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TECHNICAL ASSISTANCE REPORT –PUBLIC INVESTMENT MANAGEMENT ASSESSEMENT-PIMA AND CLIMATE PIMA

This Technical Assistance Report on Pakistan was prepared by a staff team of the International Monetary Fund. It is based on the information available at the time it was completed in August 2023.

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TECHNICAL ASSISTANCE REPORT

PAKISTAN

Public Investment Management Assessment – PIMA and Climate PIMA

AUGUST 2023

Prepared By Michelle Stone, Bryn Battersby, Fazeer Sheik Rahim, David Gentry, Ian Hawkesworth, Poldy Osorio Alvarez, and Syed Wajahat Ali Shah

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Fiscal Affairs Department

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INFRASTRUCTURE GOVERNANCE FACILITY
AN IMF-JAPAN CAPACITY DEVELOPMENT PARTNERSHIP

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Abbreviations and Acronyms

CDWP	Central Development Working Party
CPEC	China-Pakistan Economic Corridor
ECNEC	Executive Committee of the NEC
EIA	Environmental Impact Assessment
EME	Emerging market economies
FABS	Financial Accounting and Budgeting System
FAD	Fiscal Affairs Department
FRDLA	Fiscal Responsibility and Debt Limitation Act
GHG	Greenhouse gas
GDP	Gross domestic product
IMF	International Monetary Fund
iPAS	Intelligent Project Management System
MoCC	Ministry of Climate Change
MTFF	Medium term fiscal framework
NAP	National Adaptation Plan
NCCP	National Climate Change Policy
NDC	Nationally Determined Contribution
NDRMF	National Disaster Risk Management Fund
NEC	National Economic Council
P3A	Public Private Partnership Authority
PFM	Public financial management
PIM	Public investment management
PIMA	Public Investment Management Assessment
PMES	Project Monitoring and Evaluation System
PPP	Public-private partnership
PPRA	Public Procurement Regulatory Authority
PSDP	Public Sector Development Program
Rs	Pakistani rupee
SOE	State owned enterprise
UNDP	United Nations Development Program

Preface

At the request of the Ministry of Finance of Pakistan, a team from the IMF's Fiscal Affairs Department and the World Bank undertook a combined Public Investment Management Assessment (PIMA) and Climate PIMA (Climate-PIMA) during the period from March 14 to March 28, 2023. The mission team was led by Ms. Michelle Stone and comprised Mr. Bryn Battersby, Mr. Fazeer Sheik Rahim, and Mr. Ian Hawkesworth (all Fiscal Affairs Department, IMF), Mr. David Gentry and Ms. Poldy Osorio Alvarez (short-term experts) and Syed Wajahat Ali Shah, Procurement Specialist from the World Bank.

In the Finance Division, the mission met Finance Secretary, Mr. Hamed Yaqoob Sheikh, Additional Finance Secretary (AFS) External Finance, Mr. Ali Tahir, AFS Budget, Mr. Tanvir Butt, Economic Advisor, Dr. Imtiaz Ahmad, Sr. Joint Secretary Corporate Finance, Dr. Imran Khan, Joint Secretary Budget I, Mr. Iftikhar Amjad, Joint Secretary Budget III, Mr. Obaid Anwar, Joint Secretary Debt, Mr. Nawaz Aalam, and staff in the Budget, Corporate Finance, Debt, and Economic Wings.

At the Ministry of Planning, Development and Special Initiatives (Planning Commission), the mission met Joint Chief Economist Economic Policy, Mr. Zafar ul Hassan; Chief Employment and Growth, Mr. Shahid Zia Cheema; Member Climate Change, Ms. Nadia Rahman; Chief Water, Mr. Asghar Ali; Chief Power, Mr. Arshad Khan; Chief Evaluation, Mr. Ali Talpur; Chief Education, Ms. Mumtaz Ali Sheikh; Chief Public Investment Authorization, Hafiz Shahid Abbas; Chief Governance, Mr. Javed Sikandar; Chief Energy, Finance and Economic Section, Mr. Inayat Qureshi; and staff in the Economic Appraisal, Growth and Employment, Macroeconomic, Plan Coordination, Public Investment Authorization, Public Investment Programming and Monitoring sections.

The team met with representatives of the Ministries of Climate Change, Power, Communications, Education, National Highway Authority, National Disaster Management Fund, National Disaster Management Authority, Pakistan Competition Commission, Public Private Partnership Authority (P3A), Auditor General Pakistan, and the Public Procurement Regulatory Authority, and the Governments of Baluchistan, Khyber Pakhtunkhwa, Punjab and Sindh.

The team would like to thank the Government of Pakistan for their cooperation and their participation in constructive discussions during the assessment, and particularly Mr. Iftikhar Amjad and Ms. Ayesha Javed in Finance Division and Mr. Zafar ul Hassan and Mr. Shahid Cheema in Planning Commission for coordinating mission activities and their hospitality. The team is also grateful to Ms. Esther Perez, IMF Resident Representative, and Mr. Zafar Hayat and Mr. Muhammad Ali of the IMF Resident Representative Office in Islamabad for their logistical support.

This final report reflects comments received from the Ministry of Finance, the Ministry of Planning, Development and Special Initiatives, other officials in the Government of Pakistan and those from IMF reviewers.

Executive Summary

With Pakistan's rapid population growth and large diverse country, it is imperative that public infrastructure effectively supports economic growth and service delivery. In practice, public investment by the federal government, which accounts for less than half of all public investment in Pakistan, has tended to vary with economic conditions. Comparisons with peers suggests that Pakistan's capital stock and efficiency of public investment are both relatively low. Ensuring public infrastructure is climate resilient is also critical given Pakistan's exposure to climate risks. All modelled global warming scenarios suggest that Pakistan's weather patterns will become more unstable and severe. Increasingly frequent and severe extreme weather events such as floods, heatwaves, and droughts pose a significant threat to the country's infrastructure.

This report finds scope to strengthen Pakistan's institutions for public investment management. The report applies the Public Investment Management Assessment (PIMA) framework. It finds that while Pakistan scores slightly above average compared to the emerging market economies that have undertaken the PIMA to date (as outlined at Section III.B) there are still significant gaps in key areas the impede the delivery of critical infrastructure services in Pakistan. Pakistan has taken some important steps to improve public investment management, including through reforms incorporated in the Public Financial Management (PFM) Act 2019 and the 2021 Manual for Development Projects. However, their implementation is incomplete and contributes to Pakistan's scores for institutional design against the PIMA framework being higher than those for effectiveness (Figure 1, Table 1).

Pakistan's institutions to support climate sensitive public investment management are at an early stage of development. This report applies the 2021 Climate-PIMA module that provides a deeper focus on the climate-relevant aspects of public investment management covered by the PIMA. As one of the countries most exposed to climate change, Pakistan is ahead of many of its peers in understanding the importance of sustainable and resilient public infrastructure, with a strong framework for climate action across the country. Still, there is room to accelerate progress on climate-sensitive public investment management, which can be expected to improve Pakistan's ability to attract climate finance.

Some mechanisms are in place to ensure coordination and alignment between national goals and strategies, and individual investment projects. The previously well-established national planning process was interrupted with the failure to formalize the 2018 National Plan. Sectoral plans provide strong guidance in some sectors, with more comprehensive plans in place in energy and climate. Mechanisms for coordination with the provinces, culminating in the National Economic Council (NEC), are effective—particularly for projects within the Public Sector Development Program (PSDP). However, state-owned enterprises (SOEs) and other federal government entities that fund infrastructure investment projects from their own revenues are not presented comprehensively with other plans. This creates the potential for a lack of coordination and limits the visibility of all stakeholders of the investment plans of the public sector as a whole and the risks that they may entail. Climate relevant actions are coordinated by a range of investment plans including the National Climate Change Policy Implementation Framework, which contributes to the high score for climate change coordination (Figure 2 and Table 2). Notwithstanding this, determining the allocation of Pakistan's Nationally Determined Contribution between sectors and levels of government, along with finalising the National Adaptation Plan, will be important in establishing sound planning frameworks for resilient infrastructure.

Timely implementation of planned steps to update the project appraisal methodology is needed, including the incorporation of climate change adaptation and mitigation. The Planning Commission and the Ministry of Climate Change (MoCC) are working on additional guidance and methodologies, including to operationalize the requirements to consider climate change adaptation and mitigation in project development and appraisal. These will be important to ensure that projects are appraised consistently, and similar rules and rigor should apply to all major projects, regardless of financing source. Updating complementary regulation for PPPs led by the PPP Agency, which manages a portion of federal PPPs, is important given the intention to expand the use of PPPs. With a fragmented PPP framework, the Finance Division should also actively monitor fiscal risks across the entire PPP portfolio, both at federal and provincial levels.

With Pakistan's highly constrained budgetary resources, selecting the right projects for funding becomes even more critical. The PFM Act requires that all projects must be technically approved before receiving funds in the budget. This is a good practice and should be maintained. However, other selection criteria to guide the allocation of limited budget resources are not in place and would help ensure projects are aligned with policy goals, including Pakistan's climate commitments.

Pakistan's tight fiscal environment generates acute challenges for implementation of the investment program. Funding allocated to ongoing projects in the PSDP is insufficient to meet project implementation plans and leads to slowing down the delivery of the projects (both between and within the budget year). This creates inefficiencies in project delivery and may lead to governance challenges. It can also mask other sources of delays and difficulties in project implementation. Weaknesses in core budgetary processes for expenditure planning and control, shown by Pakistan's high reliance on virements and supplementary grants, also contributes to inefficiencies in capital spending.

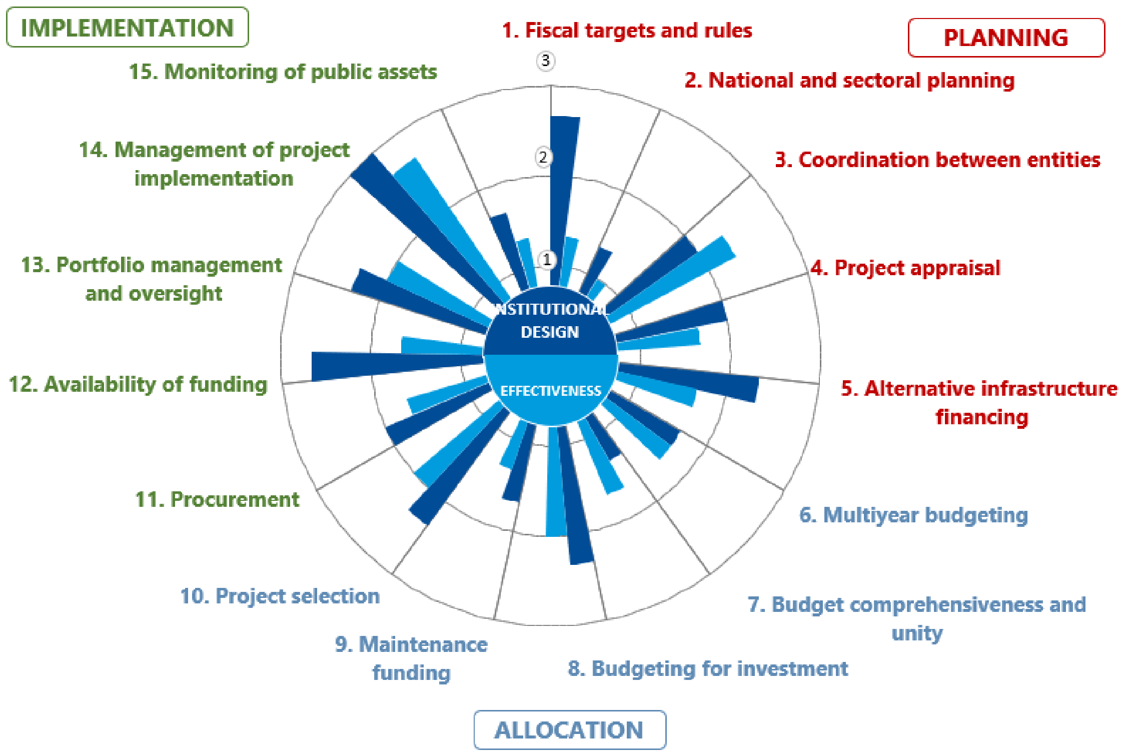
More broadly, the PSDP is unaffordable and should be reassessed. The total cost to complete projects in the PSDP is Rs. 10.7 trillion, more than 14 times the budget allocation of Rs. 727 billion in 2022-23. Notwithstanding intentions to prioritise the completion of ongoing projects, new projects with a total cost Rs. 2.3 trillion were added by government in the last budget. In addition, the separate preparation and oversight of the current budget and the development budget, by Finance Division the Planning Commission respectively, can lead to inconsistent and sub-optimal decision making.

