

INFRASTRUCTURE GOVERNANCE

ASSESSMENT
FRAMEWORK
DECEMBER 2020

© 2021 International Bank for Reconstruction and Development / The World Bank

**1818 H Street NW
Washington DC 20433
Telephone: 202-473-1000
Internet: www.worldbank.org**

This work is a product of the staff of The World Bank with external contributions. The findings, interpretations, and conclusions expressed in this work do not necessarily reflect the views of The World Bank, its Board of Executive Directors, or the governments they represent.

The World Bank does not guarantee the accuracy, completeness, or currency of the data included in this work and does not assume responsibility for any errors, omissions, or discrepancies in the information, or liability with respect to the use of or failure to use the information, methods, processes, or conclusions set forth. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of The World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

Nothing herein shall constitute or be construed or considered to be a limitation upon or waiver of the privileges and immunities of The World Bank, all of which are specifically reserved.

Rights and Permissions

The material in this work is subject to copyright. Because The World Bank encourages dissemination of its knowledge, this work may be reproduced, in whole or in part, for noncommercial purposes as long as full attribution to this work is given.

Any queries on rights and licenses, including subsidiary rights, should be addressed to World Bank Publications, The World Bank Group, 1818 H Street NW, Washington, DC 20433, USA; fax: 202-522-2625; e-mail: pubrights@worldbank.org.

Cover photo

Graham Crouch / World Bank

Report design

Spaeth Hill

INFRASTRUCTURE GOVERNANCE

ASSESSMENT
FRAMEWORK
DECEMBER 2020

CONTENTS

Acknowledgements	6
Abbreviations	8
Introduction	10
Benchmarking service delivery gaps	22
Dimension-Based Approach	26
DIMENSION 1: It is important to have a solid legal framework and the institutional capacity to plan, assess, prioritize, and select potential infrastructure projects.	27
DIMENSION 2: Economic efficiency and value for money (VfM) over the infrastructure life cycle are important criteria in the choice of infrastructure investments.	31
DIMENSION 3: The fiscal affordability and fiscal sustainability of infrastructure projects should be assessed and managed throughout their life cycle.	36
DIMENSION 4: Incorporating environmental and social considerations is important for infrastructure outcomes.	39
DIMENSION 5: Incorporating resilience to climate change, natural disasters, and public health risks is important for infrastructure outcomes.	42
DIMENSION 6: Infrastructure procurement and contract management systems should be efficient, high quality, and should support competition and transparency.	46
DIMENSION 7: Contract management and the operation and maintenance (O&M) of infrastructure services and assets should ensure that the investments provide services as anticipated at their procurement.	52
DIMENSION 8: Transparent access to adequate information throughout the project cycle is key for project performance and accountability.	55
DIMENSION 9: There is a need for systematic measures in place to foster integrity and manage the risk of misconduct along the project cycle.	58
DIMENSION 10: Sector and regulatory frameworks should maximize competition for and in the market, and regulation should promote efficiency and societal value in infrastructure projects.	62
DIMENSION 11: SOEs should operate on market terms where possible, with clear reporting and corporate governance standards, and sound approaches to human resources and financial management.	68

Useful Resources	73
APPENDIX A: Additional guiding questions and non-standard indicators	76
APPENDIX B: List of standards indicators	92

LIST OF BOXES

BOX 1: Infrastructure Sector Assessment Program - InfraSAP 2.0	15
BOX 2: Implementation steps for standalone InfraGov assessments	17
BOX 3: Roles and responsibilities for public investment management	28
BOX 4: Efficiency for Infrastructure Investment	32
BOX 5: Different approaches to define Value for Money (in particular for PPPs)	34
BOX 6: Contract management guidelines	53
BOX 7: Dimensions of corporate governance of SOEs	69

LIST OF FIGURES

FIGURE 1: InfraGov / InfraSAP 2.0 Governance Pillar Flow Chart	13
FIGURE 2: Integrity Risks Throughout the Infrastructure Project Cycle	59

LIST OF TABLES

TABLE 1: Relevant Infrastructure Governance Related Products	19
TABLE 2: Key Questions and Indicators for Dimension 1	30
TABLE 3: Key Questions and Indicators for Dimension 2	35
TABLE 4: Key Questions and Indicators for Dimension 3	38
TABLE 5: Key Questions and Indicators for Dimension 4	41
TABLE 6: Key Questions and Indicators for Dimension 5	45
TABLE 7: Key Questions and Indicators for Dimension 6	51
TABLE 8: Key Questions and Indicators for Dimension 7	54
TABLE 9: Key Questions and Indicators for Dimension 8	57
TABLE 10: Key Questions and Indicators for Dimension 9	61
TABLE 11: Key Questions and Indicators for Dimension 10	65
TABLE 12: Key Questions and Indicators for Dimension 11	71

ACKNOWLEDGEMENTS

This diagnostic framework, which can be used either to complete the InfraSAP2.0 Governance Pillar or to undertake a stand-alone Infrastructure Governance (InfraGov) Assessment, was jointly developed by the Governance Global Practice (GGP) and the Infrastructure Vice Presidency (INF VP)—namely the PPP group within Infrastructure Finance, PPPs & Guarantees (IPG) and the INF Chief Economist Office.

The team was led by Vivien Foster (Chief Economist, INF VP) and Ian Hawkesworth (Task Team Leader, Senior Governance Specialist, Co-Chair of the Governance of Infrastructure and Public Investment Management Community of Practice, GGP) and consisted of Clive Harris (Lead Infrastructure Specialist, INF VP), James Brumby (Senior Adviser, GGP), Anita Sobjak (Public Sector Specialist – GGP), Mikel Tejada Ibanez (Public Private Partnership Specialist, INF VP) and Anshul Rana (Energy Economist– INF VP) and Anna Bilous (Public Sector Specialist – GGP). The foundation for this framework – the 2019 Infrastructure Governance for MFD diagnostic tool – was commissioned by James Brumby (Director, GGP).

6

The team would like to thank Ed Olowo-Okere (Global Director, GGP), Imad Fakhoury (Director, INF VP), Ahmadou Moustapha Ndiaye (Strategy and Operations Director, EFI), Daniel Boyce (Practice Manager, GGP), Adenike Sherifat Oyeyiola (Practice Manager, GGP) and Fatouma Toure Ibrahima (Practice Manager, INF VP) for their overall advice, guidance, and support throughout the development of this report.

We also want to thank the peer reviewers, Robert Taliercio (Regional Director, LAC), Sandeep Mahajan (Practice Manager, MTI), Ani Balabanyan (Practice Manager, Energy & Extractives GP), Binyam Reja (Practice Manager, Transport GP), Saw Young Min (Governance Specialist, GGP) and Fabienne Mroczka (Senior Public Sector Specialist, GGP), for their very helpful comments and suggestions. Further useful reviews and comments were provided by Jens Kromann Kristensen (Practice Manager, GGP), Alexandre Arrobbio (Practice Manager, GGP), Fabian Seiderer (Lead Governance Specialist, Co-Chair of the Governance of Infrastructure and Public Investment Management Community of Practice, GGP), Peter Farup Ladegaard (Lead Private Sector Development Specialist, FCI), Majed M. El-Bayya (Lead Procurement Specialist, GGP), Chenjerani Simon B. Chirva (Lead Procurement Specialist, GGP), Timothy Stephen Williamson (Senior Public Sector Specialist, GGP), Belita Manka (Senior Counsel, Legal - Operations), Saw Young Min (Governance Specialist, GGP), Laura De Castro Zoratto, (Senior Public Sector Specialist, GGP).

The team would further like to acknowledge the following colleagues from the IPG PPP Group whose work on previously conducted and/or ongoing InfraSAPs and on other infrastructure and PPPs governance related products provided foundational support for the development of this framework: Aijaz Ahmad (Senior PPP Specialist), Jenny Chao (PPP Specialist), Jeff Delmon (Senior Infrastructure Finance Specialist), Mark Giblett (Senior Infrastructure Finance Specialist), Helen Mary Martin (Senior PPP Specialist), Fernanda Ruiz Nunez (Senior Economist) and Shyamala Shukla (Senior PPP Specialist).

Furthermore, the team would like to thank those involved in piloting the first version of this framework, the 2019 Infrastructure Governance for MFD diagnostic tool in the Dominican Republic¹ and Panama².

Finally, the team would like to thank the Korea Development Institute (KDI) School Trust Fund for supporting the revision of this diagnostic tool, as well as the Trust Fund Manager Ceren Ozer (Senior Governance Specialist, GGP).

1 In the Dominican Republic pilot project the team consisted of Ian Hawkesworth (Task Team Leader, Senior Governance Specialist, GGP), Daniela Felcman (co-Task Team Leader, Public Sector Specialist, GGP) and Anita Sobjak (Public Sector Specialist – ETC, GGP), with substantial comments and/or contributions from Josef Trommer (co-Task Team Leader, Senior Operations Officer, GGP), Philippe Neves (Senior Infrastructure Specialist, INF VP), Luciana Guimaraes Drummond E Silva (Public-Private Partnership Specialist – ETC, INF VP), Craig Phillip Kullmann (Senior Water Supply and Sanitation Specialist, Water GP), Guillermo Hernandez Gonzalez (Energy Specialist, Energy & Extractives GP) and Luis Armando De Pool Urena (Associate Operations Officer, IFC). Robert Taliercio (Regional Director, LAC), Tahseen Sayed (Country Director) Adrian Fozzard (Practice Manager, GGP), Alessandro Legrottaglie (Country Manager) and Guillermo Villanueva (Senior Investment Officer, IFC) provided overall advice, guidance, and support throughout the development of this diagnostic exercise and the engagement with the client.

2 In the Panama pilot project the team consisted of Laura Zoratto (Senior Economist and former Task Team Leader, GGP), Eduardo Andrés Estrada (Task Team Leader, Governance Specialist, GGP), Clive Harris (co-Task Team Leader, Lead Infrastructure Specialist, INF VP), Ian Hawkesworth (Senior Governance Specialist, GGP), Natalia Manuilova (Senior Financial Management Specialist, GGP), Roxanne Nelcia John (Voice Secondee, GGP), and Pablo Andrés Guzmán Abastoflor (Public Sector Specialist, GGP). Robert Taliercio (Regional Director, LAC), Edward Olowo-Okere (Global Director, GGP), Imad Fakhoury (Director, INF VP), James Brumby (Senior Adviser, GGP), Fritzi Koehler-Geib (Lead Country Economist, LAC), Eric Lancelot (Program Leader, LAC), Pedro Rodriguez (Program Leader, LAC), Abel Caamano (Country Manager) and Sara Paredes (Executive Assistant, LAC) provided overall advice, guidance and support.

ABBREVIATIONS

8

AfDB	African Development Bank
CBA	cost-benefit analysis
FOI	Freedom of Information
GAAP	Generally Accepted Accounting Principles
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
InCISE	International Civil Service Effectiveness Index
InfraGov	Infrastructure Governance
InfraSAP	Infrastructure Sector Assessment Program
iSOEF	WBG Integrated SOE Framework
KDI	Korea Development Institute
MAPS	Methodology for Assessing Procurement Systems
MFD	Maximizing Finance for Development
MOF	Ministry of Finance
MTEF	medium-term expenditure frameworks
OECD	Organization for Economic Cooperation and Development
PEFA	Public Expenditure and Financial Accountability
PFM	Public Financial Management
PIM	Public Investment Management
PIMA	Public Investment Management Assessment
PPP	Public-Private Partnership
PSO	public service obligations
O&M	operation and maintenance
QII	Quality Infrastructure Investment
SAI	State Audit Institution
SDG	Sustainable Development Goals
SOE	State-owned Enterprise
TPI	Traditional Public Investment
USP	unsolicited proposal
WB	World Bank
WBG	World Bank Group
VfM	value for money



Photo: Boris Balabanov / World Bank

INTRODUCTION



Photo: Dominic Chavez / World Bank

SUSTAINABLE, AFFORDABLE, AND COST-EFFICIENT INFRASTRUCTURE SERVICES ARE A FUNDAMENTAL PILLAR OF LONG-TERM DEVELOPMENT.

However, evidence shows that weak governance arrangements for infrastructure decision-making and implementation impede asset creation and operation.³ Governance of infrastructure sectors is a critical driver of sector performance, as well as a key determinant of the fiscal risks and investment climate for private finance. Governance of infrastructure sectors is complex and multifaceted, posing significant challenges along different stages of the infrastructure supply chain, and encompassing both regulatory and institutional dimensions.

The economic crisis arising from COVID-19 has increased the importance of good infrastructure governance. The pandemic has meant increased demand for certain types of infrastructure and a greater need for retrofitting existing infrastructure. It also requires a rethinking of pipelines and strategic planning. The economic downturn will impact both government resources for infrastructure, as well as revenue from users. The changing infrastructure demands and reduction in resources makes good governance even more critical in ensuring that infrastructure investment are the right ones and yield as strong returns as possible and that infrastructure service provision, including through SOEs, is as efficient as possible. Infrastructure investment is likely to feature as a key component of economic recovery packages. Increased transparency and integrity will be critical given that there may be pressure to accelerate spending. In addition, investment will need to pay increased attention to social benefits, including employment generation; climate and environment aspects; and impact on economic growth. Planning capacities and the governance of infrastructure planning, procurement and delivery will also be critical in making infrastructure an effective part of economic recovery initiatives.

³ Group; Schwartz, G., et al. eds. 2020. *Well Spent : How Strong Infrastructure Governance Can End Waste in Public Investment*. Washington, D.C.: International Monetary Fund. Abiad, Abdul, Davide Furceri, and Petia Topalova. 2015. “The Macroeconomic Effects of Public Investment: Evidence from Advanced Economies.” IMF Working Paper 15/95, International Monetary Fund (IMF), Washington, D.C.; IMF. 2015. “Making Public Investment More Efficient.” IMF Policy Paper, International Monetary Fund, Washington, D.C.; Rajaram, Anand, et al, eds. 2014. *The Power of Public Investment Management: Transforming Resources into Assets for Growth*. Washington, DC: World Bank; OECD (Organisation for Economic Co-operation and Development). 2013. *Investing Together: Working Effectively across Levels of Government*. Paris: OECD Publishing;



Photo: Gerhard Jörén / World Bank

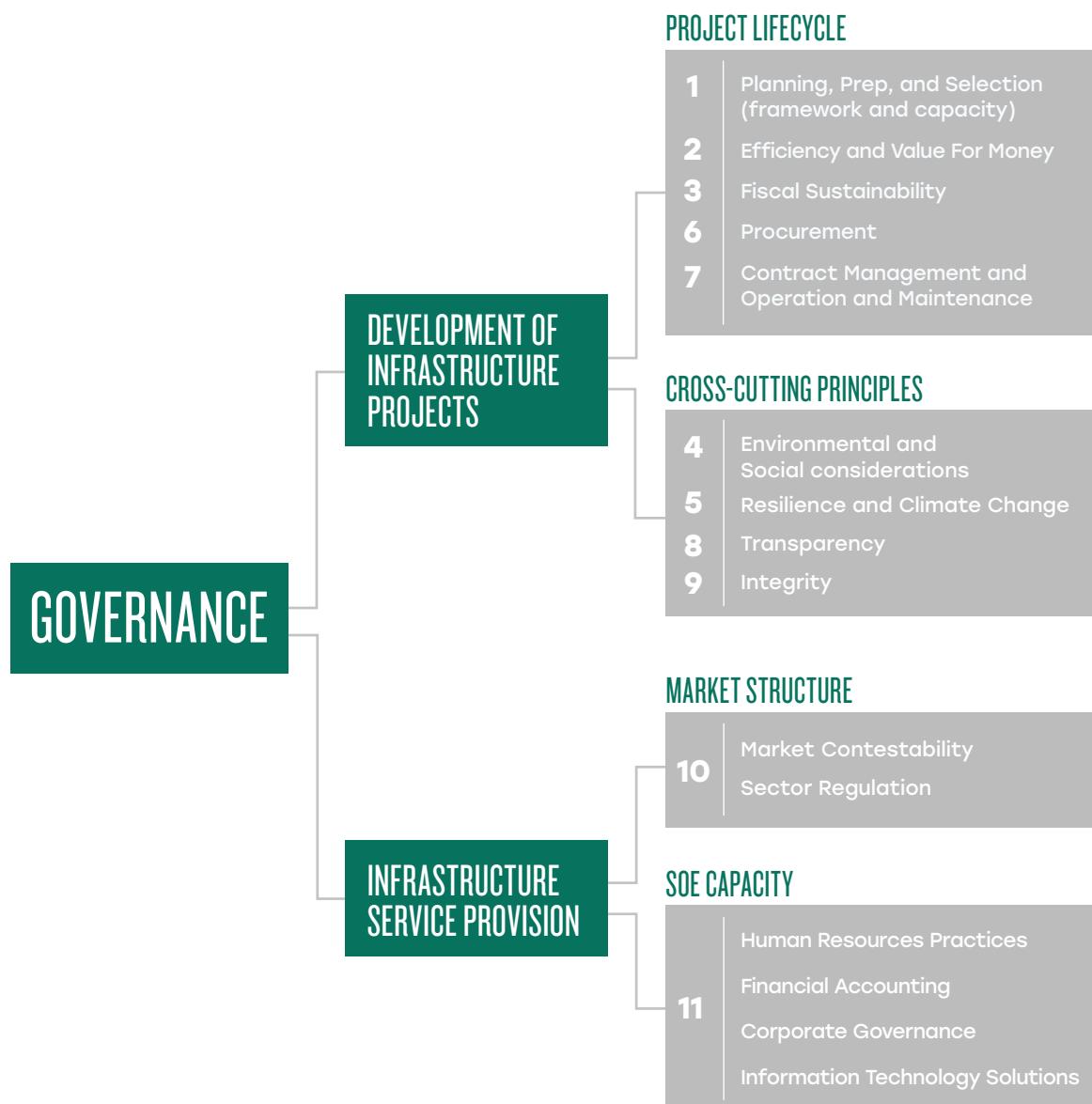
12

The purpose of this guidance note is to provide an overview of the relevant issues to be considered when assessing a country's infrastructure governance framework. Many developing countries struggle to put sound infrastructure governance frameworks in place. It is therefore important to evaluate the quality of infrastructure governance at the country level, benchmark performance against international good practices among peer groups, identify serious gaps, and prioritize reform interventions. This framework provides an overview of the governance that leads to quality infrastructure and offers resources and methodologies for conducting such an assessment. The aim of the note is to provide actionable recommendations that result in concrete policy changes. Key success factors are the achievement of country buy-in and a focus on pressure points that are ripe for reform.

For the purposes of this guidance note, infrastructure governance is broken down into a series of dimensions, illustrated in Figure 1 (developed as part of the Infrastructure Sector Assessment Program – InfraSAP 2.0 methodology). Broadly speaking, there are two important areas of infrastructure governance. The first area relates to selecting, designing, procuring, and implementing the investment projects that create new infrastructure assets. This area also identifies key cross-cutting principles for good infrastructure investment in the public interest—integrity, transparency, and consideration of social, environmental and climate change risks and opportunities. The first area is covered in Dimensions 1 to 9. The second area is concerned with how ongoing infrastructure services are provided to consumers. It encompasses market structure and competition, the regulatory framework for addressing natural monopoly activities, and the corporate governance and managerial capacity of state-owned enterprises (SOEs). The second area is covered in Dimensions 10 and 11. These dimensions and areas are intrinsically interconnected—e.g., there will be integrity and transparency issues for both corporate governance of SOEs and for sector regulation.

Moreover, the relevance of these broad areas and dimensions may vary depending on the specific governance arrangements in place for different sectors in different countries. They are only meant to offer an analytical framework that helps uncover governance issues affecting the provision of infrastructure assets and services. They are also not meant to prescribe specific systems or institutions, rather just point at the desired functional behavior which might deliver good infrastructure outcomes, acknowledging that there are plenty of different ways to achieve this behavior.

FIGURE ONE InfraGov / InfraSAP 2.0 Governance Pillar Flow Chart



The set of dimensions outlined in this framework builds on existing standards. The tool builds substantially on the comprehensive framework “Infrastructure Governance for Maximizing Finance for Development (MFD)” that was developed by the Governance Global Practice in 2017 and used in a number of countries in Latin America and Central Asia. This revised version also draws inspiration from the Quality Infrastructure Investment (QII) principles developed and endorsed by the G20.⁴ However, this framework enhances the QII by also covering the quality of infrastructure service provision. The framework further incorporated elements of the Public Investment Management (PIM) tool developed in 2014, and the more than 100 PIM assessments undertaken since then. This instrument is not restricted to pure public investment but can be used to take an integrated approach to infrastructure developed under any financing modality. It also built on the extensive literature and new guidance in the infrastructure governance space developed by the Organization for Economic Co-operation and Development (OECD), the International Monetary Fund (IMF), G20, and national governments. Finally, for aspects related to SOEs, it draws on the WBG Integrated SOE Framework (iSOEF). Infrastructure government country assessments conducted with this framework can build on existing analysis with these other tools. Moreover, it can also serve as an entry point for more other assessments (e.g. with the use of iSOEF) by identifying gaps along particular dimensions.

The guidance—jointly developed by the Governance Global Practice and the Infrastructure Vice Presidency—can be used either to complete the InfraSAP 2.0 Governance Pillar or to undertake a stand-alone Infrastructure Governance (InfraGov) Assessment, including for the purposes of the International Development Association’s (IDA’s) IDA19 policy commitment.⁵ The InfraSAP 2.0 is an extended core diagnostic of the World Bank, developed by the Infrastructure Vice Presidency to support a comprehensive and consistent approach to evaluating a country’s infrastructure situation. The InfraSAP 2.0 aims to identify investment gaps, policy shortfalls, and opportunities for private sector participation. The diagnostic is organized into three pillars: connectivity (which examines the sectors’ performance in delivering services that meet a country’s social and economic goals); finance (which examines how infrastructure is funded and financed, both public and private, at domestic and international levels); and governance (which considers the institutional and regulatory organization of the sector).⁶ While the InfraSAP2.0 governance pillar and InfraGov assessment use similar frameworks and the guidance applies to both, there are some minor differences in the implementation that are highlighted in Box 1 and Box 2. Depending on a team’s specific need, they can follow either approach.

4 G20 Principles for Quality Infrastructure Investment.

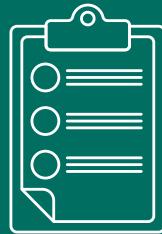
https://www.mof.go.jp/english/international_policy/convention/g20/annex6_1.pdf.

5 IDA made a commitment to its donors to undertake this assessment in at least 20 countries during IDA19, focused on the 55 IDA countries with a rating of 3.0 or less on Country Policy and Institutional Assessment (CPIA) indicator 16 (which covers transparency, accountability, and corruption) at the time of the IDA19 replenishment. This commitment will help IDA countries to identify the major governance bottlenecks in infrastructure investments through better diagnostics that help inform policies and/or regulations to address them.

6 More information and resources are available in the InfraSAP SharePoint:

<https://worldbankgroup.sharepoint.com/sites/ppp/isap/Pages/index.aspx>.

BOX I: INFRASTRUCTURE SECTOR ASSESSMENT PROGRAM - INFRASAP 2.0



The InfraSAP 2.0 builds on the experience with already completed InfraSAPs. InfraSAP was originally conceived as a structured diagnostic and pragmatic joint planning exercise that informs how the WBG and a client government will partner to improve infrastructure access and performance. This involved already assessing and systematically addressing the context in which infrastructure is planned, procured, delivered, funded, financed, and governed, at the country and sector levels. While continuing to inform the private capital mobilization agenda, InfraSAP 2.0 is broadened to provide a more comprehensive diagnostic of the infrastructure sectors with a **common frame of reference across countries**.

The InfraSAP2.0 for an individual country will be carried out in two stages. The first stage, **a standardized core diagnostic**, should reappear in each country report and is based on the common methodological framework described in the InfraSAP 2.0 Guidance Notes and structured around a set of key questions and associated indicators detailed below and draws upon two important resources: the Infrastructure Global Indicators Dashboard and the Global Infrastructure Map. Based on the findings of the first stage, **a customized diagnostic** is conducted in the second stage focusing on unresolved questions and issues identified in the first stage, as well as specific country priorities.

15

In terms of the governance pillar of InfraSAP 2.0, the standardized diagnostic is carried out through the following steps:

1. Assess the information available through the InfraSAP 2.0 dashboard on P and TPI benchmarking, Sector Specific and PMR inspired regulatory indices as well as iSOEF based SOE corporate governance index. Conduct surveys for which data is not available (Questionnaires in Appendix B)
2. Analyse results and benchmark against regional, income comparators
3. Incorporate results with the Finance and Connectivity Pillar findings for the country and present key messages and areas of further research.

A more detailed analysis focusing on all or specific dimensions of this Guidance can be conducted as part of the InfraSAP customized diagnostic.



Photo: Lakshman Nadaraja / World Bank

Recognizing different levels of development and country needs, stand-alone InfraGov assessments can be applied in a modular manner. They can either: i) assess country systems in a comprehensive manner (i.e., across all 11 dimensions); or ii) examine only a subset of priority areas in depth, depending on relevance, demand, resources, and local context. Under the second approach, the selection of areas should be context-specific and based on a dialogue with counterparts to focus on the country's most salient issues. While the dimensions are closely related to each other, they were designed to be applied in any combination. That said, some of the dimensions are more foundational to the overall assessment and are likely to feature in most of the assessments, such as Dimension 1.

BOX 2: IMPLEMENTATION STEPS FOR STANDALONE INFRAGOV ASSESSMENT



1. Fill in the **pre-concept scoping template**, which includes a matrix of the dimensions, existing analysis and reform priority areas for the government. The purpose of this brief scoping note is to conduct a light-touch stock-taking of existing materials to define the scope of the InfraGov assessment by identifying the dimensions and potential sectors of interest.
2. Develop a **Concept Note** based on the dimensions and sectors of focus identified at the previous step.
3. **Identify service delivery gaps** in the sectors of interest benchmarking them against international standards.
4. **Review existing analysis** in detail (e.g. sector analysis or country diagnostics such as PIMA, PEFA, TPI or PPP surveys already conducted in the given country).
5. Benchmark by pulling data on the relevant dimensions and sectors from the **Infrastructure Global Indicators Dashboard** and the **Global Infrastructure Map**.
6. In order to deep dive on the dimensions of interest and fill in the remaining gaps between the dimensions of interest and information obtained through desk research in the previous steps, **request data and conduct interviews** with relevant stakeholders. The purpose of the interviews will be to obtain qualitative insights necessary for answering some of the key questions listed under the dimensions, many of which pertain to *de facto* enforcement and compliance of the *de jure* framework.
7. Organize the **recommendations** emanating from the analysis into a **roadmap for reforms**, categorizing each recommendation in a matrix by level of priority, timeline (short/mid/long-term) and the entities in charge of implementing and supporting them.



Photo: Dana Smillie / World Bank

18

However, where extensive analysis has already been undertaken on this topic, it will be incorporated and validated. Depending on client needs and preferences, the assessment may take place at a cross-government level, or focus on selected sectors, including energy, water, digital, transport, or urban infrastructure. An understanding that country authorities would engage on the selected areas would be important. In order to apply the framework as a standalone InfraGov assessment, the below steps need to be followed.

The methodology outlined in this note builds upon several existing surveys and similar assessments that shed light on infrastructure governance. Some dimensions are well covered by existing analytical products, whereas others are much less so. The advantage of these existing tools is that they represent a significant body of work aimed at measuring different dimensions of governance, including a clear and carefully designed set of questions, and the availability of international benchmarks to guide interpretation of a country's performance. These products usually offer some degree of existing country coverage, meaning that if the country of interest is already covered, a rapid assessment can be made. Even if the country is not covered, the questionnaires developed by these products are available in Appendix B of this guidance and can be relatively easily administered in the country of interest, allowing the country's performance to be scored and compared to peers.

Specifically, the relevant infrastructure governance related products include the tools listed in Table 1. These include analytical frameworks, surveys and indices on various topics. Relevant indicators from these products were mapped to one or more dimensions of this guidance note. All the publicly available data on these indicators has already been compiled in the Infrastructure Indicators Dashboard⁷ for easy reference, and any new data collected at the country level should also be contributed to the dashboard upon completion of country work.

⁷ The Dashboard can be accessed through the InfraSAP SharePoint:
<https://worldbankgroup.sharepoint.com/sites/ppp/isap/Pages/index.aspx>.

TABLE 1 Relevant Infrastructure Governance Related Products

TOOL	SOURCE	RELEVANT DIMENSIONS	AVAILABILITY	
Benchmarking Infrastructure Development	World Bank (WB)	1, 2, 3, 4, 6 and 9	Traditional Public Investment (TPI) Survey: 40 countries Public-Private Partnerships (PPP) Survey: 140 countries	
Public Investment Management Assessment (PIMA)	IMF	1, 3, 6, 9	80 countries (17 publicly available) ⁸	
Public Expenditure and Financial Accountability (PEFA) , including the Climate and Gender Responsive PEFA	PEFA	1, 3, 4, 5, 6, 7	65 countries (47 publicly available) ⁹	
Product Market Regulation-based Market Contestability Index	Based on OECD	10	46 countries, with additions on a rolling basis	19
Infrastructure Vice Presidency's work on regulatory indexes	Power Sector (WB and African Development Bank [AfDB])	10	50 countries by end of October, with a global rollout in 2022 (power); transport and digital sector indexes being developed	
Utility Governance Survey	WB	11	20 countries, and 35 utilities, with additions on a rolling basis	
WBG Integrated SOE Framework (iSOEF)	WB	3, 7, 10, 11	iSOEF piloted in 17 countries. iSOEF methodology also implemented through select Country Private Sector Diagnostics and Public Expenditure Reviews	

8 PIMA is a comprehensive assessment in its own right, done only on a handful of countries every year. All this severely limits the availability of this resource as an indicator and benchmarking tool. It is included in this guidance note as a good resource when available.

9 Although more widely available than PIMA, PEFA is also conducted on a number of countries every year, so its indicators reflect different moments in time. This also limits its usefulness as a benchmarking tool, but, once again, it is included in this guidance as a good reference when available for a country.

TOOL	SOURCE	RELEVANT DIMENSIONS	AVAILABILITY
SOE Corporate Governance Index	WB	11	137 countries
Methodology for Assessing Procurement Systems (MAPS)	OECD	4, 5, 6, 7, 8	7 countries
InfraCompass	Global Infrastructure Hub	6, 7	81 countries
Bertelsmann Transformation Index	Bertelsmann Stiftung	6	
Open Budget Index	International Budget Partnership	7	117 countries
World Governance Indicators (Control of Corruption)	WB	8	More than 200 countries and territories
International Civil Service Effectiveness (INCISE) Index	Blavatnik School of Government, University of Oxford	8	40 countries
Corruption Perceptions Index	Transparency International	8	180 countries and territories
Global Corruption Barometer	Transparency International	8	119 countries and territories
Sustainable Governance Indicators	Bertelsmann Stiftung	5	41 countries



Photo: Sayantoni Palchoudhuri / International Finance Corporation

It is important to acknowledge that the existing suite of infrastructure governance surveys does not cover all the key questions with regard to infrastructure governance. Aspects such as the difference between what is stated in law and what is the case on the ground, or limitations in terms of institutional capacity, may require a more targeted approach. In response to this, each dimension of the InfraGov framework includes a set of key questions included in a summary table following the discussion of each dimension that can guide exploration of governance at the country level. Responses to these questions covering the bigger picture might be more subjective, limiting the scope for meaningful cross-country comparisons. The description of each of the dimensions provides qualitative guidance to assessors on how to answer these questions. All of the key questions listed in the main note should be answered in order to complete the assessment on the given dimension. Additionally, a more detailed list of such questions is provided for each dimension in Appendix A, which can be used when a more extensive in-country assessment of governance is proposed. Finally, Annex B is structured according to each Dimension and provides additional standardized indicators, which can aid in answering the key questions in the main guidance note. However, answering these key questions may require further information to be gathered for instance via qualitative interviews with government officials or stakeholders.

