It highlights that it is not possible to establish a link between transfers and the speed of project implementation.

Table 10. Reallocation of Funds during Budget Implementation (Million GTQ)

	2017		2018		2019		2020		2021		2022	
	Initial budget	During year	Initial budget	During year	Initial budget	During year	Initial budget	During year	Initial budget	During year	Initial budget	During year
Construction of the northern highway Agua Caliente-Sanarate section	0	2	0	0	0	3	0	0	0	0	0	0
Construction of the northern highway between Sanarate and El Rancho	330	177	330	280	234	168	234	169	234	158	0	31
Construction of the northern coast-to-coast highway	150	80	150	49	92	35	92	67	92	3	108	45
Widening of the highway to four lanes in the CA2 Tecun Uman section	0	0	0	0	0	21	0	0	0	0	0	0
Chimaltenango highway construction	190	183	190	225	38	107	38	16	38	0	0	0
Expansion of the CA2 east highway Escuintla - Pedro de Alvarado	0	0	0	0	0	0	0	0	0	18	0	0

Source: Mission according to MINFIN data

78. **There are no ex-post reviews of projects that could improve public investment management.** The FEPIP Guide mentions the potential use of ex-post reviews to measure compliance with results and analyse the relevance, effectiveness, and impact of the project, but they are not carried out. However, SEGEPLAN's Directorate of Analysis and Monitoring focuses on on-site visits to projects that have been completed. On the other hand, the sectoral ministries do not carry out ex-post reviews and their internal audit units are dedicated to monitoring the implementation of the AOPs and compliance with the standards relevant to the projects, without assessing the costs and outcomes of the projects.

79. Improving the financial and physical follow-up of major projects at the multi-year level is a high priority. SEGEPLAN should establish a list of the country's major projects or priority investment projects according to several criteria, including the amounts and priorities of the "Guatemala Moving Forward" agreement. Every quarter, SEGEPLAN should publish a monitoring dashboard presenting the accumulated physical and financial progress, not only for the current year, for at least the country's major public investment projects. Such a dashboard would allow for greater transparency on the progress (and delays) of projects and support budget transfer decisions approved by the DTP. Beyond monitoring implementation rates, it is necessary to monitor the life of projects. Moreover, as foreseen in the FEPIP Guide, the implementation of an ex-post review process

[77] For the transfers they make within the ministry (Article 9 of the General Budget Law for 2023).

with a results-based management approach should be a priority of SEGEPLAN's Directorate of Analysis and Monitoring.

14. Management of Project Implementation (Institutional Strength: Medium; Effectiveness: Low; Reform Priority: Medium)

80. **This institution evaluates the proper management and control of projects by ministries or agencies during their implementation.** First, it is considered whether they develop an implementation schedule before it begins. Secondly, it analyzes whether standards or guidelines are followed to make adjustments if necessary. Finally, the carrying out and publication of ex-post external audits of major projects is analyzed.

81. **The institutional framework requires that implementation plans be prepared prior to the approval of a project, but it does not require the identification of individual project owners, although in practice they are assigned.** The FEPIP Guide and the SNIP regulations provide that implementing entities must submit detailed schedules for the financial and physical implementation of a project before it is approved by SEGEPLAN. In addition, the FEPIP Guide mentions that the entity responsible for the administration of the project must be clearly identified. However, it does not require the appointment of a person responsible for administering and supervising implementation for each project. In practice, sectoral ministries appoint a person responsible for day-to-day monitoring for each project, even if his or her name is not systematically included on the form recorded in the SNIP.

82. **Although there are rules for adjusting the cost of projects, with limits and with authorization from SEGEPLAN, in practice the adjustments increase the initial costs considerable without a new assessment being carried out.** The Law on Government Procurement and the SNIP regulations provide that in order to adjust the cost of a project that entails a budget amendment, implementing units require the issuance of a new technical opinion from SEGEPLAN. Depending on the amount of the modification (less than 20 percent or between 20 percent and 40 percent), several documents justifying the modifications must be registered. In practice, sectoral ministries use adjustment options with great frequency, up to ten times during a year per project, and for significant amounts. Notably, on a sample of 5 projects of the social solidarity fund, adjustments of an average amount of 20 percent in relation to the initial cost are recorded. These adjustments are usually due to project modifications or late payments. Thus, successive adjustments call into question the credibility of the amounts initially recorded. When required by the regulations, SEGEPLAN issues a new technical opinion. However, SEGEPLAN does not record the cost overruns caused by the adjustments and, above all, does not carry out a new cost/benefit analysis of the project.

83. **The Office of the Comptroller General of Accounts (CGC) orders the ex-post audit of expenditures, including those related to public investment projects, but its reports do not focus on the total expenditure of projects.** In accordance with the legal framework, the CGC conducts ex-post audits of expenditure, including public investment expenditure. These reports make it possible to measure compliance with legal and financial requirements (notably related to tenders or feasibility studies) and provide information on the physical realization of the projects. However, the CGC reports do not systematically analyze the total cost of projects against the initial contract data. In

addition, there is no evidence of parliamentary debates on the reports, nor any changes in practice directly related to the CGC's findings.

84. The institutional framework should require that a person responsible for each project be designated and adjustments to the cost of projects should be more closely controlled by SEGEPLAN. In the FEPIP Guide, the requirement to appoint a person responsible for each project could be included. Taking into account the frequency of changes and adjustments to project amounts, for major projects SEGEPLAN should record all adjustments greater than 10 percent on a dashboard and conduct new cost/benefit analyses of projects when the adjustments represent, for example, more than 20 percent of the initial value of the project. In addition, the CGC could introduce elements of analysis for the total cost of projects.

15. Monitoring of Public Assets (Institutional Strength: Low; Effectiveness: Low; Reform Priority: Medium)

85. This institution reviews the monitoring of public fixed assets, whether they are properly recorded, whether they are regularly updated, and whether their value and depreciation are reported in the annual financial statements. The monitoring of public assets and asset health assessments promote maintenance plans. Fixed asset records provide information about physical assets that can be used both for planning purposes and to determine maintenance financing. Revaluation and depreciation should be updated regularly on the basis of defined methodologies.

86. There is no legal or regulatory requirement for the systematic recording of non-financial fixed assets. MINFIN has determined that the Directorate of Government Assets is responsible for maintaining a consolidated, modern, secure, and efficient register of government assets. However, it has not issued an accounting or regulatory policy for the recording of non-financial fixed assets. Registration is carried out in a decentralized manner by public entities and the frequency is specific to each entity. In this regard, the Directorate of Government Accounting (DCE) has indicated that the implementation of the International Public Sector Accounting Standards (IPSAS) is in progress, which includes a policy for the recognition and recording of property, plant, and equipment.

87. While there is no evidence that the accounting records for fixed assets are exhaustive, the financial statements issued by government accounting include the property, plant, and equipment account balances. The financial statements disclose fixed assets and constructions in progress. The DCE has indicated that some ad hoc records are being produced. For example, the DGC has carried out an inventory of roads, by type of construction and mileage, but their value is not recorded. The registry of government assets is partial and provides input for the property registers, but it is not systemic and does not follow standards on accounting and the frequency with which inventory is updated and assets are revalued or deregistered.

88. The absence of accounting policies for the recording, inclusion, and disclosure of fixed assets in the financial statements translates into a failure to record the decrease in value of these assets. IPSAS provides clear guidance to address the need to recognize, record, and value fixed assets. Box 10 summarizes the IPSAS 17, the basis for an accounting policy issue, whether convergence or pure application, adoption, is required to define the systematic recording of non-financial assets.

Box 10. IPSAS International Public Sector Accounting Standards IPSAS 17

Objective: to establish rules for initial recognition and subsequent accounting (determination of carrying amount and depreciation charges and impairment losses) for property, plant, and equipment (PPE) so that users of financial statements can discern information about an entity's investment in its PPE and the changes in such investment. PPE items have to be recognized as assets if, and only if, it is probable that future economic benefits or service potential associated with the item will flow to the entity, and the cost or fair value of the item can be measured reliably. IPSAS 17 allows the selection of the accounting model for an entire class of property, plant, and equipment: – Cost Model: The asset is carried at its cost less any accumulated depreciation and any accumulated impairment losses. – Revaluation Model: The asset is carried at a revalued amount, being its fair value at the date of the revaluation less any subsequent depreciation.

Source: https://www.ifac.org/_flysystem/azure-private/publications

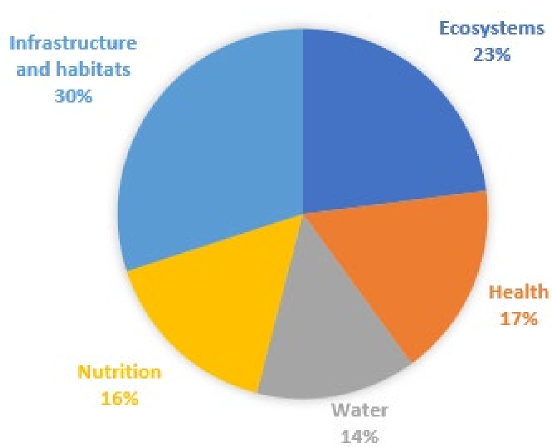
89. **The issuance of accounting policy of general application for the entire public sector for the recognition, measurement, and disclosure of fixed assets; their depreciation, amortization, or depletion; revaluation and decrease to recoverable value is a medium-priority reform.** Implementing quality standards for accounting information, and especially on fixed asset records, will greatly increase the transparency of the asset position. Asset information is undervalued and as part of its efforts to implement IPSAS, the government could apply the criteria of IPSAS 17 in the short term. Ideally, the recording and control of assets should be integrated in or interoperable with the central accounting system (SICOIN). In this way, stock updates will be automatically reflected in the accounting system. In cases where integration is not possible, stock control procedures and offline updates can be carried out, which promote consistency between the asset record and the data disclosed in financial statements.

IV. Climate-Public Investment Management Assessment (C-PIMA)

A. Climate Change and Public Investment in Guatemala

90. **Guatemala is a country that is highly vulnerable to a number of threats such as extreme rainfall, droughts, tropical cyclones, heat waves, frosts, floods (river, urban, coastal), forest fires, earthquakes, tsunamis, volcanic activity, and landslides.** The Risk Report index for 2023 ranks Guatemala 35th out of 191 countries with a risk class that is characterized as high.[78] These threats are projected to pose greater risks in the future as climate volatility increases. Extreme heat and the uptrend in temperatures, coupled with the high risk of water scarcity, make the country very vulnerable. In addition to these exposures, Guatemala ranks 135th out of 189 countries in the Human Development Index (2021 data), which means that climate vulnerabilities can have a major impact on the population and can be detrimental to their living conditions.[79] Although an increase in annual rainfall of 122 mm has been observed, it has been sporadic and geographically dispersed, so it has not mitigated the increase in temperatures[80] and its effects. The University of Notre Dame's Vulnerability Index (ND-GAIN 2020) and IMF studies on climate resilience [81] show that energy, transportation, and urban structures are primarily affected (Figure 25).