On paper, Pakistan's project and portfolio implementation and monitoring systems are sound. However, implementing the current requirements for ex-post evaluation, and establishing more active portfolio oversight, would better inform decision makers on the status of the portfolio and identify lessons to be applied in implementing ongoing projects and preparing new ones. This could draw from the strong systems to record project level information already in place and inform analytical portfolio reports such as a strategic report to NEC on the implementation of core projects.

Government has some skilled staff that can move reforms to address these challenges forward, though it will be difficult. While some staff have a good understanding of strong practices, achieving implementation through changed approaches and culture across the public sector requires focused and sustained effort. Building knowledge of climate change aspects at all stages of the project cycle is also a priority.

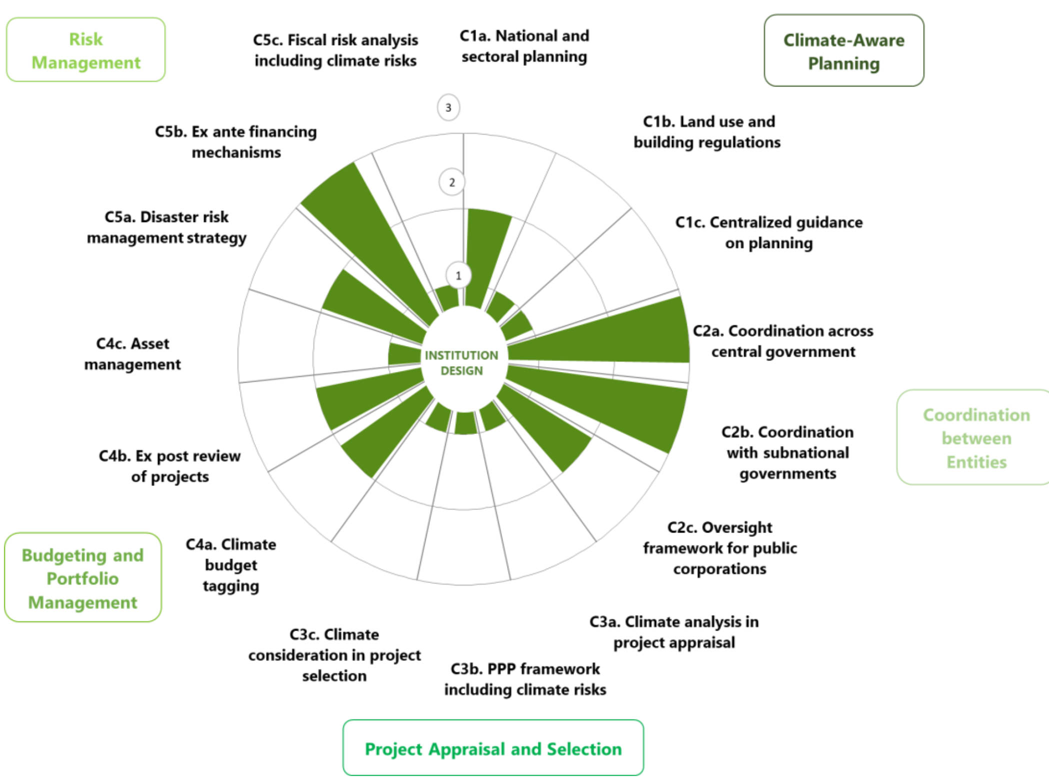
The recommendations of the team are summarized in Table 3. An Action Plan Is at Annex 1.

Figure 1. Pakistan PIMA: Institutional Design and Effectiveness



Source: Staff calculations.

Figure 2. Pakistan Climate-PIMA: Institutional Design



Source: Staff calculations.

Table 1. PIMA Summary Assessment for Pakistan

Phase/Institution			Institutional Strength	Effectiveness	Reform priority
A. Planning	1	**Fiscal targets and rules**	**HIGH.** The law contains fiscal and debt targets. A medium-term fiscal framework is required to guide the budget process.	**LOW.** Fiscal rules have had little impact in containing expenditure in last 10 years and debt limit has often been breached.	High
	2	**National and sectoral planning**	**LOW.** Five-year planning stopped in 2018 and existing plans are not costed and lack measurable outcomes.	**LOW.** There is a missing link from goals to plans so it is not possible to know how PSDP projects are helping to attain national goals.	High
	3	**Coordination between entities**	**MEDIUM.** A strong coordination mechanism exists between federal and provincial governments. Requirements to report on contingent liabilities still under development.	**MEDIUM.** The coordination mechanism works well in practice though volatility persists. Work is under way to improve central oversight of PPPs and SOEs.	Low
	4	**Project appraisal**	**MEDIUM.** Rigorous appraisal required for budget funded projects with central support. Appraisals not published / externally reviewed.	**MEDIUM.** Projects are returned for improvement, but full processes are not yet operational.	Medium
	5	**Alternative infrastructure financing**	**MEDIUM.** Regulations support competition in major markets. Multiple PPP frameworks are in place. Centralized monitoring for SOEs was recently regulated.	**MEDIUM.** Competition is functional in some markets. PPP frameworks are incomplete. Comprehensive SOE oversight is not yet in place.	High
B. Allocation	6	**Multi-year budgeting**	**MEDIUM.** Budget documents project three year and total costs of PSDP projects, but no multi-year ceiling is set for ministries/sectors.	**MEDIUM.** Multiyear projections are close to future allocations. Tracking evolution of costs of major projects is difficult.	Medium
	7	**Budget comprehensiveness and unity**	**LOW.** Current and development budgets prepared by separate ministries. Law does not require autonomous bodies to report their own source funded projects.	**MEDIUM.** Some autonomous bodies undertake significant investments from their own resources outside the budget, but work is under way to report them.	Medium
	8	**Budgeting for investment**	**MEDIUM.** Appropriations are annual. No transfers from development to current budget. A mechanism exists to prioritize ongoing projects.	**MEDIUM.** Commitments are not recorded. Ongoing projects receive significantly less funding than needed to complete on time.	High
	9	**Maintenance funding**	**MEDIUM.** With some exceptions, standard methodologies for estimating maintenance needs are pending, although those expenses must be identified in the budget.	**LOW.** In practice routine and capital maintenance levels shown in the budget are considered inadequate to retain asset values.	Low
	10	**Project selection**	**MEDIUM.** Major projects are reviewed centrally for selection. No published selection criteria. Pipeline of approved projects exists.	**MEDIUM.** Review and selection processes are adhered to. Projects may be added to the draft PSDP by Cabinet and Parliament.	High
C. Implementation	11	**Procurement**	**MEDIUM.** Must be open transparent and competitive for most large projects with a mechanism for independent complaints, but no single database of procurement.	**MEDIUM.** Is mostly open transparent and competitive. Adequate monitoring and analysis do not take place. Complaints process has mixed results.	Low
	12	**Availability of funding**	**HIGH.** Cash forecasts produced monthly. Cash is available consistent with releases. Donor accounts are in the treasury single account.	**MEDIUM.** Cash is provided as expected, but releases are used to control expenditures. Data on donor project accounts is available.	Medium
	13	**Portfolio management and oversight**	**MEDIUM.** A well-structured monitoring system is established. Reallocation of funds is loosely regulated. Standardized ex post reviews include lessons learned.	**MEDIUM.** Systematic cost overruns and delays are reported. Reallocation of funds is a common, though execution is modest. Few projects did ex post reporting.	Medium
	14	**Management of project implementation**	**HIGH.** Implementation plans are required. Processes for major project adjustments and ex-post external auditing are in place.	**HIGH.** Implementation plans done before project approvals. Project adjustments are scrutinized. Performance audits are conducted by the Auditor General.	Low
	15	**Monitoring of public assets**	**MEDIUM.** Ministries required to maintain asset registers, but no requirement for showing fixed assets or depreciation in financial statements.	**LOW.** Requirement to maintain asset registers not enforced. Outlays on fixed assets but not depreciation shown in financial statements.	Medium

Table 2. C-PIMA Summary Assessment for Pakistan

Phase/Institution			Institutional Strength	Reform priority
PIMA Climate Change	C1	Climate-aware planning	**LOW**. Pakistan's public investment planning for climate change lacks centralized guidance and a multi-year investment strategy. Urban planning and building codes do not address climate-related objectives and risks.	Medium
	C2	Coordination between entities	**HIGH**. Climate change investments are coordinated centrally and nationally through the National Climate Change Policy framework. The oversight framework for public corporations does not ensure climate alignment, though some regulators address climate.	Low
	C3	Project appraisal and selection	**LOW**. Project appraisal and selection criteria do not reference climate change. There is no framework to assess the climate sensitivity of PPPs.	High
	C4	Budgeting and portfolio management	**MEDIUM**. While some climate-related investments are identifiable, there is no systematic approach to identifying them yet, but this is being addressed by the ongoing tagging exercise. Ex-post audits are conducted by Auditor General of Pakistan, but asset management and maintenance policies do not address climate-related risks.	High
	C5	Risk management	**MEDIUM**. The government publishes a disaster risk management strategy, but with limited climate change analysis. Ex-ante financing mechanisms exist that cover climate-related risks. However, current fiscal risk analysis does not include analysis of climate-related risks.	Medium