21

The infrastructure governance assessment must build upon a clear understanding of the key institutional, legal and operating arrangements in place for each relevant sector. A first relevant and preliminary step for the infrastructure governance assessment is to outline a clear legal/institutional mapping for the sectors covered. For each sector, this should clearly identify the relevant institutional stakeholders that participate in them, as well as the basic legal framework on which each of those sectors operate. As mentioned above, the relevance of each of the dimensions/categories in which this governance assessment is organized may vary depending on the structure, operating framework and participants in each of the sectors. Moreover, this institutional mapping will help identify the target institutions to consider in the predesigned questionnaires of Appendix B.

BENCHMARKING SERVICE DELIVERY GAPS



CONDUCTING AN INFRASTRUCTURE GOVERNANCE ASSESSMENT SHOULD TAKE ITS STARTING POINT IN IDENTIFYING SERVICE DELIVERY GAPS IN KEY SECTORS OF INTEREST.

Where the assessment is conducted in the form of an InfraSAP 2.0, the Connectivity pillar will cover this need. Where a standalone InfraGov is applied, the assessment should examine the performance of the infrastructure sectors in delivering the services needed to meet the country's social and economic goals. For each of the chosen sectors, the assessment should consider different dimensions of infrastructure performance, encompassing accessibility, affordability, quality, and sustainability. This can be done by assessing selected high-level indicators from the InfraSAP 2.0 Connectivity Pillar for each of the sector of choice. Below is a list of relevant indicators for the electricity and digital sectors,¹⁰ which can be used for this purpose.

ELECTRICITY

KEY QUESTION	RELATED INDICATOR	SOURCE
Is there an electricity access gap?	% of population with access to electricity	Dashboard based on tracking Sustainable Development Goal 7 (SDG7)
	Geographic coverage of electricity service (night-time lights data, human settlement layer, location of power plants, transmission and distribution lines and substations)	Global infrastructure map based on various sources
How affordable are electricity tariffs to households and businesses?	Affordability of electricity: budget share of average electricity consumption for households in the bottom 40 percent by income level	Dashboard based on Tracking SDG7
	Firm expenditure on electricity: share of electricity expenditure in total production cost	Dashboard based on World Bank Enterprise Survey
	Electricity tariff, pricing structure, and associated average electricity price by consumer group	To be collected

¹⁰ Key indicators will be also added for the transport and water sector, once the relevant sections of the InfraSAP 2.0 Connectivity Pillar are completed.

ELECTRICITY CONT.

KEY QUESTION	RELATED INDICATOR	SOURCE
How reliable is electricity supply on the grid?	Unreliable electricity supply: <ul style="list-style-type: none"> • SAIFI • SAIDI • Frequency and duration of power outages • Percent of firms owning backup generators • Peak demand and supply 	Dashboard based on: <ul style="list-style-type: none"> • WB Doing Business • WB Doing Business • WBES and WB household surveys • WBES • To be collected
	Ranking on the quality of electricity supply from World Economic Forum	To be collected
How sustainable is the electricity supply?	Fuel mix for power generation in the country	Dashboard based on IEA
	Efficiency of power supply: Transmission and distribution losses	Dashboard based on EIA
	Efficiency of power consumption: <ul style="list-style-type: none"> • Electricity use per unit of value added by sector and by energy intensive industries • Energy intensity level of primary energy 	To be collected

24

DIGITAL

KEY QUESTION	RELATED INDICATOR	SOURCE
What is the mobile coverage?	3G coverage (% of population covered by 3G signal)	Dashboard based on GSMA
	3G coverage gap (100% - 3G coverage)	
	4G coverage (% of population covered by 4G signal)	
	4G coverage gap (100% - 4G coverage)	
	5G coverage (% of population covered by 5G signal)	
	5G coverage gap (100% - 5G coverage)	

DIGITAL CONT.

KEY QUESTION	RELATED INDICATOR	SOURCE
What is the mobile uptake?	Number of unique mobile subscribers	Dashboard based on GSMA
	3G market penetration (3G connections as % share of the total market population)	
	3G usage gap (3G coverage-3G penetration)	
	4G market penetration (4G connections as % share of the total market population)	
	4G usage gap (4G coverage-4G penetration)	
	5G market penetration (5G connections as % share of the total market population)	
	5G usage gap (5G coverage-5G penetration)	
What is the fixed broadband uptake?	Fixed broadband household penetration.	Dashboard based on TeleGeography
What is the internet usage (whether fixed or mobile)?	Number of internet users	Dashboard based on ITU, WB household survey
What is the cost to access the backbone?	Local access price	To be collected using TeleGeography/country regulator
What is the overall internet quality?	Fixed and mobile download speed (Mbps)	Dashboard based on Ookla
What is the environmental impact of data centers?	Data center ecofootprint	To be calculated

DIMENSION-BASED APPROACH



DIMENSION I

It is important to have a solid legal framework and the institutional capacity to plan, assess, prioritize, and select potential infrastructure projects

Planning of projects should be based on a national vision for infrastructure development and/or infrastructure and sectoral plans. The screening, assessment, prioritization, and selection of projects should happen according to rigorous technical methodologies in a transparent, data-driven manner. Moreover, some form of systematic comparison of projects should also take place, which is necessary for project prioritization and selection. Selection is perhaps the most critical stage of the project cycle, and often it is the point where political and evidence-based viewpoints intersect. A strong gatekeeping function can therefore ensure that the most legitimate criteria and the public interest are used for project selection.

Effective governance of infrastructure is best assured if there is a legal framework and the institutional capacity to plan, assess, prioritize, and select projects. Projects should represent societal value, and should be prioritized, affordable, and delivered efficiently, balancing financial and non-financial considerations. Infrastructure investments are often politically sensitive and expensive, and they lock in land use and development paths. It can therefore be difficult to objectively assess whether the project is worth undertaking and/or whether it is worth undertaking in the form proposed. A good governance system structures decisions in processes that ensure that the costs and benefits are identified and assessed, and that the appropriateness of the form of project financing can be determined with a set of consistent criteria. Such a system also ensures that political views are included at appropriate points.

BOX 3: ROLES AND RESPONSIBILITIES FOR PUBLIC INVESTMENT MANAGEMENT

In the **Netherlands**, specific rules regulate the project cycle for projects in the multiannual program for infrastructure. It covers from identification to completion, delineating the rules and responsibilities of the different actors. They also establish a clear decision-making process with four key decisions points that correspond to key stages of the project cycle: (i) star decision, to start a explorative study; preferred decision, that allows to move forward with an in depth study of the preferred option; (iii) project decision, to proceed with implementation and, (iv) handover decision, to begin delivering services. An explicit decision in each stage is required to move forward and based on a review of information about problem and solution analysis, stakeholders, financing, decision making and follow up approach.

In **Chile**, the Ministry of Social development continued with the role of managing the national public investment system (previously undertaken by the Planning Ministry). In this role, it regulates the procedures for preparing projects requiring public funding, manages and integrated Project Data Bank, develop project preparation and appraisal methodologies, including defining social prices and train public officials on these matters. This role is strictly separated from capital budgeting that remains a responsibility of the Ministry of Finance

Source: World Bank Public Investment Management Reference Guide

The government should establish a national strategic vision, an accompanying infrastructure plan, and specific sectoral plans that lay out how to implement this vision. Within the plan, projects should be prioritized according to how well they support the strategic vision and their societal value (costs vs. benefits). The issue of whether the project can utilize private finance should be included where relevant. The strategic vision should be coordinated across levels of government and command broad political and stakeholder support. A coherent national infrastructure vision—as opposed to a set of uncoordinated sector plans—ensures that both the central and subnational government and the private sector can plan and prioritize spending across sectors. Projects should stem from a centrally agreed-upon pipeline derived from, preferably, national development plans or sectoral plans. Implementation should be transparently monitored.

Appraisal analyzes individual projects using economic, social, environmental, fiscal, and financial criteria, at least for projects above a certain threshold. This requires identifying the need that the project should meet, whether the expected benefits are likely to exceed the costs, and whether the project is necessary for improving social well-being and service delivery. In this process, government should ensure that delivery options and financing arrangements represent the most value for money. Well-prepared projects include a clear rationale for the project, solid forecasts of payments and costs, and key performance indicators factored into a contract between the parties. Beyond the vision and priorities, the institutions should also lay out assumptions, uncertainties, and risks. For instance, the impact of technology, pandemics, and climate change on the need and operation of infrastructure should be addressed. Finally, given that infrastructure is inherently political, the best way to provide a coherent investment should be continuity in the long run, by ensuring that project pipelines are derived through a consensus-building process that takes into account long-term needs as understood by stakeholders.

Selection of a project should be made on the basis of its contribution to national welfare, irrespective of how it is financed. While project selection has unavoidably a political aspect to it, it is important that it is primarily guided by sound technical principles. There should be a link between priorities established through infrastructure plans, the results of project appraisals, and the projects selected for implementation. Selection and prioritization is also key in the project cycle and requires a strong gatekeeper. This includes a central entity that ensures the affordability of projects for the public purse and users, including potential contingent liabilities. This function usually sits with the Ministry of Finance (MoF) or equivalent, and the role includes the aggregation of fiscal commitments and monitoring of projects' contingent liabilities. Evaluating projects should be linked to the annual and medium-term budget cycle. The medium-term fiscal framework and the annual budget should establish envelopes for infrastructure so that investment programs are sustainable.



Photo: Olja Latinovic / World Bank

TABLE 2 Key Questions and Indicators for Dimension 1

KEY QUESTIONS*
<p>Is the legal and regulatory regime for PIM and PPP adequate for planning, assessing, selecting, and prioritizing infrastructure, in conjunction with sector law?</p> <p>Are public investment/PPP plans and projects consistent with broader strategic plans and resources?</p> <p>Are all infrastructure projects rigorously and systematically appraised for technical, economic, social, and environmental costs and benefits in order to assess whether they are beneficial to society?</p> <p>Are infrastructure projects selected according to contributions to national welfare, irrespective of how they are financed or their delivery modality?</p> <p>Is there a functionally integrated, independent, and transparent decision-making framework for the prioritization and selection of infrastructure investments?</p>
KEY INDICATORS^
<p>Benchmarking Infrastructure Development TPI Survey: Planning and preparation thematic area—questions 5 to 16 (available for 40 economies; source: World Bank)</p> <p>Benchmarking Infrastructure Development PPP Survey: Preparation thematic area—questions 7 to 14 (available for 140 economies; source: World Bank)</p> <p>Public Investment Management Assessment (PIMA): Subsections A.2. National and Sectoral; A.4. Project Appraisal; and B.10. Project Selection (available for 80 countries, only 17 of them published; source: International Monetary Fund)</p> <p>Public Expenditure and Financial Accountability (PEFA): 11: Public investment management (available for 65 countries, 47 of them public)</p>

*For an extended list of guiding questions and non-standard indicators, see Appendix A.

^For the specific questionnaires on which the indicators are based, see Appendix B.

DIMENSION 2

Economic efficiency and value for money (VfM) over the infrastructure life cycle are important criteria in the choice of infrastructure investments.

Dimension 1 focused on whether the project was worth doing from a strategic and overall economic perspective. Dimension 2 focuses on ensuring that the specific project is cost efficient and represents value for money. This can be achieved by considering the total cost over its life-cycle: (planning, design, finance, construction, operation and maintenance (O&M), and possible disposal), compared to the value of the asset and its economic, environmental, and social benefits. Using this approach helps choose between repairing or upgrading an existing infrastructure, or launching a new project, as well as choosing among financing modalities. An initial VfM assessment should be carried out by the implementing agency during early stages of project planning and business case development. Later this assessment should be updated at the feasibility stage, when more information on the project becomes available (financial model or the feasibility study).

To attain economic efficiency and value for money, infrastructure projects should pay special attention to the total cost over their life cycle. As presented in Dimension 1, sound appraisal is a crucial part of the preparation phase: Good infrastructure projects should be consistent with government priorities and should increase public welfare, e.g., as documented through a cost-benefit analysis (CBA), or where costs and benefits are hard to monetize, through cost efficiency or Multi-Criteria Analysis. However, it is also important to adopt a full life-cycle perspective and consider the cost of all the required activities (planning, design, finance, construction, operation, maintenance, and possible disposal) in order to attain economic efficiency and value for money. This full perspective supports rational decision-making regarding the need for the investment, and the definition of the best technological and financing solution.¹¹

¹¹ ITF (International Transport Forum). 2008. "Principles for efficiency in the provision of surface transport infrastructure." In *Transport Infrastructure Investment: Options for Efficiency*. Paris: OECD Publishing. <https://doi-org.libproxy-wb.imf.org/10.1787/9789282101568-6-en>.

BOX 4: EFFICIENCY FOR INFRASTRUCTURE INVESTMENT

This note is intended as guidance to conducting the InfraSAP 2.0 Governance Pillar/InfraGov assessment. As such, it does not intend to discuss in depth the concepts in use because detailed discussions in those can be found elsewhere in the mentioned additional resources. However, it is worth briefly noting a few basic ideas regarding the concept of efficiency in the context of infrastructure investment.

According to the OECD,⁷ efficiency for investments means “some combination of reduced costs and/or increased benefits to society.” Efficiency in the context of investment has, however, two different aspects. On the one hand, “allocative efficiency” refers to directing resources to the uses that provide the maximum level of welfare. In particular, this requires that new investments in infrastructure are undertaken only if and when necessary. For this guidance note, allocative efficiency is mostly dealt with in Dimension 1 above. Allocative efficiency also refers to the efficient use of existing infrastructure through optimal pricing.

32

On the other hand, “productive efficiency” refers to cost minimization, that is, once an investment is considered beneficial, it should be carried out at the lowest possible cost. Productive efficiency is closely related to the discussion on value for money in Dimension 2 of this guidance note.

The full life-cycle cost approach to infrastructure projects helps decide between repairing (or upgrading) existing infrastructure or developing a new project. Infrastructure investment should attain value for money and remain affordable with respect to life-cycle costs compared to the value of the asset as well as its economic, environmental, and social benefits. The full life-cycle costs and benefits of infrastructure investments should be taken into consideration to ensure the efficiency of investing in a new asset. Construction, operation and maintenance, and possible disposal costs should be estimated from the onset of the preparation stage to be fully considered.

Considering the full life-cycle cost also supports the identification of the most appropriate technological alternative. Different technological solutions may be more or less capital intensive. For example, more environmentally sustainable infrastructure is often more capital intensive. Without considering the full life-cycle cost of the infrastructure asset, governments might not choose the best available technology. They may prefer less environmentally sustainable solutions because the upfront costs of investment are lower. By considering the benefits and costs over the whole life of infrastructure assets, technologies that offer savings in the long run while being also more environmentally friendly are

more likely to be selected.¹² The need to consider the full life-cycle cost should incentivize the identification of efficient alternatives. Additionally, innovative technologies should be leveraged throughout the life cycle of infrastructure projects, where appropriate, to raise economic efficiency for existing and new infrastructure. Advanced technologies are an important component for new and existing assets, and can help to improve data availability to monitor infrastructure use, performance, and safety (for more on the importance of data, see Dimension 6).

Economic efficiency and value for money through the life cycle of the project should also be key to a process that agnostically guides the decision on how to provide the infrastructure service and in the role of the private sector. There is a wide range of delivery options with varying degrees of private participation. At one end of the spectrum are government-built and -operated infrastructure assets, followed by public work contracts, government-pays-type public-private partnerships (PPPs), concessions that are mainly user-funded, utilities with dedicated regulators, and, finally, fully privatized activities with general regulators. At any point on this continuum, SOEs may operate as the public side, the private side, or both. The financing and the funding for these options may also vary, ranging from direct subsidies, guarantees, availability-based payments, take-or-pay arrangements, etc. The choice of modality to deliver the asset is thus related both to financial and funding objectives—e.g., crowding in the private sector to free public funds—as well as more sectoral policy issues, such as introducing more competition or enlarging the scope for the private sector in order to create a more vibrant market economy. Undoubtedly, the choice of modality is often also influenced by the political and economic legacy of the country (e.g. preference for private sector solutions versus delivery through SOEs). However, it remains important that life-cycle VfM should still remain the guiding principle of this decision.

One important objective is to deliver infrastructure services to the public at the lowest cost (either to the users or to the taxpayers as a whole when funded by the government), with sufficient quality: The choice of delivery mode should thus be based on value for money.¹³ It is important to focus on the sources of possible efficiency gains from private financing. These can arise from the bundling of asset design with service delivery, or from private operators' operational or administrative efficiencies or technical expertise. Although the public sector may have lower financing costs (depending on the sovereign credit rating), efficiency gains from private participation may outweigh the extra costs. However, in many countries the choice of modality is based on informal processes or on the way things are “usually done.”

¹² Rozenberg, J., and M. Fay. 2019. Beyond the Gap: How Countries Can Afford the Infrastructure They Need while Protecting the Planet. Washington, DC: World Bank.

¹³ OECD (Organisation for Economic Co-operation and Development). 2012. Recommendation of the Council on Principles for Public Governance of Public-Private Partnerships. OECD Principles for Private Participation in Infrastructure. Paris: OECD.

In many cases, the decision to pursue PPPs may be based on a short-term view that emphasizes the lower impact on the public budget through PPP procurement. However, in present value terms the fiscal cost of the infrastructure investment is essentially the same (just spread over time), unless there are material differences in efficiency. In this sense, it is important to acknowledge the presence of this potential PPP bias and strive for decision-making processes that privilege value for money over political reasons.

34

BOX 5: DIFFERENT APPROACHES TO DEFINE VALUE FOR MONEY (IN PARTICULAR FOR PPPS)

Some jurisdictions have clearly defined criteria to perform qualitative assessments of value for money to ensure that PPP is the right delivery option. For example, in France, preliminary analysis of a PPP requires assessing several criteria divided in three different categories, PPP relevance (i.e. appropriateness of and integrated approach to manage the project), commercial attractiveness and potential to optimal risk allocation. Public sector comparators and other more quantitative analysis of value for money are required by some countries, like for example Australia (that use the Public Sector Comparator against received bids) and New Zealand that directly uses cost benefit analysis as the main tool to assess procurement options.

Source: World Bank PPP Reference Guide

To ensure that every option to deliver infrastructure assets is examined, the government must build sufficient capacity, incentives, and opportunities for public entities to undertake such work and be able to present suitable choices to the decision-makers. This will often require an explicit commitment to examine new types of delivery mechanisms and, initially, to create dedicated units of expertise. Ideally, all infrastructure investment worth undertaking—given their overall economic benefits and alignment with government priorities—should be screened to assess at an early stage what delivery alternative appears more appropriate. An initial value for money assessment should then be carried out by the implementing agency during the early stages of project planning, and a business case should be developed to justify the selected delivery modality. This assessment should be updated at the feasibility stage, when more information on the project has become available (financial model or the feasibility study). Value for money assessments—for example, using a public sector comparator and, ideally, relying on both quantitative and qualitative indicators (as they become available)—will help more rationally choose among delivery and financing alternatives, taking into considerations such as differential financing cost and potential efficiency gains.

TABLE 3 Key Questions and Indicators for Dimension 2

KEY QUESTIONS*
<p>Are there mechanisms and capacity in place to estimate construction, O&M, and possible disposal costs from the onset?</p> <p>Is a cost-benefit analysis used to consider the life-cycle costs and benefits of infrastructure projects?</p> <p>Are innovative technologies leveraged throughout the life cycle of infrastructure projects, where adequate, to increase the economic efficiency of existing and new projects?</p> <p>Is the procurement of assets and the allocation of risks and rewards to the public or private sectors, public corporations, or others based on an unbiased, data-driven gateway process, at the center of the government?</p> <p>Is there a process that agnostically guides the decision on how to provide the infrastructure service, and the role of the private sector, prioritizing VfM analysis?</p> <p>Are unsolicited proposals (USPs) subjected to a VfM analysis considering alternative financing modalities?</p>
KEY INDICATORS^
<p>Benchmarking Infrastructure Development TPI Survey (available for 40 economies; source: World Bank)</p> <ul style="list-style-type: none"> Question 6.1 and 6.2 on evaluation of procurement alternatives Question 12.1 on socioeconomic assessment and methodology Question 12.2 on risk assessment and methodology Question 12.4 on market sounding to identify solutions and available technology <p>Benchmarking Infrastructure Development PPP Survey (available for 140 economies; source: World Bank)</p> <ul style="list-style-type: none"> Question 7 and 7.2 on PPP approval by the Ministry of Finance Question 10.1 on socioeconomic assessment and methodology Question 10.3 on risk assessment and methodology Question 10.4 on comparative assessment (value for money assessment) Question 10.7 on market sounding to identify solutions and available technology Question 48 on evaluation of USPs

*For an extended list of guiding questions and non-standard indicators, see Appendix A.

^For the specific questionnaires on which the indicators are based, see Appendix B.

DIMENSION 3

The fiscal affordability and fiscal sustainability of infrastructure projects should be assessed and managed throughout their life cycle.

For specific projects to be fiscally affordable, it is essential that the appraisal and selection process is linked to the budget cycle, even though the project evaluation cycle may run along a different timetable. Multiyear budgeting facilitates this integration by allocating funds for project implementation over the medium term. The macro-fiscal implications of individual projects should be carefully assessed—i.e., their impact on a country's fiscal deficit, its gross and net debt, and the stock and flows of nondebt liabilities and contingent liabilities for government within the context of an adequate institutional setting (i.e., providing enough authority to the Ministry of Finance). Finally, during the life cycle of infrastructure projects, proper control, monitoring, and reporting mechanisms on public commitments and contingent liabilities are key, in particular for PPPs. All this should contribute to the fiscal sustainability of projects, including those that aim to crowd in more private investments.

36 For specific projects to be affordable, it is essential that the appraisal and selection process is linked in an appropriate way to the budget cycle, even though the project evaluation cycle may run along a different timetable. To assist a country in maintaining a sustainable fiscal path, the fiscal framework and the annual budget may establish envelopes for infrastructure investment (on an aggregate and sector basis). These envelopes should be linked to a long-term strategy informed by fiscal objectives and be consistent with numerical fiscal rules where they exist. An optimal integration of budgetary and public investment management processes will help ensure that projects are not considered for inclusion in the budget prior to completion of a thorough evaluation that provides a full understanding regarding their fiscal implications.

Multiyear budgeting facilitates allocation of funds for project implementation over a project's life cycle. Ideally, investment plans should be grounded in adequately detailed and realistically formulated medium-term expenditure frameworks (MTEFs).¹⁴ Such frameworks should be based on prudent forecasts of available tax and non-tax resources, and on the endogenous growth of entitlement programs and other determinants of current spending. It is especially important that the frameworks make allowance for capital spending already in the pipeline, and for adequate levels of spending on operation and maintenance of both existing capital stock and proposed new investments. MTEFs should also be accompanied by sensitivity and scenario analyses of the impact of contingent liabilities and other major risks on the fiscal space available for new investments.

¹⁴ See World Bank. 2013. Beyond the Annual Budget: Global Experience with Medium-Term Expenditure Frameworks. Washington, DC: World Bank., for a comprehensive discussion of the challenges of preparing sound MTEFs.



Photo: Dominic Chavez / International Finance Corporation

The impact on fiscal affordability and financial sustainability of individual projects should be considered in the prioritization of potential infrastructure projects, subject to available overall financing. In addition to project-level financial sustainability, the impact of publicly funded infrastructure projects, and of possible contingent liabilities, on macro-level debt sustainability, needs to be considered and transparent, given that infrastructure investment can have significant impacts on public finance. This will contribute to attaining value for money that considers life-cycle cost, promoting fiscal sustainability, saving fiscal space for future potential projects, and crowding in more private investments. A functionally integrated and transparent decision-making framework for infrastructure investments must consider both operation and maintenance and new investments to ensure efficient resource allocation. This includes a centrally placed entity that factors in both the affordability of projects and the potential contingent liabilities arising from them. This function usually sits with the budget directorate in the Ministry of Finance equivalent, and its role includes the aggregation of fiscal and financial/contractual commitments and monitoring of projects' contingent liabilities.

37

Proper control, monitoring, and reporting on public commitments arising from infrastructure projects are key, in particular for PPPs that, absent clear mechanisms, could be utilized to circumvent conventional budgetary and accounting controls. PPP and other alternative delivery methods should be pursued when they generate efficiency gains and offer better value for money for the government and the citizen than traditional budgetary investments. However, the distinctive PPPs/project financing time structure of payments may fall outside conventional budgetary/accounting controls for infrastructure projects. This results in a potential incentive to use PPPs precisely with that aim, to circumvent fiscal controls. In order to avoid any unwarranted bias, all public commitments originating from a PPP need to be fully understood, including (among others): direct upfront commitments (for example, a capital subsidy); direct long-term commitments (for example, availability payments); explicit contingent liabilities

(for example, in the form of guarantees of different types, as in a minimum revenue guarantee for a toll road); foregone revenue (when the right to charge a fee is granted to the private party); and even implicit contingent liabilities (bailouts due to the public and taxpayer public service expectations). To this end, there needs to be specific systems tailored to the financing of PPPs: caps on PPP spending, accounting and reporting mechanisms for PPPs, disclosure of information on PPP-related public liabilities, full integration of the PPP in the budgetary cycle to ensure unity and comprehensiveness of the public budget, etc.

TABLE 4 Key Questions and Indicators for Dimension 3

KEY QUESTIONS*	
	Is there a mid-to-long-term plan for infrastructure asset creation /operation integrated into the annual budget process?
	Are there multiyear budgetary commitments that eliminate the risk of not having a budget available for infrastructure projects from one year to the other?
	Is there an affordability analysis undertaken to ensure that projects are affordable to the public purse and/or users?
	Does the government employ a fiscal rule or fiscal ceiling in capping spending on PPPs?
38	Is there a methodology for identifying, accounting for, and managing contingent liabilities?
	Is there a high degree of budget transparency with respect to infrastructure spending and commitments, including off-budget, extra-budgetary, externally funded, and PPPs?
KEY INDICATORS^	
	Benchmarking Infrastructure Development TPI Survey (available for 40 economies; source: World Bank) <ul style="list-style-type: none"> Question 5 on national/sectoral strategies for infrastructure investment Question 8 on budgeting for infrastructure investment
	Benchmarking Infrastructure Development PPP Survey (available for 140 economies; source: World Bank) <ul style="list-style-type: none"> Question 7 and 7.2 on PPP approval by the Ministry of Finance Question 7.4 and 7.5 on budgeting, accounting, and reporting for PPPs Question 10.2 on fiscal affordability assessment
	Public Investment Management Assessment (PIMA) (available for 80 countries, only 17 published; source: International Monetary Fund) <ul style="list-style-type: none"> A.1 Fiscal targets and rules B.6. Multiyear budgeting B.7. Budget comprehensiveness and Unity B.8 Budgeting for investment C.12. Availability of funding
	Public Expenditure and Financial Accountability (PEFA) <ul style="list-style-type: none"> 16. Medium-term perspective in expenditure budgeting; 10.3. Contingent liabilities and other fiscal risks (available for 65 countries, 47 public)

*For an extended list of guiding questions and non-standard indicators, see Appendix A.

[^]For the specific questionnaires on which the indicators are based, see Appendix B.

DIMENSION 4

Incorporating environmental and social considerations is important for infrastructure outcomes.

Government should comprehensively assess infrastructure projects with respect to potential environmental and social impacts. Both positive and negative impacts of projects on ecosystems, biodiversity, pandemics, weather, and the use of resources should be incorporated into the infrastructure investment cycle. Evaluations should include: (i) clear and coherent guidance on environmental and social regulations and requirements in relation to infrastructure projects; (ii) adherence to the principles of clean energy, pollution prevention and management, non-interference with natural habitat, social inclusion, and non-discrimination; (iii) social and environmental evaluations to identify, mitigate, and manage the projected risks and impacts; (iv) data collection and monitoring of key social and environmental indicators related to the project (as per the evaluations); and (v) systematic stakeholder engagement that involves access to project-related information on social and environmental issues.

The government should provide clear and comprehensive guidance on social and environmental assessments, and their criteria, data collection, reporting requirements, and mitigation strategies. Environmental and social assessments should be required by law for every infrastructure project, and capacity in the relevant public institutions is needed to carry out such assessments. Those should be clearly outlined in regulations and procedures, and this information should be made freely accessible, including at the early stages of the procurement process. Social and environmental requirements should be also built into contracts, as well as associated penalties for non-compliance. Social and environmental factors should be considered at all stages of the investment cycle.

39

Infrastructure projects should adhere to the principles of efficient consumption of energy, water, and raw materials; clean energy; pollution prevention and management; non-interference with natural habitat; social inclusion; and non-discrimination. Infrastructure projects should contribute towards greater efficiency in the use of resources, including, but not limited to, more efficient consumption of energy, water, and raw materials. Projects should use resources efficiently and be undertaken after weighting their impact on resource conservation and quality, and while minimizing the projected negative impacts to the greatest extent possible. Moreover, infrastructure projects should not go ahead without a set of pollution prevention and management mechanisms embedded in their design. Governments have to ensure that contractors minimize the generation of waste, and reuse, recycle, and recover it in a way that is safe for the environment and for human health, and so that the projects do not interfere with the core functions of natural habitats. Finally, projects should consider social factors to maximize the positive impact of infrastructure, while ensuring that social risks and adverse impacts on those at a disadvantage as a result of the infrastructure project are effectively addressed. The projected adverse impacts on resource availability, biodiversity, habitats, and social inclusion should be avoided where feasible. When avoidance is not feasible, the government should act to minimize and control the adverse impacts.



Photo: Dominic Chavez / International Finance Corporation

40

The government is responsible for setting clear and transparent procedures for assessing, monitoring, and mitigating social and environmental risks throughout the project's duration. Where risks are identified, an effective risk avoidance and/or mitigation strategy should be developed in accordance with national regulations. As part of such a mitigation strategy, parties should adopt a precautionary approach and apply adaptive management practices for which mitigation and management measures are implemented in response to changing conditions and to the results of project monitoring throughout the project cycle. The government should collect relevant data, monitor it, and publish accessible reports for core social indicators.

The government should ensure that there are effective stakeholder engagement strategies in place throughout the project cycle to address environmental risks. Stakeholder management should be an integral part of early project decisions and the assessment, management, and monitoring of the project's environmental (and social) risks and impacts. Stakeholder engagement should be systematic, and it should start from identifying key stakeholders in project-affected areas and continue with a constructive two-way relationship throughout the project cycle. As part of this, measures should be taken to ensure effective and inclusive engagement, so that all the parties affected by the project can freely participate in stakeholder consultations. Moreover, consultations should have an informative and enabling character: The appropriate project information on environmental and social risks and impacts should be disclosed to stakeholders in a timely, understandable, accessible, and appropriate manner and format.