Figure 25. Guatemala: Composition of Vulnerability by Sector



Source: IMF Staff Estimates.

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[78] Risk Report 2023 is an index that measures the risk of disasters and humanitarian crises and the impact of their occurrence on sustainable development. https://es.weforum.org/reports/global-risks-report-2023/

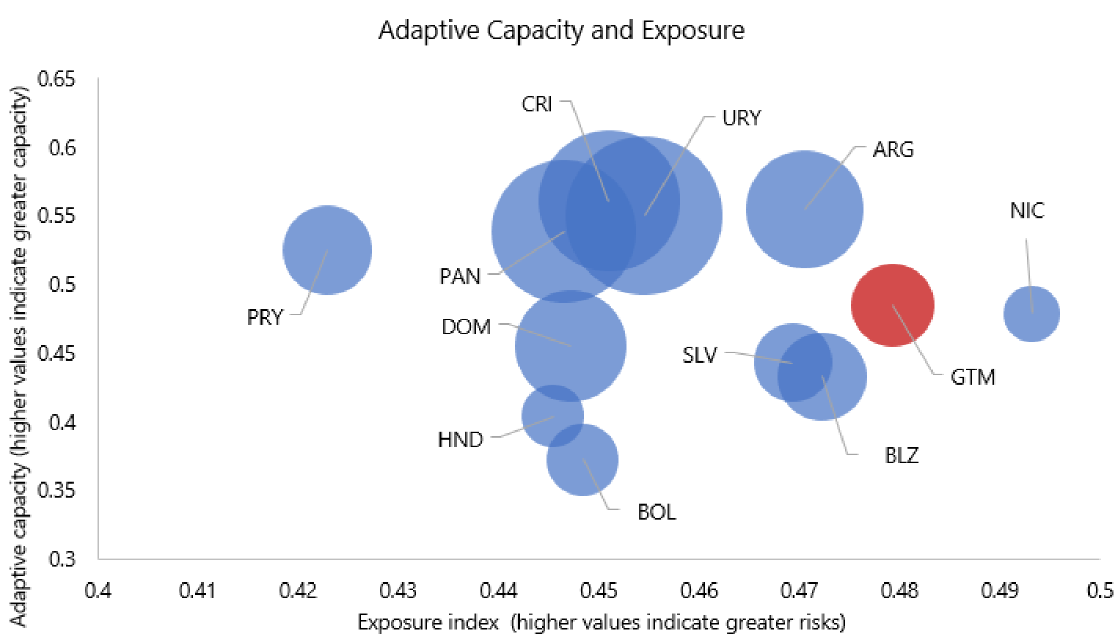
[79] Human Development Index 2021, Guatemala. https://hdr.undp.org/data-center/specific-country-data#/countries/GTM

[80] An increase of 0.8°C has been recorded over the last 20 years. Guatemala Nationally Determined Contributions 2021. file:///C:/Users/wb465905/OneDrive%20-%20WBG/Desktop/PIMA/NDC20Guatemala%25202021.pdf

[81] See https://www.imf.org/en/Topics/climate-change/resilience-building#Fiscal%20Resilience.

91. By the end of the century, the temperature is expected to increase by between 1°C and 4°C, while annual rainfall will decrease by between 500 mm and 1100 mm across the country.[82] In recent years, Guatemala has suffered natural disasters such as floods, droughts, earthquakes, forest fires and landslides that have had serious consequences in terms of loss of life, livelihoods, and economic potential. It is estimated that around 75 percent of the population lives in areas exposed to floods, droughts, and landslides, which has resulted in economic losses due to hydrometeorological events of around USD 1.32 billion in the last decade (2010-2019).[83] In addition, the poor adaptation of Guatemala's infrastructure and other fixed assets, resulting for example in frequent road disruptions due to landslides, floods, or potholes, makes the country even more vulnerable to the effects of climate change (Figure 26). The climate change situation in Guatemala demands immediate action, given that the country ranks 144th globally in terms of preparedness to face climate problems.[84]

Figure 26. Guatemala Adaptability and Exposure



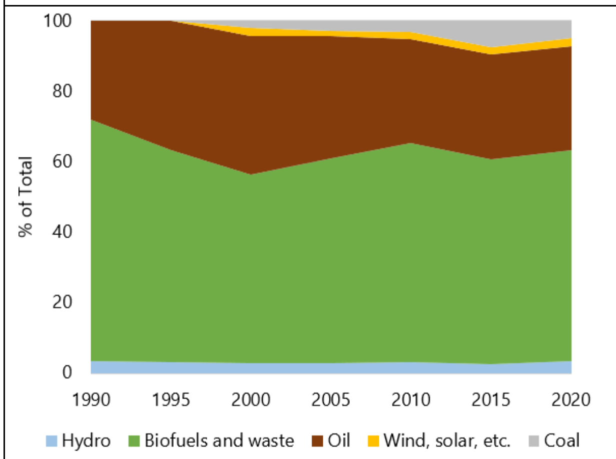
Source: IMF Staff Estimates.

92. Over the past 30 years, Guatemala has experienced an increase in natural disasters with high costs in terms of economic losses. From 1992 to 2022, Guatemala experienced 97 disasters caused by natural phenomena compared to 22 in the previous 30 years, 1 in the previous thirty, and 4 from 1899 to 1929. Losses from 1992 to 2022 were valued at USD 4.225 billion, compared to USD 605 million from 1961 to 1991 adjusted for inflation.[85]

[82] Guatemala Nationally Determined Contributions 2021. file:///C:/Users/wb465905/OneDrive%20-%20WBG/Desktop/PIMA/NDC20Guatemala%25202021.pdf
[83] Ibid
[84] Notre Dame Global Adaptation Initiative, 2020, Guatemala. https://gain-new.crc.nd.edu/country/guatemala
[85] International disasters database. Guatemala. https://public.emdat.be/data

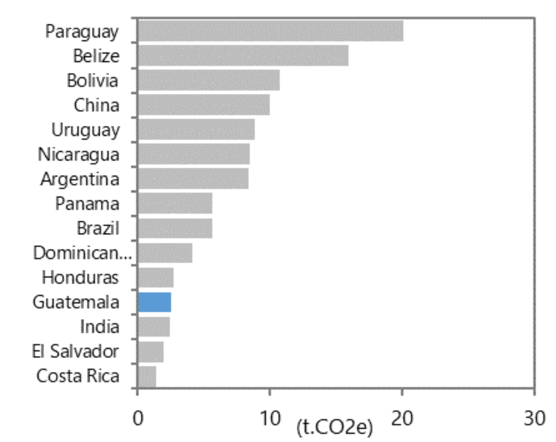
93. **According to USAID, the ongoing degradation of natural resources due to factors such as overexploitation, deforestation, and "slash-and-burn" agricultural practices is leading to further impoverishment of these resources.**[86] Guatemala's contribution to global greenhouse gas (GHG) emissions is negligible (Figure 28).[87] With the growing energy imports trend, it is likely that GHG emissions will tend to grow.

Figure 27. Guatemala: Energy Production by Source (% of Total)



Source: IMF Staff Estimates.

Figure 28. Guatemala: Per Capita GHG Emissions. IMF-Climate Policy Assessment Tool



Source: IMF Staff Estimates.

94. **The government has made great strides since the 2015 NDC and has a better-informed comprehensive framework in place to address GHG emissions reductions.** To accompany these ambitions, institutional arrangements, regulatory framework, policies and methodologies, validated by the United Nations Framework Convention on Climate Change, have been strengthened. Guatemala's development goals are aligned with the K'atun development plan and the National Strategy for Development with Low Greenhouse Gas Emissions. The mitigation efforts presented in the NDCs, updated in 2021, focus on land use, forestry, energy, agriculture, industrial processes, and waste. Adaptation efforts will focus on coastal marine areas, agriculture, livestock and food security, forest resources, ecosystems and protected areas, water resources management, human health, and infrastructure. The government has undertaken an extensive consultation process as well as an analysis of costs and financial gaps in order to produce a roadmap on how to make these efforts and the NDC's targets of an 11.2 percent reduction in emissions projected by 2030 a reality with its own

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[86] USAID Climate Country Profile, 2022. https://www.usaid.gov/sites/default/files/2023-03/2022-USAID-Guatemala-Climate-Change-Country-Profile.pdf

[87] International Energy Agency, Guatemala. https://www.iea.org/data-and-statistics/data-tools/energy-statistics-data-browser?country=GUATEMALA&fuel=Energy%20supply&indicator=TESbySource

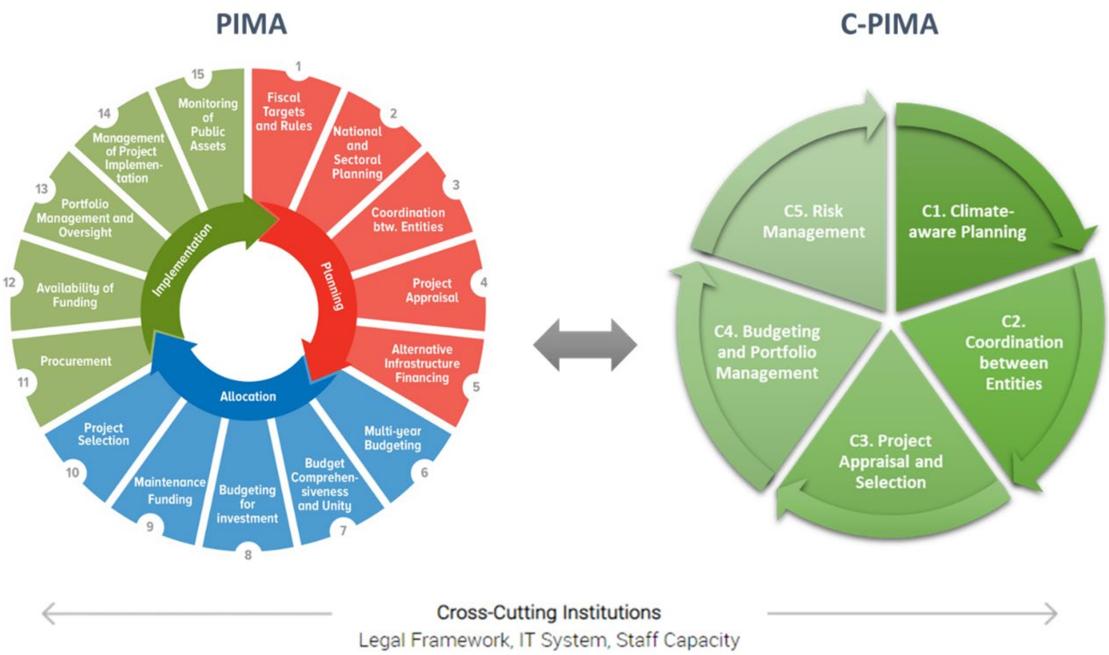
resources and with the technical and financial support of the international community, up to 22.6 percent of its total emissions with respect to the estimated trend scenario for that year.