Table 3. High Level Summary of PIMA and C-PIMA Recommendations

Recommendation*	Priority	PMA Institution
Investment Strategy and Planning		
Develop a new five-year strategy identifying major projects across all sectors and funding sources to guide sectoral investment plans (Planning Commission, Dec 2024).	High	1, 2
Strengthen the appraisal process focusing on large projects, increasing independent scrutiny and developing guidance on key appraisal inputs (Planning Commission, December 2024)	Medium	4, C3
Improve information, scrutiny and coordination of major projects regardless of funding source and the fiscal risks that they might create. (Finance Division / Planning Commission, various)	High	4, 5, 6, 7, 10
Present in budget documentation summary information on key aspects of the PSDP and the wider public investment program. (Finance Division & Planning Commission, from mid-2023)	Medium	4,7,8,9
Update and complement the regulatory framework and appraisal methodologies for PPPs across sectors and level of governments (P3A, June 2024)	Medium	5
Reinvigorate action to implement the SOE Triage report prepared in 2021 on the privatization and restructuring program for SOEs. (Finance Division, June 2025)	Medium	5
Allocation of Investment		
Develop and publish criteria for selecting projects to receive funding in the PSDP. (Planning Commission and NEC, Dec 2024)	High	10
Conduct a one-time review of all technically approved projects and reduce the approved projects to high priority projects. (Planning Commission, December 2024)	High	6, 10, 13
Examine scope to reduce the within year adjustment of capital expenditure (including restricting the ability to add new projects through supplementary grants or virements). (Finance Division, December 2023).	Medium	6,8
Set multi-year indicative budget ceilings by ministry. (Planning Commission, June 2024)	Medium	6
Investment Implementation		
Utilize data captured during project monitoring to develop analysis of portfolio trends to improve project implementation and development; and increase compliance with requirements for ex-post review. (Planning Commission, various)	Medium/Low	13, 14
Publish procedures for federal ministries to retain and publish information on public assets; and methodologies for maintenance. (Planning Commission and Finance Division, various)	Medium / Low	15, C4
Increase use of e-procurement and increase monitoring and reporting on procurement. (Public Procurement Regulatory Authority, Dec 2024)	Medium	11
Climate-Sensitive Public Investment		
Identify sectoral contributions to climate change mitigation and adaptation targets and prepare costed investment plans. Publish the handbook on incorporating climate resilience and adaptability in sectoral planning and project preparation (Planning Commission, 2023).	Medium / High	2, C1
Finalize Climate Change Resilient Urban Human Settlement Strategy; add climate-resilience and mitigation measures in future building codes/urban planning guidelines (MoCC, 2023).	High	C1, C2
Develop guidance on climate sensitive appraisal inputs e.g., discount rate, shadow pricing standards, valuation of GHG emissions & climate impacts (Planning Commission, Dec 2024)	Medium	4, C3
Implement green budgeting, a green budget statement; and long-term fiscal sustainability analysis considering different climate change scenarios. (Finance Division, from mid-2023)	Medium	C4, C5
Develop and publish criteria for selecting projects to receive funding in the PSDP incorporating climate change criteria. (Planning Commission and NEC, Dec 2024)	High	10, C3
Identify and document infrastructure assets in key sectors that are exposed to climate-related natural disaster risks (National Disaster Management Authority, 2024)	Medium	C5
Train staff to strengthen the capacity of the key agencies to oversee and coordinate investment projects targeting the achievement of climate goals. (Various)	High	C1-C5

*Note this is a high-level summary of recommendations that are presented in more detail in relevant sections/chapters and Annex I.

I. Public Investment in Pakistan

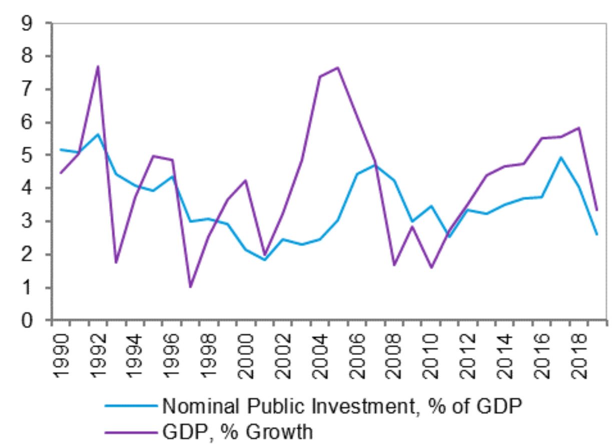
1. In recent years, Pakistan has taken important reform steps, emerging from a turbulent end to the 2010s. Decisive policy and reform implementation started to reduce economic imbalances and set the stage for improving economic performance. Fiscal reforms started to improve budgetary discipline and broaden the tax base. However, the Covid-19 shock forced the authorities to shift their policy priorities toward supporting the economy and saving lives and livelihoods. Sizeable emergency financing from the international community has helped ease financing pressures.

2. As set out in Pakistan Vision 2025, infrastructure service provision is a key enabler for sustainable growth and to achieve its climate adaptation and mitigation goals. The first two chapters of the report provide context for the PIMA/Climate-PIMA and include time-series data on public investment for Pakistan and cross-country comparisons with similar countries. Chapter III and IV contain the PIMA and Climate-PIMA assessments and Chapter V covers cross cutting issues. Recommendations appear throughout the report at the end of each investment phase (PIMA) and chapter (Climate-PIMA).

A. Public Investment, Capital Stock and Fiscal Policy

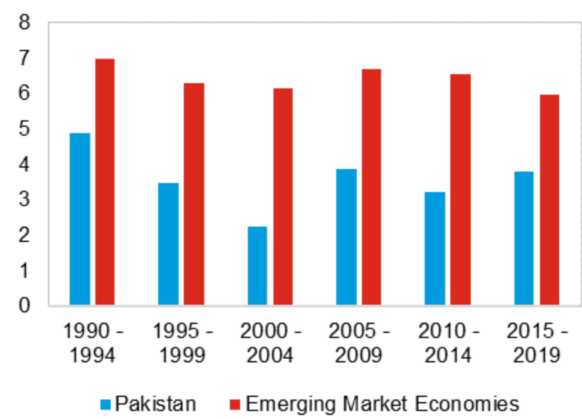
3. Public capital stock in Pakistan stood at 55 percent of GDP (2019) after three decades characterized by variation in terms of spending. The public investment budget has been procyclical, and PPP investments have inversely mirrored the trend. The 1990s saw a sharp drop in annual investment flow – from nearly 6 percent of nominal GDP in 1992 to less than 2 percent in 2000. This was followed by nearly two decades characterized by substantial swings between 4.5-2.5 percent investment flow annually, with marked peaks in 2007 and 2017 (Figure 1). In general, such large variations from year to year tends to make it difficult to plan and execute large infrastructure investments that by their very nature require predictable planning horizons and several years for construction. The danger is that with great variation, certain assets may not be completed on time if at all, large cost overruns may arise, and assets may deteriorate prematurely due to slow completion.

Figure 1.1. Public investment Trends



Source: IMF Staff.

Figure 1.2. Average. Public Capital Stock
(percent of GDP)



Source: IMF Staff.

4. **In nominal terms public investment has also varied over the last years.** There was a marked increase from 2016-17 to 2017-18 of around Rs. 500 billion to around Rs. 2,000 billion which held steady in 2018-19. After this a gradual decline in 2019-20 and 2020-21 left the investment budget lower at around Rs. 1,700 billion, only to be followed by a strong ramp up to nearly Rs. 2,400 billion. As a percentage of GDP, the period is mostly defined by a downward trend – from a high of 5.28 percent in 2017-18 to 3.55 percent in 2021-22.

5. **Pakistan's stock of infrastructure declined markedly in the 1990s and mid-2000s, but recovered somewhat to around the 1995-1999 level by 2019 at 3.8 percent of GDP (Figure 1.2).** It remains weaker than its emerging market peers. During the period 1990 to 2019, Pakistan's stock of infrastructure has varied in terms of the gap to its emerging market peers as a percentage of GDP. The gap widened from 1990-2004, narrowed between 2005-2009, reversed again in 2010-2014 and then narrowed in 2015-19 to around 2.2 percent of GDP.

6. **Pakistan's capital stock is particularly low relative to peers when compared on a per capita basis.** Figure 1.3 shows comparisons with a peer group "Peers 1" consisting of Bangladesh, Egypt, Iran, India, Indonesia, Morocco, and Turkey. In 2019, Pakistan's capital stock was sixth largest of the selected eight at 54.9 percent of GDP (PPP adjusted). When considering capital stock on a per capita basis, the position drops to last place at USD 1,900 per capita (Figure 1.4), a little behind Bangladesh. This reflects Pakistan's high birthrate and slower GDP growth compared to most peers shown. The difference in capital stock per capita cannot be explained by the difference in GDP numbers alone, as GDP per capita in Pakistan is broadly comparable with India and not too far from Morocco (Figure 1.5).

Figure 1.3 Public Capital Stock % of GDP

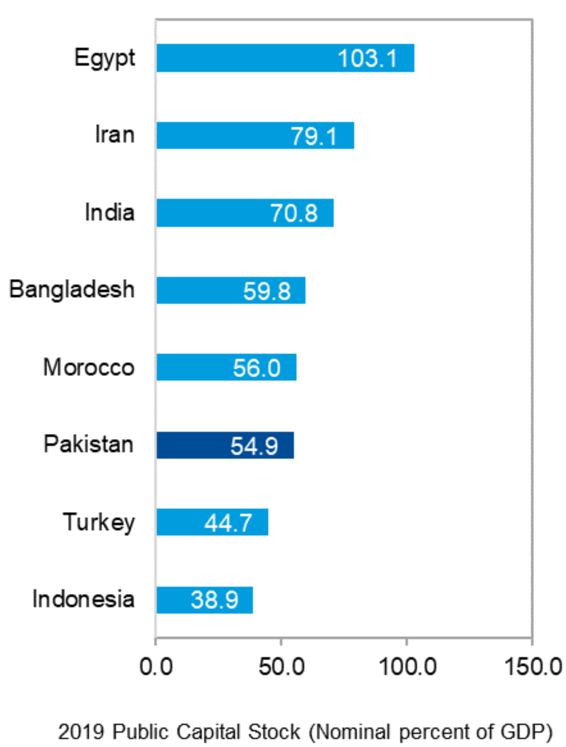
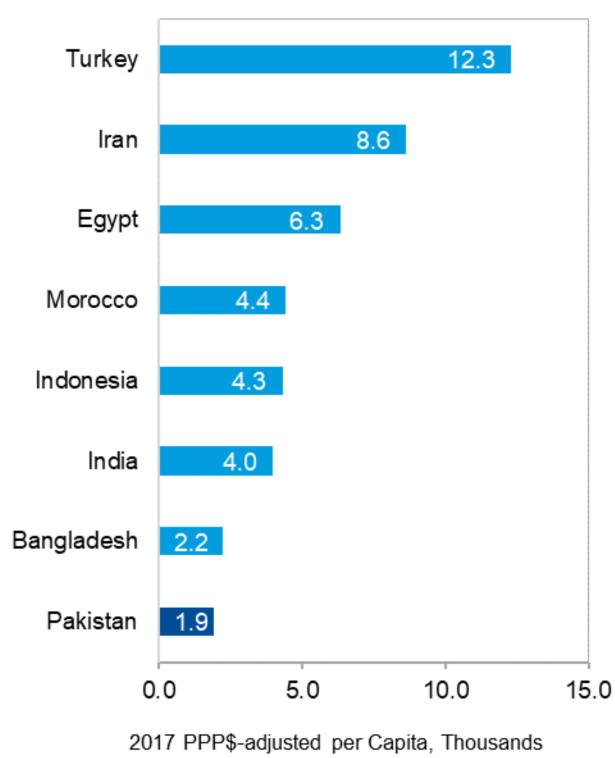
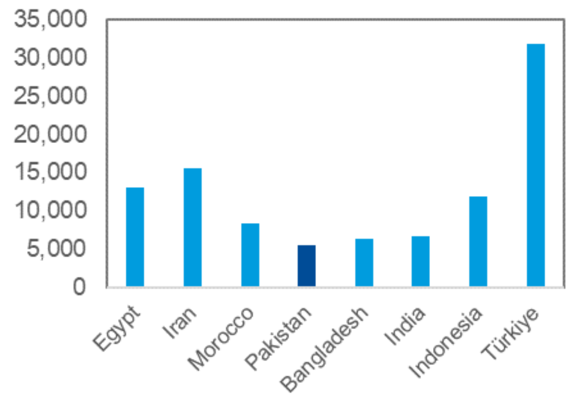


Figure 1.4 Public Capital Stock per Capita



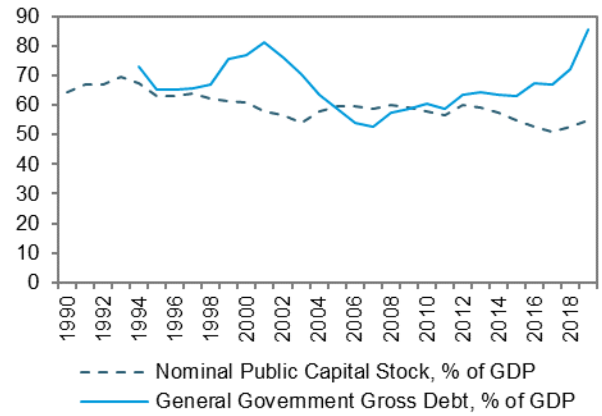
7. General government debt has been climbing since the mid-2010s (Figure 1.6). This reflects the economic headwinds Pakistan has been facing from that period as discussed elsewhere. Importantly, the growth in government debt has not been matched by similar growth in the value of capital stock.