As part of the consultation efforts, infrastructure projects should have an effective grievances mechanism to recognize concerns and complaints by project-affected parties and to facilitate their resolution. A grievance mechanism should be developed to deal with any grievances that may arise during the planning and implementation phases. The complaints received should be promptly reviewed in order to address project-related concerns. The responsible party should be given reasonable time to respond. If a compensation scheme is designed in response, measures should be taken to avoid the use of opportunistic strategies to benefit from it. If no resolution is found following the response, investigations should be launched to establish whether harm has occurred as a direct result of noncompliance with the declared policies and procedures.

TABLE 5 Key Questions and Indicators for Dimension 4

KEY QUESTIONS*
Are social and environmental assessments conducted in a comprehensive way and integrated as part of the appraisal and procurement process?
Are there mechanisms to ensure adherence to the core principles of social and environmental assessments?
Are the social and environmental impacts of infrastructure investments assessed in consultation with all stakeholders?
Is there an effective grievances mechanism?
KEY INDICATORS^
Benchmarking Infrastructure Development TPI Survey (available for 40 economies; source: World Bank) <ul style="list-style-type: none"> Question 12.5 on environmental impact assessment Question 12.6 on social impact assessment
Benchmarking Infrastructure Development PPP Survey (available for 140 economies; source: World Bank) <ul style="list-style-type: none"> Question 10.8 on environmental impact assessment Question 10.9 on social impact assessment
Methodology for Assessing Procurement Systems (MAPS) (available for seven countries) <ul style="list-style-type: none"> Pillar I, 3. The legal and policy frameworks support the sustainable development of the country and the implementation of international obligations. Pillar III, 9. Public procurement practices achieve stated objectives. Pillar IV, 11. Transparency and civil society engagement foster integrity in public procurement.
PEFA Gender Responsive Public Financial Management Assessment <ul style="list-style-type: none"> 2. Gender Responsive Public Investment Management 5. Sex-Disaggregated Performance Information for Service Delivery

*For an extended list of guiding questions and non-standard indicators, see Appendix A.

^For the specific questionnaires on which the indicators are based, see Appendix B.

DIMENSION 5

Incorporating resilience to climate change, natural disasters, and public health risks is important for infrastructure outcomes.

Governments' climate change and/or disaster risk management frameworks should be factored in when designing infrastructure, throughout the project cycle. The climate-informed project appraisal is an important part of assessments. The government should ensure effective use of environmental and/or specific climate change evaluations to identify, mitigate, and manage the projected risks and impacts of infrastructure projects, including those related to climate change. This includes physical risks related to extreme weather events and gradual changes in climate and risks related to the transition to a low-carbon economy, resulting from changes in policy, technology, and consumer preferences. Extreme weather and disaster management should be considered during the pre-assessment of the project, as well as be controlled and monitored during the infrastructure's life cycle. Climate objectives should be integrated into asset management policies and practices. Infrastructure investments need built-in adaptability and resilience against risks of natural and man-made disasters, public outcry, and pandemics. Moreover, climate change and environmental sustainability considerations should not create unreasonable administrative burdens for business, and assessment and monitoring should be optimized where possible.

42

Climate change and environmental sustainability considerations should be embedded into governments' infrastructure development strategies. In recent years, climate change policies have moved away from a singular focus on mitigation towards designing comprehensive mitigation and adaptation strategies. In line with this, investments in infrastructure should minimize risks and maximize the positive impact of infrastructure on the environmental issues countries are facing. Moreover, infrastructure should be built in a climate-resilient manner. Infrastructure investment should take into account environmental governance aspects and be aligned with the 2030 Agenda for Sustainable Development, as well as with national and local climate change and disaster risk management strategies, and should correspond to the relevant international commitments of the government for climate change mitigation and adaptation. These include the United Nations Framework Convention on Climate Change (UNFCCC), the Paris Agreement, and related commitments on emissions reduction known as Nationally Determined Contributions (NDCs).

Governments' climate change and/or disaster risk management frameworks should be factored in when designing infrastructure. A comprehensive disaster risk management plan should influence the design of infrastructure and its ongoing maintenance, and should consider the re-establishment of essential services. Well-designed disaster risk finance and insurance mechanisms may also help incentivize resilient infrastructure by financing prevention. These measures are supposed to contribute to building resilient infrastructure. Creating environmentally responsible infrastructure increases the government's capacity to manage extreme weather events. This can reduce the magnitude of economic, social, and human damage. It is particularly true because extreme climatic events create a spiral of debt burdens and disincentivize private investments in infrastructure.



Photo: Wu Zhiyi / World Bank

Governments should set clear and transparent guidelines and requirements for a climate-informed project appraisal and selection. Climate change considerations should be assessed in a climate change assessment (if required by law) or incorporated in the environmental risk assessments that are required by law for every infrastructure project. Ideally, projects should be screened and analyzed for physical and transition risks related to climate change. Moreover, the government should lay out the guidelines for the climate-informed appraisal. This also encompasses establishing guidelines for the integration of energy efficiency and greenhouse gas (GHG) emissions during the appraisal, including the use of shadow price of carbon. Importantly, climate-related criteria should also be considered during decision-making on project selection. This means that where a country has no process for doing environmental impact assessments, regulations or directives are needed so that climate impacts can be routinely assessed as part of project screening, appraisal, and approval. Moreover, the government should lay out the guidelines for the climate-informed appraisal. For instance, extreme weather and disaster management should be considered during pre-assessment, as well as controlled and monitored during the infrastructure's life cycle. Weather events are expected to become more severe and frequent because of climate change. Governments should build their evaluations of infrastructure projects on the existing vulnerability and adaptation assessments, in accordance with the practices adopted at a national level. Extreme weather and disaster considerations must be taken into account to shift the focus of investors and international partners from disaster recovery to the creation of adaptive capacity. Environmental and climate change considerations should also be assessed as part of procurement, to encourage bidders to improve their submissions.

Relevant data collection, monitoring, and analysis should be carried out in a transparent and comprehensive manner. The government should work towards greater integration of national and international climate and disaster risk management databases and competencies in upstream public investment management functions and frameworks. This is important to ensuring that natural disaster data is linked to the actual historical and projected disaster information by country, location, and sector, to enable project-specific observations.

Additional disaster risk considerations, such as those related to pandemics, should be integrated into the broader framework of environmental and climate change management. In some cases, governments should have dedicated pandemic management strategies. Where implications for infrastructure projects are clear, those can be set as requirements and/or as part of project specifications.

Although climate change and environmental sustainability are important aspects of infrastructure governance, they should not create unreasonable burdens for business. Administrative costs should be kept low because infrastructure projects must demonstrate good value for money for the public. Regulations should not be used to create opportunities for corruption and other types of misconduct, or to enable disqualification from unclear requirements. Governments should develop clear guidance on infrastructure assessments and requirements, and ensure that this information is accessible to stakeholders and that the process of assessments, reporting, and reviews is straightforward and efficient.

TABLE 6 Key Questions and Indicators for Dimension 5

KEY QUESTIONS*
<p>Are infrastructure projects aligned with national strategies and international commitments on climate change (e.g., on transitioning to long-term, low-emissions strategies)?</p> <p>Are there mechanisms in place to monitor and mitigate environmental and climate change risks throughout operation and maintenance, and possible disposal?</p> <p>What is the status of incorporation of disaster risk management and climate change adaptation in national public investment systems?</p> <p>Are there well-designed disaster risk finance and insurance mechanisms in place to help incentivize resilient infrastructure through the financing of preventive measures?</p>
KEY INDICATORS^
<p>Disaster Risk Reduction-Public Financial Management Toolkit</p> <ul style="list-style-type: none"> Module 1 Legal and Institutional Foundations Module 2 Budget Appropriation Module 3 Financial Management Controls Module 4 Public procurement <p>PEFA Climate Assessment</p> <p>Questionnaire for Policy Context: Section 1: International Commitments for Climate Change Mitigation and Adaptation (all questions); Section 2: National Level Strategies (all questions)</p> <ul style="list-style-type: none"> 5.1. Climate-related provisions in regulatory frameworks for public investment management 5.2. Climate-related project selection 5.3. Climate-related provisions for project appraisal 5.4. Reporting from entities in charge of implementation <p>Methodology for Assessing Procurement Systems (MAPS)</p> <ul style="list-style-type: none"> Pillar 1 3a. Sustainable public procurement Pillar 3 9a. Planning Pillar 3 9b. Selection and contracting <p>Bertelsmann Transformation Index: Resource Efficiency Indicator</p> <ul style="list-style-type: none"> Sustainable Governance Indicators: Environmental Policy Global Environmental Protection Executive Capacity – Adaptability Sustainability Check <p>Yale University Environmental Performance Index</p>

*For an extended list of guiding questions and non-standard indicators, see Appendix A.

^For the specific questionnaires on which the indicators are based, see Appendix B.

DIMENSION 6

Infrastructure procurement and contract management systems should be efficient, high quality, and should support competition and transparency.

Whether infrastructure projects are delivered using public procurement, or through PPPs and other types of hybrid arrangements, a high-quality process will ensure that infrastructure projects provide good value for money, are safe and effective, and that investment expenditures are not diverted inappropriately. Creating a level playing field in procurement ensures that the government receives strong proposals/bids of high quality and that it can award the contract to the most advantageous bidder. To this end, the government has to ensure that procurement documents are of high quality, set competitive bidding conditions, use transparent evaluation criteria that are fit for purpose, implement integrated e-procurement solutions, and efficiently manage the contract. Competitive bidding requires the convergence of several criteria, such as a good level of technical depth in the requests for proposals, enough time to prepare the proposals, rigorous evaluation of proposals, pre-disclosed contract conditions and risks, etc. Bidders need to be treated equally and fairly, the rules of the game need to be clear and adhered to, and the process needs to be conducted transparently. E-procurement systems should be implemented to promote efficiency, integrity, and transparency of infrastructure governance, and to provide an interface with financial management systems to enhance commitment controls. The systems have to be clear, straightforward, and user-friendly, and they must cover the core functions throughout the procurement and contract management cycle.

46

The procurement dimension is meant to ensure that infrastructure procurement is managed efficiently and in the interest of the public, taking into consideration costs across the project life cycle. High-quality, efficient, competitive, and transparent public procurement systems enable governments to fulfill their core functions, such as delivering infrastructure services to citizens; generate trust in government; and create a favorable business environment. Procurement systems must ensure that investments attain value for money and remain affordable with respect to life-cycle costs, taking into account the total cost over its life cycle (including planning, design, finance, construction, operation and maintenance, and possible disposal) compared to the value of the asset and its economic, environmental, and social benefits (for more on value for money considering life-cycle cost, see Dimension 2).¹⁵ Although procurement systems differ across countries, the need for sound regulation and good practices in public procurement is universal. The framework assesses procurement effectiveness based on the quality of procurement documents, clear and robust contract settings and monitoring practices, promotion of competition, and implementation of innovative practices, such as e-procurement, that reduce the costs and risks associated with procurement. The assessment looks at all of the above aspects of procurement, in the case of Public Investment Management systems, and for PPPs or similar arrangements, which in certain countries have a separate framework.

¹⁵ G20 Principles for Quality Infrastructure Investment, Principle 2: Raising Economic Efficiency in View f Life-Cycle Cost, p. 2.

The legal and regulatory framework of infrastructure procurement should be clear, hierarchical, coherent, and non-discriminatory. The legal framework should ensure that there is a clear linkage between budget planning and formulation and preparation of the annual procurement plans (for more details on the investment planning process, see Dimension 1; budgetary issues are also discussed in Dimension 3 in the context of fiscal sustainability). It is also important that stakeholders have access to all the documents and regulations governing procurement in infrastructure. Changes to the relevant legal and regulatory framework should be discussed with relevant stakeholders and clearly disseminated on the governments' web portals. The legal and regulatory framework should be effectively enforced. The government is responsible for ensuring that norms and regulations are being followed by procurement agencies and others. If there are any exceptions to competitive tendering, those should only be applied where justified by legal frameworks and clearly laid out.

In order to attract high-quality bids, and ensure high-quality infrastructure outputs, procurement documentation should have accurate project specifications and clearly outlined expected deliverables and timelines. Potential bidders assess the quality of documentation not only to ensure that the bidding is competitive, but also because poor information can result in wasted resources and later lead to claims. If the contractors have enough information, they develop a more precise budget and project specifications. On the other hand, the government can only hold bidders accountable if the deliverables and timelines are clearly defined and when they have a clear understanding of a project's progress.

Tender documents therefore play a crucial role in the success of a tender, as well as in the quality of the project overall.¹⁶ They typically comprise of bill of quantities/schedule of rates (in the case of construction), drawings, instructions to tenderers, specifications, form of contract, conditions of contract, and a list of required documents.¹⁷ “Quality of documentation” means that the information provided is clear and consistent; and that there is sufficient detail to allow companies to respond to requirements and submit responsive bids, develop an adequate design, and understand the price ranges.¹⁸ In order to attract private companies, the procurement procedure should be, clear, fair, simple, and accountable. Moreover, tendering specifications (in the case of goods/supplies) should be neutral and provide detailed guidance on the expected outputs so as to stimulate high-quality proposals. Efficient practices should be maintained throughout the public procurement life cycle to ensure that the rules of the game are clear and unbiased, and that sensible and expedient review and payment procedures are used.

16 The correlation between better procurement documentation and higher quality infrastructure outputs has been studied since the 1970s. For instance, the Coordinating Committee for Project Information (CPI) published its recommendations on how to improve documentation for construction projects back in 1987. CPI. 1987. Co-ordinating Committee for Project Information. Coordinated Project Information for Building Works.

17 Mohammed, H.H., A.H. Ibrahim, and A.E. El-Malt. 2019. “Assessment of Tender Documents Quality Index.” American Journal of Civil Engineering and Architecture, 7(4): 172-180.

18 MAPS criteria 1(e)(a).

To hold companies accountable after the contract award, the procuring authorities should establish key performance indicators and reporting procedures, and set measurable outputs. Contracts should provide information that enables participants to understand the allocation of risk between parties to a contract as well as other obligations that the signatories to the contract will incur.¹⁹ They should set clear timelines and review points that allow the procuring authority, or an independent review body, to assess the deliverables and formulate opinions. In certain cases, procuring authorities may implement a pay-for-performance approach as part of the contractual terms. This allows them to better align the incentives of companies with the public interest. While increasing transparency during the project planning process, governments should preserve the flexibility to control key planning levers such as user fees, service coordination, and facility expansion.²⁰ Contracts should be subject to independent and unbiased selective internal and external audit to ensure oversight and provide a platform for further improving procurement practices. Contract conditions should also cover some practical aspects of contract implementation—e.g., general conditions on inspection, quality control and final acceptance of products, and procedures relating to invoicing and payment, as well as provisions on dispute resolution (for more details on contract management and implementation, see Dimension 9).

To strengthen competitiveness, fair and transparent rules of the game should be ensured, including at the pre- and post-tender stage. Stimulating competition in public procurement is critical to ensuring that the project represents value for money. However, when suitable returns on investments require a longer time horizon, experience shows that governments may struggle to attract enough private actors willing to bid for the project, limiting competition. It is the responsibility of the government to carefully assess how to make the offer more attractive and to make every effort to ensure that, despite the risks associated with the project and/or lower rates of return, the private sector is willing to participate. Apart from the monetary award, signaling the transparency and openness of procurement practices can assist in attracting serious private actors. This requires, first, that information about tenders and their procedures is available openly and freely, that companies are able to participate in tenders without considerable barriers, and that the companies receive fair treatment. Second, the government should set out clear evaluation criteria and weightings attached to price and quality, and it should ensure the integrity and fairness of the process. If there is any regulation providing preferential treatment to domestic companies, it should not be to the detriment of competition and integrity, and the regulation should be pre-disclosed. Local content criteria should be used purposefully and with the public interest foremost, and such criteria should not create a long-term imbalance that undermines the market. Additional instruments can assist with ensuring competitive conditions. Those can include allowing companies to ask questions directly from the procuring authority in an open forum, making information about contract awards and contracts publicly available, and setting up an unbiased complaint review process.

¹⁹ MAPS criterion 2(c).

²⁰ Siemiatycki, M., and N. Farooqi. 2012. “Value for Money and Risk in Public–Private Partnerships: Evaluating the Evidence.” Journal of the American Planning Association, 78(3): 286–299.

For infrastructure procurement to be efficient, of high quality, transparent, and competitive, governments should use digital technology that allows for integrated e-procurement solutions for the public procurement cycle. E-procurement systems are effective tools to improve efficiency, transparency, and integrity. E-procurement can consolidate and streamline a number of processes, offering an end-to-end solution for conducting business. If implemented properly, e-procurement can drive cost savings and increase competition. In its limited version, it includes a digital platform for searching, submitting, and evaluating bids. The more expansive system includes searching, sourcing, negotiating, ordering, receiving, and conducting post-purchase reviews.²¹ To understand a country's progress in implementing e-procurement technologies, this framework looks at what information on tenders is publicly available and which stages of procurement are carried out online.

E-procurement tools should offer simple and user-friendly solutions for doing business.

Information technology should be used to ensure supplying the core capabilities and functions that allow business innovation. It is important that it does not create additional barriers for small and medium-sized enterprises. To this end, e-procurement tools should be simple to use and appropriate to their purpose.²² Where possible, procurement systems should be consistent across procurement agencies. It is important that e-procurement systems are secure and technologically neutral, allow for inter-operability with other systems, ensure an audit trail, and facilitate reasonable cost and ease of participation. They must offer public access to information (often inclusive of contract awards), and at the same time they must ensure fair treatment without exposing bidders' commercially sensitive information.

21 Vaidya, K., A.S.M. Sajeev, and G. Callender. 2006. "Critical Factors that Influence e-Procurement Implementation Success in the Public Sector." *Journal of Public Procurement*, 6 (1&3): 70-99.

22 OECD 2015. Recommendation of the Council on Public Procurement.
<https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0411>.



Photo: François du Chatenet / International Finance Corporation

TABLE 7 Key Questions and Indicators for Dimension 6

KEY QUESTIONS*	51
<p>Is there a legal and regulatory framework enabling high-quality, competitive, and transparent procurement, and is it adequately enforced?</p> <p>Is procurement planning well integrated into the system of budget planning?</p> <p>Is the information provided to bidders in the procurement documents clear, correct, coherent, and non-contradictory?</p> <p>Does the procurement system allow consideration of the full life-cycle cost of an infrastructure project in the selection procedure?</p> <p>Does the contract establish sufficient details to allow the procuring authority or an independent review body to monitor and evaluate project implementation?</p> <p>Is there a government-wide e-procurement system available for infrastructure?</p> <p>Is there a high degree of transparency in each stage of the procurement cycle? Is it clear how it is monitored and ensured from the project documentation?</p> <p>Is there an oversight and control mechanism to support accountability throughout the public procurement cycle, including appropriate complaints review and sanctions processes?</p>	
KEY INDICATORS^	
<p>Benchmarking Infrastructure Development TPI Survey: Procurement thematic area—questions 18 to 42 (available for 40 economies; source: World Bank)</p> <p>Benchmarking Infrastructure Development PPP Survey: Procurement thematic area—questions 16 to 33 (available for 140 economies; source: World Bank)</p> <p>Public Investment Management Assessment (PIMA): Subsection B.11. Procurement thematic area (available for 80 economies, only 17 of them published; source: International Monetary Fund)</p> <p>Public Expenditure and Financial Accountability (PEFA): Indicator 24: Procurement thematic area (available for 65 economies, 47 of them public)</p> <p>InfraCompass Assessment: Procurement thematic area (available for 81 economies; source: Global Infrastructure Hub)</p> <p>Methodology for Assessing Procurement Systems (MAPS) (available for seven economies)</p> <ul style="list-style-type: none"> Pillar I. Legal, Regulatory and Policy Framework (indicators 1, 2) Pillar II. Institutional Framework and Management Capacity (indicators 4, 5, 6, 7, 8) Pillar III. Public Procurement Operations and Market Practices (indicators 9 to 14) 	

*For an extended list of guiding questions and non-standard indicators, see Appendix A.

^For the specific questionnaires on which the indicators are based, see Appendix B.

DIMENSION 7

Contract management, operation and maintenance (O&M) and proper Asset Management should ensure that the investments provide infrastructure services as anticipated at their procurement.

Although adequate preparation and procurement lay the groundwork for a successful infrastructure project, implementation in many ways determines the success of the project. The contracting agencies/service providers should make sure that the infrastructure projects are delivered according to the contract specifications, on time, and within budget. They should also ensure that services are monitored and evaluated. For this, there should be detailed implementation plans in place, with clear organizational arrangements, institutional capacity, adherence to realistic timeframes, and effective use of key performance indicators. Moreover, implementing agencies need adequate contract and asset management capacities in order to ensure that resources are efficiently used for the operation and maintenance (O&M) of infrastructure assets so they continue to provide services as anticipated. Asset registers should be maintained, and asset values recorded. Whereas responsibility for O&M rests with the implementing agencies, central authorities need to secure adequate oversight and transparency of performance monitoring.

52

There are many points of potential governance and management failure in the long chain of asset construction and subsequent service delivery over the life of the asset. The actual construction of the physical infrastructure to the specified standards and according to budget and timeframe is often highly problematic. Under-execution of capital budgets is a common issue, as are cost and time overruns. Once construction is completed, there are risks in asset handover to service delivery entities, and ongoing challenges in ensuring that citizens and users receive the infrastructure service as envisaged.

Project design should include clear project management arrangements and a realistic timetable, as well as adequate institutional capacity to implement the project. It is critical to establish and develop effective measures, such as efficient procurement plans, guidelines, and institutional capacity to manage and monitor project implementation, the total project-cost management system, and multiyear budgeting (for more, see Dimension 2 on affordability and fiscal sustainability). Project proposals, especially for a large infrastructure project, should also present organizational arrangements for managing and supervising the project once the construction is finished. The responsibility for identifying potential problems during the operational phase of the project rests primarily with the line ministry or agency. However, central agencies such as the Central Budget Authority, Supreme Audit Institution, and regulatory authorities should play their part and retain the appropriate level of responsibility during the operational phase.

Unexpected circumstances should be addressed by means of contract management mechanisms. These should be premised on a level of diligence tailored to specific needs and to properly regulated renegotiation frameworks clearly defining the grounds and mechanism of such renegotiations, as well as consideration to other circumstances that may appear during the implementation of a project (such as force majeure). For the purposes of transparency and to provide the parties with grounds for legitimate expectations, it is crucial for methods of dispute resolution to be specified, along with the detailed effects of project termination. It can be difficult to oversee the performance of infrastructure service delivery and thereby maintain value for money throughout the performance of the asset.

BOX 6: CONTRACT MANAGEMENT GUIDELINES

In order to deal with change, **Ireland** has developed guidelines to tackle adverse development or changes in the circumstances surrounding an infrastructure project. It requires the sponsoring agency to report regularly on significant developments impacting the project cost. If deviations are such that corrective measures are not enough and incurred cost may go over the originally approved envelope, the approval of a different sanctioning authority is necessary before any cost increases are accepted. The viability of the project should be reassessed based on the changed circumstances and a decision to terminate it before completion could be taken if the gravity of the circumstances so requires.

Source: World Bank Public Investment Management Reference Guide

Asset registers should be maintained, and asset values recorded—and, more importantly, enough resources should be devoted to the maintenance and rehabilitation of existing assets. Besides proper contract management for the construction/acquisition of assets it is also important to properly manage the infrastructure assets in delivery of services. Ideally, countries should require their operating units to compile balance sheets, on which the value of assets created through new fixed capital expenditures would be recorded. Whether there is accrual accounting or not, agencies should maintain asset registers that are exhaustive in their recordkeeping, and where necessary, legal title to property is affixed. Enough resources have must be devoted to maintenance, rehabilitation, and improvements of existing infrastructure to ensure that they remain in good condition over their expected life cycle.

TABLE 8 Key Questions and Indicators for Dimension 7

KEY QUESTIONS*
Does the government ensure that the new infrastructure assets are constructed according to specifications, key performance indicators, budget, and timelines?
Do implementing agencies have adequate contract management capacity and reporting mechanisms to central authorities (i.e., MoF, State Audit Institution [SAI])? Are the reports published?
Does the government ensure that the services are delivered, and that the assets are maintained and operated as outlined in the contract?
Do the regulations and followed practices adequately address renegotiation and other circumstances (i.e., force majeure) that may arise during the life of the contract?
Do the regulations and followed practices establish adequate modes of dispute resolution, and do they consider termination of contracts and its consequences?
Are there comprehensive asset registration and monitoring systems in place?
Are sufficient resources devoted to maintenance and rehabilitation?
KEY INDICATORS^
Benchmarking Infrastructure Development TPI Survey Contract management thematic area—questions 44 to 56 (available for 40 economies; source: World Bank)
Infrastructure asset management thematic area—questions 58 to 62 (available for 40 economies; source: World Bank)
Benchmarking Infrastructure Development PPP Survey Contract management thematic area—questions 35 to 45 (available for 140 economies; source: World Bank)
Public Investment Management Assessment (PIMA) (available for 80 countries, only 17 published; source: International Monetary Fund) B.9 Maintenance Funding C.14 Management of Project Implementation C.15 Monitoring of Public Assets

*For an extended list of guiding questions and non-standard indicators, see Appendix A.

^For the specific questionnaires on which the indicators are based, see Appendix B.

DIMENSION 8

Transparent access to adequate information throughout the project cycle is key for project performance and accountability.

The availability of adequate information and data on projects and service delivery is essential for ensuring accountability, improving project performance, strengthening the investment climate, and maintaining public confidence in the private sector. The government needs to invest in collecting, monitoring, and analyzing high-quality and integrated data that can serve as the basis for project management, decision-making, consultation, and accountability. The degree to which the data are made public should be determined by a disclosure framework that weighs the trade-offs of transparency and confidentiality. The framework should be enforced, and relevant public institutions scrutinized on their performance in complying with transparency requirements. Disclosed data should be easy to access, navigate, and analyze.

The availability of adequate information and data is essential to ensure that a project delivers. Good data support sound decision-making and ensure government and private implementors are held to account for their performance. If done right, transparency enhances performance and learning, and it prevents misconduct. Civil society organizations can play an important role in monitoring performance standards if data are available.²³ Transparent data also enhance the investment climate by assuring domestic and foreign investors that they will operate in a predictable and regulation-based context.

Project and service delivery data should be comprehensive, high quality, and integrated. Governments should invest in the necessary IT infrastructure and tools to collect high-quality data throughout the project cycle. Where possible, data collection should be automated and real-time—or regular, at the very least. Ideally, project and service delivery data should be centralized in a single platform from all contracting authorities to provide a picture of the entire investment portfolio, regardless of sector or financing modality. Data collection and monitoring should be synchronized across the different IT systems (such as budgeting, procurement, etc.).

Enhancing the capacity to collect, monitor, and analyze project and service delivery data will increase impact. Beyond investments in IT systems, relevant public institutions need the technical capacity to collect, manage, and analyze data in order to make the best use of it. This serves as the basis for evidence-based management and decision-making at the project, sector, and central government levels.

²³ Construction Sector Transparency Initiative; GIFT High Level Principle 1; the OECD Budget Transparency Toolkit; and the World Bank Policy on Access to Information.

To determine in a systematic way how much of the information and data should be published and when, governments should design and enforce a disclosure framework.²⁴ Transparency requirements are diverse, given the scale, complexity, and long duration of infrastructure projects, their one-off nature, and the different types of entities involved. As such, the disclosure framework should be designed based on the objectives and drivers of disclosure, and its challenges and benefits. The framework should focus on users and uses of the disclosed information, the type of government support, and, especially, government fiscal risk and exposure. The framework should preferably provide a mandate for proactive disclosure, and should be harmonized with existing legislation on transparency, such as relevant provisions in the Freedom of Information (FOI), PIM, PPP, public financial management (PFM), budget transparency, or other legislation. In addition, the framework should also provide sufficient guidance to officials for implementation. The implementing agencies and relevant central institutions should be responsible and accountable for ensuring the transparency of the project and service delivery. They should be scrutinized on their performance on this both by the SAI and by civil society.

The data and information disclosed across the project cycle should be easy to access, navigate, and analyze. The framework should allow for the regular and timely disclosure of information throughout the key stages of an infrastructure project cycle (identification, preparation, procurement, and implementation—with the latter including performance indicators). Transparency and disclosure clauses should also be part of any contracts. It is also important that the annual budget documents contain information on infrastructure spending and commitments, given their size and long-term fiscal and other impacts. All this information should be published online by the implementing agencies and/or centrally through an integrated platform. Whereas automatically synchronized real-time information would be ideal, less advanced disclosure mechanisms can also suffice, as long as the information is regularly updated and easy to navigate (e.g., publish financial data in an Excel sheet instead of a pdf).

²⁴ For more on the World Bank guidance on the disclosure framework for PPPs, with relevance to infrastructure in general, see: World Bank, Framework for Disclosure in Public-Private Partnership Projects, 2016 <http://pubdocs.worldbank.org/en/773541448296707678/Disclosure-in-PPPs-Framework.pdf>

TABLE 9 Key Questions and Indicators for Dimension 8

KEY QUESTIONS*
Does the government collect, monitor, and analyze project and service delivery data throughout the project cycle?
Do existing regulations outline clear and comprehensive transparency requirements for infrastructure projects?
Do relevant public institutions have the technical capacity to collect, monitor, and analyze project and service delivery data?
Are project and service delivery information data disclosed throughout the project cycle?
Are disclosed information and data easy to access, navigate, and analyze?
KEY INDICATORS^
Benchmarking Infrastructure Development TPI Survey (available for 40 economies; source: World Bank) <ul style="list-style-type: none"> Question 13.1 on publication of the assessment Question 14 on publication of the tender documents Question 19 on publication of the tender notice Question 36 on publication of the award notice Question 42 on publication of the contract Question 45 on publication of construction progress information
Benchmarking Infrastructure Development PPP Survey (available for 140 economies; source: World Bank) <ul style="list-style-type: none"> Question 11.1 on publication of the assessment Question 12 on publication of the tender documents Question 17 on publication of the tender notice Question 28 on publication of the award notice Question 33 on publication of the contract Question 36 on publication of construction progress information Question 37 on publication of operation/performance information
Open Budget Index (available for 117 countries)
Methodology for Assessing Procurement Systems (MAPS) (available for seven countries): selected questions on the transparency and data use of procurement <ul style="list-style-type: none"> Pillar II. Institutional framework and management capacity, 7. Public procurement is embedded in an effective information system
InfraCompass Assessment: selected questions on the transparency and data use of procurement (available for 81 economies; source: Global Infrastructure Hub) <ul style="list-style-type: none"> Procurement composite index and selected indicators Published Public Procurement Guidelines Transparency in Public Procurement

*For an extended list of guiding questions and non-standard indicators, see Appendix A.

^For the specific questionnaires on which the indicators are based, see Appendix B.

DIMENSION 9

There is a need for systematic measures in place to foster integrity and manage the risk of misconduct along the project cycle.

Integrity risks are present at every stage of the project cycle given the complex nature, substantial cost, and political significance of most infrastructure projects. To minimize and manage these integrity risks, governments should consider instituting a regulatory framework that covers both the prevention and prosecution of misconduct. Mechanisms to protect and promote integrity should be incorporated across the investment cycle; special measures to target behaviors in both public and private sectors can play a positive role; and independent and well-resourced monitoring and prosecution services are important.