95. Public investment, already included in the government's climate challenges, will play a key role in decarbonizing the country's infrastructure and mitigating the effects of climate change. The 2021 Update of the NDC of Guatemala, presented to the United Nations Framework Convention on Climate Change (UNFCCC), states that, for infrastructure adaptation, "there are no defined goals but a roadmap" (p.12). Likewise, the preparation of a proposal for guidelines for updating land use and development plans, with the inclusion of a priority "adaptation to climate change and resilience," is presented as an achievement. In terms of mitigation, there is a long-term measure (ENE-1), "Prioritizing clean energy for electric power generation," which the NDC recognizes will not generate reportable emission reductions between 2021-2030. Another measure (ENE-3) requires that "80 percent of electricity generation comes from clean energy by 2030." The National Energy Plan 2017-2032, published in 2016, which is assumed to be indicative, presents a set of measures for the sustainable use of renewable resources and energy efficiency and savings, to meet the country's mitigation challenges. The Low Emission Development Strategy for Guatemala, developed in 2018 with support from USAID, presents mitigation options by sector and their economic analyses.

B. The PIMA Framework on Climate Change

96. The Climate-Public Investment Management Assessment (C-PIMA) assesses five key public investment management practices from a climate change perspective and is an extension of the existing PIMA framework. There is a strong resemblance between the C-PIMA institutions and the corresponding PIMA institutions, although some of the C-PIMA institutions combine dimensions of different PIMA institutions, and institution 5 in C-PIMA (risk management) has no equivalent in PIMA. Figure 29 describes the main elements of C-PIMA and illustrates the relationship between PIMA and the C-PIMA module.

Figure 29. Guatemala per Capita GHG Emissions. IMF-Climate Policy Assessment Tool



Source: C-PIMA Guide

97. C-PIMA covers the following specific issues (the detailed C-PIMA questionnaire is contained in Annex 4:

- *C1. Climate-aware planning*: Aligning national and sectoral plans and associated investment portfolios with climate goals is essential to transform public sector infrastructures towards climate resilience and sustainability. The planning phase is especially relevant for incorporating climate into land use regulations and building codes.
- *C2. Coordination between Entities*: Public investment can involve various levels of government, public corporations, and PPPs. Integrating green considerations into the management of public investment therefore means coordinating all levels and entities of the public sector, as well as joint initiatives with the private sector.
- *C3. Project Appraisal and Selection*: This is a crucial phase in the decision-making process for major infrastructure projects. It determines which projects are carried out and ensures that the most effective and efficient investments are prioritized. It is essential that climate-related analyses on the impacts of mitigation and adaptation investments are included in this phase.
- *C.4 Budgeting and Portfolio Management*: Green investment and funds for the maintenance of public infrastructure should be budgeted and reported through the annual budget and other fiscal instruments such as the medium-term expenditure framework and the government's financial statements. Asset management as well as ex-post audits and reviews should also take climate objectives into account.
- *C5. Risk management*: Climate change brings with it risks that could have an impact on public infrastructure and the budget. It is important that natural disaster management strategies and

fiscal risk analyses incorporate such risks and that risk mitigation strategies also take into account climate considerations.

C. Detailed Assessment and Recommendations

C1. Climate-Aware Planning (Institutional Strength: Medium; Reform Priority: Medium)

98. The first institution of the C-PIMA assesses whether public investment is planned from the perspective of climate change. The objective of this institution is to assess the extent to which public investment planning takes into account the need for adaptation to and mitigation of climate change. The first dimension of this institution asks whether public investment strategies and plans are consistent with the government's climate objectives and expected outcomes. The second dimension looks at whether regulations of central government and/or of subnational government require spatial and urban planning and building codes to take climate risks into account. The third dimension assesses the existence of centralized support for public investment planning taking into account climate change.

99. The government's climate goals and targets are considered in the infrastructure strategies, although they do not constitute any of the government's priorities. These axes, based on the 2014 K'atun Plan that addresses climate change and its impacts, incorporate climate objectives which have been developed in recent years. Responding to a challenge in the NDC to achieve the 11.2 percent reduction in GHG emissions planned for 2030, the National Energy Plan 2017-2032 presents a strategy based on the sustainable use of renewable resources and energy efficiency. The National Plan on Climate Change (NAPCC), approved in 2016, includes quantified objectives regarding strategic infrastructure affected by extreme weather events, particularly the road network. CONRED is defining, in a disaster risk reduction plan, objectives that will include adaptation of infrastructure. The Climate Change Adaptation Plans, prepared in 2022 by MARN and SEGEPLAN for each of the 22 departments, do not include infrastructure adaptation, only recovery objectives for vital infrastructure damaged by climate events.

100. Building regulations do not address climate risks and there is no legal obligation to do so, but SEGEPLAN has included climate mitigation and adaptation in its land use planning guide. The NAPCC includes as a goal for municipalities to "update and apply building and maintenance standards and regulations for social-vital and strategic infrastructure," but there is no evidence that building regulations have been updated (and many municipalities have not yet adopted building regulations). The Disaster Reduction Standard published in 2021 by CONRED does not yet have a climate focus. The "Guide for the implementation of the Municipal Development and Territorial Planning Plan" (PDM-OT), presented by SEGEPLAN in 2021, refers to the need to consider mitigation and adaptation in the preparation of the PDM-OT, and the MARN is providing training to municipalities on climate change, but most municipalities have not yet revised their PDM-OT in the light of this guide.

101. A Low Emission Development Strategy has been prepared for Guatemala, but there are no guidelines on adaptation plans. In 2018, with support from USAID and after consultations with civil society, a document, Low Emission Development Strategy, was published, but the climate change authority, MARN, has no guidelines and does not provide support for investment planning from a climate perspective. There are no guidelines for the development of adaptation strategies or plans. SEGEPLAN has published guides and provides training on the preparation of public investment projects that are more resilient to climate change, but not on adaptation planning. Some ministerial departments, such as the DGC, have defined Environmental Technical Specifications with a climate focus, but also with a focus on projects and not on plans.

102. Since Guatemala is a country with a very high degree of vulnerability to climatic events, it is necessary to develop a proactive strategy for the adaptation of infrastructure. Current disaster risk reduction strategies are focused on improving the resilience of new infrastructure, without taking advantage of vulnerability maps to identify priorities for intervention in built infrastructure (e.g., reinforcing embankments at risk of landslides, or adding redundancy to the electricity transmission grid). Likewise, at the municipal level, building codes and land-use plans must be adapted to the challenges created by climate risks.

C2 Coordination Between Entities (Institutional Strength: Low; Reform Priority: High)

103. This institution focuses on coordinating decision-making on climate-related public investments across the public sector. It emphasizes the need for a comprehensive approach to climate change. In addition to general government, PCs play a key role in making climate-related investments. All three dimensions ask, in turn, whether decisions on climate-related public investment are coordinated across central government, subnational governments, and public corporations.

104. The highly decentralized planning of public investment in Guatemala is not complemented by a coordination mechanism from a climate point of view. The lead agency for climate change, MARN, has no activities to encourage, coordinate, or even monitor climate investments, and no other entity is active in this area. Existing initiatives in terms of climate technical cooperation, such as DGC's support to municipalities, are voluntary.

105. There is no sharing of information or coordination of public climate investment by central and subnational governments. Central government, through MARN, trains subnational governments in climate adaptation and mitigation in general (with no particular focus on public investment), but there is no coordination of central and subnational planning from a climate point of view. The Municipal Environmental Management Units (UGAMs) have responsibilities in the area of adaptation to climate change, but the Guide published in 2010, while focused on climate change mitigation and adaptation, does not address infrastructure or public investment.

106. The regulatory and supervisory framework for PCs does not ensure that their climate change-related investments are consistent with national climate change policies. In a highly decentralized supervisory framework, the climate change governing body does not assume responsibilities for coordination with companies. However, the approval and granting of environmental licenses by MARN according to the environmental category of the PCs' investment projects involves verification of their compatibility with the government's environmental challenges, which means that actions are verified, but not inaction. In the responsible ministries, there is no evidence of coordination with public corporations on climate issues, or of monitoring their investments from a climate point of view.

107. There is a need to coordinate public investment from a climate perspective, integrating central government, municipalities, communities, public corporations, PPPs, and concessions, maximizing climate impact. In this regard, MARN plays a central role in supporting climate investment planning, monitoring its implementation, and monitoring results. The Guide for UGAMs should be updated, introducing a climate approach to municipal public investment.

C3 Project Appraisal and Selection (Institutional Strength: Medium; Reform Priority: Medium)

108. This institution evaluates whether project appraisal and selection include climate-related analysis and criteria. There is a need to ensure that priority is given to the most effective and efficient investments to solve a problem or address a deficit, while taking into account climate change considerations. The first dimension of this institution concerns whether the ex-ante assessment of major infrastructure projects requires climate-related analysis according to a standard methodology. The second dimension asks whether the framework for public-private partnerships (PPPs) and concessions includes climate-related elements. The third dimension assesses whether climate-related elements are included in the selection criteria for public investment projects.

109. The formulation and evaluation of infrastructure projects is based on the criteria established in the Law on Climate Change, the SNIP regulations, and the FEPIP Guide. The Law on Climate Change requires that climate variability and change be taken into account in the provision of services and production of goods and establishes that new practices must be adopted to allow production in such a way that it is not affected by the effects of climate change. For their part, the SNIP regulations include a section on risk analysis and adaptation to climate change, complemented by a more detailed annex on risk analysis and management and adaptation to climate change in public investment projects. In turn, the FEPIP Guide requires that all aspects of project formulation consider climate change impacts and mitigation measures as well as resilience in the design. It also indicates that all these measures must be paid for and included in the evaluation of the project. Finally, the AGRIP tool includes a specific form (Box 11) for climate change aspects that must be completed when analyzing the location of a project during a pre-investment study.