Figure 1.5. 2021 GDP per Capita
(2017 PPP$-adjusted)



Source: IMF Staff.

Figure 1.6. Capital Stock and Government Debt



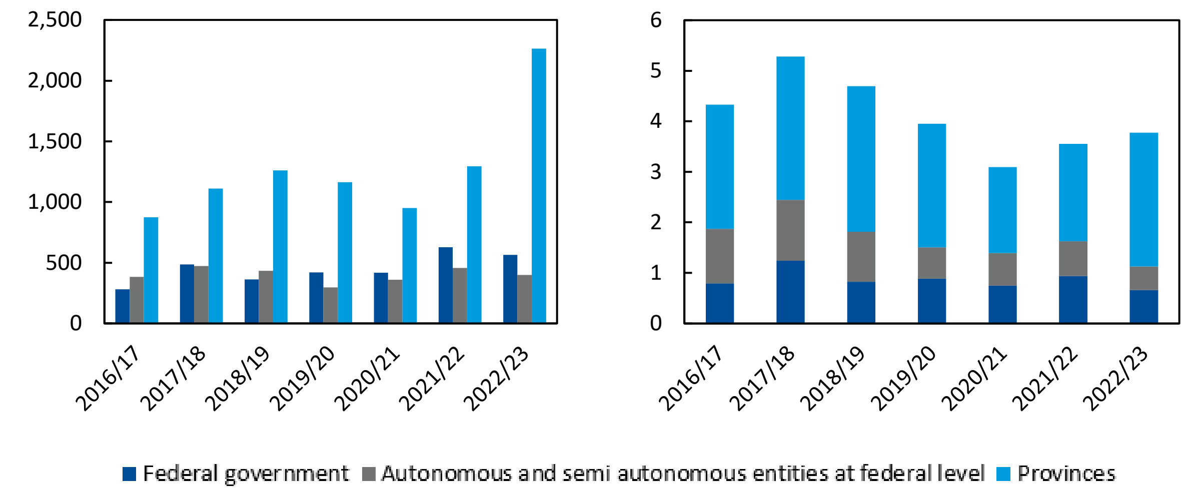
Source: IMF Staff.

B. Composition and Financing of Public Investment

8. In recent years, an increasing share of public investment has been executed by provincial governments. Amendment 18 of the Constitution in 2011 granted more autonomy and power to provinces and the special areas of Azad Jammu Kashmir and Gilgit-Baltistan, including control over education and health. It also increases the share of federal resources of the four provinces and allowed them to collect and retain revenue from certain sources. As a result, capital investment executed at a subnational level (which includes provinces, special areas, and their respective districts) has trended upwards since, representing an average 60 percent of total capital spending in the last six years. At the federal level, capital spending is directly executed by line ministries or by autonomous and semi-autonomous agencies, such as the National Highway Authority, the Water and Power Development Authority, the Airport Authority and the Ports Authority. Taken together, these agencies have executed approximately one-fifth of the capital spending in recent years, a figure comparable to the capital spending carried out by line ministries (Figure 1.7).

Figure 1.7 Public Investment by Executing Entity

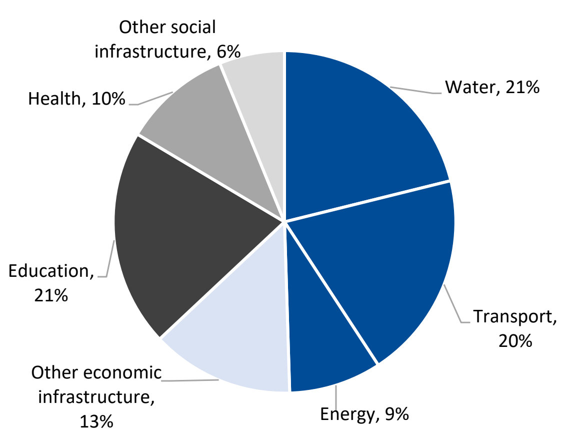
(in Rs. billion) (in percent of GDP)



Source: Staff calculations from PSDP and National Accounts. Figures for 2022/23 are budgeted figures.

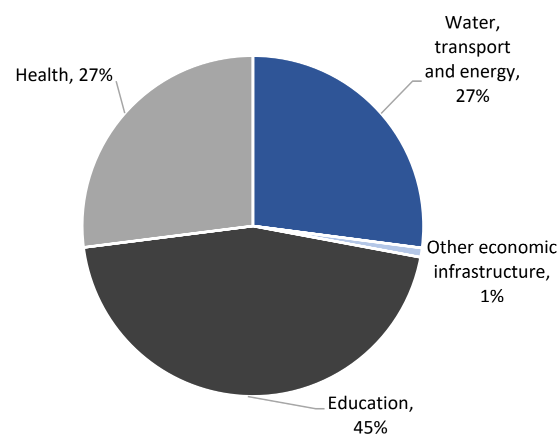
9. **While investment at the federal level was directed towards economic infrastructure, provinces devoted the bulk of their development spending to the education and health sectors.** These two sectors represented nearly three quarters of provincial PSDP budgets in 2021-22 (Figure 1.9) compared to less than one third of the federal PSDP. At the federal level a little over half of the PDSP was spent on economic infrastructure (energy, transport, water, other economic) and the remaining was spent on social infrastructure (education, heath, other social) (Figure 1.8).

Figure 1.8 Federal PSDP Spending (by sector in 2021-22)



Source: 2021-22 Federal PSDP

Figure 1.9 Provincial PSDP (by sector 2021-22)



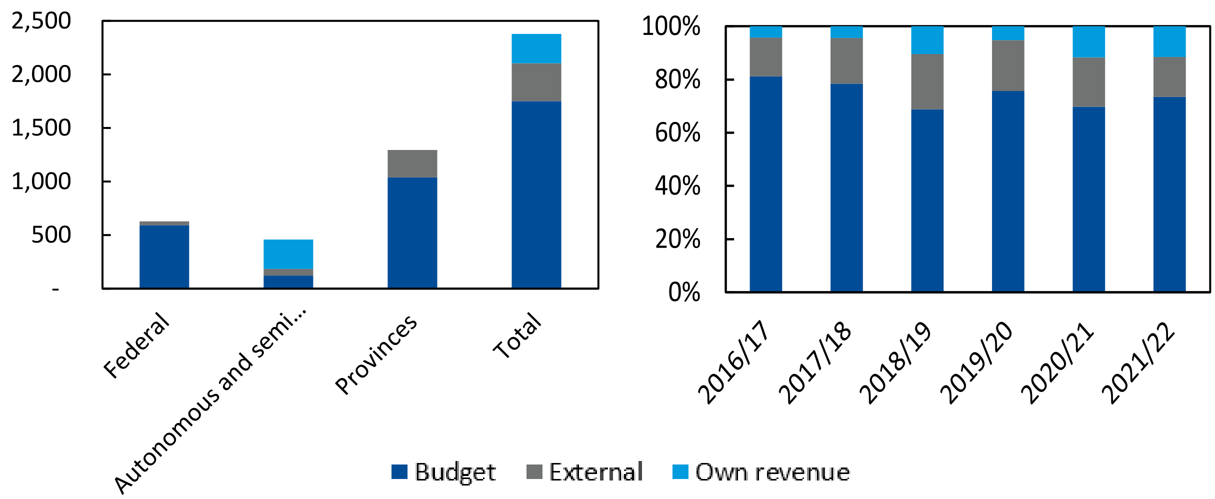
Source: 2021-22 provincial PSDPs.

10. **The majority of public investment by federal line ministries and provinces is financed through budgetary funds.** In 2021-22, three-quarters of public sector investment was budget funded, an additional 15 percent financed through external sources, primarily from development partners with a domestic component (Figure 1.10), and the remainder being investment made by autonomous entities,

from their own resources. The latter has been growing in recent years. Nonetheless, around 40 percent of their capital investment was still financed through the PSDP in 2021-22, which includes both domestic and external funding. This largely represents National Highway Authority's and Water and Power Development Authority's investment in roads, and water and power respectively, which benefit from the bulk of budget funding.

Figure 1.10. Public Investment by Funding Source

(in Rs. Billion, in 2021-22) (in percent of total)



Source: Staff calculations from PSDPs and National Accounts

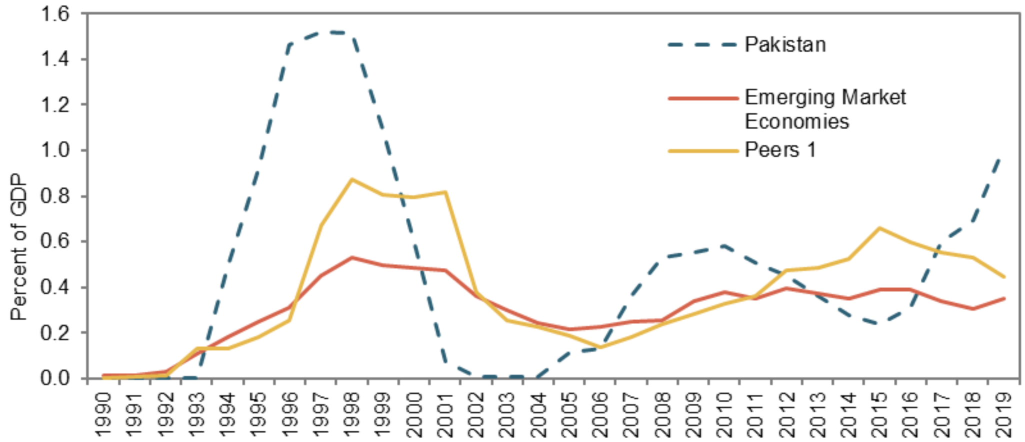
11. Pakistan has accumulated a large stock of Public-Private Partnerships since the early 1990s. PPP deal flow has been volatile over the last decades and is marked by sharper peaks and troughs compared to its peers (Figure 1.11). In broad terms, the value of PPPs concluded in a year is inverse to the ordinary budget funded investment program (Figure 1.11), with peaks in the late 1990s, around 2010 and with a steep upward trajectory in the late 2010s. In terms of stock, Pakistan's PPP program is comparable to that of India as a share of GDP, well ahead of peers such as Indonesia, Egypt, Bangladesh, and Iran (Figure 1.12). In total, 108 infrastructure-based PPP contracts with an approximate USD 28.4 billion (2019 dollars) deal value achieved financial closure from 1990 to 2019 (Figure 1.13). The projects were predominantly in the energy sector (94 deals, 87 percent of total portfolio size)[1], with some in ports (nine deals, 11 percent of total portfolio size), and with the remaining five deals (4 percent) covering information and communication technology (ICT), airports, waste disposal and more recently in roads.[2] The energy projects are mainly take-or-pay, availability payment type contracts, and 33 of the contracts have credit enhancement in the form of sovereign guarantees.[3]

[1] Mainly on the electricity generation side in the form of gas fired power plants.

[2] At the Federal level, 6 road PPPs have been awarded, of which 4 are operational, 1 under construction and 1 in the process of financial close.