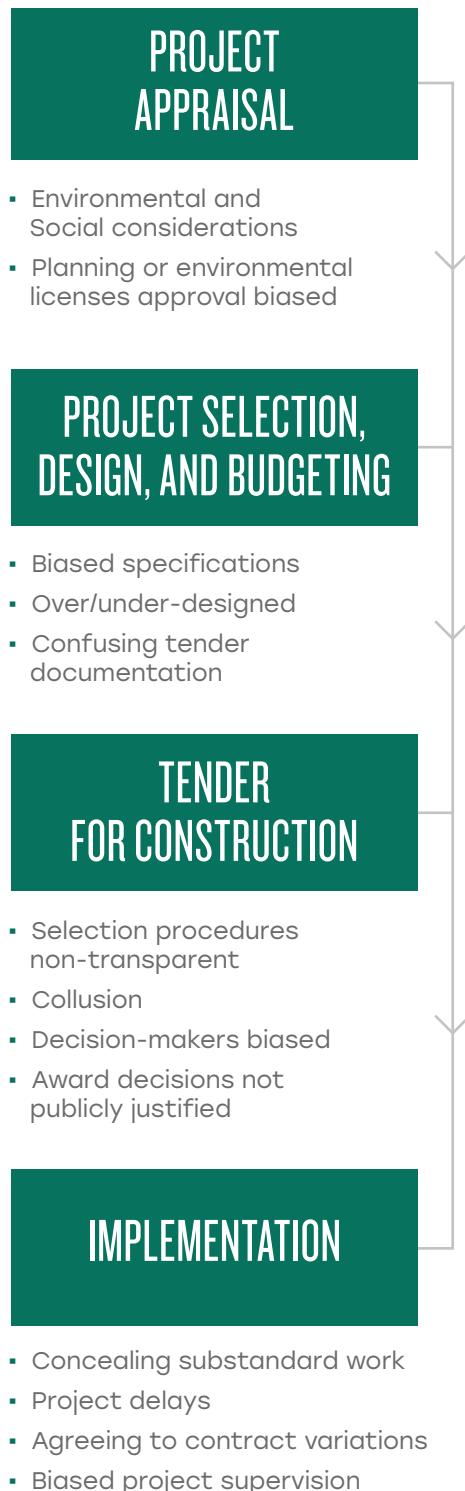
The experiences of successful countries show it is helpful to go beyond individual safeguards and develop a comprehensive, whole-of-government approach to guard the integrity of infrastructure projects. The importance of integrity in infrastructure is hard to overestimate, given that these projects are typically characterized by political sensitivity, large budgets, long duration, and the significant complexity of contractual relations (especially in the case of PPPs).

58

Integrity risks are present throughout the project cycle (see Figure 2, below). The most common of these threats are related to the tender process for construction, mainly in the form of bribes paid to obtain the contract. While such practices have been widespread for a long time, corruption methods are becoming increasingly sophisticated—for example, three out of four foreign bribery cases involve intermediaries, such as local subcontractors, consultants, agents, or corporate vehicles (including subsidiary companies, local consulting firms, offshore companies in tax havens, etc.).²⁵ Furthermore, beyond bribery, there are other ways of compromising the integrity of infrastructure project procurement, most notably kickbacks, collusion, and bid rigging. However, apart from the most vulnerable stage—procurement—there are integrity risks at every stage of the cycle, as illustrated below. Moreover, corruption during the early stages of project appraisal, design, and budgeting may open doors for wrongdoing later. Most countries have implemented mechanisms to reduce some of the more obvious entry points for corruption, such as by improving transparency and competitiveness during the main tender process. However, by only targeting some types of risk, corruption may simply shift to other stages. For instance, if the contract award is difficult to influence, corrupt activity may center on the project design and appraisal phase, or through addendums to the contract during project implementation.

²⁵ OECD (2014). Foreign Bribery Report: An analysis of the crime of bribery of foreign public officials.

FIGURE 2 Integrity Risks Throughout the Infrastructure Project Cycle²⁶



²⁶ Jill Wells (2015). Corruption in the construction of public infrastructure: Critical issues in project preparation, Anti-corruption Resource Centre, U4 Issue Nr. 8; Catherine Stansbury, Neill Stansbury (2008). Examples of Corruption in Infrastructure, Global Infrastructure Anti-Corruption Centre

In order to minimize and manage these integrity risks, successful governments develop and enforce a regulatory framework that covers both the prevention and prosecution aspects of misconduct. There may be a trans-governmental regulatory and policy framework outlining integrity standards and mechanisms. At the same time, integrity issues can be also integrated into the specific regulatory framework on PIM, PPPs, SOEs, as well as sectoral legislation. On the enforcement side, effective mechanisms to uncover, investigate, and prosecute misconduct should be put in place. Experience shows that successful reform in this area requires high-level political will, managerial commitment, and sufficient capacity in public institutions.

Mechanisms to protect and promote integrity should be incorporated across the investment cycle. Corruption risk prevention and mitigation should be conducted along the parameters of (i) identifying high(er)-risk stakeholders and actors; and (ii) focusing on the project phases that have higher corruption risks. During project preparation, prioritization, and selection, potential projects must be objectively assessed, costed, present good value for money, be in the public interest, and be delivered and financed in the most efficient modalities. During the procurement stage, due diligence on bidders, competitiveness of tender (including for USPs), and meeting transparency requirements are necessary. A formal integrity policy should be in place requiring that due diligence be undertaken to verify the representations made by bidders in terms of their financial and technical capacity; and to ascertain whether the bidders or any of their principals have engaged in any misconduct, are the subject of ongoing or past investigations, or are associated with organized crime, blacklisted, or designated as tax delinquent. Integrity clauses should also be built into contracts. To protect integrity at the stage of the post-tender/implementation phase, the monitoring and evaluation of project performance needs to remain unbiased, and any potential contract renegotiations need to be transparent.²⁷

As additional prevention, governments and companies should foster a culture of integrity and awareness of fraud and corruption risks to further enhance results. Clear commitments by the implementing unit to a zero-tolerance approach towards misconduct is valuable. Governments could require asset and conflict-of-interest declarations from public officials involved in infrastructure projects and have an anti-bribery framework in place. On the private side, companies could publicly disclose all political contributions (unless secrecy or confidentiality is legally required). Both governments and companies could institute and train staff in a code of conduct. Companies should conduct an integrity risk assessment and draw up a risk mitigation plan, focusing on country, industry, client, transaction, business partnership, process, and internal risks (for example, pay structure and gift policy). Top management should commit to act on identified integrity risks. Companies should also conduct integrity due diligence on current and future employees with any decision-making authority, and on agents and business partners, to ensure they are reputable and that their role is appropriate and commensurate with their remuneration. Both public institutions and companies should have in place functioning complaint and whistle-blower protection mechanisms.

²⁷ Jill Wells (2015). Corruption in the construction of public infrastructure: Critical issues in project preparation, Anti-corruption Resource Centre, U4 Issue Nr. 8; Catherine Stansbury, Neill Stansbury (2008). Examples of Corruption in Infrastructure, Global Infrastructure Anti-Corruption Centre

Finally, a functioning and unbiased prosecution of breaches of integrity is necessary. Mechanisms need to be in place to audit, investigate, prosecute, and sanction any type of misconduct. There should be mechanisms for challenging procurement decisions for integrity-related violations, as well as to ensure that the uncovered irregularities are prosecuted and sanctioned, and that justice is effectively enforced. The independence of the judiciary around these issues is important for ensuring a strong investment climate.

TABLE 10 Key Questions and Indicators for Dimension 9

KEY QUESTIONS*
Is there a satisfactory regulatory and policy framework to control for integrity risks in infrastructure?
Are there mechanisms in place to protect and promote integrity across the investment cycle?
Are there mechanisms in place to protect and promote integrity in the ranks of both public and private partners?
Are potential breaches of integrity in infrastructure projects investigated, prosecuted, and sanctioned?
KEY INDICATORS^
Methodology for Assessing Procurement Systems (MAPS) (available for seven countries): Pillar III. Public procurement operations and market practices, 14. The country has ethics and anticorruption measures in place
International Civil Service Effectiveness (InCISE) Index: Selected questions on the integrity of governance practices (available for 40 countries; source: Blavatnik School of Government, University of Oxford)
Transparency International's Corruption Perceptions Index
Transparency International's Global Corruption Barometer
World Governance Indicators: Control of Corruption

*For an extended list of guiding questions and non-standard indicators, see Appendix A.

^For the specific questionnaires on which the indicators are based, see Appendix B.

DIMENSION 10

Sector and regulatory frameworks should maximize competition for and in the market, and regulation should promote efficiency and societal value in infrastructure projects.

To effectively manage infrastructure, there needs to be a stable and coherent legal, regulatory, and policy framework. Regulatory bodies need to ensure coordination across government authorities and private stakeholders. Regulators should also encourage market competitiveness, where feasible, as well as efficient investment and affordability of projects. Private operators' confidence and willingness to invest in socioeconomic infrastructure services are heavily influenced by fair and predictable regulations (e.g., in terms of tariffs/user charges and budget subsidies). To effectively fulfill this role, regulators benefit from the clarity of their institutional functions, sufficient funding, independence, accountability, technical capacity, and adequate processes and structure to manage human and financial resources.

MARKET STRUCTURE

62

Regulators must play an important role to ensure effective competition in the sector by defining rules for market entry. Sector regulators play an important role in licensing the entry of new players to the market, and associated regulations and regulatory processes may create barriers to entry. Sector regulators are typically also required to regulate third-party access to critical bottleneck infrastructure, as well as associated pricing and technical conditions. If done well, this may help to counteract the anti-competitive effects associated with vertical integration. Furthermore, wider anti-trust regulation may play an important role in supervising merger and acquisition activity and in preventing anti-competitive practices.

Regulators must also monitor the extent of vertical integration in the sector that may restrict competition among market players. The strength of competitive pressures is usually measured through market concentration indexes that capture the relative size of shares among actors in a market. In the case of infrastructure, due to the prevalence of networks with natural monopoly characteristics, the real potential for competition may be limited to certain segments of the market. Nevertheless, for activities characterized by natural monopoly, it may still be possible to encourage competition for the market. Where there is vertical integration between natural monopoly networks and competitive market segments, competition may be particularly difficult to enforce because the vertically integrated company will have the incentive to exclude other market players from accessing the critical network infrastructure.

In cases where the state has a substantial role in the market, steps should be taken to ensure both the private and public sector have a level playing field. Coexistence of public and private sector actors within infrastructure markets can create substantial risks for competition. Potential advantages for SOEs include access to lower cost finance, lower wage norms, subsidized inputs, or privileged access to state functions. On the flip side, potential disadvantages include unfunded public policy obligations and more onerous administrative processes.

SECTOR REGULATION

A stable sectoral institutional and regulatory framework can create an enabling environment for effective management of infrastructure. Regulatory institutions' credibility and the trust they generate will depend on their governance, including role clarity, adequate processes and structure to manage human and financial resources, independence, accountability, performance evaluation, and funding. Uncertainty with regards to the enforcement of the regulatory framework or the capacity of the regulator—or the perception of inequitable treatment of different market participants—will impact private sector willingness to invest in infrastructure and hence the availability and quality of services provided.

Regulatory governance must balance autonomy with accountability. Without autonomy, regulators cannot influence outcomes. Full autonomy arises from the exercise of a range of powers, including the freedom to appoint qualified and independent decision-makers, to make and enforce decisions affecting stakeholders, to capture adequate budgetary resources, and to manage internal processes. Accountability is secured through government oversight, the right of companies to legal appeal, and transparent regulatory processes and decisions with stakeholder involvement. Autonomy and accountability are meant to work together.

63

There must be a clear, predictable, well-defined, and public tariff-setting methodology. The tariff-setting process begins with applying a pricing regime (or methodology) to determine the average tariff level commensurate with efficient cost recovery, ensuring that investors achieve reliable and fair returns and consumers receive fair value. In cases where the government provides subsidies, the tariffs are set in line with these subsidies. The process may also seek to determine the tariff structure—the suite of charges customers pay—which then defines the average tariff.

Regulators are expected to set minimum service standards to ensure that consumers receive adequate quality. Regulation of service quality entails first establishing a suitable standard and then creating a system of incentives to induce utilities to meet that standard (Adam 2011). Quality standards should be industrywide, clearly defined, and long term to provide regulatory certainty and to foster investment. The desired quality level should be informed by a balancing of costs to the industry against benefits to the consumer—because standards can sometimes be set too high.

The key questions for the dimension and its related indicators are listed in the table below.

For questions related to market structure, an index has been created closely based on the product market regulation (PMR) indicators developed by the OECD. The corresponding questionnaire can be found in Appendix B and should be administered to gauge the competitive environment in all relevant infrastructure sectors in the country of interest. These indicators measure regulatory barriers to firm entry and competition in a broad range of policy areas. Whereas the OECD maintains a limited database that can be used for comparisons (mostly to OECD countries), data collected through a short in-country survey in individual countries where the governance diagnosis is being carried out will accumulate over time, increasing the potential scope for benchmarking. Similarly, for questions related to sector-specific regulation, global indexes are being developed by the respective GPs for each sector (energy, digital, and transport). Although data may be collected automatically for some countries, in cases where this is not available, the corresponding questionnaires should be administered to gauge the quality of regulation in the country and sectors of interest. The questionnaire for energy regulation can already be found in Appendix B. Equivalent surveys for transport and digital will be added to later editions.

TABLE II Key Questions and Indicators for Dimension 10

KEY QUESTIONS	
<p>Do regulators ensure that the market is competitive and free from barriers to entry?</p> <p>Does the state participate in the sector with substantial market power?</p> <p>Do regulatory bodies have independence, accountability, sufficient scope of action, and resources to perform their role?</p> <p>Are the parameters under which a regulatory entity makes its decisions clearly defined, predictable, and publicly available?</p> <p>What key data and reliable information—especially costs on all aspects of the business—are available to inform tariff setting?</p> <p>What is the level of market concentration in the sector, and is it consistent with effective competition?</p> <p>Is there vertical integration in the sector of a form that may prejudice the extent of competition among market players?</p> <p>Does the regulatory entity have adequate safeguards in place to protect its independence?</p> <p>Are there proper accountability measures for the regulatory entity?</p> <p>Are the parameters under which a regulatory entity makes its decisions clearly defined, predictable, and publicly available?</p> <p>Is there appropriate coordination between various regulatory bodies, as well as mechanisms for cooperation between regulators across borders?</p> <p>Does the regulatory entity involve various stakeholders in its decision-making process?</p> <p>Is there a clear tariff-setting methodology that is predictable, well defined, and public?</p> <p>Are tariff reviews carried out consistent with existing tariff setting methodologies and regulations?</p> <p>Does the regulator set the parameters of quality of service?</p> <p>What role does the regulator play in licensing in the sector?</p> <p>Does the regulatory entity have the institutional capacity to carry out its duties?</p>	65

SECTOR-SPECIFIC QUESTIONS—POWER SECTOR

- What kind of tariff regime does the country follow? Does it include automatic adjustment or indexation mechanisms?
- Are there mechanisms to compensate generators for firm capacity or ancillary services?
- What mechanism is adopted to make electricity affordable for the poor and vulnerable?
- Is there a complete set of legal acts, rules, and regulations for renewable energy policy in place—including rules governing access to the electricity market, rules and incentives for connecting and feeding electricity from renewables into the grid, authorization, licensing, and environmental impact assessment?
- Has the regulator developed a grid code?
- Are there licensing frameworks and guidelines for the electricity sector?

SECTOR-SPECIFIC QUESTIONS—TRANSPORT (FOR ALL MODES; TO BE ADDED)

SECTOR SPECIFIC QUESTIONS—DIGITAL (TO BE ADDED)

KEY INDICATORS

66

- Herfindahl-Hirschman Index (HHI) (for each sector; to be calculated based on data collection)
- PMR-based market contestability Index (for Power, Rail, Road Freight, and Air Transport; available; source: World Bank)
- Power–AfDB–WB Power Sector Regulatory Index (available; source: World Bank)
- Power–Regulatory Indicators for Sustainable Energy (available; source: World Bank)
- Transport–Regulatory Framework for Trucking Index (Enabling Business for Ag; available; source: World Bank)
- Digital–RWE Regulatory Framework Index (forthcoming; source: World Bank)
- Digital–ICT Regulatory Tracker (available; source: ITU)

PMR-BASED MARKET CONTESTABILITY INDEX FOR POWER, RAIL, ROAD FREIGHT, AND AIR TRANSPORT

POWER SECTOR

Public Ownership	See Appendix B for details
Market Entry	See Appendix B for details
Vertical Integration	See Appendix B for details
Retail Price Regulation	See Appendix B for details
Other	See Appendix B for details

RAIL	
Public Ownership	See Appendix B for details
Market Entry	See Appendix B for details
Vertical Integration	See Appendix B for details
ROAD FREIGHT	
Public Ownership	See Appendix B for details
Market Entry	See Appendix B for details
Retail Price Regulation	See Appendix B for details
Barrier to Foreign Entry	See Appendix B for details
AIR TRANSPORT	
Public Ownership	See Appendix B for details
Market Entry	See Appendix B for details
Retail Price Regulation	See Appendix B for details
Barrier to Foreign Entry	See Appendix B for details
POWER SECTOR AFDB-WB POWER SECTOR REGULATORY FRAMEWORK INDEX	
Legal Mandate	See Appendix B for details
Clarity of Roles and Objectives	See Appendix B for details
Independence Formal Independence from Government From Stakeholders Decision-Making Independence Financial Independence	See Appendix B for details
Accountability	See Appendix B for details
Transparency of Decisions	See Appendix B for details
Predictability	See Appendix B for details
Participation	See Appendix B for details
Open Access to Information	See Appendix B for details
Economic Regulation: Tariff Setting	See Appendix B for details

Technical Regulation: Quality of Service	See Appendix B for details
Licensing Framework	See Appendix B for details
Institutional Capacity	See Appendix B for details
REGULATORY FRAMEWORK FOR TRUCKING INDEX (ENABLING BUSINESS FOR AG) (TRANSPORT)	
(To be added)	
ICT REGULATORY TRACKER (DIGITAL)	
(To be added)	
RWE REGULATORY FRAMEWORK INDEX (DIGITAL)	
(To be added)	
REGULATORY INDICATORS FOR SUSTAINABLE ENERGY (POWER)	
(To be added)	

68

DIMENSION II

SOEs should operate on market terms where possible, with strong corporate governance standards and clear accountability lines.²⁸

Corporate governance provides the structure for defining, implementing, and monitoring a company's goals and objectives and for ensuring accountability. Good SOE corporate governance ensures there are clear ownership rules and responsibilities, strong SOE oversight entities, independent and professional boards, robust performance monitoring mechanisms, and a high level of disclosure of financial and audit reports.

SOEs face distinct governance challenges. On the one hand, SOEs may be affected by politically motivated ownership interference, leading in some cases to accountability and responsibility challenges as well as efficiency losses in corporate operations. SOEs typically have multiple and potentially competing goals. On the other hand, lack of effective oversight can weaken the incentives of SOEs and their staff to perform in the best interest of the enterprise and the general public.

28 This dimension is aligned with Module 4 on Corporate Governance and Accountability Mechanisms of the World Bank's Integrated State-Owned Enterprises Framework (iSOEF), which can be found here: https://worldbankgroup.sharepoint.com/sites/gsg/CGFR/Documents/iSOEF/iSOEF%20Guidance%20Note%20Module%204_Final.pdf.

As such, good corporate governance is the foundation for stable and financially healthy SOEs. The WBG Integrated SOE Framework (iSOEF) assesses six dimensions of corporate governance of SOEs (Box 3 below). For more detailed explanation of the dimensions, please see the iSOEF methodology.

BOX 7: DIMENSIONS OF CORPORATE GOVERNANCE OF SOEs

- **Legal framework for SOE Governance:** A clearly defined legal and regulatory framework for SOEs is essential to communicate expectations for all institutions involved and to establish the rules of the game.
- **State Ownership Function:** State ownership requires protecting the state's interest as an owner of valuable assets while ensuring that SOEs carry out their economic or policy objectives. This dimension aims to look into the ownership arrangements.
- **SOE Performance Management:** A performance management framework includes three main elements: performance agreements, key performance indicators and institutional arrangements.
- **Structure and Functioning of the Board of Directors:** The board is at the heart of an SOE's corporate governance framework and is crucial to ensuring that all other governance components are working effectively. This dimension investigates board autonomy, board composition and nomination, and managing conflicts of interest, among others.
- **Financial Accountability, Controls, and Transparency:** SOE transparency and accountability helps to ensure sound decision making and fiscal management. This dimension focuses on SOE financial statements, accounting and auditing practices, and disclosure practices.
- **Procurement in SOEs:** This section aims to analyze which public procurement rules apply to SOEs and when, as well as what constitutes best practice.

Source: WBG Integrated SOE Framework (iSOEF)

It is good practice to set clear mandates for SOEs. SOEs are often tasked with goals that are not necessarily commercial in nature and can lead to significant impact on their financial situation. It is important that SOEs evaluate and disclose the objectives that justify state ownership, with the state taking the role of an active owner with a clear ownership policy. If the SOE is expected to help the government achieve some social objectives, it is important that the public service obligations (PSOs) are made public and are clearly defined. The PSOs also need to be clearly costed and funded to allow the SOE to have sustainable financials.

Assessing SOE corporate governance builds on a clear understanding of the key legal and regulatory frameworks of the country. SOEs come in many different legal forms and typically reside at the intersection of public and private law, with significant variation between and within countries. Overarching SOE legislation is not common, and in most cases different SOEs are governed by different laws and regulations. SOEs are often exempt from certain laws thereby creating market distortions and reducing accountability.

Another important area to consider is to assess the oversight mechanisms responsible for overseeing the infrastructure sector and performance of SOEs. Managing multiple and potentially conflicting objectives is one of the central challenges in the corporate governance of SOEs. The state should act as an informed and active owner, ensuring that SOE governance is carried out in a transparent and accountable manner, with a high degree of professionalism and effectiveness. There are three main ownership models: (i) centralized, (ii) decentralized, and (iii) advisory/dual. An SOE's ownership arrangements and its overall mandate will influence the type and design of performance management framework. These, in turn, will help define duties and responsibilities among different entities.

70

At the company level, the autonomy and accountability of the company's board of directors are critical. The board should be the final decision-making authority on the definition of strategies, plans, and performance objectives; important financial decisions; and significant human resource decisions, such as the appointment of the chief executive officer and the hiring and firing of staff. This should be done in a transparent manner, avoiding conflicts of interest. When addressing issues of the board of directors, it is important to investigate board composition, board nomination process, operational autonomy and board efficiency. To avoid conflicts of interest, it is important to separate the roles of the board chairperson, chief executive officer, and company secretary; to create board committees with clear responsibility for auditing and other functions; and to apply a code of conduct.

Good practices in financial reporting and accountability, controls and transparency are key to ensure sound decision making and to hold SOEs accountable for their performance. SOE financial discipline is related to the rigor of their accounting, reporting and auditing practices, as well as to the extent of financial oversight by owners and investors. It is important for the SOE to report its financial statements in line with the standards (national or international) set for the private sector in the country in a transparent and publicly accessible manner. Furthermore, effective internal audit overseen by effective audit committees and external accountability via independent external audit (by a professional audit firm or the supreme audit institution) all contribute to adequately capturing accurate information and enable effective responses.

It is also important to consider good human resource management and information and technology aspects of SOEs. Human resource practices entail objective and transparent hiring processes, adequate remuneration and performance-related pay, and the ability to fire poor performers. Understanding employment regulations and government policy that regulates SOE human resources practices are crucial. Furthermore, the continuous advance of digital technologies allows for greater automation and remote management, for instance of electricity networks. Information technologies can significantly enhance a utility's ability to deliver on many core areas, such as network management and the commercial cycle.

The key questions and indicators concerned with the dimensions are listed in the table below. The World Bank has developed the iSOEF to look at SOE governance frameworks in a country. The iSOEF covers the significant areas of fiscal/economic implications of SOEs, competitive neutrality, and SOE corporate governance. Teams can choose the depth of the assessment depending on their needs and carry out a shorter, entity specific assessment or a more detailed SOE framework assessment. Since conducting a complete iSOEF is a large undertaking, the shorter assessment (Appendix B) draws largely from the entity specific module of the iSOEF and incorporates the Utility Governance Survey developed under the Rethinking Power Sector Reform in Developing Countries report (World Bank 2019). The more detailed assessment draws from the larger iSOEF and can be used in a modular structure as well. The key questions below, Appendix A and Appendix B incorporate these questionnaires.

71

TABLE 12 Key Questions and Indicators for Dimension 11

KEY QUESTIONS AND INDICATORS*
Questions A, B, C, D in Appendix B, Dimension 11.



Photo: Dominic Chavez / International Finance Corporation

USEFUL RESOURCES

Below are listed resources that guided the elaboration of the eleven dimensions of this guidance note, and that can serve as useful resources in conducting the country assessments.

PUBLIC INVESTMENT MANAGEMENT

[Diagnostic Framework for Assessing PIM](#) (World Bank)

[Public Investment Management Assessment \(PIMA\)](#) (IMF)

[Benchmarking Infrastructure Development of Traditional Public Investments](#) (World Bank)

[Framework for the Governance of Infrastructure](#) (OECD)

[Public Investment Management Reference Guide](#) (World Bank Group)

[Public Expenditure and Financial Accountability \(PEFA\) Well Spent. How Strong Infrastructure Governance Can End Waste in Public Investment](#) (IMF)

[Recommendation on the Governance of Infrastructure](#) (OECD)

73

PUBLIC-PRIVATE PARTNERSHIPS

[PPP Reference Guide 3.0](#) (World Bank Group)

[InfraCompass](#) (World Bank Group)

[Principles for Public Governance of Public-Private Partnerships](#) (OECD)

[PPP Certification](#) (APMG)

[Benchmarking Infrastructure Development of PPPs](#) (World Bank)

[Country Readiness Diagnostic for Public-Private Partnerships](#) (World Bank Group)

PUBLIC PROCUREMENT

[Methodology for Assessing Procurement Systems](#) (MAPS)

[Recommendations on Public Procurement](#) (OECD)

CLIMATE, ENVIRONMENTAL AND SOCIAL CONSIDERATIONS

- [Environmental and Social Framework](#) (World Bank)
- [Environmental and Health and Safety Standards](#) (IFC)
- [Environmental and Social Impact Assessment](#) (ESIA)
- [DAC's Promoting Pro-Poor Growth: Infrastructure](#) (OECD)
- [Environmental Performance Index](#) (Yale University)
- [Assessing Financial Protection against Disasters: A Guidance Note on Conducting a Disaster Risk Finance Diagnostic](#) (World Bank)
- [Adaptation Policy Framework for Climate Change](#) (UNDP)
- [Supplementary Framework for Assessing Gender Responsive Public Financial Management](#) (PEFA)
- [Climate Assessment](#) (PEFA)
- [Bertelsmann Transformation Index](#) (Governance Index–Resource Efficiency)

TRANSPARENCY

74

- [Framework for Disclosure in Public-Private Partnership Projects](#) (PPIAF 2016)
- [Open Contracting for Infrastructure Data Standards Toolkit](#)
- [Open Contracting Data Standard](#)
- [Construction Sector Transparency Initiative—Infrastructure Data Standard](#)
- [GIFT High Level Principles](#)
- [Budget Transparency Toolkit](#) (OECD)
- [Policy on Access to Information](#) (World Bank)

INTEGRITY

- [Convention Against Corruption: Implementing Procurement-Related Aspects](#)
(United Nations 2008)
- [Principles for Integrity in Public Procurement](#) (OECD)
- [Integrity Framework for Public Investment](#) (OECD)
- [UK Anti-Corruption Forum and TI: Transparency in Public Sector Construction Projects](#)
- [Deterring Corruption and Improving Governance in Road Construction and Maintenance: A Sourcebook](#) (World Bank)
- [International Civil Service Effectiveness \(Incise\) Index](#)

REGULATION

PMR-based Market contestability index for Power, Rail, Road Freight, Air Transport

AfDB-WB Power Sector Regulatory Index

[ICT Regulatory Tracker](#)

[Product Market Regulation methodology](#) (OECD)

Infrastructure Vice Presidency's work on regulatory indexes in the electricity sector (available), digital sector (forthcoming), and transport sector (planned) (World Bank)

Governance of infrastructure regulators in post-FCS environments: Principles and implementation manual (World Bank)

[Best Practice Principles for the Governance of Regulators](#) (OECD)

STATE-OWNED ENTERPRISES:

Corporate Governance Survey

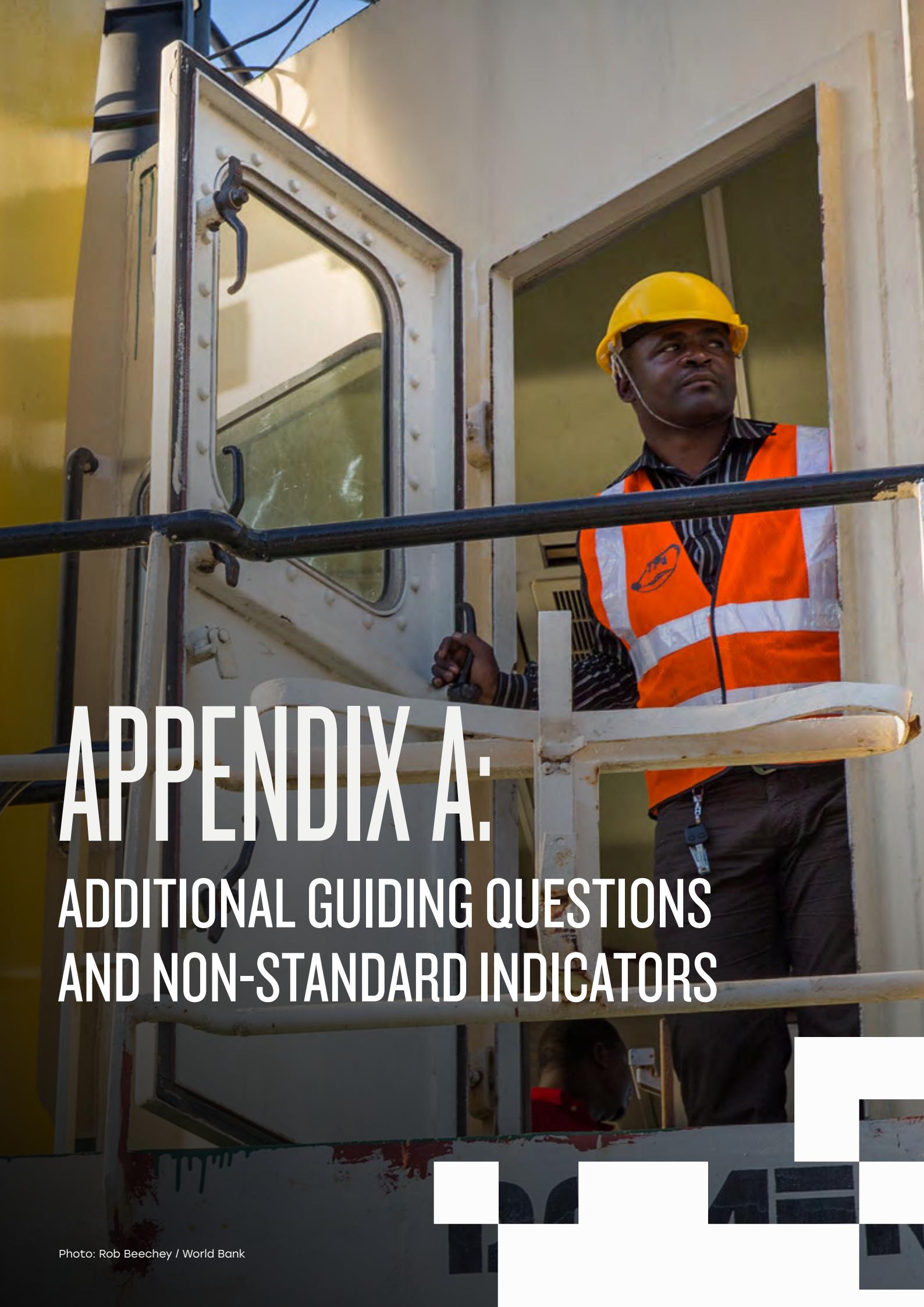
[Integrated SOE Framework \(iSOEF\) Assessment](#) (World Bank)

[Corporate Governance of State-Owned Enterprises: A Toolkit](#) (World Bank)

[Guidelines on Corporate Governance of SOEs](#) (OECD)

[Transparency and Disclosure Measures for SOEs](#) (OECD)

Infrastructure Vice Presidency's work on infrastructure SOE governance



APPENDIX A: ADDITIONAL GUIDING QUESTIONS AND NON-STANDARD INDICATORS

DIMENSION I

It is important to have a solid legal framework and the institutional capacity to plan, assess, prioritize, and select potential infrastructure projects.