Box 11. AGRIP Form on Climate Change


GOBIERNO de GUATEMALA | SECRETARÍA DE PLANIFICACIÓN Y PROGRAMACIÓN DE LA PRESIDENCIA

CAMBIO CLIMÁTICO

DIRECCIÓN DE INVERSIÓN PARA EL DESARROLLO

AGRIP

CARACTERÍSTICAS

TIPO DE EVENTO:				
FECHA DEL ÚLTIMO EVENTO:		DURACIÓN DEL EVENTO:		
SE HAN PRESENTADO LLUVIAS TORRENCIALES?	SI	NO	DURACIÓN DEL EVENTO: Hrs.	
¿HA HABIDO INUNDACIONES COMO CONCECUENCIA DE ESAS LLUVIAS?	SI		NO	
PRECIPITACIÓN	MÍNIMA:	MÁXIMA:	MEDIA:	
TEMPERATURA	MÍNIMA:	MÁXIMA:	MEDIA:	
DAÑOS CAUSADOS A LA INFRAESTRUCTURA	NO SIGNIFICATIVOS	LEVES	SEVEROS	COLAPSO DE ALGUNAS
PÉRDIDAS	SIN IMPORTANCIA	BAJA CONSIDERACIÓN	ELEVADAS	GRAN MAGNITUD
INTERRUPCIÓN DE SERVICIOS	SIN INTERRUPCIÓN DE SERVICIOS	MOMENTÁNEA	PARCIAL	PERIODOS LARGOS
CUANDO HA SUCEDIDO UN EVENTO DE HURACÁN, CUÁL HA SIDO EL DAÑO:			BAJO: MEDIO: ALTO: MUY ALTO:	

SEGEPLAN

Source: AGRIP Guide

110. The framework for PPPs and concessions does not consider climate change for risk allocation or contract management. Decree 16/2010, Law on Partnerships for the Development of Economic Infrastructure, does not include any reference to climate change. Only one PPP contract has been signed,[88] and there is no other type of approved long-term contract to date related to public infrastructure. Therefore, there is an opportunity to incorporate climate change aspects into the legal framework before any new long-term contract is signed, for example for any of the projects under consideration listed in Table 4.

111. Climate-related elements are part of the criteria used for project selection. Article 10 of the Law on Climate Change states that "SEGEPLAN and MINFIN must give priority to the allocation of economic resources to government entities that formulate their plans, programs, and projects as established in this article," in other words, including aspects of climate change. Likewise, in order to receive a favorable technical opinion from SEGEPLAN, public investment projects must comply with the provisions of the SNIP regulations and the FEPIP Guide on climate change.

112. A priority for all countries is to manage their public investment efficiently and effectively considering the challenges related to climate change mitigation and adaptation. The first steps in the right direction have been taken by incorporating climate change into the SNIP regulations and the FEPIP Guide. But to be useful as project selection criteria, the quality of the data provided must be adequate and the way to introduce mitigation and adaptation into the project selection process

[88] Rehabilitation, Administration, Operation, Maintenance, and Complementary Works of the Escuintla – Puerto Quetzal Highway with Toll Collection.

must be defined in established guidelines that, ideally, should be public. Likewise, it is necessary that the evaluation of projects, including those that are candidates for PPPs, incorporate the costs and benefits of emission abatement where appropriate.

C4 Budgeting and Portfolio Management (Institutional Strength: Low; Reform Priority: Medium)

113. The objective of this institution is to assess how the government's portfolio of climate-related public investment projects is managed, from budgeting to the asset management of completed projects. Exposure to climate risks, as well as climate change mitigation goals, create the need for specific asset budgeting, review, and maintenance practices to reduce risks and monitor the performance of assets and services. The three dimensions of this institution include: whether and at what level of detail the planned climate-related projects are presented in the budget and related documents; whether ex-post reviews of projects are conducted to examine their performance with respect to climate change adaptation and mitigation; and whether government asset management policies and practices address climate-related risks.

114. Progress has been made in the design of a thematic budget classifier for climate change. The objective of the thematic classifier is to reflect policies to reduce vulnerability, improve adaptation capacities, and mitigate the effects of climate change from gas emissions. In 2020, MARN, the classifier's governing body, published a guide for the implementation of the classifier for line entities to identify and link programmatic and budgetary structures.[89] However, this classifier has not been adopted by ministries and therefore has not been used to classify investment projects during the budget process. Various environmental expenditures are identified in the 2023 budget (see MARN programs in Table 11), but no investment projects related to climate change are envisaged, despite the fact that they exist—for example, road projects with strong components of adaptation to climate challenges. There are also GHG mitigation projects implemented by public corporations and therefore not included in the budget.

Table 11. MARN Budget Programs Related to Climate Change

Program	Target for 2023	Implementation as of April 2023
11. Environmental management with an emphasis on climate change	train 14,843 people	2,608 people were trained
	produce 656 reports	134 reports were produced
	benefit 3,279 people with adaptation measures	no measures were implemented
12. Conservation and protection of natural resources and the environment	carry out 477 pollution control events	73 events were carried out
	produce 30 advisory reports	5 reports were produced
	advise 5 entities on waste management	no entities were advised
13. Socio-environmental sensitivity and citizen participation	train 70,909 people in socio-environmental responsibility	19,084 people were trained
	train 2,835 people in socio-environmental issues	750 people were trained

Source: Budget 2023 and "MARN, Accountability Report, first quarter 2023."

[89] https://www.undp.org/es/guatemala/publicaciones/guia-para-la-implementacion-del-clasificador-tematico-de-mitigacion-y-adaptacion-al-cambio-climatico-2020

115. Regulations and methodological guidelines do not provide for ex-post reviews or audits to analyze the results of public investments for adaptation to climate change or for the mitigation of its effects. Sectoral ministries do not conduct ex-post reviews of projects, and CGC audits do not have a climate focus. In addition, the capacities of MARN are very limited and do not in the short term allow for ex-post reviews of projects from a mitigation or adaptation approach.

116. No regulations have been issued for the registration or maintenance of assets that consider risks related to climate change. The absence of regulations limits information related to climatic factors (such as risk exposure, vulnerability, and past damage) that may have an impact on the value of assets and that will generate additional costs for repairs or preventive maintenance. Scheduled depreciation of asset value is not taking place, and even less so accelerated depreciation of assets affected by weather factors. It should be noted that SEGEPLAN has evaluated damages and losses related to natural disasters, evaluations that could be used to plan climate change adaptation projects and issue accounting regulations that consider the risks of climate change.

117. A climate approach should be introduced into the budgeting and project portfolio management processes. The authorities could use the classifier they have developed for investment expenditures. On the other hand, ex-post review of projects from an adaptation or mitigation approach requires that ex-post reviews be implemented first. Assessing the damage caused by natural disasters to fixed assets would be very useful for guiding public adaptation investments insofar as fixed assets are recorded with depreciation valuations in the first place.

C5 Risk Management (Institutional Strength: Medium; Reform Priority: Medium)

118. This institution assesses how the government identifies and manages its exposure to fiscal risks related to public assets threatened by disasters associated with climate change. Climate and disaster risks are becoming increasingly important and are expected to be chronic sources of fiscal risks from a macro-fiscal perspective, in terms of both mitigation and adaptation to climate change. The first dimension assesses whether the government publishes a national mitigation risk management strategy that incorporates the risk exposure faced by public infrastructure and its networks. The second dimension assesses whether the government has financing mechanisms in place to address the costs of climate-related damage to public infrastructure. The third dimension asks whether the government conducts fiscal risk analyses that take into account climate-related risks for public infrastructure assets.

119. There is a climate change-related disaster risk reduction strategy and a general financial strategy, but they do not include the specific risks associated with public assets. Current risk management regulations[90] do not have a financial risk management approach and do not require a disaster risk management financial strategy. CONRED's national strategy for the reduction of risks associated with climate change (2016) identifies, in a general way, different risk considerations by sector, but it does not analyze specific risks associated with public assets. Despite including actions to generate climate risk information on the territory and vulnerability maps, public assets are not

[90] Legislative Decree 109/96 and Government Decision 49/2012.

specifically taken into account. In 2017, the World Bank applied its MPRES[91] methodology for risk analysis of public infrastructure asset networks, but the respective mitigation plans have not been developed. The *Financial Strategy for Disaster Risk* (2018), prepared by MINFIN, aims to strengthen the country's economic and fiscal resilience at the general level. It proposes six strategies, including increasing knowledge of risk, estimation, and assessment of economic and fiscal risk in the face of disaster risk. However, an analysis of the economic effects of disasters on public infrastructure is not yet available. Despite the absence of cost analyses, adaptation criteria are being adopted for new infrastructure, but not for existing ones.

120. Guatemala has ex-ante financial instruments to manage the exposure of public infrastructure to climate-related risks. The government's strategy includes both risk retention instruments consisting of loans contingent upon the occurrence of a climate disaster and risk transfer instruments associated with insurance in the event of rains and earthquakes.[92] MINFIN is negotiating with the World Bank for a contingent loan for emergencies caused by natural disasters for up to USD 190 million, which is expected to be approved in 2024.[93] Guatemala also has a budget appropriation of GTQ 110 million, known as the Fondo Emergente (Emerging Fund), which is activated in the event of a natural disaster and with prior authorization from the Congress of the Republic. Likewise, the parametric insurance against excess rainfall associated with the Caribbean Catastrophe Risk Insurance Facility (CCRIF) was renewed in June 2022.[94]

121. The budget incorporates a chapter on fiscal risks including climate-related risks but does not analyze the consequences of the materialization of climate and macroeconomic shocks on infrastructure and real assets of the public sector. DAPF officials reported that this is an element to be developed in the future and stressed that so far they have focused on preparing and refining macroeconomic shock risk analyses on fiscal flows and financial liabilities, with the inclusion of real assets pending. The aforementioned chapter of the budget focuses on the effects of a drop in tax revenue due to a decrease in economic activity and an increase in public spending resulting from responses to emergencies. CONRED has maps that identify the threats of landslides and floods, and in 2017 the World Bank estimated the fiscal costs of infrastructure damage associated with disaster scenarios.[95]

122. The adoption of a risk management strategy that incorporates the exposure of public infrastructure to the risks associated with disasters and climate change is a medium priority. Guatemala needs an adequate disaster risk management strategy to strengthen its resilience. Climate change is expected to increase the variability and incidence of extreme weather events such as droughts, floods, and heavy rainfall, which, added to the country's existing vulnerability, can become high risk. The strategy should include at least three types of risks: (i) risks of higher capital

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[91] World Bank (2017) *Public Finances Resilience to Disaster Risk: Guatemala*, September.