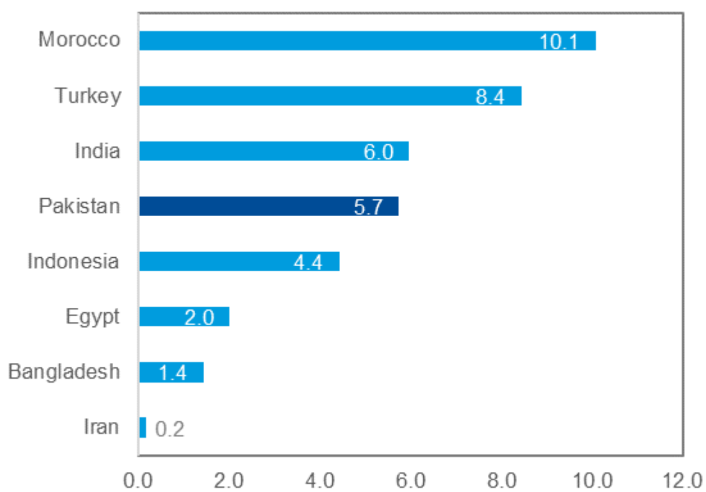
[3] PPP Monitor, Asian Development Bank, July 2021.

Figure 1.11. PPP Flow, Nominal as a percent of GDP



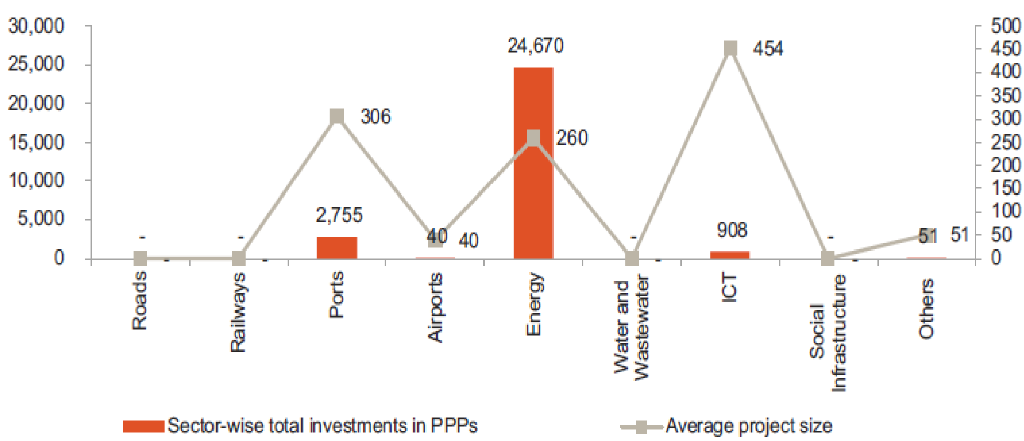
Source: IMF Staff.

Figure 1.12 PPP Capital Stock, Nominal, percent of GDP



Source: IMF Staff.

Figure 1.13 Investment in Public-Private Partnerships, by sector 1990-2019, USD million



Source: PPP Monitor Pakistan (2021) Asian Development Bank.

II. The Efficiency of Public Investment

12. The PIMA efficiency assessment is based on a comparison of capital stock per capita to its outputs and outcomes.[4] The results for different countries are plotted, and the countries that achieve the highest scores on infrastructure access and quality perception define the efficiency frontier. Other countries are compared with this efficiency frontier to determine the efficiency gap for each country. This gap reflects how much higher the results of capital investment could be for a given level of capital stock.

13. Infrastructure access in Pakistan is low compared to the average of peers[5]. Table 2.1 shows some international proxy measures for access to infrastructure in Pakistan and peer groups. Pakistan performs well below peers on measures of access to public education infrastructure and electricity production. However, access to drinking water in Pakistan is on par with the MENAP average (for the Middle East, North Africa, Afghanistan and Pakistan region).

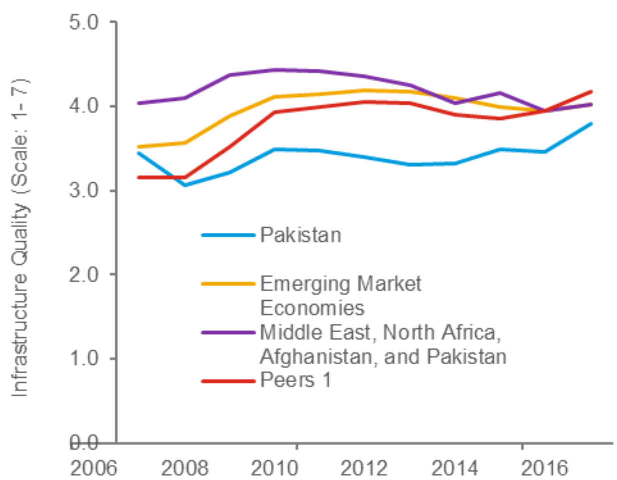
Table 2.1 Global Measures of Public Infrastructure Access

		Pakistan		Peers 1		Emerging Market Economies		MENAP	
Indicator	Unit	1990s	Most Recent Year	1990s	Most Recent Year	1990s	Most Recent Year	1990s	Most Recent Year
Public education infrastructure	Secondary teachers per 1000 people	1.8	3.3	3.5	5.1	5.2	6.7	4.8	5.5
Electricity production per capita	kWh per 1000 people	0.4	0.7	0.7	1.9	2.7	4.0	4.1	5.9
Public health infrastructure	Hospital beds per 1000 people	0.6	0.6	1.3	1.3	3.8	3.0	1.8	1.5
People using at least basic drinking water services	% of population	-	90%	-	95%	-	95%	-	90%

Source: Word Economic Forum and IMF Staff calculations.

14. On the other hand, perhaps somewhat counter intuitively, the perceived quality of infrastructure in Pakistan has improved over the years and the perception gap with peers has also narrowed (Figure 2.1). he 2018 World Economic Forum Global Competitiveness report Pakistan ranked 46 of 137 countries with respect to available airline seat kilometers (at 551.3), 52 of 137 for railroad infrastructure, 76 out of 137 for quality of roads, 115 of 137 for quality of electricity supply, and 125 of 137 for mobile-cellular telephone subscriptions /100 pop (71.4).

Figure 2.1 Global Measures of Perceived Quality of Infrastructure

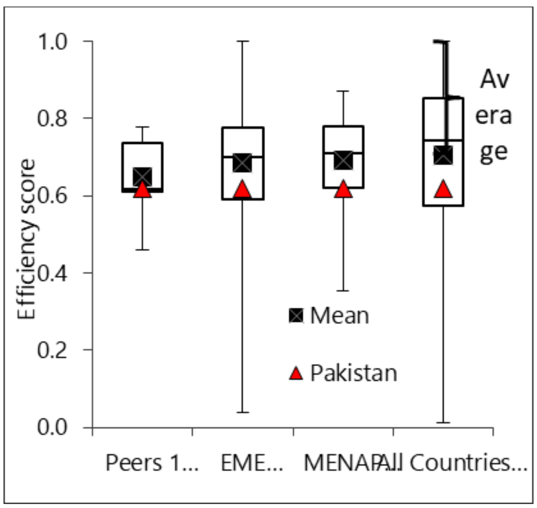


[4] https://www.elibrary.imf.org/display/book/9781513571829/CH002.xml#CH002fn04

[5] Bangladesh, Egypt, Iran, India, Indonesia, Morocco, Turkey.

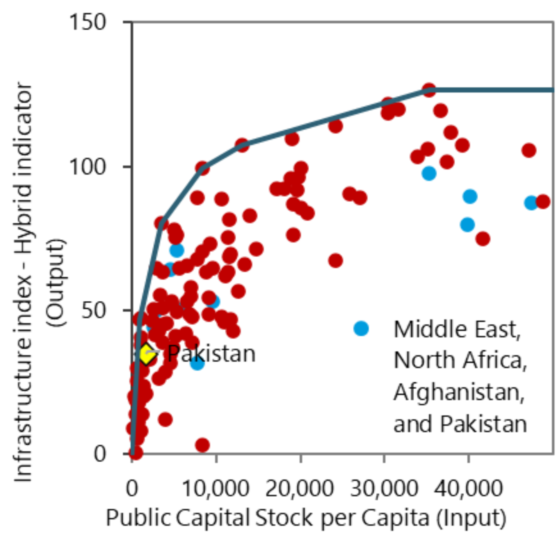
_15._ The hybrid public investment efficiency gap in Pakistan is estimated at around 38 percent, which indicates that there is considerable potential to improve the access and quality of its infrastructure. The hybrid efficiency gap[6] is a measure of the potential quality and access to infrastructure given the existing level of capital stock per capita. Pakistan's efficiency gap is only slightly larger than the mean in the peer group, but it is larger than the averages for the Emerging Economies, Middle East North Africa and all countries groups (Figure 2.2). The gap indicates that the country is not fully utilizing capital investment expenditure to provide optimal access and quality of public services and infrastructure for its population. The analysis and recommendations that follow in the next section could help to bridge this gap by improving the institutional framework for public investment management, particularly in the terms of the connection between strategic planning, appraisal, selection and implementation, and the monitoring and evaluation of projects. These measures will help the country to optimize the use of its existing resources and improve the accessibility and quality of public services and infrastructure for the population.

Figure 2.2 Public Investment Efficiency Hybrid Indicator



Source: IMF Staff.

Figure 2.3 Public Investment Efficiency Frontier



Source: IMF Staff.

[6] See the 2015 IMF Staff Report "Making Public Investment More Efficient" for an outline of the methodology for estimating investment efficiency.

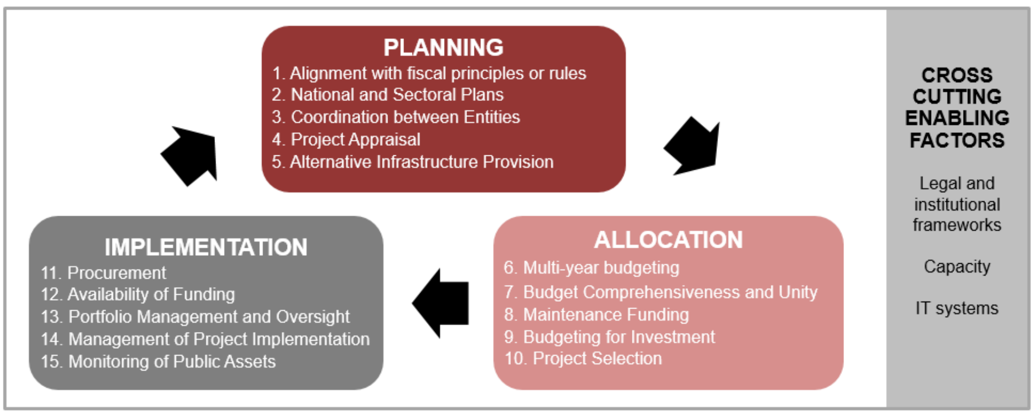
III. Public Investment Management Institutions

A. The PIMA Framework

16. **The IMF has developed the Public Investment Management Assessment (PIMA) framework to assess the quality of the public investment management of a country**. It identifies the strengths and weaknesses of institutions and is accompanied by practical recommendations to strengthen them and ultimately increase the efficiency of public investment.

17. **The tool evaluates 15 "institutions" involved in the three major stages of the public investment cycle (Figure 3.1).** These stages are: (i) planning of investment levels for all public-sector entities to ensure sustainable levels of public investment; (ii) allocation of investments to appropriate sectors and projects, and (iii) delivering productive and durable public assets, or implementation.

Figure 3.1 PIMA Framework



Source: Public Investment Management Assessment Handbook.

18. **For each of these 15 institutions, three indicators are analyzed and scored according to a scale that determines whether the criterion is met in full, in part, or not met** (see Annex 2 for the PIMA Questionnaire). Each dimension is scored on three aspects: institutional design, effectiveness, and reform priority:

- *Institutional design* refers to the objective facts indicating that appropriate organizations, policies, rules, and procedures are in place. The average score of the institutional design of three dimensions provides the score for the institution, which may be high, medium, or low.
- *Effectiveness* refers to the degree to which the intended purpose is being achieved or there is a clear useful impact. The average score of the effectiveness of the three dimensions provides the effectiveness score for the institution, which may be high, medium, or low.
- *Reform priority* refers to whether the issues contained within the institution are important to be improved in the specific conditions faced by Pakistan.