ADDITIONAL GUIDING QUESTIONS

PLANNING

Is there an integrated medium to long-term whole-of-government infrastructure strategy and roadmap? Is there an established process for reviewing and updating the strategy and roadmap?

Is the national plan supported by and consistent with detailed sector strategies?

Are the priority areas for public and private infrastructure identified that will address the most pressing needs for social services and the most binding constraints to economic growth?

Where external parties (e.g., donors, supranational institutions) are active in infrastructure sectors, are their activities well integrated with national plans and priorities? To what extent do external parties use partner country-led frameworks as the basis for coordinated external support?

Has a range of stakeholders been consulted on priority infrastructure service delivery needs?

Are national and sectoral plans prioritized, and do they reflect available resources within ceilings consistent with the medium-term fiscal framework?

Are the plans and projects well costed?

Is there a structured process for developing sectoral plans?

To what extent have central government sectoral plans been coordinated and integrated?

Do sector strategies include reasonable targets for outputs (e.g., miles of road constructed)?

Do sector strategies include measurable targets for outcomes (e.g., reduction in traffic congestion)?

Are new privately and publicly funded projects that were not envisioned when plans were developed assessed for priority, compatibility, and impact on the plans?

SCREENING

To what extent are decisions to initiate project development made project by project?

Are interaction effects across sectors, sub-sectors, infrastructure networks, and projects considered systematically?

Are all projects above a country-specific threshold size subject to preliminary screening, to check whether they should be developed with options for appropriate private sector financing and/or participation?

PROJECT DEVELOPMENT

Is there a well-defined, regulated, and supported set of steps for project development (e.g., covering project profile, pre-feasibility, feasibility, business case, design, “ready to go” check)? Is there a similar arrangement for PPPs?

Is adequate funding available to develop well-designed and bankable projects?

Is there a government manual for project development? Is this manual used by staff developing projects?

PRIVATE PARTICIPATION-SPECIFIC ELEMENTS

Is there a government strategy for optimizing the mix of public and private financing of infrastructure? To what extent is the strategy reflected in key policy documents? Is there a high-level political champion for it? Are there any policy restrictions or distortions that restrict private investment or participation in infrastructure?

Are there any undesirable tax distortions with respect to infrastructure investment or financing? Has the regulatory framework for social infrastructure been reviewed (e.g., the extent to which private investment is allowed or encouraged in private schools and hospitals)?

Have reputable private sector advisors been retained to advise generally on the scope for expanding private sector financing and participation in infrastructure?

78

SYSTEMS AND CAPACITY

Is there a government strategy to build the capacity of ministries, departments and agencies of ministries, and public corporations in maximizing finance for development?

Is central guidance provided to ministries and public corporations, and to sub-national governments as appropriate, on infrastructure planning and on enhancing private sector financing and participation in infrastructure? Is central technical support available? Is there a center of excellence in the public sector on these issues?

Is there a standard methodology for the appraisal of large infrastructure projects?

Is there central guidance on using the methodology?

Is central guidance provided to ministries and public corporations, and to sub-national governments as appropriate, on project appraisal, including the appraisal of options for enhancing private sector financing and participation in infrastructure? Is there guidance on getting best value from contracting in appraisal expertise from outside the government?

Is there central technical support available for project appraisal?

Is there a center of excellence in the public sector on project appraisal, including on the effective use of private participation?

Are there systems and capacity to review ex post the extent to which private sector financing has been enhanced or crowded out for individual infrastructure projects?

Is there a detailed central database of financial and non-financial information on all infrastructure projects across the central government? Does the database include all projects selected for funding, as well as appraised projects not yet selected for implementation (i.e., reserve list projects)?

SUB-NATIONAL LEVEL

How effective are mechanisms for coordinating infrastructure planning and financing across multiple levels of government?

Are there issues of competition between neighboring jurisdictions that result in unnecessary investments in infrastructure facilities?

Are there any legal, financial, or policy restrictions on private investment in infrastructure at the sub-national level?

What is the capacity for project appraisal at different levels of sub-national government in relation to the amount of spending on infrastructure?

To what extent is project appraisal contracted to the private sector?

PROJECT SELECTION

Is there a robust and transparent pipeline of appraised infrastructure projects awaiting decisions on selection for funding?

Is there a clearly defined and institutionally robust gatekeeper function for project selection?

Are there clear published criteria for deciding whether an infrastructure project should be selected for implementation? Are the criteria well designed? Are they contained in legislation?

To what extent are these criteria applied in practice in the decisions on infrastructure project selection?

Is there a high-level committee (e.g., Cabinet Committee) responsible for decisions on project selection?

Is the basis for decisions on infrastructure project selection publicly available in all cases?

ADDITIONAL NON-STANDARD INDICATORS (NOT AVAILABLE; TO BE COLLECTED)

CONSISTENCY WITH BROADER STRATEGIC PLANNING AND BUDGETARY FRAMEWORK

Proportion of infrastructure ministries with a costed pipeline of planned projects consistent with national development plan.

Proportion of infrastructure ministries with a costed pipeline of planned projects consistent with their approved, medium-term fiscal envelope.

Proportion of infrastructure sub-sectors that have a costed infrastructure plan aligned with the medium-term expenditure framework (MTEF).

Proportion of infrastructure ministries with a costed pipeline of planned projects consistent with their approved medium-term fiscal envelope, including for PPPs that may not have the initial expenses outlay from the government.

Proportion of infrastructure projects that were not envisioned in sector or central planning documents (i.e., they were selected for implementation despite not being included in approved planning documents, and/or they are not subject to the standard appraisal and review process).

PROJECT APPRAISAL

Rejection rate of project proposals at pre-screening across ministries, sectors, and by mode (e.g., public investment vs. PPP). Proportion of rejections due to the need to further consider MFD approaches.

Number of projects, and their share of total infrastructure spending, that “jump the fence” into the national plan (i.e., they were not first developed, approved, and prioritized through ministry or sector planning processes).

Proportion of relevant ministries that have engaged in discussion with stakeholders on service needs and infrastructure investment priorities while formulating their current infrastructure investment plans.

Existence of specialized technical units for conducting appraisal of infrastructure projects in ministries and/or in central agencies.

Proportion of infrastructure projects subject only to multicriteria analysis at most, and their share of total infrastructure spending.

Proportion of infrastructure project appraisals subject to formal technical review by a domestic entity independent of the sponsoring line ministry (e.g., by MOF, gateway peer review).

Proportion of infrastructure project appraisals contracted out to the private sector or other non-government provider.

Rejection rate of project proposals at the appraisal stage across ministries, sectors, and by mode (e.g., public investment vs. PPP). The proportion of rejections due to the need to further consider MFD approaches.

ENSURING THAT PROJECTS GENERATE NET SOCIAL BENEFITS

Are all infrastructure projects rigorously and systematically appraised for technical, economic, social, and environmental costs and benefits to assess whether they are beneficial to society?

Is the effort devoted to appraisal proportional to project size or impact?

Does project appraisal assess the impact of each individual project on the full system of infrastructure provision in network industries?

Is there clear identification of the market or other failures that prevent private financing and/or participation on commercial terms and that potentially justify government intervention?

How well defined are government service access and quality objectives?

Is there a clear business case process that serves to demonstrate that a proposed investment is strategically aligned, represents value for money, and is achievable?

Are projects ranked, where possible, against alternatives, including, as desirable, against alternative mixes of public and private financing and/or participation?

Is it possible to compare projects across sectors?

Are risks of the project appropriately analyzed, modeled, priced, and managed, especially where the project is large, unusual, or complex?

Does the financial appraisal include clear identification and quantification of the direct fiscal impacts and estimated impacts of the fiscal risks of a project?

Have possible sources of concessional financing been considered to meet a possible affordability gap of users?

Are the results from reviews and evaluations of previous relevant infrastructure projects fed into the project appraisal?

DIMENSION 2

Economic efficiency and value for money (VfM) over the infrastructure life cycle are important criteria in the choice of infrastructure investments.

ADDITIONAL GUIDING QUESTIONS

INVESTIGATING THE FEASIBILITY OF PRIVATE SECTOR OPTIONS

Are high-level alternatives or complements to proposed new infrastructure construction systematically assessed, such as rehabilitation of existing infrastructure assets, divestment of assets and reallocation of resources, optimization of existing assets through demand management (user-charges and/or new IT solutions), and/or contracting management of assets to the private sector?

Are all options for private sector financing and participation (domestic and international) explored, including the use of government instruments (information provision; contracting out; provision of in-kind support, e.g., land grants, loans, subsidies, guarantees, and other contingent obligations; non-compete commitments; co-investment; PPPs with user-charges), and public sector instruments (public corporation delivery, financing by development banks, green investment banks, climate funds, or other public financial corporations)?

Are innovative financial approaches consistently considered where appropriate, such as asset recycling, land value capture, special assessment districts, or tax increment financing?

Is government support to individual projects carefully designed to cost effectively promote crowding in of private financing and participation, and to minimize the risk of crowding it out, weakening incentives, or reducing competition?

Are risks allocated efficiently between the government and the private partner (e.g., following the principles of efficient risk allocation)?

Have options to mitigate project-specific risks to increase bankability been assessed?

Has contracting-in private sector expertise to conduct or to review the project appraisal been considered as appropriate?

Has there been an independent review of the project appraisal, including a check that the potential for private sector finance and/or participation has been considered and designed appropriately?

ADDITIONAL NON-STANDARD INDICATORS (NOT AVAILABLE; TO BE COLLECTED)

Proportion of privately financed infrastructure projects that “jump the fence,” (that is, VfM is not used to determine the best mode of procurement).

The number of unsolicited proposals and directly negotiated agreements that have been approved.

The proportion of approved unsolicited proposals that bypassed the formal rules on the management of unsolicited proposals.

Number of PPP projects considered; number that reached commercial close, by type of PPP; number that reached financial close, by type of PPP.

Average length of time from PPP project development to commercial close, and to financial close.

Estimated ex ante economic rate of return on individual infrastructure projects selected for implementation (by mode of procurement, by ministry).

Ratio of ex post actual economic rate of return to ex ante anticipated economic rate of return for selected projects, by mode.

DIMENSION 3

The affordability and fiscal sustainability of infrastructure projects should be assessed and managed throughout their life cycle.

ADDITIONAL GUIDING QUESTIONS

USER AFFORDABILITY

Are members of the public consulted during project preparation on proposed user charges?

How has users' willingness and ability to pay for services been investigated?

What is the share of household income spent on specific infrastructure services at different income levels?

How well aimed are subsidized services or other types of government support at the intended target group?

BUDGET AFFORDABILITY

Is the mid- to long-term plan for infrastructure asset creation and operation well prepared and integrated into the annual budget process? 83

Is there a long-term fiscal forecast and framework covering at least 10 years projecting infrastructure investment expenditures and commitments under PPPs?

Is a medium-term (three to five years) fiscal framework prepared prior to budget preparation?

Are the potential costs of project-contingent liabilities and future commitments under PPP contracts incorporated in the debt management strategy and reporting?

Is there comprehensive guidance for ministries on capital spending proposals for the annual budget, including ceilings for capital spending for each individual line ministry? Are the ceilings adhered to in practice in line ministry budget submissions?

Is there effective incorporation in line ministry and aggregate budgets and fiscal forecasts of the ongoing recurrent service delivery costs (operations and maintenance) of infrastructure-based services?

How are PPPs accounted for in government budgets and financial statements?

What are the rules on whether a PPP is accounted for as public investment?

Do guarantees and other contingent liabilities in PPP contracts receive sufficient scrutiny?

How are they accounted for? Is there any provision for expected costs in government budgets, and/or allowance for fiscal impacts in forecasts?

Are there ceilings on the aggregate exposure of government to contingent liabilities in PPP contracts, and on the aggregate commitments in PPP contracts (by ministry or across government)?

Does the government potentially stand to receive revenues from any upside risks?

DIMENSION 4

Incorporating environmental and social considerations is important for infrastructure outcomes.

ADDITIONAL GUIDING QUESTIONS

Is there a national strategy on the environment? Are infrastructure plans aligned with the national strategy?

Are social and environmental impact assessments required by law for infrastructure investment to take place?

Are there mechanisms to ensure efficient use of natural resources, and are effective pollution prevention and management mechanisms in place?

Is the efficiency in the use of natural resources evaluated at different stages of the project cycle: procurement, monitoring, ex post evaluation?

Are there mechanisms in place to monitor and mitigate social and environmental risks throughout operation and maintenance, and possible disposal?

Is there sound disaster risk management factored in when designing and implementing infrastructure?

84

Are there well-designed disaster risk finance and insurance mechanisms in place to help incentivize resilient infrastructure through the financing of preventive measures?

Is ecosystem-based adaptation considered?

DIMENSION 5

Incorporating resilience to climate change, natural disasters, and public health risks is important for infrastructure outcomes.

ADDITIONAL GUIDING QUESTIONS

Does the country's nationally determined contribution (NDC) submission contain a strategy for infrastructure investment to mitigate and adapt to climate change? Does it contain specific costed investments in critical infrastructure mitigation and adaptation?

Is there a clear policy framework to appropriately guide new investments in infrastructure from the perspective of climate change mitigation? Is there a clear policy framework to appropriately guide new investments in infrastructure from the perspective of climate change adaptation? What is the country score on the Global Climate Scope Index?

What efforts are being made to mobilize private investment in infrastructure for climate change mitigation?

Has the pricing of infrastructure services (e.g., electricity tariffs) been reviewed from a climate change mitigation perspective?

Do project appraisal methodologies and guidance cover the analysis of infrastructure investment from climate change mitigation and adaptation perspectives?

In practice, to what extent is recent public investment in infrastructure likely to be in assets that avoid old technology lock-ins, promote low-cost, efficient assets and represent transition to a low-carbon economy, and promote resilience to a changing climate and to disaster risks?

DIMENSION 6

Infrastructure procurement systems should be efficient, high quality, and should support competition and transparency.

ADDITIONAL GUIDING QUESTIONS

What is the number/percentage of existing infrastructure projects that underwent competitive bidding, as required by legislation?

Are exceptions to competitive tendering only applied where permitted by the legislation?

Is there a mandated process to conduct market assessments to determine optimal procurement approaches?

Are the national regulations/procedures for processing of invoices and authorization of payments followed, publicly available and clear to potential bidders?

Which of these do the contracts usually include?

- Key performance indicators
- Reporting procedures
- Measurable outputs
- Clear implementation timeline
- Payment details
- Dispute resolution mechanism

86

The steps of procurement are listed below. How many of them are covered by the e-procurement?

- E-planning
- E-noticing,
- E-submission,
- E-decision and e-auctions
- E-award
- E-contract management
- E-ordering
- E-invoicing
- E-control payment
- E-evaluation
- E-complaints
- E-interface with payment systems
- E-integrity

DIMENSION 7

Contract management, operation and maintenance (O&M) and proper Asset Management should ensure that the investments provide infrastructure services as anticipated at their procurement.

ADDITIONAL GUIDING QUESTIONS

PROJECT IMPLEMENTATION

Percentage of infrastructure project managers with formal training in project management.

Annual infrastructure budget implementation rate (by ministry, and in aggregate across government, by public corporations, PPPs).

Annual infrastructure budget implementation rate by source of financing (domestic budget, external donor, other external source).

Within-year profile of infrastructure budget implementation rate (by quarter, by mode).

Average project time overrun for infrastructure projects (by mode—government, public corporation, PPP—and by sector, sub-sector, ministry/counterparty).

Average project cost overrun (by mode—government, public corporation, PPP—and by sector, sub-sector, ministry/counterparty).

Percentage of procurements (and percentage of total infrastructure procurement spending) that is subject to open and competitive tender.

Number of cancelled procurements (by mode of procurement).

Percentage of all projects for which there is a formal project adjustment during asset construction (by sector, procurement mode, ministry).

Total compensation paid to private partners in PPP contracts from contract renegotiations.

Existence and quality of asset registries of relevant ministries.

87

SERVICE DELIVERY

Percentage of PPP projects for which there is a formal contract renegotiation during the period of service delivery (by sector, mode, ministry).

Number of PPP projects where government has exercised step-in rights.

Measures of service quality (access, availability, reliability).

Percentage of users who are satisfied with service quality.

Number of service users disconnected by service provider.

Costs incurred by customers for private supply due to failures in public service provision (e.g., costs for private water delivery, costs of back-up electricity generators).

Measures of service price performance (initial service price compared to price in appraisal, increase in prices compared to CPI).

Existence and quality of infrastructure asset valuations.

Percentage of current spending on operations, by service.

Percentage of current spending on maintenance, by infrastructure asset.

DIMENSION 8

Transparent access to adequate information throughout the project cycle is key for project performance and accountability.

ADDITIONAL GUIDING QUESTIONS

Do existing regulations outline clear and comprehensive transparency requirements for infrastructure projects?

Does the procuring or contract management authority establish a monitoring and evaluation system of the construction of the PPP project (i.e., system for tracking progress of construction, monitoring and evaluation of performance, etc.)?

Is there a database/register of the evolution of a project and its performance at the different stages of the project cycle? Is innovative technology leveraged for data collection and monitoring?

Is performance assessed against outputs and/or key performance indicators?

Do relevant public institutions have the technical capacity to collect, monitor, and analyze project and service delivery data?

88

Is there a high degree of budget transparency with respect to infrastructure spending and commitments?

Are project and service delivery data disclosed throughout the project cycle?

Is there adequate legal and institutional setup for investigation, prosecution, and sanctioning of integrity breaches in infrastructure projects?

ADDITIONAL NON-STANDARD INDICATORS (NOT AVAILABLE; TO BE COLLECTED)

Proportion of the 40 key data points disclosed throughout the project cycle as set out in the CoST Infrastructure Data Standard (CoST IDS)—by individual infrastructure project, by ministry, sub-sector and sector, and national average.

Percentage of infrastructure procurement contracts and of procurement spending, where methods other than open competition were used, and where they were justified by exceptions provided for in the legal framework.

DIMENSION 9

There is a need for systematic measures in place to foster integrity and manage the risk of misconduct along the project cycle.

ADDITIONAL GUIDING QUESTIONS

Is there a trans-governmental anti-corruption law and policy in place that is applicable to infrastructure projects?

Do the relevant laws on PIM, PPP, and SOEs, and sectoral laws contain provisions on integrity?

Is relevant legislation enforced with respect to integrity?

Is project identification, appraisal, selection, and prioritization taking place based on objective criteria and free of political influence?

At the procurement stage, is there due diligence conducted on bidders?

Are integrity clauses built into contracts?

Is the monitoring and evaluation of project performance unbiased?

Are contract renegotiations done in a transparent way?

Are asset and conflict of interest declarations mandatory for all public officials involved in infrastructure projects? 89

Are there any restrictions on employment of senior public officials in bidding companies upon leaving office?

Are companies required to publicly disclose all political contributions?

Are court cases on breaches of integrity in infrastructure projects independently conducted?

Are assets from corruption cases in infrastructure projects recovered?

Are involved tenders blacklisted or debarred from future tenders?

ADDITIONAL NON-STANDARD INDICATORS (NOT AVAILABLE; TO BE COLLECTED)

The number of adverse findings by the Supreme Audit Institution (SAI) with respect to infrastructure project development or implementation (aside from procurement) or associated service delivery.

The number of successful challenges to procurement decisions for infrastructure projects on grounds of breaches to integrity.

DIMENSION 10

Sector and regulatory frameworks should maximize competition for and in the market, and regulation should promote efficiency and societal value in infrastructure projects.

ADDITIONAL GUIDING QUESTIONS

What is the level of market concentration in the sector, and is it consistent with effective competition?

Is there vertical integration in the sector of a form that may impede competition among market players?

Does the regulatory entity have adequate safeguards in place to protect its independence?

Are there proper accountability measures for the regulatory entity?

Are there proper accountability measures for the regulatory entity?

Are the parameters under which a regulatory entity makes its decisions clearly defined, predictable, and publicly available?

Is there appropriate coordination between various regulatory bodies, as well as mechanisms for cooperation between regulators across borders?

Does the regulatory entity involve various stakeholders in its decision-making process?

Is there a clear tariff-setting methodology that is predictable, well defined, and public?

Does the regulator set the parameters of quality of service?

What role does the regulator play in licensing in the sector?

Does the regulatory entity have the institutional capacity to carry out its duties?

Do policies and regulations encourage access to electricity, increased energy efficiency, and use of renewables in the sector?

DIMENSION 11

SOEs should operate on market terms where possible, with strong corporate governance standards and clear accountability lines.

Please see Appendix B, Dimension 11.



Photo: Dana Smillie / World Bank



APPENDIX B: LIST OF STANDARDS INDICATORS

This annex provides a detailed reference to the tools and questionnaires on which the relevant existing indicators for each of the dimensions of the framework are based.

DIMENSION I

It is important to have a solid legal framework and institutional capacity in place to plan, assess, prioritize, and select potential infrastructure projects.

1. Benchmarking Infrastructure Development TPI Survey. Preparation

C	PREPARATION OF TPIS
5	Does your government prepare national and sectoral strategies for infrastructure-related public investment?
5.2	If yes, do the government's national and sectoral strategies for public investment include cost estimations?
5.3	If yes, do national and sectoral strategies include measurable targets?
6	Does the government have a system to prioritize public investment projects?
6.2	If yes, does the government evaluate for each project whether TPI is the best option when compared with other procurement methods such as PPPs?
6.3	If yes, is there a specific methodology for such an evaluation?
7	Is the procuring authority required to ensure consistency of the TPI contract with the public investment plans/government priorities before launching the procurement/tendering process?
8	Does the government clearly identify capital spending projects in the annual budget?
8.1	If yes, is key budgetary information on TPI projects published online?
8.3	Which of the following features does the budgeting system include? (please select all options that apply):
	Forecasting capital spending by ministry or sector over a multiyear horizon.
	Establishing targets or ceilings to capital expenditure to ensure debt sustainability (i.e., multiyear ceilings on capital expenditure by ministry, sector, or program).
	Inclusion in the budget of all projects with capital spending regardless of financing source.

9	Does the procuring authority prepare an annual procurement plan or similar document?
9.1	Is the annual procurement plan published online?
10	Is the procuring authority required to have the budget allocation for the TPI contract before launching the procurement process?
11	Besides the procuring authority, do any other authorities approve the TPI contract before launching the procurement/tendering process? (e.g. Cabinet, Cabinet Committee, Parliament, Supreme Audit Office, etc.)?
11.1	Besides the procuring authority, do any other authorities approve the TPI contract before signing the TPI contract?
12	Which of the following assessments are conducted when identifying and preparing a TPI contract in order to inform the decision to proceed with it? (check all that apply):
12.1	Socio-economic analysis (cost-benefit analysis of the socio-economic impact of the project)
	Is there a specific methodology?
12.2	Risk identification, allocation and assessment (risk matrix)
	Is there a specific methodology?
12.3	Procurement/Commercial Strategy (i.e., quick assessment to plan and better strategize the procurement process in advance so it is fit for purpose)
	Is there a specific methodology?
12.4.(a)	Market sounding/assessment: a) Including the potential interest from contractors and capacity in the market for the contract
	Is there a specific methodology?
12.4.(b)	Market sounding/assessment: b) Specifically designed to identify the solutions and technology available as well as the opportunities for innovation
	Is there a specific methodology?
12.5	Environmental impact assessment
	Is there a specific methodology?
12.5.1	Consultation process with affected communities explicitly included in the environmental impact assessment
	Is there a specific methodology?

12.6	Social impact assessment
	Is there a specific methodology?
12.6.1	Consultation process with affected communities explicitly included in the social impact assessment
	Is there a specific methodology?
13	Does the procuring authority include the assessments in the request for proposals and/or tender documents?
13.1	Are the assessments published online? And please specify which of the assessments are published online
14	Are tender/bidding documents made available online?
14.3	Do the tender documents include a draft TPI contract?
15	Have standardized TPI model contracts and/or transaction documents been developed?

2. Benchmarking Infrastructure Development PPP Survey. Preparation

B	PREPARATION OF PPPS
7	Does the Ministry of Finance or Central Budgetary Authority approve the PPP project before launching the procurement process?
7.2	Does the Ministry of Finance or Central Budgetary Authority approve the PPP project before signing the PPP contract?
7.4	Does the Ministry of Finance (or government more broadly) have a specific system of: Budgeting for PPP projects
	Accounting liabilities (explicit and implicit, direct and contingent) arising from PPPs
	Reporting liabilities (explicit and implicit, direct and contingent) arising from PPPs
7.5	If yes, which of the following alternatives best describes the regulation: Accounting and reporting according to International Public Sector Accounting Standards (IPSAS)
	Accounting and reporting according to other international standard (e.g., European System of Accounts). Please specify.

9	Please select the option that best describes the way your government ensures that PPP projects are consistent with other government public priorities (e.g., in the context of a national public investment system, multi-year perspective plans, medium-term budgetary framework) (Please select one only):
9.1	The regulatory framework provides for the inclusion of PPPs in the national public investment system/medium term budgetary framework and details a specific procedure to ensure the consistency of PPPs with other public investment priorities.
10	The regulatory framework prescribes the need for PPPs to be consistent with all other investment priorities without establishing a specific procedure to achieve that goal.
10.1	The procuring authority does not evaluate PPPs against existing government priorities.
10	Which of the following assessments are conducted when identifying and preparing a PPP in order to inform the decision to proceed with it? (check all that apply):
10.1	Socio-economic analysis (cost-benefit analysis of the socio-economic impact of the project)
	Is there a specific methodology?
10.2	Fiscal affordability assessment, including the identification of the required long-term public commitments (explicit, implicit, direct and contingent liabilities).
	Is there a specific methodology?
10.3	Risk identification, allocation and assessment (risk matrix).
	Is there a specific methodology?
10.4	Comparative assessment to evaluate whether PPP is the best option as compared with other procurement strategies (i.e. value for money analysis, public sector comparator)
	Is there a specific methodology?
10.5	Financial viability or bankability assessment
	Is there a specific methodology?
10.6	Procurement Strategy (i.e., quick assessment to plan and better strategize the tendering process in advance so it is fit for purpose)
	Is there a specific methodology?
10.7(a)	Market sounding and/or assessment Including the potential interest from contractors and capacity in the market for the contract)
	Is there a specific methodology?

10.7 (b)	Market sounding and/or assessment specifically designed to identify the solutions and technology available as well as the opportunities for innovation
	Is there a specific methodology?
10.8	Environmental impact assessment
	Is there a specific methodology?
	Consultation process with affected communities explicitly included in the environmental impact assessment
10.9	Social Impact Assessment
14	Is there a specific methodology?
14.1	Consultation process with affected communities explicitly included in the social impact assessment
11	Does the procuring authority include the assessments in the request for proposals and/or tender documents (for example, as part of an Information Memorandum to the bidders)?
11.2	Are the assessments published online?
12	Are tender/bidding documents made available online?
12.3	Do the tender documents include a draft PPP contract?
13	Have standardized PPP model contracts and/or transaction documents been developed?

3. Public Investment Management Assessment

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?
2.b	Are the government's national and sectoral strategies or plans for public investment costed?
2.c	Do sector strategies include measurable targets for the outputs and outcomes of investment projects?
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?
4.b	Is there a standard methodology and central support for the appraisal of projects?
4.c	Are risks taken into account in conducting project appraisals?
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?
10.b	Does the government publish and adhere to standard criteria, and stipulate a required process for project selection?
10.c	Does the government maintain a pipeline of appraised investment projects for inclusion in the annual budget?

4. Public Expenditure and Financial Accountability

98

11.	Public investment management
11.1	Economic analysis of investment proposals
11.2	Investment project selection
11.3	Investment project costing
11.4	Investment project monitoring

DIMENSION 2

Economic efficiency and value for money (VfM) over the infrastructure life cycle are important criteria in the choice of infrastructure investments.

1. Benchmarking Infrastructure Development TPI Survey

6.2.	Does the government evaluate for each project whether TPI is the best option when compared with other procurement methods such as PPPs?
6.3.	If yes, is there a specific methodology for such an evaluation?
12.1.	Socio-economic analysis (cost-benefit analysis of the socio-economic impact of the project)
12.1.1	Is there a specific methodology?
12.2	Risk identification, allocation and assessment (risk matrix)
12.2.1	Is there a specific methodology?
12.4.(b)	Market sounding/ assessment: b) specifically designed to identify the solutions and technology available as well as the opportunities for innovation
12.4.(b).1	Is there a specific methodology?

2. Benchmarking Infrastructure Development PPP survey

7	Does the Ministry of Finance or Central Budgetary Authority approve the PPP project before launching the procurement process?
7.2	Does the Ministry of Finance or Central Budgetary Authority approve the PPP project before signing the PPP contract?
10.1	Socio-economic analysis (cost-benefit analysis of the socio-economic impact of the project)
10.1.1	Is there a specific methodology?
10.3	Risk identification, allocation and assessment (risk matrix).
10.3.1	Is there a specific methodology?

10.4	Comparative assessment to evaluate whether PPP is the best option as compared with other procurement strategies (i.e. value for money analysis, public sector comparator)
10.4.1	Is there a specific methodology?
10.7(b)	Market sounding and/or assessment. b) specifically designed to identify the solutions and technology available as well as the opportunities for innovation
10.7.(b).1	Is there a specific methodology?
48	Does the procuring authority conduct an assessment to evaluate unsolicited proposals? (if not, skip to Question 54)

DIMENSION 3

The affordability and fiscal sustainability of infrastructure projects should be assessed and managed throughout the project life cycle.