[92] "*Estrategia financiera ante el riesgo de desastres*," Ministry of Finance, 2018, p. 22.

[93] See Chapter 8 of "*Informe de riesgos fiscales 2023 – 2027*," Directorate of Fiscal Analysis and Policy, September 2022.

[94] Effective for the year 2022/23 and maximum coverage of USD 7 million. CCRIF's parametric insurance mechanism allows for prompt payment to help fund the initial disaster response and maintain basic government functions after a catastrophic event. See https://www.ccrif.org/es

[95] https://conred.gob.gt/amenaza-por-deslizamientos-e-inundaciones/ and World Bank (2017) *Public Finance Resilience to Disaster Risk: Guatemala*, September.

costs of public infrastructure with low GHG emissions; (ii) transition risks, which are risks to the value of public infrastructure assets arising from changes in technology, markets, and government policy in the context of global and national climate commitments; and (iii) climate and disaster risks in public infrastructure, which should be systematically assessed and monitored to facilitate adequate and effective mitigation.

V. Transversal Themes

A. Legal Framework

123. **The legal framework covers a significant percentage of the public investment cycle, but there is limited and fractional coverage of processes such as fiscal responsibility, contingent liabilities, PE control, planning, and project formulation and monitoring.** There is a strong legal framework covering budget programming and implementation, procurement, transfers and coordination with municipalities, the comptroller's office, and PPPs (Box 12). There is no law on fiscal responsibility, including the control of contingent liabilities of capital projects, despite the government's attempts to get it passed. There is also an absence of a comprehensive framework for the planning, programming, and monitoring of projects that is somehow remedied by different articles spread among different statutory instruments such as the LOP, the Law on the Executive Branch (Decree 114/97), and the Law on Urban and Rural Development Councils (Decree 11/2002). The monitoring of projects is regulated by the annual budget law. Finally, there is no organic law that regulates the role of the government in the management and supervision of PCs, which limits having a comprehensive vision of the management of companies and their investment projects.

Box 12. Legal and Regulatory Framework for Public Investment

- Political Constitution of the Republic of Nicaragua, 1985
- Organic Budget Law (LOP) Decree No. 101/97
  - Implementing Regulation of the Organic Budget Law - Government Decision No. 540/2013
  - Law on the Government Income and Expenditure Budget for Fiscal Year 2023
  - Handbook of Integrated Government Accounting, 2003
  - Manual on Budget Amendments for Central Government Entities, 2005
  - Manual of Budget Execution Programming for Central Government Entities, January 2005
  - Manual of Budget Classifications for the Public Sector of Guatemala, 2008
- Projects:
  - Guide to the formulation and evaluation of public investment projects, 2022
- Law on the Executive Branch – Decree 114/97
- Organic Law on the Office of the Comptroller General of Accounts – Decree No. 31/2002
  - Implementing Regulation of the Organic Law on the Office of the Comptroller General of Accounts - Government Decision No. 96/2019
- Law on Urban and Rural Development Councils – Decree 112002
  - Implementing Regulation of the Law on Urban and Rural Development Councils – Government Decision 461/2002
- Municipal Transfers
  - Municipal Code – Decree 12/2002
  - Law on Taxes on the Circulation of Land, Sea, and Air Vehicles – Decree 70/94
  - Law on Value Added Tax – Decree 27/92
- Law on Government Procurement – Decree Number 57/92
  - Implementing Regulation of the Law on Government Procurement - Government Decision 122/2016
- Law on Partnerships for the Development of Economic Infrastructure - Decree 16/2010
  - Implementing Regulation of the Law on Partnerships for the Development of Economic Infrastructure - No. 360/2011
- Sectoral Regulation
  - General Law on Electricity - Decree 93/96
  - General Law on Telecommunications - Decree 9496
- Business Creation Laws.

Source: Mission

124. **Complementing and integrating the legal framework for fiscal management and planning and programming of public investments for central government and PCs is a medium priority**. Despite the good fiscal results, the country would benefit from having a legal framework for fiscal responsibility that includes municipalities in its coverage. Clear institutional frameworks at this level could increase the impact of public investment on the economy through countercyclical spending rules. A governmental decision on the SNIP could provide a more comprehensive, effective, and complete legal framework for the planning, budgeting, and monitoring of investment projects. Currently, the manuals and the annual law have a great impact, which can generate instability in the public investment system. Box 13 shows examples of countries that have a specific legal framework for the SNIP. Finally, a governmental decision to require strategic control of PCs would make it possible, under the legal framework for the creation of each PE, to address aspects such as asset disclosure, accountability, performance supervision, the transparency approach, and control and governance mechanisms.

Box 13. Elements of Regulatory Provisions on Planning and the SNIP – International Comparison

<table>
<tr><th>Law – Country</th><th>Components</th></tr>
<tr><td>Law 24.354/1994, National Investment System – Argentina</td><td>- Define the actors in the system
- Project life cycle (pre-investment, investments, and ex-post control)
- Functions of the lead entity for public investment
- Defines the role of system actors in relation to the following themes:
    o Project formulation
    o Project selection
    o Investment Plan Preparation
- Multi-year projection</td></tr>
<tr><td>Law of 2010, Organic Code on Planning and Public Finance (COPLAFIP) – Ecuador</td><td>- Development planning
- Public policy
- National decentralized participative planning system
- National Planning Council
- Information for planning
- National Development Plan and system guidelines and policies
- Development and land-use plans
- Public investment and related instruments
    o Definition of Public Investment
    o Feasibility of programs and projects
    o Timing of investment plans (annual and four-yearly)
    o Persons responsible for formulating investment plans
    o Prioritization of programs and projects
    o Project Bank
- National public finance system</td></tr>
<tr><td>Decree No. 37,735/2013: General Regulations on the Planning System – Costa Rica</td><td>- Scope of application
- Objectives and Principles of the National Planning System
- Planning functions and instruments by body
- Subsystems
    o Development Planning Subsystem
    o Public Management Subsystem
    o Public Investment Subsystem
        ▪ Functions and instruments
        ▪ Bodies and responsibilities
        ▪ Investment projects
        ▪ Budgets and sources
    o Regional Planning Subsystem
    o Monitoring and Evaluation Subsystem
    o International Cooperation Subsystem</td></tr>
<tr><td>Decree No. 2844/2010: "Regulating organic rules of the Budget and of the National Development Plan - Unified Public Investment System." - Colombia</td><td>- Scope
- Investment Project Cycle
- Project Bank (evaluation and registration of investment projects)
- Budget programming investment projects
- Implementation of public investment projects
- Monitoring of public investment projects
- Subsequent evaluation of investment projects</td></tr>
</table>

Source: Mission

125. There is a comprehensive and complete legal framework on climate change for reducing vulnerability and for disaster adaptation and reduction, but not for water regulation. The Framework Law on Climate Change creates the National Council on Climate Change, whose function, among other things, is to monitor climate actions, and defines the creation of strategic plans by sector. The same law defines the MARN as the secretariat of the council with the support of SEGEPLAN (Article 8). It empowers the social urban development councils and SEGEPLAN to verify the introduction of the climate variable in public investment policies, plans and projects at the sectoral, public, and territorial levels and to use these criteria to prioritize the allocation of resources (Article 10). In the particular case of infrastructure, it lays down an obligation to adopt standards for the design and construction of physical works that take climate change into account and it creates a national fund. In addition, there is the Law on the National Coordinator for the Reduction of Natural and Man-made Disasters, which defines operational mechanisms for risk prevention and mitigation. Finally, the legal framework includes specific laws on incentives for renewable energy and e-mobility as well as policies and strategies, detailed below, that contribute to realizing the objectives of the laws (Box 14). An absence of a regulatory framework that regulates the provision of water management infrastructure and addresses problems such as wastewater and river pollution, among others, is identified.

Box 14. Legal Framework Relating to Climate Change

- Political Constitution of the Republic of Guatemala, 1985
- Framework Law to Regulate the Reduction of Vulnerability, Mandatory Adaptation to the Effects of Climate Change and the Mitigation of Greenhouse Gases - Decree No. 7/2013
  - National Climate Change Policy = Government Decision No. 329/2009
  - Guide on the creation and/or strengthening of the Municipal Environmental Management Unit for adaptation and mitigation of climate change (UGAM), 2010
  - National Climate Action Plan - in compliance with Decree 7/2013
  - Public Finance Resilience to Disaster Risk, 2017
  - Financial Strategy for Disaster Risk, April 2018
  - Design of the Reference Framework for the Implementation of the Environmental Fiscal Strategy, 2019
  - Guide on Thematic Classifiers, 2021, MINFIN
- Law on the National Coordinator for the Reduction of Natural or Man-Made Disasters – Decree 109/96
  - Implementing Regulation of the Law on the National Coordinator for the Reduction of Natural or Man-Made Disasters – Government Decision 49/2012
  - National Policy for Disaster Risk Reduction in Guatemala – Decision 06/2009
  - Methodological Guide for the Preparation of the Municipal Development and Territorial Planning Plan in Guatemala, 2018
- Law on the Executive Branch - Decree 114/97. K.
- Law on the Protection and Improvement of the Environment, Decree 68/86
- Law on Protected Areas. Decree 4/89.
- Forestry Law. Decree 101/96.
- Law on Renewable Energy Incentives, Decree 52/2003
- Law on Incentives for the Development of Renewable Energy Projects – Decree 52/2003
- Law on Incentives for E-Mobility – Decree 40/2022
- Law on the Protection and Improvement of the Environment, Decree 68/86

Source: Mission

126. **The legal framework could be strengthened by empowering the coordinating role of MARN and SEGEPLAN, including regulation of the water sector and strengthening the financial scope of climate risks.** A governmental decision of the SNIP could develop a set of incentives for the coordination and monitoring of investments with climate change criteria for national and territorial entities, thus developing Article 10 of the framework law. It is also necessary to develop a regulatory framework around water investments that allows the climate change concepts to be

involved in regulatory and investment decisions. Finally, the weight of fiscal risks associated with climate risks in a country with Guatemala's level of vulnerability makes it necessary to supplement the legal framework with a financial strategy for disaster risks with a focus on public assets. Such a strategy would identify the channels of transmission of adaptation and mitigation risks faced by public assets and the costs to the country in the medium and long term.