The following sections provide a detailed assessment of Pakistan according to this methodology.

B. Overall PIMA Assessment

19. Overall, Pakistan scores higher in the implementation phase of the public investment cycle than in the allocation and implementation phases. This reflects some relative strength in institutions to plan and coordinate public investments, but weaknesses in the budgeting, implementation and upkeep of infrastructure assets that has meant more projects have been initiated than can be completed and maintained. Looking at the institutions individually, three out of fifteen institutions score highly in terms of institutional design (including fiscal targets and rules, availability of funding), management of project implementation. A further ten score as medium; and two are low (planning and budget comprehensiveness). On the effectiveness side, only project implementation remains high; but four are low (fiscal targets and rules, planning, maintenance and monitoring public assets).

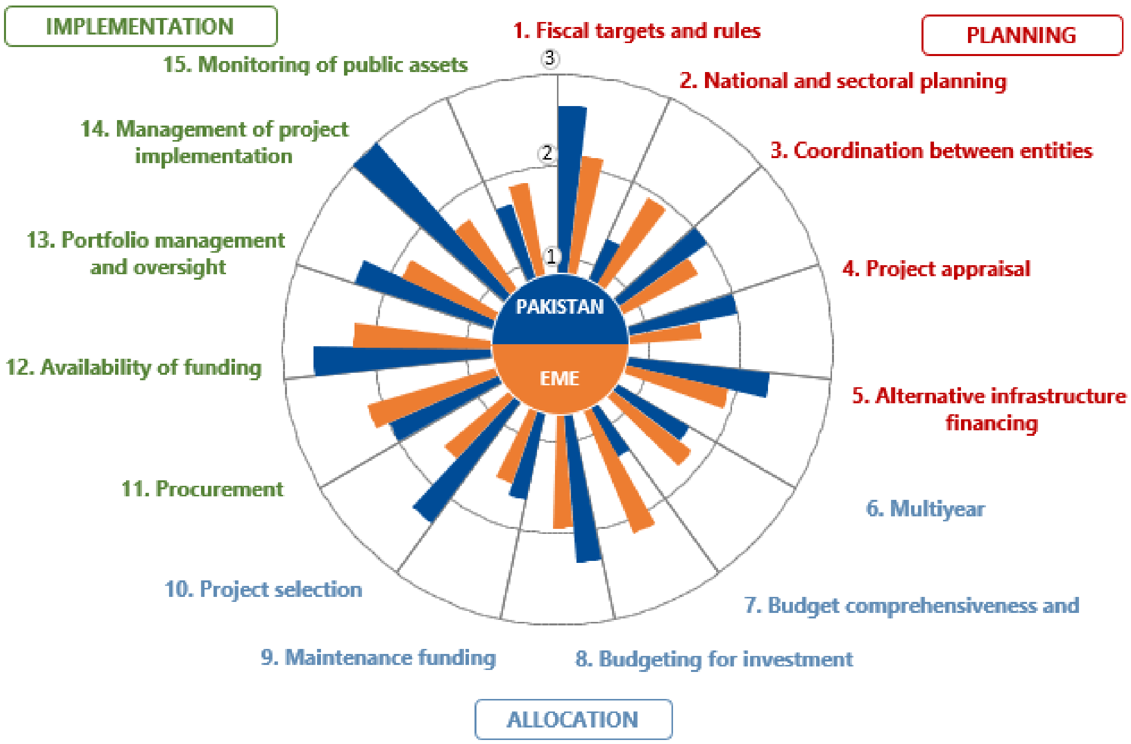
20. On average Pakistan scores more highly for design rather than effectiveness. The overall score for effectiveness is lower on average than the scores for design, which is a trend often seen in PIMA reports reflecting the challenges of implementing good practices even where they have been prescribed. However, the size of the gap between the quality of design and effectiveness varies across institutions in Pakistan and in two institutions (coordination and budget comprehensiveness and unity) effectiveness exceeds design. One factor creating this gap is that recent reforms to strengthen procedures in the 2021 Manual for Development Projects are not yet fully implemented, and hence they are not reflected in the scores for effectiveness.

21. The scores reflect the current practices and frameworks in place in Pakistan and do not reflect the preparatory work for planned reforms. When practices described in the documents become widespread it is likely that the scoring in some institutions would be higher, though potential for backsliding also exists. The assessment focuses on the Federal Government of Pakistan. While the interactions with the provinces are examined in the PIMA, an in-depth analysis of practices in the provincial level is not part of the federal PIMA.

22. Pakistan's scores are slightly stronger than the average of emerging market peers, particularly for institutional design. On institutional design, Pakistan performs more strongly in the planning and implementation phases than the average of emerging market peers for which a PIMA Assessment has been finalized (Figure 3.2). On effectiveness, the average gap with peers is narrower, but this also hides some large differences in individual institutions (Figure 3.3).

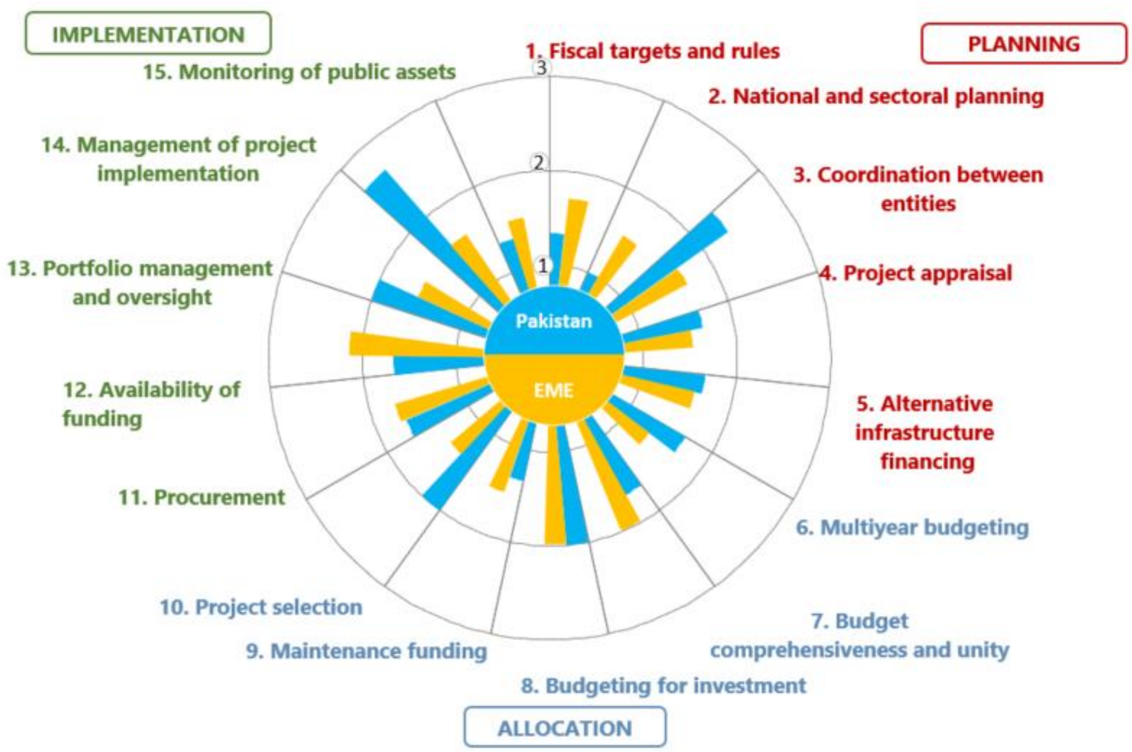
23. The following sections of this chapter provide a detailed assessment of Pakistan's public investment management institutions. The following three sections of this chapter present supporting evidence for these ratings in the areas of planning, allocation and implementation. Chapter V explores cross-cutting issues across the PIMA and Climate-PIMA.

Figure 3.2 Institutional Design of Public Investment Management Institutions



Source: Staff calculations; Note EME is Emerging Market Economies.

Figure 3.3 Effectiveness of Public Investment Management Institutions



Source: Staff calculations; Note EME is Emerging Market Economies.

C. Investment Planning

1. Fiscal Targets and Rules (Strength—High; Effectiveness—Low; Reform Priority—High)

24. **Clear objectives to guide fiscal policy help ensure fiscal sustainability and align planning, budgeting and the funding for public investment.** Fiscal rules and a credible medium-term fiscal framework, that sets multiyear targets for key fiscal indicators and defines a constraint for the upcoming annual budget. They also smooth public investment spending across the economic cycle and facilitate medium-term planning for public investment.

25. **The Fiscal Responsibility and Debt Limitation Act (FRDLA) contains essential elements to guide fiscal policy in the medium term and ensure long term debt sustainability.** Pakistan has fiscal rules in law to guide its fiscal policy and support debt sustainability through providing limits and targets (Box 3.1). The laws also apply to the SOE sector. The Public Financial Management Act (section 7A) requires that a draft medium term fiscal framework (MTFF) must be prepared by the Finance Division in October each year. The MTFF forecasts macro-fiscal aggregates and determines the resource envelope for the next three years. It is used by the Finance Division to issue indicative budget ceilings (multi-annual for current spending but only for one year for the PSDP). After budget deliberations that take place between February and April, Finance Division updates the final MTFF, which is published in the Medium-Term Budget Strategy Paper in April and the Annual Budget Statements in June. The 2022 Amendment to the FDRLA requires the MTFF to include projections for provinces and special areas, in addition to projections for the federal government, and be published in their respective budget documents

Box 3.1 Fiscal rules in Pakistan

The Fiscal Responsibility and Debt Limitation Act (2005) sets a ceiling on total public debt at 60 percent of GDP.^ An amendment in 2016 added an operational limit to the debt ceiling: the annual federal deficit (excluding grants) was not to exceed 4 percent of GDP over the period FY2018 to FY2021, and 3.5 percent of GDP thereafter. The 2016 Amendment also required measures to be taken to reduce debt below the 60 percent ceiling within two years and set a path for further reduction up to 2033. To limit the size of contingent liabilities, a 2022 Amendment limits the stock of guarantees taken by the Federal government to 10 percent of GDP.

At the provincial level, Amendment 18 to the Constitution—which devolved significant powers from Federal to Provincial governments—allows provinces to borrow domestically and internationally subject to conditions set by the National Economic Council.

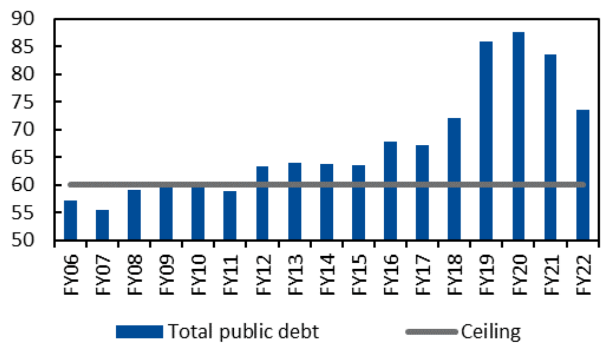
^ Before 2017, debt is defined as the sum of debt of Federal and Provincial Governments serviced out of the Consolidated Fund, plus debt owed to the IMF.

Source: Fiscal Responsibility and Debt Limitation Act (2005) as amended.