100

1. Benchmarking Infrastructure Development TPI Survey

5	Does your government prepare national and sectoral strategies for infrastructure-related public investment?
5.2	If yes, do national and sectoral strategies include cost estimations?
5.3.	If yes, do national and sectoral strategies include measurable targets?
8	Does the government clearly identify capital spending projects in the annual budget?
8.3.	Which of the following features does the budgeting system include? (please select all options that apply):
8.3.1	Forecasting capital spending by ministry or sector over a multiyear horizon.
8.3.2	Establishing targets or ceilings to capital expenditure to ensure debt sustainability (i.e., multiyear ceilings on capital expenditure by ministry, sector, or program).
8.3.3	Inclusion in the budget of all projects with capital spending regardless of financing source.

2. Benchmarking Infrastructure Development. PPP survey

7	Does the Ministry of Finance or Central Budgetary Authority approve the PPP project before launching the procurement process?
7.2	Does the Ministry of Finance or Central Budgetary Authority approve the PPP project before signing the PPP contract?
7.4	Does the Ministry of Finance (or government more broadly) have a specific system of budgeting, accounting, reporting PPPs
7.5	If yes, which of the following alternatives best describes the regulation:
	Accounting and reporting according to International Public Sector Accounting Standards (IPSAS)
	Accounting and reporting according to other international standard (e.g., European System of Accounts). Please specify.
10	Which of the following assessments are conducted when identifying and preparing a PPP in order to inform the decision to proceed with it? (check all that apply):
10.2	Fiscal affordability assessment, including the identification of the required long term public commitments (explicit, implicit, direct and contingent liabilities).
10.2.1	Is there a specific methodology?

3. Public Investment Management Assessment

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?
1.b	Is fiscal policy guided by one or more permanent fiscal rules?
1.c	Is there a medium-term fiscal framework (MTFF) to align budget preparation with fiscal policy?
6	Multiyear 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?
6.b	Are there multiyear ceilings on capital expenditure by ministry, sector, or program?
6.c	Are projections of the total construction cost of major capital projects published?

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?
7.b	Are all capital projects, regardless of financing source, shown in the budget documentation?
7.c	Are capital and recurrent budgets prepared and presented together in the budget?
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?
8.b	Are in-year transfers of appropriations (virement) from capital to current spending prevented?
8.c	Is the completion of ongoing projects given priority over starting new projects?
12	Availability of Funding:
12.a	Are ministries/agencies able to plan and commit expenditure on capital projects in advance on the basis of reliable cash-flow forecasts?
12.b	Is cash for project outlays released in a timely manner?
12.c	Is external (donor) funding of capital projects fully integrated into the main government bank account structure?

4. Public Expenditure and Financial Accountability

10.3	Contingent liabilities and other fiscal risks
16.	Medium-term perspective in expenditure budgeting
16.1	Medium-term expenditure estimates
16.2	Medium-term expenditure ceilings
16.3	Alignment of strategic plans and medium-term budgets
16.4	Consistency of budgets with previous years estimates

DIMENSION 4

Incorporating environmental and social considerations is important for infrastructure outcomes.

1. Benchmarking Infrastructure Development TPI Survey

12.5.	Environmental impact assessment
12.5.a	Is there a specific methodology?
12.5.1.	Consultation process with affected communities explicitly included in the environmental impact assessment
12.6.	Social impact assessment
12.6.a	Is there a specific methodology?
12.6.1.	Consultation process with affected communities explicitly included in the social impact assessment

103

2. Benchmarking Infrastructure Development PPP Survey

10.8	Environmental impact assessment
10.8.a	Is there a specific methodology?
10.8.1	Consultation process with affected communities explicitly included in the environmental impact assessment
10.9	Social Impact Assessment
10.9.a	Is there a specific methodology?
10.9.1	Consultation process with affected communities explicitly included in the social impact assessment

3. Methodology for Assessing Procurement Systems (MAPS)

PILLAR I. LEGAL, REGULATORY, AND POLICY FRAMEWORK
3. The legal and policy frameworks support the sustainable development of the country and the implementation of international obligations; 3(a) Sustainable Public Procurement (SPP)
PILLAR III. PUBLIC PROCUREMENT OPERATIONS AND MARKET PRACTICES
9. Public procurement practices achieve stated objectives
PILLAR IV
11. Transparency and civil society engagement foster integrity in public procurement

4. PEFA Gender Responsive Public Financial Management Assessment

2. Gender Responsive Public Investment Management: Does the government analyze the impacts of major public investment projects on gender as part of the economic analysis of investment proposals?
5. Sex-Disaggregated Performance Information for Service Delivery: Do the executive's budget proposal or supporting documentation and in-year or end-year reports include sex-disaggregated information on performance for service delivery programs?

104

DIMENSION 5

Incorporating resilience to climate change, natural disasters, and public health risks is important for infrastructure outcomes.

1. Disaster Risk Reduction-Public Financial Management Toolkit

MODULE 1: Legal and Institutional Foundations

- M1.1: Post-disaster PFM rules.
 M1.2: Institutional arrangements for managing post-disaster financing

MODULE 2: Budget Appropriation

- M2.1: Budget planning for disaster relief and recovery
 M2.2: Budget flexibility for post-disaster relief and recovery.

MODULE 3: Financial Management Controls

- M3.1: Post-disaster expenditure controls
 M3.2: Post-disaster spending traceability
 M3.3: External control and legislative scrutiny
 M3.4: Resiliency of information systems and vital records

MODULE 4 Public procurement

- M4.1: Procurement planning for emergencies.
- M4.2: Emergency procurement procedures.
- M4.3 Model documents for emergency procurement.

2. PEFA Climate Assessment**QUESTIONNAIRE FOR POLICY CONTEXT**

- Section 1: International Commitments for Climate Change Mitigation and Adaptation
(all questions)
- Section 2: National Level Strategies (all questions)

CRPFM 5 – CLIMATE RESPONSIVE PUBLIC INVESTMENT MANAGEMENT

- 5.1. Climate related provisions in regulatory framework for public investment management
- 5.2. Climate related project selection
- 5.3. Climate related provisions for project appraisal
- 5.4. Reporting from entities in charge of implementation

3. Methodology for Assessing Procurement Systems (MAPS)

105

PILLAR I. LEGAL, REGULATORY, AND POLICY FRAMEWORK
3.a Sustainable Public Procurement (SPP)
PILLAR III. PUBLIC PROCUREMENT OPERATIONS AND MARKET PRACTICES
9.a Planning: (c) Sustainability criteria, if any, are used in a balanced manner and in accordance with national priorities, to ensure value for money.
9.b Selection and contracting: (h) Contract clauses include sustainability considerations, where appropriate.

4. Bertelsmann Transformation Index

GOVERNANCE INDEX – RESOURCE EFFICIENCY INDICATOR

1. Efficient use of assets

5. Sustainable Governance Indicators (SGI)

ENVIRONMENTAL POLICY

1. Does environmental policy preserve and protect resources and the quality of the environment? (Ranked 1-10)

Scores 10-9: Environmental policy goals are ambitious and effectively implemented as well as monitored within and across most relevant policy sectors that account for the largest share of resource use and emissions.

Scores 6-8: Environmental policy goals are mainly ambitious and effectively implemented and are monitored within and across some of the relevant policy sectors that account for the largest share of resource use and emissions.

Scores 3-5: Environmental policy goals are neither particularly ambitious nor are they effectively implemented and coordinated across relevant policy sectors.

Scores 1-2: Environmental concerns have been largely abandoned.

GLOBAL ENVIRONMENTAL PROTECTION (COMPOSITE INDICATOR)

106

2. Does the government participate in global collective activities to protect the climate and preserve natural resources? (Ranked 1-10)

Scores 10-9: The government actively contributes to international efforts to design and advance global environmental protection regimes. In most cases, it demonstrates commitment to existing regimes, contributes to their being advanced and has introduced appropriate reforms.

Scores 6-8: The government contributes to international efforts to strengthen global environmental protection regimes. It demonstrates commitment to existing regimes and occasionally contributes to their being advanced and/or has introduced some appropriate reforms.

Scores 3-5: The government demonstrates commitment to existing regimes, but does not contribute to their being advanced and has not introduced appropriate reforms.

Scores 1-2: The government does not contribute to international efforts to strengthen global environmental protection regimes.

EXECUTIVE CAPACITY – ADAPTABILITY

3. To what extent is the government able to collaborate effectively with international efforts to foster global public goods?

SUSTAINABILITY CHECK

4. Does the government conduct effective sustainability checks within the framework of regulatory impact analysis (RIA)?

Scores 10-9: Sustainability checks are an integral part of every RIA; they draw on an exhaustive set of indicators (including social, economic, and environmental aspects of sustainability) and track impacts from the short- to long-term.

Scores 6-8: Sustainability checks lack one of the three criteria.

Scores 3-5: Sustainability checks lack two of the three criteria.

Scores 1-2: Sustainability checks do not exist or lack all three criteria.

6. Yale University Environmental Performance Index

A composite index can be used independently. 32 indicators within the following 11 areas of focus of the Index can provide some additional level of detail:

1. Air Quality
2. Sanitation and Drinking Water
3. Heavy Metals
4. Waste Management
5. Biodiversity and Habitat
6. Ecosystem Services
7. Fisheries
8. Climate Change
9. Pollution Emissions
10. Agriculture
11. Water Resources

DIMENSION 6

Procurement systems of infrastructure should be of efficient, high quality, open and transparent

107

1. Benchmarking Infrastructure Development. TPI Survey Procurement

D	PROCUREMENT/TENDERING OF TPIs
18	Which of the following options best describes the required qualifications of the bid/tender evaluation committee members? (Please select one only): The membership of the bid evaluation committee is specified, and/or its members are required to meet detailed qualifications.
	The bid evaluation committee members require sufficient qualifications without specific details.
	The bid evaluation committee members are not required to have any specific qualifications.
19	Does the procuring authority issue an invitation for bids/tender notice of the TPI?
19.1	If yes, is the invitation for bids/tender notice published online?
20	Are foreign companies subject to any of the following restrictions when participating in the bidding process?: Prohibition to bid in the public tender.
	Requirement to have an office or a branch in the country to be allowed to bid in the public tender.

	Requirement to form a joint venture with a domestic firm to be allowed to bid in the public tender.
	Requirement to have prior experience in the country to bid in the public tender.
	Threshold for public tenders to be open for foreign participation/to be considered international tenders.
21	Does the procuring authority (or relevant government entity) use an e-procurement system (digitalized platform) for TPI contracts?
21.2	If yes, does this system have transactional capabilities that go beyond offering information to potential bidders (i.e., offers e-services that streamline the procurement process, for example allowing for the submission of bids online, etc.)
22	What instruments are used to secure bids (i.e., guarantee that bidders will not withdraw their offer before the procuring authority awards and signs the contract)? (Please select all applicable options): Bid security/Bid Bonds
	Bid declaration
	Other
	Please describe.
	Not applicable, bids are not guaranteed.
22.1	If bidders are required to submit a bid security instrument along with their bid, how is the amount determined? (please select one only): The regulatory framework provides that the procuring entity cannot request more than a certain percentage of the contract value or value of the submitted bid.
22.3	Are there circumstances related to the bidding process under which the procuring authority can encash/invoke the bid guarantee?
23	Does the procuring authority grant the potential bidders a minimum period of time to submit their bids?
	and the time in calendar days:
24	What are the procurement procedures available or set as default for TPI contracts? (check only available or default for each one):
24.1	Open tendering/bidding: Available
	Default
24.2	Competitive tendering/bidding with pre-qualification stage (Restricted tendering): Available
	Default

24.3	Multi-stage bidding/tendering (with shortlisting of final candidate(s)): Available
	Default
24.4	Competitive dialogue: Available
	Default
24.5	Best and Final Offer (BAFO): Available
	Default
24.6	Direct negotiation: Available
	Default
24.8.	If direct negotiation is either an available or default option, does the regulatory framework restrict this procedure to certain exceptional conditions and circumstances (including cases of single source providers or applicable to a certain threshold)?
26	Do the tender documents detail the procedure of the procurement process, providing the same information to all bidders?
27	Do the tender documents specify the qualification requirements (or the prequalification requirements when applicable) making them available to all potential bidders as part of the tender notice/ invitation for bids?
27.2	Are there any parameters/limits to the qualification requirements to ensure that they do not unduly restrict competition of qualified bidders?
30	Are bids/tenders opened in public in a defined time and place?
30.1	If yes, does the opening of tenders take place soon after the submission deadline (for example in less than an hour)?
30.3	If yes, are such public proceedings recorded and/or displayed live online?
30.4	If yes, are the minutes of the proceedings available online?
30.5	If yes, are the minutes of the proceedings available online?
31	Can potential bidders/tenderers submit questions to clarify the public procurement notice and/or the bidding/tender documents?
31.2	If yes, can the bidders also suggest innovations to improve the tender documents/procurement approach, including for example the provision of value engineering?
31.4	If yes, is there a timeframe for the procuring authority to address questions and clarifications by bidders?

31.6	If yes, notwithstanding confidential information pertaining to the bidders, does the procuring authority disclose those questions and clarifications to all potential bidders?
31.8	If yes, does the procuring authority extend the proposal submission deadline due to the modifications introduced in the bidding/tender documents?
32	Besides questions and clarifications, can the procuring authority conduct a pre-bid conference?
32.2	If yes, notwithstanding confidential information pertaining to the bidders, does the procuring authority disclose the content and the results of the pre-bid conference to all bidders?
33	Does the procuring authority evaluate the bids/tenders strictly and solely in accordance with the evaluation criteria stated in the bidding/tender documents?
33.2	Can criteria other than price (non-price attributes) be used when evaluating the tenders/bids of a TPI contract?
33.4	If criteria other than price are used, does it have to be justified, objective and quantifiable?
33.6	When price is used as the evaluation criteria, does the procuring authority provide a cost estimate?
34	In the case where only one proposal is submitted, which of the following options best describes the way the procuring authority deals with them? (Please select one only):
	The procuring authority follows a specific procedure before awarding a TPI contract where only one proposal is submitted.
	The procuring authority considers the proposal valid as long as it meets the conditions outlined in the tender documents.
	The procuring authority does not award a TPI contract if only one proposal is submitted.
	The regulatory framework does not include any provisions.
35	Does the regulatory framework provide for a timeline during which the procuring authority evaluates the bids (from bid opening to award notification)?
36	Does the procuring authority publish the contract award notice?
36.1	If yes, is the contract award notice published online?
37	Does the procuring authority notify all bidders individually about the result of the TPI tender/ bidding process?
37.2	If yes, does the notification of the result of the TPI bidding/tendering process include the grounds for the award to the winning bid/tender?

37.4	If yes, does the procuring authority provide bidders/tenderers with the option of holding a debriefing meeting to discuss why their bid/tender was not chosen?
38	Is there a standstill (or pause) period after the contract award and before the signing of the contract in order to allow aggrieved unsuccessful bidders to challenge the award decision?
38.2	If yes, is the standstill period set out in the notice of intention to award?
39	Does the regulatory framework restrict material negotiations (for example price or scope) with the winning bidder between the award and the signature of the TPI contract?
40	Does the regulatory framework allow for complaint review mechanisms pertaining to the TPI bidding/tendering process?
40.1	If yes, is there a timeframe in which decisions on complaints are issued?
40.2	If yes, are decisions subject to appeal?
40.3	If yes, is the original complaint and/or the appeal reviewed/resolved by an independent administrative authority (other than the procuring authority or the courts)?
41	Does the regulatory framework explicitly address collusion between bidders themselves or between bidders and the procuring authority? 111
41.1	If yes, are bidders obligated to submit an affidavit that they have not entered into any type of collusive activity with other bidders or with the procuring authority?
41.2	If yes, are administrative fines for collusion between the bidders themselves or between the bidders and the procuring authority based on the firm's turnover as reference?
41.3	Besides administrative fines, what other consequences may arise from collusion between the bidders themselves or between bidders and the procuring authority?:
	Criminal penalty/sanction.
	Administrative penalty/sanction for government officials.
	Suspension and/or debarment of firms proven to be guilty of colluding from participation in other bidding/tendering opportunities.
	Inability to access government subsidies or tax preferences.
41.4	If yes, is collusion between the bidders themselves or between bidders and the procuring authority subject to investigation by an independent authority?
42	Does the procuring authority publish the TPI contract? (notwithstanding the protection of commercially sensitive information)

42.1	If yes, which of the following elements does the publication include (check all that apply):
	A summary of the TPI contract:
	Available online
	Website
42.2	The full TPI contract: Available (e.g., by request or in the official gazette)
	Available online
	Website
42.3	All the contract's annexes and appendixes: Available (e.g., by request or in the official gazette)
	Available online
	Website
42.4	Any subsequent amendment made to the TPI contract: Available (e.g., by request or in the official gazette)
	Available online
	Website

2. Benchmarking Infrastructure Development. PPP Survey. Procurement

C	PROCUREMENT OF PPPS
16	Which of the following options best describe the required qualifications of the bid evaluation committee members? (Please select only one)
	The membership of the bid evaluation committee is specified and/or its members are required to meet detailed qualifications
	The bid evaluation committee members require sufficient qualification without specific details.
	The bid evaluation committee members are not required to have any specific qualifications.
17	Does the procuring authority issue an invitation for bids/tender notice of the PPP project?

17.1	If yes, is the public procurement notice published online?
18	Are foreign companies subject to any of the following restrictions when participating in the bidding process? Prohibition to bid in the public tender.
	Requirement to have an office or a branch in the country to be allowed to bid in the public tender.
	Requirement to form a joint venture with a domestic firm to be allowed to bid in the public tender.
	Requirement to have prior experience in the country to bid in the public tender.
	Threshold for public tenders to be open for foreign participation/to be considered international tenders.
19	Does the procuring authority grant the potential bidders a minimum period of time to submit their bids?
20	Which are the procurement procedures available and/or set as default for PPPs? (check only one option for each aspect)
20.1	Open tendering/bidding <ul style="list-style-type: none">- Available- Default
20.2	Competitive tendering/bidding with pre-qualification stage (Restricted tendering): <ul style="list-style-type: none">- Available- Default
20.3	Multi-stage tendering/bidding (with shortlisting of final candidate(s)) <ul style="list-style-type: none">- Available- Default
20.4	Competitive dialogue <ul style="list-style-type: none">- Available- Default
20.5	Best and Final Offer (BAFO) <ul style="list-style-type: none">- Available- Default Relevant legal/regulatory provision (if any)
20.6	Direct negotiation <ul style="list-style-type: none">- Available- Default

	20.7 Other. Please specify: - Available - Default
	20.8 If direct negotiation is either an available or default option, does the regulatory framework restrict this procedure to certain exceptional conditions and circumstances (including cases of single source providers or applicable to a certain threshold)?
	21 Do the tender documents detail the procedure of the procurement process providing the same information to all the bidders?
	22 Do the tender documents specify the prequalification/shortlisting criteria (when applicable) in order to make them available to all the bidders as part of the tender notice/ invitation for bids?
	22.2 Are there any parameters/limitations to the qualification requirements to ensure that they do not unduly restrict competition of qualified bidders?
	23 Can interested parties/potential bidders submit questions to clarify the public procurement notice and/or the request for proposals?
	23.2 If yes, can the bidders also suggest innovations to improve the tender documents/procurement approach, including for example the provision of value engineering?
	23.4 If yes, is there a timeframe for the procuring authority to address questions and clarifications by bidders?
	23.6 If yes, notwithstanding confidential information pertaining to the bidders, does the procuring authority disclose those questions and clarifications to all potential bidders?
	23.8 If yes, does the procuring authority extend the proposal submission deadline due to the modifications introduced in the bidding/tender documents?
	24 Besides questions and clarifications, can the procuring authority conduct a pre-bidding conference?
	24.2 If yes, notwithstanding confidential information pertaining to the bidders, does the procuring authority disclose the response to the queries raised by the bidders in the pre-bid conference to all bidders?
	25 Does the procuring authority require the bidders to prepare and present a financial model with their proposals?
	26 Does the procuring authority evaluate the proposals strictly and solely in accordance with the evaluation criteria stated in the tender documents?
	26.2 Can criteria other than price (non-price attributes) be used when evaluating the tenders/bids of a PPP contract?

26.4	If criteria other than price are used, does it have to be justified, objective and quantifiable?
26.6	When price is used as the evaluation criteria, does the procuring authority provide a cost estimate?
27	In the case where only one proposal is submitted (sole proposals), which of the following options best describes the way the procuring authority deals with them? (Please select only one)?
	The procuring authority follows a specific procedure before awarding a PPP contract where only one proposal is submitted. Please specify:
	The procuring authority considers sole proposals valid as long as they meet the conditions outlined in the tender documents.
	The procuring authority does not award a PPP contract if only one proposal is submitted.
	The regulatory framework does not include any provisions.
28	Does the procuring authority publish the contract award notice?
28.1	If yes, is the contract award notice published online?
29	Does the procuring authority provide all bidders individually with the result of the PPP tender/bidding process?
29.2	If yes, does the notification of the result of the PPP procurement process include the grounds for the selection of the winning bid/tender?
29.4	If yes, does the procuring authority provide bidders/tenderers with the option of holding a debriefing meeting to discuss why their bid/tender was not chosen?
30	Is there a standstill (or pause) period after the contract award and before the signing of the contract in order to allow unsuccessful bidders to challenge the award decision?
	And the time in calendar days
30.2	Is the standstill period set out in the notice of intention to award?
31	Does the regulatory framework restrict negotiations (for example price or scope) with the selected bidder between the award and the signature of the PPP contract resulting in an unfair disadvantage to the other bidders?
32	Does the regulatory framework allow for complaint review mechanisms pertaining to the PPP bidding/tendering process?
32.1	If yes, is there a timeframe in which decisions on complaints are issued?
	If yes, please elaborate on the timeframe (number of calendar days to resolve):

32.2	If yes, are decisions subject to appeal?
32.3	If yes, is the original complaint and/or the appeal reviewed resolved by an independent administrative authority (other than the procuring authority or the courts)?
33	Does the procuring authority publish the PPP contract? (notwithstanding the protection of commercially sensitive information)
33.1	If yes, which of the following elements does the publication include (check all that apply): A summary of the PPP contract: Available (e.g., by request or in the official gazette)
	Available online
	Website
33.2	The full PPP contract: Available (e.g., by request or in the official gazette)
	Available online
	Website
33.3	All the contract's annexes and appendixes: Available (e.g., by request or in the official gazette)
	Available online
	Website
33.4	Any subsequent amendment made to the PPP contract: Available (e.g., by request or in the official gazette)
	Available online
	Website

3. Public Investment Management Assessment.

II	PROCUREMENT
11.a	Is the procurement process for major capital projects open and transparent?
11.b	Is there a system in place to ensure that procurement is monitored adequately?
11.c	Are procurement complaints review process conducted in a fair and timely manner?

4. Public Expenditure and Financial Accountability

24. PROCUREMENT
24.1 Procurement monitoring
24.2 Procurement methods
24.3 Public access to procurement information
24.4 Procurement complaints management

117

5. Methodology for Assessing Procurement Systems (MAPS)

PILLAR I. LEGAL, REGULATORY AND POLICY FRAMEWORK
1. The public procurement legal framework achieves the agreed principles and complies with applicable obligations.
2. Implementing regulations and tools support the legal framework.
PILLAR II. INSTITUTIONAL FRAMEWORK AND MANAGEMENT CAPACITY
4. The public procurement system is mainstreamed and well integrated into the public financial management system
5. The country has an institution in charge of the normative/regulatory function
6. Procuring entities and their mandates are clearly defined
7. Public procurement is embedded in an effective information system
8. The public procurement system has a strong capacity to develop and improve

PILLAR III. PUBLIC PROCUREMENT OPERATIONS AND MARKET PRACTICES

9. Public procurement practices achieve stated objectives
10. The public procurement market is fully functional
11. Transparency and civil society engagement foster integrity in public procurement
12. The country has effective control audit systems
13. Procurement appeals mechanisms are effective and efficient
14. The country has ethics and anticorruption measures in place

DIMENSION 7

Contract management, operation and maintenance (O&M) and proper Asset Management should ensure that the investments provide infrastructure services as anticipated at their procurement.

118

1. Benchmarking Infrastructure Development TPI Survey. Contract Management and Infrastructure Asset Management

E	CONTRACT MANAGEMENT
44	Does the procuring authority or contract management authority establish a system to manage the TPI contract (i.e., attributing responsibilities or establishing specific management tools)?
44.1	If yes, which of the following is included? (check all that apply):
	Establishment of a TPI contract management team.
	Elaboration of a TPI contract implementation manual or an equivalent document.
	Establishment of a risk mitigation mechanism which considers the evolving nature of risks throughout the contract lifecycle (guidelines, specific processes, insurance regime, etc.).
44.2	Which of the following options best describes the required qualifications of the TPI contract management team members? (Please select only one):
	The membership of the TPI contract management team is specified and/or its members are required to meet detailed qualifications.
	The TPI contract management team members are required to meet sufficient qualifications without specific details.

	The TPI contract management team members are not required to meet any specific qualifications.
45	Does the procuring or contract management authority establish a monitoring and evaluation system of the construction of the TPI project (i.e., system for tracking progress of construction, monitoring and evaluation of performance, etc.)?
45.1	If yes, which of the following tools does it include (check all that apply)?: Payments are linked to progress in contract delivery.
	Progress in contract delivery is assessed against the schedule of implementation in the contract.
	The contractor must provide the procuring or contract management authority with periodic physical and financial progress.
	The procuring or contract management authority must periodically gather information on the progress in contract delivery under the TPI contract.
	The TPI contract implementation progress information must be available to the public (e.g., by request or published in the official gazette/bulletin board).
	The TPI contract implementation progress information must be published online.
46	Is there an independent audit and control mechanism to oversee the contract management stage?
	and identify the auditing entity and its website:
47	Is the contractor required to provide a performance guarantee?
47.1	If yes, does the regulatory framework provide the method to determine the amount of the performance guarantee?
47.2	Is the amount of the performance guarantee fixed or is it a percentage of the value of the contract?: Fixed
47.4	Are there circumstances related to contract performance under which the procuring authority can encash/invoke the performance guarantee/security?
48	Is there a timeline in which the procuring authority/contract management authority must make payments once an invoice is submitted?
48.3	Is there any interest and/or penalties payable to contractors in case of delays in payment?
49	Are penalties enforced on the contractor for delays in TPI contracts in accordance with the agreed-upon contract timeline?
50	Is the contractor obliged to take out and maintain insurance on works, contractors' personnel, equipment, injury to persons and damage to property?

51	Are there consequences for the procuring authority's/contract management authority's default in performing its obligations?
52	Does the regulatory framework (including standard contractual clauses) expressly regulate the modification or amendment of the TPI contract (once the contract is signed)?
52.1	If yes, is an approval from a government authority, other than the procuring authority/contract management authority, required?
	and identify the approving authority:
52.2	If yes, which of the following circumstances are specifically regulated? (check all that apply): A change in the scope and/or object of the contract.
52.2.1	If yes, what is the threshold for which a new tendering process is required?
	and please specify:
	A change in the agreed contract delivery timeline.
52.6	Can the procuring authority/contract management authority unilaterally modify a TPI contract?
53	Does the regulatory framework (including standard contractual clauses) expressly regulate the following circumstances that may occur during the life of the TPI contract? (check all that apply):
53.1	Force Majeure.
53.2	Material Adverse Government Action
53.3	Change in the Law
53.4	Subcontracting and replacement of the subcontractors
53.5	Price adjustment/revision price of materials and services.
53.6	A sudden decrease/increase in price of materials and services (under a situation where price adjustment is not provided for in the contract) necessary for contract implementation.
54	Does the regulatory framework (including standard contractual clauses) allow for alternative dispute resolution mechanisms in case of disputes arising from the implementation of TPI contracts?
54.1	If yes, is arbitration available as an option?: Domestic arbitration only.
	Domestic and international arbitration
54.2	If applicable, are arbitration awards enforceable by local courts?

54.3	Are other Alternative Dispute Resolution (ADR) options available (including mediation or dispute resolution boards)?
55	Does the regulatory framework (including standard contractual clauses) expressly establish the grounds for the termination of a TPI contract?
55.2	If yes, does the regulatory framework (including standard contractual clauses) also establish the consequences for the termination of the TPI contract?
56	Does the procuring authority or contract management authority inspect the works after the completion of the construction contract?
F	INFRASTRUCTURE ASSET MANAGEMENT, OPERATION AND MAINTENANCE
59	Has the entity responsible for the management of the infrastructure asset (e.g., national highway/ expressway) or the government more broadly, developed a routine maintenance and improvements strategy/plan for existing infrastructure assets?
59.1	If yes, is this strategy/plan (check all that apply): Published online Costed out (includes cost estimations). Budgeted with resources allocated to routine maintenance and rehabilitation. Audited by an external entity.
60	Does the entity responsible for the management of the infrastructure asset (e.g., national highway/expressway) or the government more broadly maintain a register and/or database of infrastructure assets?
60.1	If yes, is this registry/database updated periodically by surveys of stocks, values and conditions/quality of the infrastructure assets?
60.2	If yes, is it available online?
61	Of the following funding sources, which ones are available to fund the operation and maintenance of infrastructure assets (e.g., national highways)? (check all that apply): Budgetary funds. Tax earmarks. Tolls/User Fees. Other
62	Of the following management mechanisms, which ones are available for the operation and maintenance of the infrastructure asset (e.g., national highway/expressway)? (check all that apply): In-house operation and maintenance (i.e. with public employees). Ad hoc short-term maintenance/repair contracts

	Long term input-based maintenance contracts.
	Long term output and performance-based maintenance contracts.
	Concession contracts.

2. Benchmarking Infrastructure Development PPP Survey. PPP Contract Management

E	CONTRACT MANAGEMENT
35	Has the procuring or contract management authority established a system to manage the implementation of the PPP contract (e.g., attributing responsibilities or establishing specific management tools)?
35.1	<i>If yes, which of the following tools does it include (check all that apply)?</i>
	Establishment of a PPP contract management team.
	Participation of the members of the PPP contract management team in the PPP procurement process and/or vice versa.
	Elaboration of a PPP implementation manual or an equivalent document.
	Establish a risk mitigation mechanism which considers the evolving nature of risks throughout the project lifecycle (guidelines, specific processes, insurance regime, etc.).
	Establishment of personnel training programs (initial training and continued training throughout the course of the project).
35.2	Which of the following options best describes the required qualifications of the PPP contract management team members? (Please select one only):
	The membership of the PPP contract management team is specified and/or its members are required to meet detailed qualifications.
	The PPP contract management team members are required to meet sufficient qualifications without specific details.
	The PPP contract management team members are not required to meet any specific qualifications.
36	Does the procuring or contract management authority establish a monitoring and evaluation system of the construction of the PPP project (i.e., system for tracking progress of construction, monitoring and evaluation of performance, etc.)?