B. Information Systems

127. Public investment is managed in the planning phase in SINIP, a platform used by SEGEPLAN, which is integrated through interconnection with the GUATECOMPRAS, SIGES, and SICOIN systems to complete the procurement, implementation, and asset registration cycle. The systems operate independently, collecting and storing information in a decentralized manner. SINIP captures and collects all the information required by the SNIP for project analysis, prioritization, and monitoring. It integrates the georeferencing functionality through the use of the Google Maps platform, where, using search parameters, it is possible to locate projects by year of execution, department, municipality, and institution.

128. The procurement phase is carried out in the Guatecompras system and this system has online interoperability with the SIGES system, exchanging updates on changes in the procurement and progress in the budget execution of projects. The budgetary and financial implementation of projects is carried out in SIGES, which, through different modules, covers a wide range of functions: preparation and implementation of the budget and treasury management, including the single treasury account. This system is interoperable with SICOIN, which records online the financial movements of projects, identifying them by contract. It returns information to the SIGES, Guatecompras, and SNIP systems. The Municipalities are not part of SIGES, but they carry out their management in the Integrated Financial Administration System (SIAF) for Local Governments (SICOIN-GL), entering budget execution information into SICOIN-GL. Other secondary systems are included in Table 12.

Table 12. Information System for the Management of Public Investment

INSTITUTION/ DIMENSION	SYSTEM	ADMINISTRATOR
PLANNING		
1-Fiscal objectives and rules	SIGES-SIAF	MINFIN
2-National and sectoral planning	SNIP/SIAF for Local Governments /SINPET	MINFIN/-SEGEPLAN
3-Coordination between entities	SINPET	SEGEPLAN
4-Project evaluation	SNIP	SEGEPLAN
5- Alternative financing of infrastructure	SNIP- SIGEPRO	SEGEPLAN -DCP
ALLOCATION		
6- Multi-year budgeting	SIGES (SIAF)	MINFIN
7- Coverage and budget unit	SIGES (SIAF)	MINFIN
8-Investment budget	SIGES (SIAF)/ SIGEPRO	MINFIN/-SEGEPLAN
9-Maintenance resources	SIGES	MINFIN
10-Project selection	SNIP	SEGEPLAN

INSTITUTION/ DIMENSION	SYSTEM	ADMINISTRATOR
IMPLEMENTATION		
11.-Procurement	Guatecompras	DIGAE
12-Resource availability	SICOIN	DCE
13- Portfolio management and supervision	SNIP	SEGEPLAN
13- Management of project implementation	SIGES	MINFIN
15- Monitoring of public assets	SICOIN	DCE

Source: Mission

129. SINIP is partially interoperable with the financial management systems, but its design has significant weaknesses in terms of data transfer, information capture, and reconciliation. There are still data captures that do not reflect the real condition of a project and are due only to a filling-in of fields in a digital form, while some checklists do not apply to projects, but are marked as dealt with due to an absence of adequate parameterization. The systems are not equipped to generate periodic and analytical reports that allow the effectiveness of the processes to be evaluated and to provide a project with traceability from its formulation to its implementation and closure. The concurrent control and audit processes are not supported by IT intelligence, which limits the analysis and timeliness of the results.

130. The CONRED information platform is the only tool dedicated to addressing the issue of natural disasters, but it is not equipped to manage the process of disaster coordination and response. It provides information on actions carried out by the institution in relation to disaster risk response and on the linking of these actions to the policies, processes, plans, and projects developed by government agencies at the different territorial levels, but it has limited public access. On the other hand, activities in management systems with a focus on climate change are lower. The DTP has indicated that the climate change budget classifier (tagging) is operational in SICOIN but not implemented; the DTP in its role as lead entity of the public sector budget system is required to coordinate with SEGEPLAN and MARN for its implementation.

131. Making improvements in information systems to guide process automation, with structures that facilitate interoperability (standardized codes, catalogs, data exchange) is a fundamentally important reform. Although technological changes are not easy or quick to adopt, it must be borne in mind that, together with the evolution of investment regulations, and in the face of the demand for rapid responses to tackle the events caused by climate change, the digitalization of processes and technological innovation are necessary reforms that must be carried out in parallel to the change in regulations. The information systems that support the investment management cycle must provide the process with traceability at all stages. The accessibility and completeness of information should be improved, efforts should be directed towards the automation of processes and controls, and data structure and integrity should be improved. The service vision must be strengthened through the parameterization and generation of analytical reports. Finally, transparency is transversal and can only be as good as the quality of the data available, timely publication, and progressive disclosure.[96]

C. Capacities

132. The processes of planning, formulation, and programming of investment have strong teams in SEGEPLAN and MINFIN, while the processes of fiscal projections and monitoring of projects have more limited resources. A limited level of internal resources was identified at the DAPF, MINFIN, and the monitoring units of SEGEPLAN. The DAFP has a small team of people dedicated to technical work (9) and it requires frequent external support to develop advanced forecasting models. For its part, SEGEPLAN has a team assigned to formulation and technical opinion that is 4 times larger than the one assigned to project monitoring (36 and 9 respectively). In terms of formulation for 2023, the PIP includes 286 new projects, which means that each technician analyzes an average of 8 projects. Despite the integration of information systems between MINFIN and SEGEPLAN, there is evidence of a low level of interaction and coordination at the team level.

133. Strengthening capacities and the teams responsible for medium-term public investment programming and project monitoring can improve public investment management. Due to the multi-year nature of the investment, good planning, formulation, prioritization, and implementation of projects requires a medium-term vision of the availability of resources. To achieve this, it is necessary to:

- strengthen the DAPF team by increasing the number of technicians assigned to fiscal projections and risk analysis.
- increase the articulation capacity of the DTP with SEGEPLAN in order to make medium-term projections at the level of investment and operation that allow better planning and programming of projects. This vision would allow SEGEPLAN and the sectors to plan with realistic resource scenarios and prioritize the formulation of projects and would allow EPIs to procure the implementation of projects while optimizing costs and implementation timeframes. Thus, a more active role for SEGEPLAN in the allocation of multi-year ceilings can improve the coordination of the public investment cycle.
- strengthen SEGEPLAN's monitoring teams to improve investment programming and produce effective reports on the progress of projects that influence resource allocation decisions.

134. The capacity to verify the introduction of the climate variable in public investment policies, plans, and projects at the sectoral, public, and territorial levels must be strengthened. There is an instrument for analyzing climate change risks within SINIP: AGRIP. In conjunction with MARN, SEGEPLAN has defined the climate change thematic classifier, but they have not applied it effectively. It is necessary to make progress in the application of the climate change classifier at the national and territorial levels and to strengthen the MARN teams to support its role as secretary of the National Council on Climate Change and as entity responsible for providing

[96] Progressive disclosure allows users or customers to know only the information they need to know to reach the goal they are currently trying to achieve. In some open databases, it has been found that useless information is intentionally omitted or overloaded, which hinders the process of citizen control and internal users.

guidelines on the general application of climate change criteria in policies and plans and public investment projects at the national and territorial levels.

Annex 1. PIMA detailed scores

The following color code is used to present the scores:

Score	Low=	Medium	High
	1	2	3
Color			

A. Planning		
	Institutional Strength	Effectiveness
1.a.	2	3
1.b.	1	1
1.c.	2	1
2.a.	2	2
2.b.	2	1
2.c.	3	2
3.a.	3	2
3.b.	2	3
3.c.	1	1
4.a.	2	2
4.b.	3	3
4.c.	3	2
5.a.	2	2
5.b.	2	1
5.c.	1	1

B. Allocation		
	Institutional Strength	Effectiveness
6.a.	2	3
6.b.	1	1
6.c.	1	1
7.a.	1	3
7.b.	1	1
7.c.	2	3
8.a.	3	1
8.b.	3	3
8.c.	3	1
9.a.	1	1
9.b.	1	1
9.c.	2	1
10.a.	3	3
10.b.	3	2
10.c.	3	2

C. Implementation		
	Institutional Strength	Effectiveness
11.a	2	1
11.b	2	2
11.c	1	2
12.a	2	2
12.b	2	2
12.c	3	3
13.a	2	1
13.b	2	1
13.c	1	1
14.a	2	2
14.b	2	1
14.c	1	1
15.a	1	1
15.b	2	2
15.c	1	1

Annex 2. C-PIMA detailed scoring

The following color code is used to present the score:

Score	Low	Medium	High
	1	2	3
Color			

C1. Climate-aware planning	
C1.a.	National and sectoral planning
C1.b.	Land-use and building regulations
C1.c.	Centralized guidance on planning
C2. Coordination between entities	
C2.a.	Coordination across central government
C2.b.	Coordination with subnational governments
C2.c.	Oversight framework for public corporations
C3. Project appraisal and selection	
C3.a.	Climate Analysis in project appraisal
C3.b.	PPP framework including climate risks
C3.c.	Climate consideration in project selection
C4. Budgeting and portfolio management	
C4.a.	Climate budget tagging
C4.b.	Ex-post review of projects
C4.c.	Asset management
C5. Risk management	
C5.a.	Disaster risk management strategy
C5.b.	Ex-ante financing mechanisms
C5.c.	Fiscal risk analysis including climate risks

Annex 3. PIMA Questionnaire

For the purposes of the evaluation of public investment management in Section III, two aspects were assessed for each institution:

- *Institutional Strength*: Institutional strength evaluates the design of the processes, laws, systems, and management tools implemented from a design point of view. It is based on the questionnaire presented in the 2018 IMF Board Paper "Assessing Public Investment Management: Review and Update." This questionnaire consists of 15 institutions, each with three indicators. For each indicator, three possible scores (low, medium, and high) are established. The score of the three indicators per institution is aggregated using a simple average. The following color coding is used and scores were assigned for the institution according to the following principles

	High	**Medium**	**Low**
Institutional Strength			

- *Effectiveness*: Effectiveness evaluates how the institution is implemented in practice and whether it achieved the intended results. It is assessed qualitatively, based on evidence (e.g., numerical, reviews and evaluation of (international) organizations, audit reports). The following color code is used:

	High	**Medium**	**Low**
Effectiveness of the institution			

Question		Score		
		1 = To no or a lesser extent	2 = To some extent	3 = To a greater extent
A.	**Planning Sustainable Levels of Public Investment**			
1.	**Fiscal targets and rules: Does the government have fiscal institutions to support fiscal sustainability and to facilitate medium-term planning for public investment?**			
1.a.	Is there a target or limit for government to ensure debt sustainability?	There is no target or limit to ensure debt sustainability.	There is at least one target or limit to ensure central government debt sustainability.	There is at least one target or limit to ensure general government debt sustainability.
1.b.	Is fiscal policy guided by one or more permanent fiscal rules?	There are no permanent fiscal rules.	There is at least one permanent fiscal rule applicable to central government.	There is at least one permanent fiscal rule applicable to central government, and at least one comparable rule applicable to a major additional component of general government, such as subnational government (SNG).
1.c.	Is there a medium-term fiscal framework (MTFF) to align budget preparation with fiscal policy?	There is no MTFF prepared prior to budget preparation.	There is an MTFF prepared prior to budget preparation but it is limited to fiscal aggregates, such as expenditure, revenue, the deficit, or total borrowing.	There is an MTFF prepared prior to budget preparation, which includes fiscal aggregates and allows distinctions between recurrent and capital spending, and ongoing and new projects.
2.	**National and Sectoral Planning: Are investment allocation decisions based on sectoral and inter-sectoral strategies?**			
2.a.	Does the government prepare national and sectoral strategies for public investment?	National or sectoral public investment strategies or plans are prepared, covering only some projects found in the budget.	National or sectoral public investment strategies or plans are published covering projects funded through the budget.	Both national and sectoral public investment strategies or plans are published and cover all projects funded through the budget regardless of financing source (e.g. donor, public corporation (PC), or PPP financing).
2.b.	Are the government's national and sectoral strategies or plans for public investment costed?	The government's investment strategies or plans include no cost information on planned public investment.	The government's investment strategies include broad estimates of aggregate and sectoral investment plans.	The government's investment strategies include costing of individual, major investment projects within an overall financial constraint.
2.c.	Do sector strategies include measurable targets for the outputs and outcomes of investment projects?	Sector strategies do not include measurable targets for outputs or outcomes.	Sector strategies include measurable targets for outputs (e.g., miles of roads constructed).	Sector strategies include measurable targets for both outputs and outcomes (e.g., reduction in traffic congestion).
3.	**Coordination between Entities: Is there effective coordination of the investment plans of central and other government entities?**			
3.a.	Is capital spending by SNGs, coordinated with the central government?	Capital spending plans of SNGs are not submitted to, nor discussed with central government.	Major SNG capital spending plans are published alongside central government investments, but there are no formal discussions, between the central government and SNGs on investment priorities.	Major SNG capital spending plans are published alongside central government investments, and there are formal discussions between central government and SNGs on investment priorities.
3.b.	Does the central government have a transparent, rule-based system for making capital transfers to SNGs, and for providing timely information on such transfers?	The central government does not have a transparent rule-based system for making capital transfers to SNGs.	The central government uses a transparent rule-based system for making capital transfers to SNGs, but SNGs are notified about expected transfers less than six months before the start of each fiscal year.	The central government uses a transparent rule-based system for making capital transfers to SNGs, and expected transfers are made known to SNGs at least six months before the start of each fiscal year.
3.c.	Are contingent liabilities arising from capital projects of SNGs, PCs, and PPPs reported to the central government?	Contingent liabilities arising from major projects of SNGs, PCs, and PPPs are not reported to the central government.	Contingent liabilities arising from major projects of SNGs, PCs, and PPPs are reported to the central government, but are generally not presented in the central government's budget documents.	Contingent liabilities arising from major projects of SNGs, PCs, and PPPs are reported to the central government, and are presented in full in the central government's budget documents.

4. Project Appraisal: Are project proposals subject to systematic project appraisal?				
4.a.	Are major capital projects subject to rigorous technical, economic, and financial analysis?	Major capital projects are not systematically subject to rigorous, technical, economic, and financial analysis.	Major projects are systematically subject to rigorous technical, economic, and financial analysis.	Major projects are systematically subject to rigorous technical, economic, and financial analysis, and selected results of this analysis are published or undergo independent external review.
4.b.	Is there a standard methodology and central support for the appraisal of projects?	There is no standard methodology or central support for project appraisal.	There is either a standard methodology or central support for project appraisal.	There is both a standard methodology and central support for project appraisal.
4.c.	Are risks taken into account in conducting project appraisals?	Risks are not systematically assessed as part of the project appraisal.	A risk assessment covering a range of potential risks is included in the project appraisal.	A risk assessment covering a range of potential risks is included in the project appraisal, and plans are prepared to mitigate these risks.
5. Alternative Infrastructure Financing: Is there a favorable climate for the private sector, PPPs, and PCs to finance in infrastructure?				
5.a.	Does the regulatory framework support competition in contestable markets for economic infrastructure (e.g., power, water, telecoms, and transport)?	Provision of economic infrastructure is restricted to domestic monopolies, or there are few established economic regulators.	There is competition in some economic infrastructure markets, and a few economic regulators have been established.	There is competition in major economic infrastructure markets, and economic regulators are independent and well established.
5.b.	Has the government published a strategy/policy for PPPs, and a legal/regulatory framework which guides the preparation, selection, and management of PPP projects?	There is no published strategy/policy framework for PPPs, and the legal/regulatory framework is weak.	A PPP strategy/policy has been published, but the legal/regulatory framework is weak.	A PPP strategy/policy has been published, and there is a strong legal/regulatory framework that guides the preparation, selection, and management of PPP projects.
5.c.	Does the government oversee the investment plans of public corporations (PCs) and monitor their financial performance?	The government does not systematically review the investment plans of PCs.	The government reviews the investment plans of PCs, but does not publish a consolidated report on these plans or the financial performance of PCs.	The government reviews and publishes a consolidated report on the investment plans and financial performance of PCs.
B. Ensuring Public Investment is Allocated to the Right Sectors and Projects				
6. Multi-Year Budgeting: Does the government prepare medium-term projections of capital spending on a full cost basis?				
6.a.	Is capital spending by ministry or sector forecasted over a multiyear horizon?	No projections of capital spending are published beyond the budget year.	Projections of total capital spending are published over a three to five-year horizon.	Projections of capital spending disaggregated by ministry or sector are published over a three to five-year horizon.
6.b	Are there multiyear ceilings on capital expenditure by ministry, sector, or program?	There are no multiyear ceilings on capital expenditure by ministry, sector, or program.	There are indicative multiyear ceilings on capital expenditure by ministry, sector, or program.	There are binding multiyear ceilings on capital expenditure by ministry, sector, or program.
6.c.	Are projections of the total construction cost of major capital projects published?	Projections of the total construction cost of major capital projects are not published.	Projections of the total construction cost of major capital projects are published.	Projections of the total construction cost of major capital projects are published, together with the annual breakdown of these cost over a three-five-year horizon.

7.	**Budget Comprehensiveness and Unity: To what extent is capital spending, and related recurrent spending, undertaken through the budget process?**			
7.a.	Is capital spending mostly undertaken through the budget?	Significant capital spending is undertaken by extra-budgetary entities with no legislative authorization or disclosure in the budget documentation.	Significant capital spending is undertaken by extra-budgetary entities, but with legislative authorization and disclosure in the budget documentation.	Little or no capital spending is undertaken by extra-budgetary entities.
7.b.	Are all capital projects, regardless of financing source, shown in the budget documentation?	Capital projects are not comprehensively presented in the budget documentation, including PPPs, externally financed, and PCs' projects.	Most capital projects are included in the budget documentation, but either PPPs, externally financed, or PCs' projects are not shown.	All capital projects, regardless of financing sources, are included in the budget documentation.
7.c.	Are capital and recurrent budgets prepared and presented together in the budget?	Capital and recurrent budgets are prepared by separate ministries, and/or presented in separate budget documents.	Capital and recurrent budgets are prepared by a single ministry and presented together in the budget documents, but without using a program or functional classification.	Capital and recurrent budgets are prepared by a single ministry and presented together in the budget documents, using a program or functional classification.
8.	**Budgeting for Investment: Are investment projects protected during budget implementation?**			
8.a.	Are total project outlays appropriated by the legislature at the time of a project's commencement?	Outlays are appropriated on an annual basis, but information on total project costs is not included in the budget documentation.	Outlays are appropriated on an annual basis, and information on total project costs is included in the budget documentation.	Outlays are appropriated on an annual basis and information on total project costs, and multiyear commitments is included in the budget documentation.
8.b.	Are in-year transfers of appropriations (virement) from capital to current spending prevented?	There are no limitations on virement from capital to current spending.	The finance ministry may approve virement from capital to current spending.	Virement from capital to current spending requires the approval of the legislature.
8.c	Is the completion of ongoing projects given priority over starting new projects?	There is no mechanism in place to protect funding of ongoing projects.	There is a mechanism to protect funding for ongoing projects in the annual budget.	There is a mechanism to protect funding for ongoing projects in the annual budget and over the medium term.
9.	**Maintenance Funding: Are routine maintenance and major improvements receiving adequate funding?**			
9.a.	Is there a standard methodology for estimating routine maintenance needs and budget funding?	There is no standard methodology for determining the needs for routine maintenance.	There is a standard methodology for determining the needs for routine maintenance and its cost.	There is a standard methodology for determining the needs for routine maintenance and its cost, and the appropriate amounts are generally allocated in the budget.
9.b.	Is there a standard methodology for determining major improvements (e.g. renovations, reconstructions, enlargements) to existing assets, and are they included in national and sectoral investment plans?	There is no standard methodology for determining major improvements, and they are not included in national or sectoral plans.	There is a standard methodology for determining major improvements, but they are not included in national or sectoral plans.	There is a standard methodology for determining major improvements, and they are included in national or sectoral plans.
9.c.	Can expenditures relating to routine maintenance and major improvements be identified in the budget?	Routine maintenance and major improvements are not systematically identified in the budget.	Routine maintenance and major improvements are systematically identified in the budget.	Routine maintenance and major improvements are systematically identified in the budget, and are reported.
10.	**Project Selection: Are there institutions and procedures in place to guide project selection?**			
10.a.	Does the government undertake a central review of major project appraisals before decisions are taken to include projects in the budget?	Major projects (including donor- or PPP-funded) are not reviewed by a central ministry prior to inclusion in the budget.	Major projects (including donor- or PPP-funded) are reviewed by a central ministry prior to inclusion in the budget.	All major projects (including donor- or PPP-funded) are scrutinized by a central ministry, with input from an independent agency or experts prior to inclusion in the budget.
10.b.	Does the government publish and adhere to standard criteria, and stipulate a required process for project selection?	There are no published criteria or a required process for project selection.	There are published criteria for project selection, but projects can be selected without going through the required process.	There are published criteria for project selection, and generally projects are selected through the required process.
10.c.	Does the government maintain a pipeline of appraised investment projects for inclusion in the annual budget?	The government does not maintain a pipeline of appraised investment projects.	The government maintains a pipeline of appraised investment projects but other projects may be selected for financing through the annual budget.	The government maintains a comprehensive pipeline of appraised investment projects, which is used for selecting projects for inclusion in the budget, and over the medium term.