26. **The debt and deficit ceilings under this framework have been ineffective at containing expenditure and the debt limit has been consistently breached over the years.** Total public debt has trended upwards since 2010, consistently exceeding the 60 percent ceiling after 2012 (Figure 3.4). Provinces, on the other hand, have consistently generated fiscal surplus in recent years. Their aggregated fiscal surpluses averaged 0.4 percent of GDP over the period FY2016 to FY2022. While the finalized budget can depart considerably from the first iteration of the MTFF, it is largely due to changes in the recurrent budget. In recent years, budget priorities have set higher spending levels, hence higher

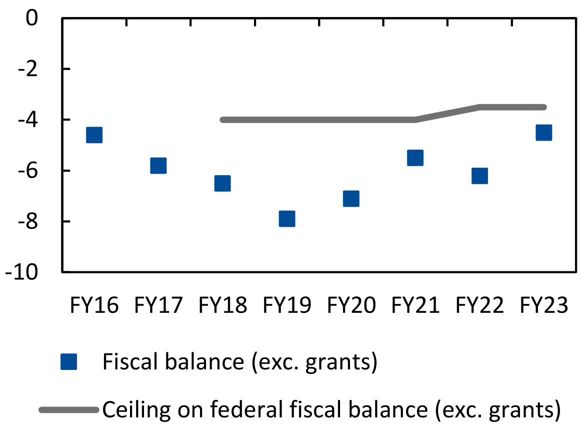
fiscal deficits, but this has largely been confined to the recurrent side of the budget. Generally, the PSDP budget does not depart markedly from the envelope envisaged in the October MTFF.

Figure 3.4 Pakistan Public Debt
(in percent of GDP)



Source: Authorities' documents (annual debt reports)

Figure 3.5 Pakistan Fiscal Deficit
(in percent of GDP)



Source: IMF reports.

27. While there are many factors behind the noncompliance with fiscal rules, public financial management reforms can instill stronger fiscal discipline. Some of these are ongoing and advancing well, including the efforts to strengthen the budget process and increase transparency[7], the new mechanisms put in place to coordinate cash and debt management, and the implementation of commitment controls. Others, such as the improving the quality of expenditure allocation in the budget process, the central oversight of state-owned enterprises, and the tightening of procedures behind the use of supplementary grants, are at an early stage.

2. National and Sectoral Planning (Strength—Low; Effectiveness—Low; Reform Priority—High)

28. Strategic planning at the national level sets the government's main priorities over the coming five to ten years. It sets the overall development goals and the direction for individual sectors. If this stage of planning is effective, it defines baseline performance indicators and targets for key programs and projects. It should also identify the major strategic public projects to be delivered.

29. Pakistan's well-established tradition of five-year national planning stopped in 2018, and current planning documents are not costed and do not include measurable outcomes. The current national planning document is Vision 2025. Adopted in 2011, it is largely an aspirational document, covering seven development pillars, with their respective goals. It does not identify main investment projects, their costs, or their contribution to the achieving these goals. Since 1955, a more detailed five-year development strategy has guided public investment planning, with specific projects identified—and sometimes costed—to achieve its objectives. However, the last strategy, covering 2018-2023, was

[7] The PFMA and recent amendments in the FRDLA have significantly increased transparency and accountability requirements by setting the timing and the content of documents such as the Budget Strategy Paper, the Medium-Term Budget Framework Paper, the Fiscal Risk Statement and the Debt Policy Statement.

prepared but not adopted due to a change in government.[8] Only the province of Punjab has maintained this type of medium-term planning. Sectoral policies in the areas of transport, health, and electricity exist but they do not identify investment projects, nor measurable targets for them. The only exceptions are the 2017-2030 Plan for China-Pakistan Economic Corridor (CPEC), under which several projects are planned, and managed by CPEC Authority; and the National Climate Change Policy (NCCP) which contains specific actions for energy and climate (see section D in Chapter IV).

30. The lack of medium-term planning document means that in practice there is a missing link between the annual budget, investment plans, and the objectives of Vision 2025. The annual development budget, comprising the PSDP, the budgetary allocation by ministry and projects, and the annual development plan—the strategic document explaining this allocation and reviewing the execution of the previous year's PSDP—is presented along five development pillars, which are different, though close, from the seven pillars in Vision 2025. Given this, and the absence of projects in Vision 2025, it is not possible to identify how plans are influencing budget decisions, with the exceptions of CPEC and NCCP projects. However, when assessing the effectiveness of projects, the annual development plan takes a sector approach and makes use of output and outcome indicators for major projects.

31. With Vision 2025 reaching its term, there is an opportunity to revive five-year planning in Pakistan. The limited fiscal space which Pakistan is likely to face in coming years, coupled with the need to collectively search for growth drivers, for which public infrastructure is key, should provide impetus to this effort. A medium-term plan would also provide the occasion to reflect and incorporate the important changes—nationally and internationally—that occurred since Vision 2025 was drafted, including the many promises that digital technologies offer. The plan should build on the previous five-year plans which contained some of the good practices suggested by the PIMA (see Box 3.2).

Box 3.2 Some Good Practices from the 11th Five Year Plan (2013-2018)

The 2013-2018 Five Year Plan links the seven pillars identified in Vision 2025 to specific actions and projects required to achieve its goals. For example, in health, against the objective of reducing infant mortality and increasing immunization, it identifies specific projects such as the creation of new district hospitals, and vaccine laboratories to reach this goal.

The Plan also estimated the overall and annual PSDP requirements to deliver the various interventions. These are separated by sectors (e.g. infrastructure, social, regional development) and subsectors (e.g. power, water, health), and separates provincial from federal outlays. The annual development plan reviewed achievements under the PSDP annually, both in quantitative and qualitative terms, which allowed a regular assessment of progress of the Plan.

Some provinces had their own five-year plans, which were closely linked to the national five-year plans, both in their overall objectives, and their interventions through their PSDPs.

Source: IMF staff.

[8] While the 12th Five Year Plan (2018-23) was not formalized and published, it was approved by NEC along with its implementation plan. Though not be circulated, the Planning Commission advises that Annual Plans were prepared on the basis of targets/goals set in the 12th Five Year Plan. The projects included in the PSDP (Table-1, A. Planning No. 2) are aligned with national goals/targets set in the National Five-Year Plan which was approved by NEC.

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

32. This institution assesses how investment plans at different government levels are discussed and coordinated. Coordination also includes how central government provides financing to other entities that deliver public investment such as SOEs.

33. There is strong coordination between the federal government and the provinces supported by a formula driven system of fiscal transfers, but a framework for comprehensive contingent liability oversight is not in place.

- All four provinces have Planning and Development Boards, which are the equivalent of the Planning Commission. In consultation with their provincial line ministries, the Boards prepare provincial annual development plans, which are first reviewed by the Annual Plan Coordination Committee, a technical committee comprising technical Federal and Provincial staff, then approved by the National Economic Council (NEC), a body headed by the Prime Minister, and including Provincial Chief Ministers that is established in the Constitution. Approved provincial annual development plans are published. At the project level, there is a requirement that proposals for Federal or Provincial projects costing more than Rs. 10 billion should be sanctioned by the Executive Committee of the NEC (ECNEC).[9] The four provinces have a direct call on the "divisible pool" of Federal taxes, as defined by Amendment 18 (2011) of the Constitution, which they can use for both recurrent and development spending. The transfers are based on the 2010 formula set by the National Finance Commission.[10] Their amounts vary with revenue collected by the Federal Revenue Division (FRD). Unlike provinces, the special areas of Gilgit-Baltistan and Azad Jammu Kashmir, receive budget transfers.
- Provinces are not legally required to report their contingent liabilities to the Federal government, but new laws are in place for PPP and SOE reporting. The PPP Act 2017 established the PPP Authority (P3A) to regulate and enable PPPs—predominantly at federal level—in Pakistan. It creates a Risk Management Unit at the Finance Division to oversee the contingent liabilities related to PPP projects falling under the Act, with powers to request information from implementing agencies. It also requires PPP contracts to be a public document under access to information laws. In addition, the 2022 Amendment of the FRDLA extends the definition of guarantees, initially limited to loan guarantees from the Federal government to include PPP commitments.[11] It also creates a Debt Management Office whose role includes, inter alia, to monitor government guarantees. A recently enacted SOE law (2023) creates a Central Monitoring Unit in the Corporate Finance Wing to request information from SOEs, and monitor their performance and risks. More globally, the PFM Act requires the Federal

[9] As per Planning Commission Notification No 20 of September 2019. Note that, Sections 13-20 of the PFM Act grants the role to define the process for the development of projects to the Planning Commission. In addition, projects located in or benefiting more than one province can also qualify as "core" projects for which additional coordination is required at the national level (see Appendix A of Planning Manual 2021).

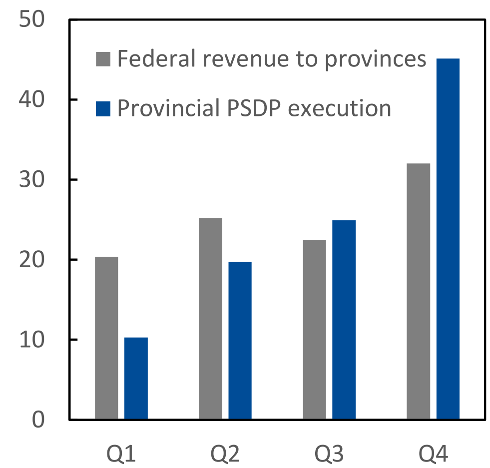
[10] The National Finance Commission awards 57.5 percent of federal taxes to provinces. The allocation among provinces is weighted by population size, poverty level, revenue generation capacity and population density. The current shares by province are Punjab: 51.74 percent; Sindh: 24.55 percent; Khyber Pakhtunkhwa: 14.62 percent; and Balochistan: 9.09 percent.

[11] The definition of guarantee changed from "an obligation undertaken to make payments in the event of the profit of an undertaking failing short of a specified amount" to "a contingent financial liability undertaken […] to pay the financial liability of a third party in the event when the third-party defaults on that financial liability" (section 2c).

government to present a Statement of Contingent Liabilities and a Statement of Fiscal Risks to Parliament in June every year, alongside the Annual Budget Statement.

34. The coordination mechanisms work well in practice, but provinces and special areas are subject to the same cash flow variability as the federal government. The Annual Plan Coordination Committee, ECNEC and NEC perform their tasks as planned. They review provincial annual development plans and individual projects, as needed, including those who are funded through Public Private Partnerships (PPPs). For instance, the latest ECNEC meeting held in January 2023 reviewed and approved three provincial projects, each exceeding the Rs. 10 billion threshold, adding to Rs. 123 billion. It also approved the procurement of an earlier approved project. While in normal times the process may be slow, these bodies have improved their effectiveness during the response to the August 2022 floods, when reconstruction and rehabilitation projects worth Rs. 440 billion were approved within four months. Federal transfers to provinces are done fortnightly, based on revenue collections since the previous transfer.[12] These transfers fluctuate over the year: only a fifth of annual revenue is typically collected in the first quarter, while around a third is collected in the last (Figure 3.6). Like the federal government (see institution 12), provinces have responded to this constraint by limiting quarterly releases in the earlier quarters and relaxing them afterwards.

Figure 3.6. Quarterly Distribution of Federal Transfers vs. PSDP Execution (in percent of yearly amounts, average over 2010-2021)



Source: IMF staff calculations.

35. Provinces report their contingent liabilities individually, the Finance Division reports on PPP contingent liabilities, but information on power sector PPPs and SOEs are lacking. The four provinces publish their debt reports annually, in which their loan guarantees and other contingent liabilities are reported. The annual Federal Debt Report contains similar information at the Federal level, and now includes PPP guarantees as per the new requirement of the FRDLA. This is compared against the FRDLA ceilings set on guarantees (see institution 1). The Statement on Contingent Liabilities and the Economic Survey reproduce this information. In the power sector, there are a number of PPP-like contracts, with guarantees offered to Independent Power Producers. The value of these guarantees is reported in the Federal Debt Report and the Statement on Contingent Liabilities. While the Corporate Finance Wing in Finance Division produces consolidated reports on SOEs, including the SOE footprint document, they are backward looking and based on audited annual financial statements, which are not always submitted in time by all SOEs (the last report dates 2019-20).