36.1	If yes, is the PPP contract construction performance information made available to the public (e.g. by request or published in the official gazette/bulletin board)?
36.2	If yes, is PPP contract construction performance information publicly available online?
37	Does the procuring or contract management authority establish a monitoring and evaluation system of the PPP contract implementation after construction (e.g., regulating monitoring and evaluation activities)?
37.1	<i>If yes, which of the following tools does it include (check all that apply)?</i>
	Payments are linked to performance
	Performance is assessed against output/key performance indicators (KPI) set in the tender documents and the PPP contract
	The procuring or contract management authority can abate (reduce) payments for non-performance of operating obligations under the PPP Contract.
	The private partner must provide the procuring or contract management authority with periodic operational and financial data.
	The procuring or contract management authority must periodically gather information on the performance of the PPP contract.
	The PPP contract performance information must be available to the public.
	The PPP contract performance information must be available online
39	Are foreign companies restricted from repatriating the income resulting from the operation of a PPP project?
40	Does the regulatory framework (including standard contractual clauses) expressly regulate changes in the ownership structure (i.e., stakeholder composition) of the private partner and/or assignment of the PPP contract?
40.1	<i>If yes, which of the following circumstances are specifically regulated? (check all that apply):</i>
	Any change in the private partner during an initial period (e.g. construction and first five years of operation).
	Changes of ownership/contract assignment at any time during the contract must preserve the same technical qualifications as the original operator.
41	Does the regulatory framework (including standard contractual clauses) expressly regulate the modification or renegotiation of the PPP contract (once the contract is signed)?
41.1	If yes, is an approval from a government authority, other than the procuring authority, required?

41.2	<i>If yes, which of the following circumstances are specifically regulated? (check all that apply):</i>
	A change in the scope and/or object of the contract.
	If yes, please provide the relevant legal/regulatory/standard contractual provisions (if any):
	41.2.1. If yes, is there a threshold for which a new tendering process is required?
	A change in the risk allocation of the contract.
	A change in the financial and/or economic balance of the contract.
	A change in the duration of the contract.
	A change in the agreed price or tariff of the annuity payments.
41.6	Can the procuring authority unilaterally modify a PPP contract?
42	Does the regulatory framework (including standard contractual clauses) expressly regulate the following circumstances that may occur during the life of the PPP contract? (check all that apply):
42.1	Force Majeure.
42.2	Material Adverse government action.
42.3	Change in the Law.
42.4	Refinancing.
42.5	Subcontracting and replacement of the subcontractor.
43	Does the regulatory framework (including standard contractual clauses) allow for alternative dispute resolution mechanisms in case of disputes arising from the implementation of PPP contracts?
43.1	If yes, is arbitration available as an option?: Domestic arbitration only.
	If yes, please provide the relevant legal/regulatory/standard contractual provisions:
	Domestic and international arbitration
43.2	If applicable, are arbitration awards enforceable by local courts?
43.3	Are other Alternative Dispute Resolution (ADR) options available (including mediation or dispute resolution boards)?

44	Does the regulatory framework (including standard contractual clauses) allow for the lenders to take control of the PPP project (lender step-in right) if either the private partner defaults or if the PPP contract is under threat of termination for failure to meet service obligations?
44.1	<i>If yes, which of the following options best describes the lender step-in rights? (Please select only one).</i>
	The regulatory framework expressly regulates the lender step-in rights. If yes, please specify:
	The regulatory framework prescribes that a direct agreement should be signed with the lenders.
	The regulatory framework prescribes that the lender step-in rights should be regulated in the contract.
	Other. Please specify.
45	Does the regulatory framework (including standard contractual clauses) expressly establish the grounds for termination of a PPP contract?
45.2	If yes, does the regulatory framework (including standard contractual clauses) also establish the consequences for the termination of the PPP contract?

125

3. Public Investment Management Assessment

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?
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?
9.c	Can expenditures relating to routine maintenance and major improvements be identified in the budget?
14	Management of Project Implementation: Are capital projects well managed and controlled during the execution stage?
a.	Do ministries have effective project management arrangements in place?
b.	Has the government issued rules, procedures and guidelines for project adjustments that are applied systematically across all major projects?
c.	Does the government systematically conduct an ex post review and evaluation of a project that has completed its construction phase?

15	Monitoring of Public Assets: Is the value of assets properly accounted for and reported in financial statements?
a.	Are surveys of the stocks, values, and conditions of public assets regularly conducted?
b.	Are nonfinancial asset values recorded in the government balance sheets?
c.	Is depreciation of fixed assets captured in government operating statements?

DIMENSION 8

Transparent access to adequate information along the project cycle is key for project performance and accountability

1. Benchmarking Infrastructure Development: TPI Survey

13.1.	Are the assessments published online?
14	Are tender/bidding documents made available online?
19	Does the procuring authority issue an invitation for bids/tender notice of the TPI?
19.1.	If yes, is the invitation for bids/tender notice published online?
36	Does the procuring authority publish the contract award notice?
36.1.	If yes, is the contract award notice published online?
42	Does the procuring authority publish the TPI contract? (notwithstanding the protection of commercially sensitive information)
42.1.	If yes, which of the following elements does the publication include (check all that apply): A summary of the TPI contract: Available (e.g., by request or in the official gazette)
42.2.	The full TPI contract: Available (e.g., by request or in the official gazette)
42.3.	All the contract's annexes and appendixes: Available (e.g., by request or in the official gazette)
42.4.	Any subsequent amendment made to the TPI contract: Available (e.g., by request or in the official gazette)
45.1	The TPI contract implementation progress information must be available to the public (e.g., by request or published in the official gazette/bulletin board).
45.1	The TPI contract implementation progress information must be published online.

2. Benchmarking Infrastructure Development: PPP Survey

11.1	Are the assessments published online?
12	Are tender/bidding documents made available online?
17	Does the procuring authority issue an invitation for bids/tender notice of the PPP project?
17.1	If yes, is the public procurement notice published online?
28	Does the procuring authority publish the contract award notice?
28.1	If yes, is the contract award notice published online?
33	Does the procuring authority publish the PPP contract? (notwithstanding the protection of commercially sensitive information)
33.1	If yes, which of the following elements does the publication include (check all that apply): A summary of the PPP contract: Available (e.g., by request or in the official gazette)
33.2	The full PPP contract: Available (e.g., by request or in the official gazette)
33.3	All the contract's annexes and appendixes: Available (e.g., by request or in the official gazette)
33.4	Any subsequent amendment made to the PPP contract: Available (e.g., by request or in the official gazette)
36.1	If yes, is the PPP contract construction performance information made available to the public (e.g. by request or published in the official gazette/bulletin board)?
36.2	If yes, is PPP contract construction performance information publicly available online?
37.1	The PPP contract performance information must be available to the public (e.g. by request or in the official gazette/bulletin board)
37.1	The PPP contract performance information must be available online

127

3. Open Budget Index. Evaluating Public Engagement Opportunities and Oversight Actors and Practices

Public engagement in the budget process

Role of the supreme audit institutions

Role of independent fiscal institutions

4. Methodology for Assessing Procurement Systems (MAPS)

PILLAR II. INSTITUTIONAL FRAMEWORK AND MANAGEMENT CAPACITY
7. Public procurement is embedded in an effective information system
PILLAR III. PUBLIC PROCUREMENT OPERATIONS AND MARKET PRACTICES
11. Transparency and civil society engagement foster integrity in public procurement

5. InfraCompass assessment

Procurement composite index and selected indicators:

Published Public Procurement Guidelines

Transparency in Public Procurement

DIMENSION 9

128

There is a need for systematic measures in place to foster integrity and manage the risk of misconduct along the project cycle.

1. Methodology for Assessing Procurement Systems (MAPS)

PILLAR II. INSTITUTIONAL FRAMEWORK AND MANAGEMENT CAPACITY

7. Public procurement is embedded in an effective information system

PILLAR III. PUBLIC PROCUREMENT OPERATIONS AND MARKET PRACTICES

11. Transparency and civil society engagement foster integrity in public procurement

14. The country has ethics and anticorruption measures in place

2. International Civil Service Effectiveness (InCISE) Index

Integrity composite indicator

3. Transparency International's Corruption Perceptions Index

4. Transparency International's Global Corruption Barometer

5. World Governance Indicators: Control of Corruption

DIMENSION 10

Sector and regulatory frameworks should maximize competition for and in the market, and regulation should promote efficiency and societal value in infrastructure projects

I. MARKET STRUCTURE

1. PMR Survey for Energy

PMR QUESTIONNAIRE FOR ENERGY	
Q1.01_E1	Do the following sectors exist in your country? - Electricity generation
Q1.01_E2	Do the following sectors exist in your country? - Electricity import
Q1.01_E6	Do the following sectors exist in your country? - Electricity export
Q1.01_E3	Do the following sectors exist in your country? - Electricity transmission
Q1.01_E4	Do the following sectors exist in your country? - Electricity distribution
Q1.01_E5	Do the following sectors exist in your country? - Electricity retail supply
Q1.02	For which jurisdiction are you answering the question? (Province, National)
Q1.1.1_E1	Do national, state, regional provincial or municipal governments hold equity stakes in the largest firm in the following sectors? - Electricity generation
Q1.1.1_E2	Do national, state, regional provincial or municipal governments hold equity stakes in the largest firm in the following sectors? - Electricity import
Q1.1.1_E3	Do national, state, regional provincial or municipal governments hold equity stakes in the largest firm in the following sectors? - Electricity transmission
Q1.1.1_E4	Do national, state, regional provincial or municipal governments hold equity stakes in the largest firm in the following sectors? - Electricity distribution
Q1.1.1_E5	Do national, state, regional provincial or municipal governments hold equity stakes in the largest firm in the following sectors? - Electricity retail supply
Q1.1.1a_E1	If the answer is yes, what is the percentage of shares owned, either directly or indirectly, by the government in the largest firm in the following sectors? - Electricity generation
Q1.1.1a_E2	If the answer is yes, what is the percentage of shares owned, either directly or indirectly, by the government in the largest firm in the following sectors? - Electricity import

Q1.1.1a_E3	If the answer is yes, what is the percentage of shares owned, either directly or indirectly, by the government in the largest firm in the following sectors? - Electricity transmission
Q1.1.1a_E4	If the answer is yes, what is the percentage of shares owned, either directly or indirectly, by the government in the largest firm in the following sectors? - Electricity distribution
Q1.1.1a_E5	If the answer is yes, what is the percentage of shares owned, either directly or indirectly, by the government in the largest firm in the following sectors? - Electricity retail supply
Q1.1.2_E1	Do national, state, regional or provincial governments control at least one firm in the following sectors? - Electricity generation
Q1.1.2_E2	Do national, state, regional or provincial governments control at least one firm in the following sectors? - Electricity import
Q1.1.2_E6	Do national, state, regional or provincial governments control at least one firm in the following sectors? - Electricity export
Q1.1.2_E3	Do national, state, regional or provincial governments control at least one firm in the following sectors? - Electricity transmission
Q1.1.2_E4	Do national, state, regional or provincial governments control at least one firm in the following sectors? - Electricity distribution
Q1.1.2_E5	Do national, state, regional or provincial governments control at least one firm in the following sectors? - Electricity retail supply
Q1.1.2a_E1	If national, state, regional or provincial governments control at least one firm in each of the following sectors, is a legislative action necessary for the government to sell its stakes in these firms partially or entirely? - Electricity generation
Q1.1.2a_E2	If national, state, regional or provincial governments control at least one firm in each of the following sectors, is a legislative action necessary for the government to sell its stakes in these firms partially or entirely? - Electricity import
Q1.1.2a_E6	If national, state, regional or provincial governments control at least one firm in each of the following sectors, is a legislative action necessary for the government to sell its stakes in these firms partially or entirely? - Electricity export
Q1.1.2a_E3	If national, state, regional or provincial governments control at least one firm in each of the following sectors, is a legislative action necessary for the government to sell its stakes in these firms partially or entirely? - Electricity transmission
Q1.1.2a_E4	If national, state, regional or provincial governments control at least one firm in each of the following sectors, is a legislative action necessary for the government to sell its stakes in these firms partially or entirely? - Electricity distribution

Q1.1.2a_E5	If national, state, regional or provincial governments control at least one firm in each of the following sectors, is a legislative action necessary for the government to sell its stakes in these firms partially or entirely? - Electricity retail supply
Q1.1.3_E1	Do national, state, regional or provincial governments have special voting rights (e.g. golden shares) in at least one firm in each of the following sectors? - Electricity generation
Q1.1.3_E2	Do national, state, regional or provincial governments have special voting rights (e.g. golden shares) in at least one firm in each of the following sectors? - Electricity import
Q1.1.3_E6	Do national, state, regional or provincial governments have special voting rights (e.g. golden shares) in at least one firm in each of the following sectors? - Electricity export
Q1.1.3_E3	Do national, state, regional or provincial governments have special voting rights (e.g. golden shares) in at least one firm in each of the following sectors? - Electricity transmission
Q1.1.3_E4	Do national, state, regional or provincial governments have special voting rights (e.g. golden shares) in at least one firm in each of the following sectors? - Electricity distribution
Q1.1.3_E5	Do national, state, regional or provincial governments have special voting rights (e.g. golden shares) in at least one firm in each of the following sectors? - Electricity retail supply
Q1.2.1_E1	Do laws or regulations restrict the number of competing firms allowed to operate a business (e.g. by establishing a legal monopoly or duopoly, or a limited number of operators) in each of the following sectors? - Electricity generation
Q1.2.1_E2	Do laws or regulations restrict the number of competing firms allowed to operate a business (e.g. by establishing a legal monopoly or duopoly, or a limited number of operators) in each of the following sectors? - Electricity import
Q1.2.1_E6	Do laws or regulations restrict the number of competing firms allowed to operate a business (e.g. by establishing a legal monopoly or duopoly, or a limited number of operators) in each of the following sectors? - Electricity export
Q1.2.1_E3	Do laws or regulations restrict the number of competing firms allowed to operate a business (e.g. by establishing a legal monopoly or duopoly, or a limited number of operators) in each of the following sectors? - Electricity transmission
Q1.2.1_E4	Do laws or regulations restrict the number of competing firms allowed to operate a business (e.g. by establishing a legal monopoly or duopoly, or a limited number of operators) in each of the following sectors? - Electricity distribution

Q1.2.1_E5	Do laws or regulations restrict the number of competing firms allowed to operate a business (e.g. by establishing a legal monopoly or duopoly, or a limited number of operators) in each of the following sectors? - Electricity retail supply
Q1.2.2_E1	What is the nature of vertical separation of the following sectors from electricity transmission? - Electricity generation (Responses: Bundled, Accounting or Legal separation)
Q1.2.2_E2	What is the nature of vertical separation of the following sectors from electricity transmission? - Electricity import (Responses: Bundled, Accounting or Legal separation)
Q1.2.2_E5	What is the nature of vertical separation of the following sectors from electricity transmission? - Electricity retail supply (Responses: Bundled, Accounting or Legal separation)
Q1.2.3_E1	What is the nature of vertical separation of the following sectors from electricity distribution? - Electricity generation (Responses: Bundled, Accounting or Legal separation)
Q1.2.3_E2	What is the nature of vertical separation of the following sectors from electricity distribution? - Electricity import (Responses: Bundled, Accounting or Legal separation)
Q1.2.3_E5	What is the nature of vertical separation of the following sectors from electricity distribution? - Electricity retail supply (Responses: Bundled, Accounting or Legal separation)
Q1.2.5	How are the terms and conditions of third-party access (TPA) to the electricity transmission grid determined? (Response: TPA negotiated, TPA regulated)
Q1.2.6	How are the terms and conditions of third-party access (TPA) to the electricity distribution networks determined? (Response: TPA negotiated, TPA regulated)
Q1.2.7	Is there a liberalised wholesale market for electricity (such as a bilateral market or a pool)? (Response: Yes, No)
Q1.2.8	Do at least some categories of consumers have the legal right to choose their retail electricity supplier? (Response: Yes, No)
Q1.2.8a	If so, which categories of consumers can choose their retail electricity supplier? (Response: Large and Medium; Large Only; No/NA)
Q1.3.1	In the bills they send to their residential and small commercial customers, are electricity companies required to include clear information on the customers' annual consumption and on the retail tariffs they are charged? (Response: Yes, No)
Q1.3.2	Are electricity retail tariffs regulated or approved by the government, ministry, regulator or other public body for any of these categories of consumers? (Response: Yes, No)

Q1.3.3	If electricity retail tariffs are regulated, are there measures in place which require that the regulated retail tariffs are based on the tariffs or costs of the most efficient supplier? (Response: Yes, No)
Q1.4.1	Are (at least some) consumers allowed to sell demand response to a third party? (Response: Yes, No)
Q1.4.1a	If you have answered Yes to the Q above, which categories of consumer are able to do so? (Response: Large and Medium; Large Only; No/NA)
Q1.4.1c	If (at least some) consumers are allowed to sell demand response to a third party, do they need the consent of their retail supplier? (Response: Yes, No)
Q1.4.2	Is a capacity reward mechanism in place? (Response: Yes, No)
Q1.4.2a	If the answer is yes, what sort of capacity reward mechanism is in place?

2. PMR Survey for Transport (Rail, Air Transport, Road Freight)

PMR QUESTIONNAIRE FOR RAIL TRANSPORT

133

Q5a.1.1	Do national, state, regional, provincial or municipal/local governments hold equity stakes in the largest firm in each of the following sectors?
Q5a.1.1_TR1	Railways - passenger transport
Q5a.1.1_TR2	Railways - freight transport
Q5a.1.1_TR3	Railways - operation of railroad infrastructure
Q5a.1.1a	If the answer is yes, what is the percentage of shares owned, either directly or indirectly, by the government in the largest firm in each of the following sectors?
Q5a.1.1a_TR1	Railways - passenger transport
Q5a.1.1a_TR2	Railways - freight transport
Q5a.1.1a_TR3	Railways - operation of railroad infrastructure
Q5a.1.2	Do national, state regional or provincial governments control at least one firm in each of the following sectors?
Q5a.1.2_TR1	Railways - passenger transport
Q5a.1.2_TR2	Railways - freight transport
Q5a.1.2_TR3	Railways - operation of railroad infrastructure

Q5a.1.2a	If national, state, regional or provincial governments control at least one firm in the sector, is a legislative action necessary for the government to sell its stakes in these firms partially or entirely?
Q5a.1.2a_TR1	Railways - passenger transport
Q5a.1.2a_TR2	Railways - freight transport
Q5a.1.2a_TR3	Railways - operation of railroad infrastructure
Q5a.1.3	Do national, state, regional or provincial governments have special voting rights in at least one firm in each of the following sectors?
Q5a.1.3_TR1	Railways - passenger transport
Q5a.1.3_TR2	Railways - freight transport
Q5a.1.3_TR3	Railways - operation of railroad infrastructure
Q5a.2.3	For freight - Do laws or regulations restrict the number of competing firms allowed to operate a rail freight transport business (e.g. by establishing a legal monopoly or duopoly, or limiting the number of operators)?
Q5a.2.4	For passenger - Is any form of competition in the market permitted in the provision of rail passenger transport services on at least some of the routes?
Q5a.2.4a	If you have answered Yes to the question above, please indicate which forms of competition are allowed ? -
Q5a.2.4a_i	Open competition
Q5a.2.4a_ii	Side by side competition
Q5a.2.4a_iii	Public Service Contracts or franchises
Q5a.2.4a_iv	Public Service Contracts or franchises with some open competition
Q5a.2.4b	If you have answered Yes to question Q5a.2.4, please indicate on what share of domestic routes any of such forms of competition are possible?
Q5a.2.5	On those routes where public service contracts/franchises are used, are these contracts allocated to train operators through a tender?
Q5a.2.8	Is the rail infrastructure provider vertically integrated with one or more rail operators?

Q5a.2.8b	If the rail infrastructure provider is vertically integrated with one or more rail operators, is there an independent infrastructure manager/system operator to guarantee equivalence of access to the rail infrastructure to all rail operators and prevent discrimination?
Additional Question	Is there a railways regulator?
Additional Question	Who performs the regulatory role?
	Economic
	Safety

PMR QUESTIONNAIRE FOR ROAD FREIGHT

Q5d.01	Does this sector exist in your country?	135
Q5d.02	For which jurisdiction are you answering the question?	
Q5d.1.1	Do national, state, regional or provincial governments control at least one firm in the road freight transport sector?	
Q5d.1.1a	If national, state, regional or provincial governments control at least one firm in the sector, is a legislative action necessary for the government to sell its stakes in these firms partially or entirely?	
Q5d.1.2	Do national, state, regional or provincial governments have special voting rights in at least one firm in the sector?	
Q5d.2.1	Do national and/or subnational laws or regulations restrict the number of competing firms allowed to operate a road freight transport business (e.g. by establishing a legal monopoly or duopoly, or limiting the number of operators)?	
Q5d.2.2	If the answer to the above question is yes and there is a monopoly or local monopolies, how are these monopoly rights awarded?	
Q5d.2.3	Can the regulator, government, ministry or other public body limit industry capacity in other ways?	
Q5d.2.4	What is necessary in order to establish a national road freight business (except for goods that require special transportation conditions)?	

Q5d.2.6	If a licence/authorisation is required to operate a road freight transportation business, does this licence/authorisation cover the entire road network of the country?
Q5d.2.7	If a licence/authorisation is required to operate a road freight transportation business, is this licence/authorisation limited in duration?
Q5d.2.9	Are industry representatives or individual firms involved in the enforcement of entry regulations?
Q5d.2.10_1	Do national or subnational laws or regulations allow the following activities: - Backhauling
Q5d.2.10_2	Do national or subnational laws or regulations allow the following activities: - Contract carriage
Q5d.2.10_3	Do national or subnational laws or regulations allow the following activities: - Intermodal operations
Q5d.2.11	Are firms allowed to transport freight for their own account?
Q5d.2.12_1	Please note that this is the only question that refers to foreign road freight transport firms Do laws or regulations allow the following activities by foreign road freight transport firms: - Cabotage
Q5d.2.12_2	Please note that this is the only question that refers to foreign road freight transport firms Do laws or regulations allow the following activities by foreign road freight transport firms: - Foreign firms picking up freight in your country?
Q5d.2.13	Are retail tariffs of road freight services regulated or approved by the government, a ministry, a regulator or other public body?
Q5d.2.14	Does the government/regulator/ministry or other public body provide pricing guidelines for setting retail tariffs to road freight companies?

PMR QUESTIONNAIRE FOR AIR TRANSPORT

Q5b.01_TA1	Does these sectors exist in your country? - Air transport - domestic passenger transport
Q5b.01_TA2	Does these sectors exist in your country? - Air transport - international passenger transport
Q5b.01_TA3	Does these sectors exist in your country? - Air transport - operation of airports

Q5b.01_TA4	Does these sectors exist in your country? - Air transport - air-traffic-control activities
Q5b.02	For which jurisdiction are you answering the questions?
Q5b.1.1_TA1	Do national, state, regional, provincial or municipal/local governments hold equity stakes in the largest firm in each of the following sectors? - Air transport - domestic passenger transport
Q5b.1.1_TA2	Do national, state, regional, provincial or municipal/local governments hold equity stakes in the largest firm in each of the following sectors? - Air transport - international passenger transport
Q5b.1.1_TA3	Do national, state, regional, provincial or municipal/local governments hold equity stakes in the largest firm in each of the following sectors? - Air transport - operation of airports
Q5b.1.1_TA4	Do national, state, regional, provincial or municipal/local governments hold equity stakes in the largest firm in each of the following sectors? - Air transport - air-traffic-control activities
Q5b.1.1a_TA1	If the answer is yes, what is the percentage of shares owned, either directly or indirectly, by the government in the largest firm in each of the following the sectors? - Air transport - domestic passenger transport
Q5b.1.1a_TA2	If the answer is yes, what is the percentage of shares owned, either directly or indirectly, by the government in the largest firm in each of the following the sectors? - Air transport - international passenger transport
Q5b.1.1a_TA3	If the answer is yes, what is the percentage of shares owned, either directly or indirectly, by the government in the largest firm in each of the following the sectors? - Air transport - operation of airports
Q5b.1.1a_TA4	If the answer is yes, what is the percentage of shares owned, either directly or indirectly, by the government in the largest firm in each of the following the sectors? - Air transport - air-traffic-control activities
Q5b.1.2_TA1	Do national, state, regional or provincial governments control at least one firm in each of the the following sectors? - Air transport - domestic passenger transport
Q5b.1.2_TA2	Do national, state, regional or provincial governments control at least one firm in each of the the following sectors? - Air transport - international passenger transport
Q5b.1.2_TA3	Do national, state, regional or provincial governments control at least one firm in each of the the following sectors? - Air transport - operation of airports
Q5b.1.2_TA4	Do national, state, regional or provincial governments control at least one firm in each of the the following sectors? - Air transport - air-traffic-control activities

Q5b.1.2a_TA1	If national, state, regional or provincial governments control at least one firm in the following sectors, is a legislative action necessary for the government to sell its stakes in these firms partially or entirely? - Air transport - domestic passenger transport
Q5b.1.2a_TA2	If national, state, regional or provincial governments control at least one firm in the following sectors, is a legislative action necessary for the government to sell its stakes in these firms partially or entirely? - Air transport - international passenger transport
Q5b.1.2a_TA3	If national, state, regional or provincial governments control at least one firm in the following sectors, is a legislative action necessary for the government to sell its stakes in these firms partially or entirely? - Air transport - operation of airports
Q5b.1.2a_TA4	If national, state, regional or provincial governments control at least one firm in the following sectors, is a legislative action necessary for the government to sell its stakes in these firms partially or entirely? - Air transport - air-traffic-control activities
Q5b.1.3_TA1	Do national, state, regional or provincial governments have special voting rights in at least one firm in each of the following sectors? - Air transport - domestic passenger transport
Q5b.1.3_TA2	Do national, state, regional or provincial governments have special voting rights in at least one firm in each of the following sectors? - Air transport - international passenger transport
Q5b.1.3_TA3	Do national, state, regional or provincial governments have special voting rights in at least one firm in each of the following sectors? - Air transport - operation of airports
Q5b.1.3_TA4	Do national, state, regional or provincial governments have special voting rights in at least one firm in each of the following sectors? - Air transport - air-traffic-control activities
Q5b.2.1	Do laws or regulations restrict the number of competing firms allowed to operate a business (e.g. by establishing a legal monopoly or duopoly, or limiting the number of operators) in the provision of domestic passenger air transport services?
Q5b.2.2_1	Are air carriers that offer domestic transportation services free to : - Choose the routes they wish to serve (subject to availability of slots and other technical constraints and provided the route is not covered by a universal service requirement)?
Q5b.2.2_2	Are air carriers that offer domestic transportation services free to : - Choose the frequency of the flights they wish to offer on each route (subject to availability of slots and other technical constraints and provided the route is not covered by a universal service requirement)?

Q5b.2.2_3	Are air carriers that offer domestic transportation services free to : - Choose the size/capacity of the aircrafts on the routes they serve (subject to technical constraints)?
Q5b.2.3	Are industry representatives or individual firms involved in the enforcement of entry regulation in the provision of domestic passenger air transport services?
Q5b.2.4_1	Does your country have an open-sky agreement with the following countries? - United States
Q5b.2.4_2	Does your country have an open-sky agreement with the following countries? - China
Q5b.2.4_3	Does your country have an open-sky agreement with the following countries? - Japan
Q5b.2.4_4	Does your country have an open-sky agreement with the following countries? - European Union
Q5b.2.4_5	Does your country have an open-sky agreement with the following countries? - India
Q5b.2.4_6	Does your country have an open-sky agreement with the following countries? - Brazil
Q5b.2.4_7	Does your country have an open-sky agreement with the following countries? - Canada
Q5b.2.4_8	Does your country have an open-sky agreement with the following countries? - Korea
Q5b.2.4_9	Does your country have an open-sky agreement with the following countries? - Russia
Q5b.2.4_10	Does your country have an open-sky agreement with the following countries? - Australia
Q5b.2.4_11	Does your country have an open-sky agreement with the following countries? - Mexico
Q5b.2.5_1	Do open-sky agreements with the countries listed above include the following freedoms of the air? - 5th freedom
Q5b.2.5_2	Do open-sky agreements with the countries listed above include the following freedoms of the air? - 6th freedom
Q5b.2.5_3	Do open-sky agreements with the countries listed above include the following freedoms of the air? - 8th freedom
Q5b.2.5_4	Do open-sky agreements with the countries listed above include the following freedoms of the air? - 9th freedom

Q5b.2.6	Is your country participating in a regional agreement for air transport services?
Q5b.2.7	Are the retail tariffs/fares charged by air carriers that offer domestic transportation services regulated or approved by the government, a ministry, a regulator or other public body?
Q5b.2.9	Are airports in your country subject to some form of regulatory ex-ante or ex-post supervision on the level of their charges or revenues by an independent public body?