C.	**Delivering Productive and Durable Public Assets**			
11.	**Procurement**			
11.a.	Is the procurement process for major capital projects open and transparent?	Few major projects are tendered in a competitive process, and the public has limited access to procurement information.	Many major projects are tendered in a competitive process, but the public has only limited access to procurement information.	Most major projects are tendered in a competitive process, and the public has access to complete, reliable and timely procurement information.
11.b	Is there a system in place to ensure that procurement is monitored adequately?	There is no procurement database, or the information is incomplete or not timely for most phases of the procurement process.	There is a procurement database with reasonably complete information, but no standard analytical reports are produced from the database.	There is a procurement database with reasonably complete information, and standard analytical reports are produced to support a formal monitoring system.
11.c	Are procurement complaints review process conducted in a fair and timely manner?	Procurement complaints are not reviewed by an independent body.	Procurement complaints are reviewed by an independent body, but the recommendations of this body are not produced on a timely basis, nor published, nor rigorously enforced.	Procurement complaints are reviewed by an independent body whose recommendations are timely, published, and rigorously enforced.
12.	**Availability of Funding: Is financing for capital spending made available in a timely manner?**			
12.a.	Are ministries/agencies able to plan and commit expenditure on capital projects in advance on the basis of reliable cash-flow forecasts?	Cash-flow forecasts are not prepared or updated regularly, and ministries/agencies are not provided with commitment ceilings in a timely manner.	Cash-flow forecasts are prepared or updated quarterly, and ministries/agencies are provided with commitment ceilings at least a quarter in advance.	Cash-flow forecasts are prepared or updated monthly, and ministries/agencies are provided with commitment ceilings for the full fiscal year.
12.b	Is cash for project outlays released in a timely manner?	The financing of project outlays is frequently subject to cash rationing.	Cash for project outlays is sometimes released with delays.	Cash for project outlays is normally released in a timely manner, based on the appropriation.
12.c	Is external (donor) funding of capital projects fully integrated into the main government bank account structure?	External financing is largely held in commercial bank accounts outside the central bank.	External financing is held at the central bank, but is not part of the main government bank account structure.	External financing is fully integrated into the main government bank account structure.

Annex 4. C-PIMA Questionnaire

QUESTION		Score 1 = To no or a lesser extent	2 = To some extent	3 = To a greater extent
C1. Climate-aware planning: Is public investment planned from a climate change perspective?				
C.1.a	Are national and sectoral public investment strategies and plans consistent with Nationally Determined Contribution (NDC) or other overarching climate change strategy on mitigation and adaptation?	National and sectoral public investment strategies and plans are not consistent with NDC or other overarching climate change strategy.	National public investment strategies and plans are consistent with NDC or other overarching climate change strategy for some sectors.	National and sectoral public investment strategies and plans are consistent with NDC or other overarching climate change strategy for most sectors.
C.1.b	Do central government and/or sub-national government regulations on spatial and urban planning, and construction address climate-related risks and impacts on public investment?	Central government and/or sub-national government regulations on spatial and urban planning, and construction do not address climate-related risks and impacts on public investment.	Central government and/or sub-national government regulations on spatial and urban planning, or construction (through building codes) addresses climate-related risks and impacts on public investment.	Central government and/or sub-national government regulations on spatial and urban planning, and construction (through building codes) address climate-related risks and impacts on public investment.
C.1.c	Is there centralized guidance/support for government agencies on the preparation and costing of climate-aware public investment strategies?	There is no centralized guidance/support for government agencies on the preparation and costing of climate-aware public investment strategies.	There is centralized guidance/support for government agencies on the preparation of climate-aware public investment strategies.	There is centralized guidance/support for government agencies on the preparation and costing of climate-aware public investment strategies.
C2. Coordination between entities: Is there effective coordination of decision making on climate change-related public investment across the public sector?				
C.2.a	Is decision making on public investment coordinated across central government from a climate-change perspective?	Decision making on public investment is not coordinated across central government from a climate-change perspective.	Decision making on public investment is coordinated across budgetary central government from a climate-change perspective.	Decision making on public investment is coordinated across all central government, including externally financed projects, public-private partnerships (PPPs) and extra-budgetary entities, from a climate-change perspective.
C.2.b	Is the planning and implementation of capital spending of subnational governments (SNGs) coordinated with the central government from a climate-change perspective?	The planning and implementation of capital spending of SNGs is not coordinated with the central government from a climate-change perspective.	The central government issues guidance on the planning and implementation of capital spending from a climate-change perspective and information on major climate-related projects of SNGs is shared with the central government and is published alongside data on central government projects.	The central government issues guidance on the planning and implementation of capital spending from a climate-change perspective, information on major climate-related projects of SNGs is shared with the central government and is published alongside data on central government projects, and there are formal discussions between central government and SNGs on the planning and implementation of climate-related investments.
C.2.c	Does the regulatory and oversight framework for public corporations ensure that their climate-related investments are consistent with national climate policies and guidelines?	The regulatory and oversight framework for public corporations does not promote consistency between their climate-related investments and national climate policies and guidelines.	The regulatory and oversight framework for public corporations promotes consistency between their climate-related investments and national climate policies and guidelines.	The regulatory and oversight framework for public corporations requires that their climate-related investments be consistent with national climate policies and guidelines.

C3. Do project appraisal and selection include climate-related analysis and criteria?				
C.3.a	Does the appraisal of major infrastructure projects require climate-related analysis to be conducted according to a standard methodology with central support?	The appraisal of major infrastructure projects does not require climate-related analysis to be conducted according to a standard methodology.	The appraisal of major infrastructure projects requires climate-related analysis to be conducted according to a standard methodology.	The appraisal of major infrastructure projects requires climate-related analysis to be conducted according to a standard methodology, and a summary of appraisals is published or subject to independent external review.
C.3.b	Does the framework for managing longer-term public investment contracts, such as Public-Private Partnerships (PPPs), explicitly address climate-related challenges?	The referred framework does not include explicit consideration of climate change for risk allocation or contract management.	The referred framework includes explicit consideration of climate change with respect to how risks are allocated between the parties in infrastructure contracts.	The referred framework includes explicit consideration of climate change with respect to how risks are allocated between the parties in infrastructure contracts, and contract managers in government departments and agencies are mandated to address climate-related challenges.
C.3.c	Are climate-related elements included among the criteria used by the government for the selection of infrastructure projects?	Either there are no explicit selection criteria or climate-related elements are not included among the criteria used by the government for the selection of projects for financing.	Climate-related elements are included among the criteria used by the government for the selection of all major budget-funded projects, and the criteria are published.	Climate-related elements are included among the criteria used by the government for the selection of all major projects, including externally financed projects, projects financed by extra-budgetary entities, and PPPs, and the criteria are published.
C.4 Budgeting and portfolio management: Is climate-related investment spending subject to active management and oversight?				
C.4.a	Are planned climate-related public investment expenditures, sources of financing, outputs and outcomes identified in the budget and related documents, monitored, and reported?	Planned climate-related public investment expenditures are not identified in the budget and related documents.	Some planned climate-related public investment expenditures are identified in the budget and related documents, including investment expenditures funded externally, by extra-budgetary entities, and PPPs.	Most planned climate-related public investment expenditures, sources of financing, and outputs and outcomes are identified in the budget and related documents, including investment expenditures funded externally, by extra-budgetary entities, and PPPs, and expenditure on these projects is monitored and reported.
C4.b	Are ex-post reviews or audits conducted of the climate change mitigation and adaptation outcomes of public investments?	No ex-post reviews or audits are conducted of the climate change mitigation and adaptation outcomes of public investments.	Ex-post reviews or audits are conducted for selected major public investments of either the climate change mitigation or adaptation outcomes.	Ex-post reviews or audits are conducted and published for selected major public investments of both the climate change mitigation and adaptation outcomes.
C4.c	Do the government's asset management policies and practices, including the maintenance of assets, address climate-related risks?	Neither the government's asset management policies and practices nor methodologies for estimating the maintenance needs of climate change-exposed infrastructure assets address climate-related risks.	Methodologies prepared by the government for estimating the maintenance needs of some climate change-exposed infrastructure assets address climate-related risks.	Methodologies prepared by the government for estimating the maintenance needs and associated costs of most climate change-exposed infrastructure assets address climate-related risks, and government asset registers include climate-related information of these assets.

C5. Risk management: Are fiscal risks relating to climate change and infrastructure incorporated in budgets and fiscal risk analysis and managed according to a plan?				
C5.a	Does the government publish a national disaster risk management strategy that incorporates the potential impact of climate change on public infrastructure assets and networks?	Either there is no published national disaster risk management strategy, or the strategy does not identify the key climate-related risks to public infrastructure assets and networks.	The government publishes a national disaster risk management strategy that identifies the key climate-related risks to public infrastructure assets and networks in terms of hazards, exposure, and vulnerability.	The government publishes a national disaster risk management strategy that identifies and analyses the key climate-related risks to public infrastructure assets and networks in terms of hazards, exposure and vulnerability, and includes the government's plans to mitigate and respond to these risks.
C5.b	Has the government put in place ex ante financing mechanisms to manage the exposure of the stock of public infrastructure to climate-related risks?	The government has not put in place any ex ante financing mechanisms to manage the exposure of the stock of public infrastructure to climate-related risks.	There is an annual contingency appropriation in the budget or other financing mechanisms that is available to meet the costs of climate-related damages to public infrastructure.	There is an annual contingency appropriation in the budget and other financing mechanisms that are available to meet the costs of climate-related damages to public infrastructure.
C5.c	Does the government conduct and publish a fiscal risk analysis that incorporates climate-related risks to public infrastructure assets?	The government does not conduct a fiscal risk analysis that incorporates climate-related risks to public infrastructure assets.	The government conducts and publishes a fiscal risk analysis that incorporates a qualitative assessment of climate-related risks to public infrastructure assets over the medium term.	The government conducts and publishes a fiscal risk analysis that incorporates a quantitative assessment of climate-related risks to public infrastructure assets over the medium term and policies to mitigate these risks, and a qualitative assessment of the risks that may arise over the long-term.