II. SECTOR SPECIFIC REGULATORY FRAMEWORK INDICES

Electricity- AfDB-WB joint Questionnaire

INSTRUCTIONS	
1	For each question please respond in terms of de jure (on paper) and de facto (in practice). De jure responses should be based on what is mentioned in the law/decree etc. De facto on the other hand should take into account what is actually happening in the sector. For example question 3.39 asks what is the extent of the regulator's role in approval of tariffs. The on paper law might state that the regulator is the sole authority to decide on the end user tariffs but in reality the government may be deciding the final tariffs. In this case the de jure answer will be "Final decision making body" while the de facto answer will be "Shares the decision making authority with the sector ministry or other government body."
2	For questions with Options such as (Yes, No, N/A) please choose one response and write it down in the response section.
3	For questions with other multiple options such as 2.5,2.7 and 3.4 with multiple options please respond with '1' if you want to select that option.
	Leave the options that you don't want to select, blank.
	A. Respondent's Details:
	Name of Regulatory Commission/Authority:
	Address of Regulatory Commission/Authority:
	Country:
	Telephone Number:
	Email:

	Website Address of Regulator:
	Name of Respondent:
	Job Title/Position:
	B. Information on Regulator's Duties
	Which sectors are regulated by your institution (Please tick the appropriate answer)?
	a. Energy: (i) Electricity, (ii) Gas and (iii) Petroleum
	b. Water and Sanitation
	c. Transport
	d. Telecommunications
	e. Other (please specify)
	When was your regulatory agency established (Year)?-----
	When was your regulatory agency fully operational (Year)? -----
	Please indicate the objectives of the regulatory authority, as stated in the legislation or in the mission statement? (Please tick as appropriate)
	<i>Protection of Consumer Interest</i>
	<i>Ensure cost-reflectivity and financial viability of the utility companies</i>
	<i>Ensure economic efficiency and sustainability of the sector</i>
	<i>Promote fair competition</i>
	<i>Ensure Indiscriminate, equal and third party access to the monopoly networks</i>
	<i>Environmentally friendly power supply</i>
	<i>Affordable and socially responsible</i>
	<i>Good quality and security of supply</i>
	<i>Other objectives (Please list)</i>

A. REGULATORY GOVERNANCE	
1. LEGAL MANDATE	
1.1	Does your country have an Energy sector law? (Yes/No)
1.2	If yes, what is the name of the Law and in which year was it passed (Please indicate year)
1.3	Does your country have a separate Electricity sector law (Yes/No)
1.4	If yes, what is the name of the Law and in which year was it passed (Please indicate year)
1.5	Has either the Energy Law or Electricity Law (if applicable) been amended? (Yes/No)
1.6	If yes, please specify/explain briefly the reasons for the amendment (300 words)
1.7	If no to 1.1, what document governs the energy/ electricity sector?
1.8	Was the regulatory authority established by Legislation? (Yes/No)
1.9	If yes, please provide the legislation name and number and the year the legislation was passed.
	Comment: If for any of the questions above you would like to provide a comment , please list the question number and add comment
2. CLARITY OF ROLES AND OBJECTIVES	
2.1	Is your institution's regulatory function clearly defined in primary legislation?[1] (Yes/No)
2.2	If No to 2.1, are the functions and duties formally spelt out in any other legal instruments or any documents? (Yes, No, N/A)
2.3	Specify in which document(s) and either submit electronic of documents or provide the link for accessing these documents
2.4	If No to 2.1 and 2.2, in what documents are the functions and duties of the regulator? How is the work of the regulator directed? (300 words maximum)
2.5	Select all the options that apply regarding the areas where the entity has a mandate to regulate-
	End-user tariffs
	Quality of supply and service
	Licensing generation

	Licensing transmission
	Licensing distribution
	Licensing trading or supply
	Prices or terms of power purchase agreements
	Facilitating completion in the market
	Competitive procurement
	oversight of regulated utilities
	Electrification or increasing access to energy
	Promotion of renewable energy or energy efficiency
	Oversight of system operation functions
2.6	Are the regulated utilities' obligation formally set out? (Yes, No)
2.7	If yes, please specify in which document is it set out? 143
	Legislation
	Regulations
	Contract
	License conditions
	Others (Please specify)
2.8	Does the regulator provide any input towards supporting the policy decisions for the electricity sector? (Yes, No)
2.9	If yes, please specify and indicate instances of when such support/inputs have been provided.
3. INDEPENDENCE	
	Formal Independence from Government and Legislature:
3.1	Please briefly describe the appointment process for the Commissioners/ Board Members. (300 words)
3.2	Is it required that specific institutions or representatives of specific sectors be represented on the Board? (Yes/No)

3.2.1	Is institutional representation of the composition of the Board formally spelt out in legislation?
	Yes and specified in the Law
	Yes but not specified in the Law
	No
3.3	If yes, please specify the composition
3.4	Who is the appointing authority for the Commissioners/Board Members?
	The Executive (i.e. President or Prime Minister)
	The Legislature
	Mixture of legislature and executive
	Sector Minister
	Other (please specify)
3.5	Who appoints the Chairperson of the Board/Commissioners?
	Board Members
	Sector Minister
	The Executive (i.e. President or Prime Minister)
	The Legislature
	Mixture of legislature and executive
	Others (Specify.....)
3.6	What is the duration of the first term of the Commissioners or Board Members?
	2 to 4 years
	5 to 7 years
	More than 7 years
	No fixed term or at the discretion of the appointing authority
3.7	Is the term of office of Commissioners/Board Members renewable?
	No

	Yes, once
	Yes, more than once
3.8	Is there any mechanism/ provision in the regulatory law or act that ensures continuity, ie. Staggering the terms of the Commissioners to allow for institutional memory and transfer of regulatory knowledge to new Commissioners? (Yes/No)
3.9	If yes, provide a brief explanation of the approach and the reference (article/ clause) in the law. (300 words)
3.10	Who is the appointing authority for the Chief Executive Officer (CEO)/ Director General (DG) of the Regulatory Authority?
	The Legislature
	The Executive (i.e. President or Prime Minister)
	Sector Minister(s)
	Mixture of Legislature and Executive
	The Regulatory Authority Board
	Other (please specify, if different from above)
3.11	Are there provisions in the regulatory law that prohibit the Director General/ CEO or any Commissioner from holding other offices in the government or private sector within the energy sector during their tenure?
	Yes
	No
	Not specified
	Yes, but with permission from the Executive
3.12	3.12 If Yes, provide specific reference for such provision in the law (legislation name, and section)?
3.13	3.13 If the provision is not included in regulatory law, is it included in other secondary legislations/ administrative instruments? (Yes, No, N/A)
3.14	If Yes, provide specific reference for such provision in the law (legislation or instrument name, and section)?
3.15	How can the agency head/board members be dismissed from office?
	For stated offense

	No procedure provided
3.16	What are the criteria for dismissing agency head/board members during their term of office?
3.17	Are the criteria for dismissing agency head/board members during their term of office published? (Yes, No, N/A)
3.18	In the last five years has any of the regulatory leadership been removed by government before completing their full term? (Yes, No, N/A)
3.19	If yes, what was the reason given for the removal?
3.20	How is the majority of the permanent staff recruited?
	By competitive process
	By appointment
	Head hunting
	Other (please specify)
3.21	Does the legislation define the skills required by the agency head/board members? (Yes, No, N/A)
3.22	The regulator can receive guidance from the government regarding: -
	Long-term strategy
	Work programme
	Individual cases or regulatory decisions
	Appeals
INDEPENDENCE FROM STAKEHOLDERS:	
3.23	Are there provisions in the regulatory Act/Law that prohibit the appointment of Commissioners or the CEO/ Director General of the regulatory authority, if any of them has previously held a position in the regulated utility company? (Yes, No, Not specified)
3.24	If Yes, provide specific reference for such provision in the law (legislation name, and section)?
3.25	Are there provisions in the Regulatory Act/Law that prohibits the Commissioners/CEO or Director General of the Regulatory Institution from accepting employment in the regulated utility company after the end of their term in office? (Yes, No, Not specified)

3.26	If Yes, provide specific reference for such provision in the law (legislation name, clause, article and section)?
3.27	If Yes, indicate the number of years after the term that the prohibition holds (Cooling off period)
	Less than 1 year
	2 to 3 years
	More than 4 years
	Comment if any: 300 words
3.28	Are there any provisions in the Regulatory Act/Law prohibiting the CEO/Director General or Commissioners, from having any personal interest in the regulated electricity utility? (Yes, No, Not specified)
3.29	If Yes, provide specific reference for such provision in the law (legislation name, clause, article and section)?
3.30	Are there provisions in the regulatory law that requires specific institutions or associations to be represented on the Board of the regulatory institution? (Yes, No, Not specified)
DECISION-MAKING INDEPENDENCE (PROVIDE SPECIFIC REFERENCES WITHIN THE REGULATORY LAWS/ LEGISLATION IN ALL CASES)	
3.31	Are there formal provisions (in law or other regulatory instruments) that allows a Government entity (e.g. Ministry) to overturn Regulatory Decision? (Yes, No)
3.32	If yes specify the entity that can overturn the decision and the specific reference in the law.
3.33	In the last five years has any decision been overturned? (Yes, No)
3.34	If Yes please provide details about the decision
3.35	Are there provisions in the regulatory law that requires the regulator to consult or seek approval from another entity on regulatory decision?
	Yes to seek approval on decisions
	Yes to consult on decisions
	No
3.36	If yes, provide specific reference in the Law

3.37	If No to 3.3.5 does the regulator undertake public consultation to engage with the public and relevant ministries Are there provisions in the regulatory law that requires the regulator to consult or seek approval from another entity on regulatory decision?
	Yes, to seek approval on decisions
	Yes to consult on decisions
	No
3.37.1	Are there provisions in the regulatory law that requires the regulator to consult the public or stakeholders or seek the views or approval from other entities on regulatory decision?
	Yes to seek approval on decisions
	Yes to consult on decisions
	No
3.38	If yes, please specify the last general consultation organized by the regulator
3.39	What is the extent of the regulator's role in approval of tariffs?
	no role
	shares the decision-making authority with Sector Ministry or other government body
	plays a consultative role for the Sector Minister
	final decision-making body
	other (please list other roles if not covered by above)
3.40	What is the extent of the regulatory authority's role in issuing and amending licenses?
	plays a consultative role for the Sector Minister
	shares the decision-making authority with Sector Ministry or other government body
	final decision-making body
	no role
	other (please list other roles if not covered by above)
3.41	What is the extent of the role of the Regulatory Authority in resolving disputes between companies on the one hand, and between companies and their customers on the other?

	plays a facilitative role
	final decision-making body
	shares the decision-making authority with another institution
	no role
3.42	Are decisions of the regulatory entity legally binding or intended as advisory recommendation?
	Legally binding
	Advisory
	FINANCIAL INDEPENDENCE:
3.43	What are the regulator's major source(s) of funding? Mention all that apply
	Fees levied on regulated utilities (specify percentage of the overall institutional revenues)
	License Fees (specify percentage of the overall institutional revenues)
	Government budget allocation (specify percentage of the overall institutional revenues)
	Comment if any (300 words max):
3.44	Is the source of the financial budget stated in the establishing legislation? (Yes, No)
3.45	What is the budget period appropriation?
3.46	If the regulator is financed in total or in part through fees levied on the regulated sector, who approves the level of the fees?
	Executive (Ministry of Energy, Finance, etc)
	Parliament
	Regulatory Authority Board
3.47	If the regulator is financed in total or in part through the national budget, who is responsible for proposing and discussing the regulator's budget?
	Executive (Ministry of Energy, Finance, etc)
	Parliament

	Regulatory Authority Board
3.48	Does the regulator provide information to the legislature or the relevant budget authority on the costs and resources needed to fulfil its mandate prior to the next budget cycle? (Yes, No)
3.49	Does the Regulatory Authority's Budget require direct approval by an external entity of Government other than the Board of the Regulatory Institution? (Yes, No)
3.50	If yes, who is the final approval authority for the Regulatory Authority's budget?
	Government (i.e. Ministry of Finance or Ministry of Energy)
	Parliament
	Other (Specify other institution responsible for final approval)
3.51	Who is responsible for allocation of expenditures?
	The Government and the regulatory authority
	The Regulatory Authority
	The Government (i.e. Minister of Finance or Minister of Energy)
3.52	Who decides on the regulatory authority's staff salary level?
	Government or Sector Ministry
	Government and regulatory authority board
	Regulatory Board (i.e. Commissioners)
3.53	What is the basis for setting the salary level for employees of the Regulatory Authority?
	Civil Service Salary Scale
	Public Utility Salary Scale
	Others (Specify)
3.54	Is the average level of the salaries of the regulatory staff lower than those of the utilities?
	Yes, Lower
	No, Higher
	Equal

4. ACCOUNTABILITY

4.1	To whom is the regulator directly accountable or reports to?
	Sector Minister
	Presidency
	Parliament through sector ministry
	Parliament directly
	No one
	Others: Specify.....
4.2	Is there a legislative requirement for the regulator to answer requests from or attend hearings organized by parliamentary/congressional committees? (Yes, No)
4.3	Does the Regulatory Authority have a legal obligation to produce an annual report on its activities? (Yes, No)
4.4	If yes, what are the formal obligations, regarding dissemination of the annual report?
	Presentation of annual report to Executive (Sector ministry, PM etc)
	Presentation of annual report to Parliament
	Public dissemination of annual report
4.5	When was the last annual report published (indicate month and year) ?
4.6	Is there a formal mechanism for regulated utilities (or other parties), to challenge/ contest the regulatory decisions? (Yes, No)
4.7	If yes, has the mechanism been used? (Yes, No)
4.8	If yes to 4.6, who adjudicates over the matter?
	Specialised body
	Existing Judicial System
	Other (Please specify)
4.9	If there is no formal mechanism what options/ processes are available to regulated utilities to challenge/ contest the regulatory decisions?

5. TRANSPARENCY OF DECISIONS	
5.1	How can the public access key regulatory documents such as license application procedures, Acts, Tariff Methodology?
	“Immediate” access
	Upon a filed request
5.2	If “Immediate” access, specify where these key regulatory documents are published
5.3	Are all decisions taken by the regulatory agency accessible to the public? (Yes, No)
5.4	If yes, provide evidence of such published regulatory decisions or link to where it can be accessed:
5.5	Is the publication of major decisions supported by explanations or rationale? (Yes, No)
5.6	If yes to 5.5, are the reasons for/rationale behind the decisions also published? (Yes, No, N/A)
5.7	If no to 5.6, can the public request access to these documents? (Yes, No, N/A)
5.8	Is publication of regulatory documents and decisions voluntary or mandatory/ compulsory under the law?
	Yes, voluntary
	Yes, mandatory
	No, not specified in the law
5.9	If yes, provide specific reference/ section in the Law:
6. PREDICTABILITY	
6.1	Do you have a documented Tariff Methodology?
	Yes (Specify year of adoption)
	No
6.2	If yes, indicate where the Tariff Methodology document is published?
6.3	By who and how can the Tariff Methodology be changed?
	By Ministerial decision
	By the Regulator, in consultation with regulated firms and stakeholders

	By the Regulator, based on unilateral decision, without consultation with stakeholders
	Others (specify if not included in the above)
6.4	Has the Tariff Methodology been reviewed over the last five years? (Yes, No)
6.5	If yes, briefly explain why was it reviewed and the process used (300 words maximum)
6.6	How can key regulatory documents such as licenses, contracts, authorizations etc. be modified?
	By mutual agreement between parties to the regulatory instrument
	By the Regulator, in consultation with regulated firms and stakeholders
	By both regulatory and Ministerial actions
	By regulatory decision
	By Ministerial decision
	Others (specify if not included in the above)
6.7	Does the Tariff Methodology set out the procedures for major tariff reviews? (Yes, No)
6.8	Is the timetable for tariff review clearly spelt out as part of the tariff methodology or in another document? (Yes, No)
6.9	If in the tariff methodology document, please provide specific reference
6.10	If in another document, please specify and indicate where the document is published

7. PARTICIPATION

7.1	Is the consultation process of different stakeholders (utilities, Government, consumers, etc.) required by law?
	Yes, voluntary
	Yes, mandatory
	No, not specified in the law
7.2	If yes, provide the name of Law and specify the section
7.3	Does the regulator involve the following stakeholders in its decision-making process. (Please select as appropriate?)
	Regulated Utility companies

	Other industry players
	Consumers
	NGO's and Civil Society
	Other (Please specify)
7.4	Indicate the approach for involving stakeholders (Please tick as appropriate)
	Public Hearings
	Ad-hoc meetings with stakeholders
	Submission of written comments
	Other method (please specify)
7.5	Does the regulator publish comments received during the consultation exercise? (Yes, No)
7.6	If yes, how and where? (Please, select as appropriate)
	Published in full and indicating comments from all parties on the website
	As a summary of responses, published on the website
	Other means of making comments public
7.7	Please provide the most recent comments received during consultations
7.8	Does the regulator take into account stakeholders' inputs and responses during the consultation process to influence regulatory decisions? (Yes, No)
7.9	If yes, please provide details/instance where the regulator took account of stakeholder inputs in the decision making process.
7.9	Does the regulator provide feedback on comments received by stakeholders? (Yes, No)
8. OPEN-ACCESS TO INFORMATION	
8.1	Does the regulator have a public website? (Yes, No)
8.2	If yes, provide website address
8.3	If No, how do you disseminate information ?
	Newspaper
	Brochures

	Others
8.3.1	Does the regulator intend to set up a website at some point? (Yes, No, Don't Know)
8.4	Is the publication of a forward-looking action plan required by law?
	Yes, mandatory
	Yes, voluntary
	No, not specified
8.5	If yes, indicate the type of information available on the website (select all that apply)
	Primary and secondary legislations
	Regulatory documents such as Tariff Methodology, Grid Code, Quality of Service Code/Regulations
	License application procedure
	Consultation Papers
	Research Papers
	Schedule of Tariffs for regulated companies
	Results of analysis of regulated companies' performance
	Regularoy Decisions and Reasons
	Annual Reports of the Regulator
	Forward looking Action Plan
	Economic performance of the regulated sector
	Operational service delivery of regulated enetities
	Organizational/corporate governance performance of the regulator
	Quality of regulatory process of the regulator
	Compliance with legal obligations by the regulator
	Financial performance of the regulator, including costs of operating the regulator
	Others (please specify if not included above)
8.6	How often is the website updated?

	At least once a week
	Between one week and one month
	More than one month
8.7	Does the regulator have an IT/ Communications officer in charge of the website/ website management? (Yes, No)
8.8	In 2019, what was the average number of visits to the website

B. REGULATORY SUBSTANCE

9. ECONOMIC REGULATION: TARIFF-SETTING

9.1	Has the regulator developed a well documented tariff setting methodology? (Yes, No)
9.2	Does the Tariff Methodology include an Automatic Tariff Adjustment or Tariff Indexation Mechanism? (Yes, No)
9.3	Does the Tariff Methodology include a schedule for major tariff reviews? (Yes, No)
9.3.1	Please provide a reference in the methodology document
9.4	Based on the tariff schedule in the Methodology, if applicable, what is the expected period for
	Minor Tariff Adjustments (Automatic Adjustment)
	Major Tariff Review
9.5	Indicate the last four tariff reviews carried out by completing the table below.
9.6	Is there a written formula that prescribes how end-user tariff levels are to be set? (Yes, No)
9.6.1	Please provide a reference in the methodology document
9.7	Is the regulator or utility legally obligated to adhere to the formula? (Yes, No)
9.7.1	Please provide a reference in the methodology document
9.8	Do end-user tariff-setting regulations in some way avoid passing-through inefficient costs to customers? (Yes, No)
9.8.1	Please provide a reference in the methodology document
9.9	Does the regulator require regulated companies to submit financial information according to regulatory accounting standards? (Yes, No)

9.10	Are there regulatory mechanisms to compensate generators for the provision of firm capacity or ancillary services (e.g. frequency or voltage control, spinning reserve)? (Yes, No)
9.11	Does the regulatory entity ensure utilities are compensated for the costs of stranded assets (i.e. assets that have lost their value due to regulatory changes)? (Yes, No)
9.12	Has the regulator developed/validated a network connection policy as part of its tariff? (Yes, No)
9.13	If yes provide reference section of the tariff methodology where this could be found
9.14	Has the regulator carried out a recent (less than 10 years) study on the cost of service? (Yes, No)
9.15	If yes, is the current tariff level cost reflective? (Yes, No)
9.16	What tariff policy and mechanism is adopted to make tariff affordable to support low-volume consumers, as well as the poor and vulnerable. (Please select as appropriate)
	Lifeline block
	Connection Subsidy
	Cross-subsidy
	Capital subsidy from government
	Others (please specify)
9.17	If cross-subsidy is used, which customer class is providing the cross-subsidy? (Please tick as appropriate)
	Residential/Domestic consumers
	Commercial Consumers
	Industrial Consumers
9.18	If cross-subsidy is used, which customer class is the cross-subsidy recipient/beneficiary? (Please select as appropriate)
	Residential/Domestic consumers
	Commercial Consumers
	Industrial Consumers
9.19	Do the utilities receive any direct subsidy payments from the government? (Yes, No)
9.20	When was the last comprehensive tariff report prepared by in-house regulatory staff published? (Please indicate date and where published)

10. TECHNICAL REGULATION: QUALITY OF SERVICE	
10.1	Has the regulator developed Quality of Service Regulations/Code? (Yes, No)
10.2	If yes, provide link or attach document
10.3	Do the Quality of Service Regulations cover technical performance (voltage stability, frequency)? (Yes, No)
10.4	If yes, provide link or attach document
10.5	Do the Quality of Service Regulations cover Quality of Service Performance(interruptions, handling consumer complaints, billing accuracy etc.) (Yes, No)
10.6	If yes, provide link or attach document
10.7	Do the Quality of Service Regulations cover Grid connection and access technical requirements (Yes, No)
10.8	If yes, provide link or attach document
10.11	Has the regulator developed a national Grid Code for inter-connected power system? (Yes, No)
10.12	If yes, indicate the date of the national Grid Code and provide link or attach document
10.13	Has the regulator developed a distribution Grid Code for inter-connected power system? (Yes, No)
10.14	If yes, indicate the date of the distribution Grid Code and provide link or attach document
10.15	Are fines imposed on the distribution utility for failing to meet quality of service standards? (Yes, No)
10.16	Have the fines ever been applied? (Yes, No)
10.17	If no, explain the reasons
10.18	If yes, briefly describe the most recent incident (including date and level of fine)
10.19	Indicate if the utility paid the fine
10.20	What areas of customer service with respect to connections and service are covered in the quality of service regulations? Tick all that apply
	Time for utility company to respond to customer request for new connection
	Time for actual connection to be made
	Response time to customer complaints

	Time given from issuance of 'notice to pay' until disconnection
	Time taken for reconnection after payment is made
	Response time for metering queries
10.21	Which of the following performance indicators does the regulator collect?
	Economic performance of the regulated sector
	Operational service delivery of the regulator
	Organizational/corporate governance performance of the regulator
	Quality of regulatory process of the regulator
	Compliance with legal obligations by the regulator
	Financial performance including costs of operating the regulated utility
	None of them
10.22	Can the regulator compel the regulated entities to provide information? (Yes, No)
10.23	Does the regulator publish the performance assessment report on the regulated utility companies? (Yes, No)
10.24	If yes, when was the last Technical Performance Evaluation and Assessment Report published? (Please indicate the year)
10.25	Has the regulatory authority carried out and published a comprehensive analysis on utility's commercial (customer satisfaction) quality performance? (Yes, No)
10.26	If yes, please indicate when it was and provide evidence (documents, legal references, news articles, websites,...)
10.27	Has the regulatory authority discussed the results of the analysis with the regulated utility? (Yes, No)
10.28	If yes, provide evidence (documents, legal references, news articles, websites,...)
10.29	Please indicate how the regulator monitors the utility to address findings in the performance analysis:
10.30	Please list the regulatory instruments (code and legislations) which have been developed and passed or published by in-house experts/ staff

11. LICENSING FRAMEWORK	
11.1	Are there developed licensing frameworks and guidelines for the electricity sector?
	Yes, developed by regulator
	Yes, developed by other institution
	No
11.2	If developed by another institution, please specify the name
11.3	What type of systems does the licence framework cover?
	Only Grid connected systems
	Only Off-Grid Systems
	Both Grid and Off-Grid Systems
11.4	If yes to 11.1, please select as appropriate, the areas covered by the licensing framework for both large and small size generators.
	Procedures and guidelines for application
	Approval process
	Development of license forms
	Development of format for the license
	Schedule of license fees
	Others (please specify)
11.5	Is there a separate simplified and light-handed licence framework and procedure for off-grid and small sized systems? (Yes, No)

12. INSTITUTIONAL CAPACITY

12.1	Does the regulator have the adequate staff with the expertise and experience (at senior staff level) to collect data and carry out tariff analysis in the following areas of tariff design (please indicate your response on a level of scale between 1 and 3, as defined in the table below)
	Scale
	1
	2
	3
	Financial Analysis (i.e. determine value of asset base, return on regulatory asset base, interest service coverage, gearing ratio, debt service coverage etc.) (1,2 or 3)
	Economic Analysis (i.e. determine impact of macro-economic factors such as inflation, interest rates, fuel prices, on the tariffs, and also investigate the impact of tariffs on the economy and various customer groups etc.) (1,2 or 3)
	Engineering Analysis (i.e. ability to determine technical parameters which affect the tariff design such as power factor, load factor, coincident and non-coincident factors, network losses at the various voltage levels, determination of the KVA, kvar components of the industrial tariff, treatment of ancillary services etc.) (1,2 or 3)
	Econometric Modelling (cost, generation and demand/load forecasting, master plan including system least cost plan design, cost benchmarking) (1,2 or 3)
	Financial Modelling (Use of discounted cash flow techniques and determination of unbundled tariffs for generation, transmission, distribution and sale/retail segments of the electricity sector) (1,2 or 3)
	Tariff Modelling (End-user tariff determination for the various customer classes, cost allocation, quantifying of subsidies for policy decision making etc.) (1,2 or 3)
	Legal Issues in Regulation (Legal drafting, Power Purchase Agreements (PPA) design and reviews, energy laws etc.) (1,2 or 3)
12.2	Does the regulator have the adequate staff with the expertise and experience (at senior staff level) to collect data and analyse utility company's performance in the following areas of tariff design (please indicate your response on a level of scale between 1 and 3, as defined in the table below)
	Scale
	1
	2
	3

	Technical Performance (examples such as power plant availability, Operating ratio, network availability, Capacity Factor, Load Factor, System Reserve Margin, Distribution System Technical and Commercial Losses, Transmission System network losses etc.) (1,2 or 3)
	Grid connection and access technical requirements (example such as connection procedures, connection conditions commonly applied, commissioning testing and inspection procedures, etc.) (1,2 or 3)
	Quality of Service Performance (examples such as calculation of Duration of outages, frequency or number of outages etc.) (1,2 or 3)

3. Sustainable Governance Indicators (SGI)

What is the economy's energy productivity? (Ranked 1-10)

GDP in US-\$ (const 2010 PPP) per kgcoe primary energy supply where high values translate into high scores

DIMENSION II

SOEs should operate on market terms where possible, with strong corporate governance standards and clear accountability lines

SOE LEVEL GOVERNANCE	
A	ACCOUNTABILITY, TRANSPARENCY, BOARD OF DIRECTORS
1	Who is responsible for appointing members of the SOE's board of directors?
2	Does the SOE have a formal long-term (3-5 years) strategic plan approved by the board?
3	Are Board members selected through a transparent competitive process?
4	Can SOE Board members be removed before the completion of their terms at the sole discretion of the appointing authority?
5	Are the positions of chairperson and Chief Executive Officer separated into two?
6	Does the function of Company Secretary exist?
7	Does the SOE's Board of Directors set up Board Sub-Committees to deal with different issues (e.g. audit, ethics, remuneration, risk management, corporate governance)?
8	Is there an Audit Committee of the Board?
9	Does the SOE's Board of Directors have its own Code of Ethics or Code of Conduct?
10	Are members of the SOE's Board of Directors required to declare any conflicts of interest?
11	Has the SOE carried out any third party or related party transactions during the last [five] years?
12	Does the SOE have regulations in place to protect the rights of minority shareholders?
13	Does the State or government agency monitor SOE performance through Performance contract, agreement or MOU, KPIs approved by Board or KPIs approved by state/agency?
14	Does the SOE publish an Annual Report?
15	Is the SOE subject to state auditing procedures?

16	Are the utilities financial accounts audited by an external auditor?
17	Are the utilities financial accounts publicly disclosed?
18	Are the utilities financial accounts produced in compliance with national accounting standards?
19	Are the utilities financial accounts produced in compliance with International Financial Reporting Standards?
B	LEGAL AUTONOMY AND OWNERSHIP ARRANGEMENTS
1	<p>Under which legal form is the SOE set up?</p> <p><i>Corporatized SOE incorporated under the companies law</i></p> <p><i>Statutory corporation established by an act of parliament/statute</i></p> <p><i>Non-corporatized SOE set up as a parastatal or government department</i></p> <p><i>Other (please specify)</i></p>
2	<p>Does the SOE operate under any or all of the following legal frameworks? (multiple options available for selection)</p> <p><i>Companies law</i></p> <p><i>General public enterprise law or SOE law</i></p> <p><i>Sector specific laws that apply to SOEs</i></p> <p><i>Other public-sector laws (e.g., Public Sector Employment Rules, Investment/Budgeting Regulations, Procurement Laws, Public Financial Management Laws, Audit laws, Accounting Law, Bankruptcy Law, Competition Law, Tax Law)</i></p> <p><i>Capital Markets Law or Listing Rules (for listed SOEs)</i></p>
3	What ministry or government agency or institution formally owns the SOE?
4	Which entity (s) is (are) in charge (formally and/or in practice) of SOEs financial oversight?
5	Does the legal and the regulatory framework assign 'defining corporate strategy' as an explicit responsibility of the Board of Directors without reference to any higher authority?
6	Does the legal and the regulatory framework assign 'approving business plans' as an explicit responsibility of the Board of Directors without reference to any higher authority?

7	Does the legal and the regulatory framework assign 'setting and monitoring performing objectives' as an explicit responsibility of the Board of Directors without reference to any higher authority?
8	Does the legal and the regulatory framework assign 'selecting, appointing and overseeing the CEO' as an explicit responsibility of the Board of Directors without reference to any higher authority?
9	Does the legal and the regulatory framework assign 'approving and overseeing decisions to raise capital from debt' as an explicit responsibility of the Board of Directors without reference to any higher authority?
10	Does the legal and the regulatory framework assign 'approving and overseeing decisions to raise capital from equity' as an explicit responsibility of the Board of Directors without reference to any higher authority?
11	Does the legal and the regulatory framework assign 'approving and overseeing major capital expenditures' as an explicit responsibility of the Board of Directors without reference to any higher authority?
12	Does the legal and the regulatory framework assign 'deciding and implementing tariff adjustments' as an explicit responsibility of the Board of Directors without reference to any higher authority?
13	Does the legal and the regulatory framework assign 'approving human resource hiring and firing decisions' as an explicit responsibility of the Board of Directors without reference to any higher authority?
C	SOE/CORPORATE MANAGEMENT
i	Financial Discipline
1	Does the SOE have a credit rating?
2	Is the SOE at liberty to issue new bonds?
3	Is the SOE at liberty to issue new equity
4	Does the SOE pay dividends to its shareholders? If so, please provide dividend payments annually paid by each SOE over the last 3 years for which info is available.
5	Does the SOE receive subsidies from the Government? If so, please provide this information annually by each SOE over the last 3 years.
6	Does the SOE have explicitly defined public service obligations?
7	Has the PSO been publicly disclosed?
8	Has the PSO been costed?
9	Is the PSO being compensated by the government?

10	Is the SOE required to meet financial performance targets by its shareholders?
11	Does the SOE have in place a system of internal financial controls?
12	Is there an internal audit function in place?
13	Does the SOE produce annual financial accounts?
D	HUMAN RESOURCE
1	Does the company conduct annual performance reviews of employees?
2	Is the company able to pay bonuses to award good employee performance?
3	Is the company able to fire employees for poor performance?
4	Are the employees of the SOE required to follow the employment regulations that are applicable to the government or the civil service?
5	Are the wages of the SOE's employees dictated by pay scales set for the government or the civil service?
6	Does the SOE have a clear policy for staff training?
7	Can managers autonomously, without need for higher level approval, hire employees?
8	Can managers autonomously, without need for higher level approval, fire employees?
9	Can managers autonomously, without need for higher level approval, execute budget?
10	Can managers autonomously, without need for higher level approval, implement investment projects?
11	Does the process of appointment of staff involve public advertisement of positions?
12	Does the process of appointment of staff involve short-listing?
13	Does the process of appointment of staff involve interviews?
14	Does the process of appointment of staff involve reference checks ?

E	INFORMATION AND TECHNOLOGY (QUESTIONS E1-E7 ARE SPECIFIC TO ELECTRIC UTILITIES. OTHER SECTOR SOES SHOULD FILL THE REST OF THE SECTION.)
1	Does the SOE have a SCADA system?
2	Does the SOE have an IT system to support recording and resolving incidents/interruptions in electricity supply in the network?
3	Does the SOE have an IT system to support distribution management?
4	Does the SOE have an IT system to support energy management?
5	Does the SOE have a Geographic Information System (GIS)?
6	Are any KPIs being used to monitor the quality of electricity supply?
7	Does the SOE have Advanced Metering Infrastructure (AMI) (smart meters)?
8	Does the SOE have an up to date and accurate customer database?
9	Does the SOE have its own call center (or its own sub-contracted call center) for dealing with customer complaints?
10	Does the SOE have a website for submission and follow-up of customer complaints?
11	Is customer satisfaction regularly monitored through a customer survey undertaken either by the SOE or by the regulator?
12	Does the SOE have a commercial management system (CMS)?
13	Does the SOE have a corporate Resource Management System (RMS), or another system that incorporates financial and accounting reporting?
14	Are any Key Performance Indicators currently being used to monitor the commercial and financial cycle?
15	Are any Key Performance Indicators currently being used to monitor corporate resource management?