36. Looking ahead, there is scope to improve coordination on contingent liabilities from capital investment. The implementation of the Central Monitoring Unit in Finance Division should

[12] In addition to transfers from the divisible pool of federal taxes, provinces can be part of a special package of federally funded projects. Funds for these projects are transferred directly to the federal executing agency under the Asaan Assignment Procedure 2020.

enhance the timeliness of SOE oversight and their risks. Formalizing sharing of information on PPP related risks, including in the provinces, would also improve overall risk management and is timely given the intentions to expand use of PPPs (also see institution 5).

4. Project Appraisal (Strength— Medium; Effectiveness— Medium; Reform Priority— Medium)

37. **Project appraisal is critical to ensure that decision-makers have a comprehensive understanding of the benefits, costs and risks of potential investment projects.** Without this it is not possible to ensure that the best projects are prioritized within a limited resource envelope. A robust appraisal framework must ensure that all projects are subject to consistent and rigorous analysis, based on a common methodological framework, and that project risks are well defined and addressed.

38. **Pakistan's appraisal process is designed to ensure that major projects are systematically subject to rigorous technical, economic and financial analysis using a standard methodology with central support, including risk assessment, but lacking publication and external review.**[13] This process covers all public investment projects regardless of whether they are funded by external entities or the ordinary budget. In cases where autonomous entities use both their own funding and budget funds the project will also be included. The regulation lays out an appraisal process[14] that if successful leads to a project receiving Technical Approval, which means that it is ready for selection, and is "investment ready". The key document for this process is known as the Planning Commission Pro Forma I (PC-I). Large projects (above Rs. 500 million – USD 1.7 million) are subject to rigorous technical, economic, and

Box 3.3. Two Key Thresholds for Feasibility Studies and Enhanced Scrutiny

Core projects – Rs. 100 billion and above

Development projects with a substantial infrastructure component are designated as either Core or Sectoral. Core projects are of national importance and require complex planning, design, and implementation. They are subject to extra scrutiny and monitoring throughout the project cycle. For example, a Project Director with support staff is appointed in the concept phase to ensure that there is sufficient technical capacity during the development of the project. While all projects above Rs. 100 billion (equivalent to around USD 350 million) shall be considered core, the CDWP can designate any project "Core" taking a number of issues into account, including: donor funding, social significance, impact in several provinces, complexity of project, prevention and mitigation of climate and natural disasters, PPP contracts.

Large Sectoral Project – Rs. 500 million and above

A PC-II (Feasibility study) is mandatory for infrastructure projects budgeted to cost Rs. 500 million or above, and all other projects where the infrastructure component is equal to or more than 30 percent of the total project cost. The actual implementation of this requirement may vary by nature the asset – economic, social, commercial.

Source: PFM Act (2019); Manual for Development Projects (2021)

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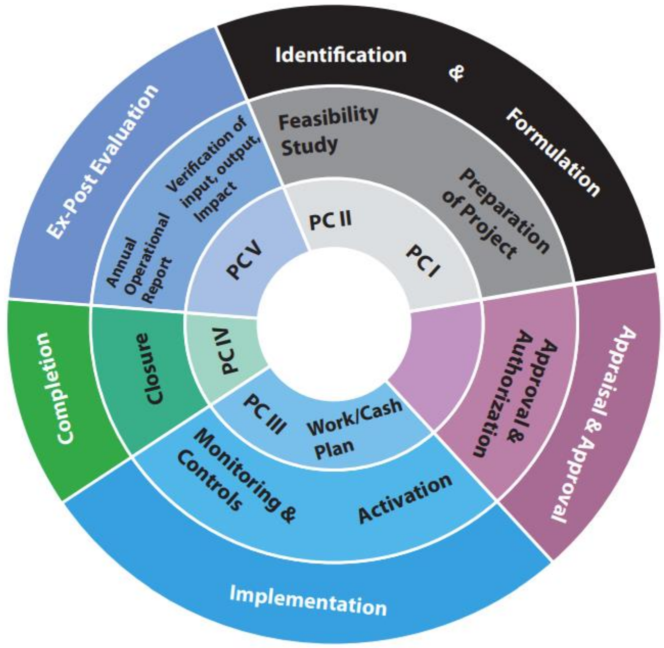
[13] The process and its key components are laid out in the Manual for Development Projects (2021) which builds on the Public Finance Management Act (2019, Amended 2020).

[14] The guidance requires that appraisal of projects, depending on the type, includes technical feasibility, commercial viability, institutional management capability, environmental sustainability, social acceptability, risk management and sensitivity analysis. Specific methodologies should, when relevant, include shadow pricing, net present value analysis, internal rate of return, cost/benefit analysis, cost/effectiveness analysis.

financial analysis in the form of a dedicated and funded feasibility study, known as a PC-II. In addition, Core projects costing above Rs. 100 billion – USD 353.2 million) are subject to a PC-II and more rigorous reporting (see Box 3.3). The Planning Commission Secretariat and the designated decision-making fora, in particular the Central Development Working Party (CDWP) and for projects above Rs. 10 billion the ECNEC, ensure alignment with the guidance,

long-term strategies and short- and medium-term plans. The process provides central support to appraisal in the form of advice on needed improvement on the proposal. The specific methodologies to be used are described in general terms in the Manual for Development Projects. Appraisals (PC-I, PC-II) are not published, nor subject to independent external review. Risk identification and management is explicitly addressed in the guidance materials but does not have its own section in several PC-I templates. Feasibility study (PC-II) guidance in the form of additional checklists and process requirements is found in the Instructions for Techno-Economic Feasibility Studies (2023) and includes risk and proposed mitigation measures. The Planning Commission provides central support for the preparation of feasibility studies and appraisals. The project cycle and approval (Planning Commission gates) is shown in Figure 3.7.

Figure 3.7. The Stages Of Project Development in Pakistan



Source: Planning Commission, Manual for Development Projects, 2021.

39. The appraisal framework is operational, but achieving the full potential in terms of effectiveness requires additional capacity. The new Manual for Development Projects was released at the end of 2021, and while it builds on similar earlier procedures, it is yet to be fully implemented. There is systematic scrutiny of PC-Is and, as documented in the iPAS system (explained in the information systems section of Chapter V), projects are sent back for revision. Large projects undergo feasibility studies and receive dedicated funding for this. In the 2022-23 budget, funding was allocated for 47 feasibility studies ranging from Rs. 5 million to Rs. 500 million, about two thirds of which cost less than Rs. 150 million. Due to data quality issues in iPAS, it is difficult to establish what proportion of projects this corresponds to, but the available data does suggest that the large majority of major projects are subject to a rigorous technical, economic, and financial analysis. However, key assumptions for some of these calculations are developed by the implementing agency (eg. the National Highway Authority) and therefore it might be difficult to scrutinize and compare across sectors to inform selection decisions. Samples of feasibility studies and cost benefit analysis done for PC-Is and PC-IIs were not provided or otherwise publicly available. The Planning Commission considers that appraisals are conducted with a high degree of independence and professionalism.

40. **The appraisal framework could move closer to achieving its envisioned impact with a number of initiatives.** It is clear that this new process requires substantial technical capacity across sponsoring agencies and central ministries that will take time to build. First, more focus on developing specific guidance, timelines, procedures, and capacity to ensure impact from "core" mega projects could be beneficial. It is not entirely clear if the definition of core is fully operational—eg. the term does not appear in the 2022-23 Public Sector Development Program. In addition, the low threshold for undertaking feasibility studies (PC-II) of 500 million raises the concern of whether resources are being spread too thinly or are proportional to the size of the project. Second, good practice would suggest that the Planning Commission and the Finance Division should support the sponsoring agencies by developing more specific guidance with respect to key issues such as choosing the appropriate discount rate, shadow pricing standards and similar foundational inputs in order to ensure comparability across projects in the selection stage.

5. Alternative Infrastructure Financing (Strength—Medium; Effectiveness— Medium; Reform Priority—High)

41. Several channels are available to provide public infrastructure. In addition to the government budget funding infrastructure, there is a role for private sector financing and delivery, supported by a competitive landscape for network infrastructure.

42. Infrastructure sectors are open to competition with independent regulators; PPP frameworks are in place; and recent reforms establish centralized monitoring of SOEs.

- In general, major infrastructure sectors have been deregulated. Investment and promotion policies[15] opened all economic sectors including infrastructure, social, and services sectors to foreign investment and granted equal treatment. Power Policies[16] allowed private independent power producer participation and offered incentives to new power generation projects and investments in public sector power generation projects in different phases of development. The deregulation policy in 2003 and Mobile Cellular and Broadband Policies set the basis for competition in the telecom sector. The Competition Commission of Pakistan guards against anticompetitive or monopolistic practices.[17] . Regulators are well established in power, air transport, and communication sectors.[18]
- The PPP framework in Pakistan is fragmented and lacks a holistic strategy and key complementary regulation. The legal and institutional frameworks for PPPs at the federal and provincial level have been strengthened during the last four years, but it is fragmented both geographically and across

[15] The first Investment Policy by Board of Investment (BOI) in 1997 opened services, social, infrastructure and agriculture sectors for foreign and local investors, when it was previously restricted to manufacturing sector. Also see Investment Policy 2013 and Foreign Direct (Promotion and protection) Act No XXXV Act of 13th December 2022.

[16] 1994 and the 2013 Power Policies, 2015 Power Generation Policy, and Alternative and Renewable Energy Policy 2019.

[17] The Competition Commission of Pakistan is an independent quasi-regulatory, quasi-judicial body. Its mandate is to provide for free competition in all spheres of commercial and economic activities, to enhance economic efficiency and to protect consumers from anti-competitive behavior i.e., abuse of dominant position, prohibited agreements (cartelization), deceptive marketing practices and mergers that substantially lessen competition in the market.

[18] National Electric Power Regulatory Authority, Civil Aviation Authority, and Pakistan Telecommunication Authority.

sectors.[19] The PPP Law and following amendments[20] set the institutional framework at the federal level,[21] and clarify processes and responsibilities for preparation, approval, procurement, monitoring and fiscal oversight of PPPs. Interinstitutional governance, comprehensive studies and analyses required, and checks and balances for project approval are good practices elements considered in the PPP regime. Further federal policy, regulation, and guidelines for implementing the system are under review or development by the PPP Authority[22] , the P3A who has both promotion and evaluation roles. There is a clear policy resolution regarding private investment in development projects.[23] Provinces have a range of PPP arrangements in place at different levels of maturity.[24]

- Recent legislation (Act No VII of 2023) established a centralized monitoring framework to review investment plans and monitor financial and operational performance of SOEs. It establishes the institutional arrangements, management principles, a systematic performance reporting system, and the development of SOEs 3-year business plans. A Central Monitoring Unit in the Finance Division will monitor the performance of the 85 federal commercial SOEs and support the development of a five-year ownership and management policy. This framework will complement the current Government oversight of the SOEs by the relevant line ministry through board representation.

43. In practice, market competition is effective in some sectors; PPP frameworks, while incomplete, have supported investment; and comprehensive SOE oversight is not yet in place.

- Private investment participation is mostly present in telecom, power generation and some transport segments. Private mobile operators hold the 99 percent of market share.[25] In energy, tariffs do not reflect cost so the distribution companies (10 SOEs and one private company) depend on regular fiscal transfers and sovereign credit guarantees. By January 2023, there were 45 commissioned independent power producers (mostly thermal power plants) and one commissioned transmission line project.[26] Four of 46 airports are private, and the public company Pakistan International Airline carries most passenger and freight traffic (87 percent).
- The PPP framework has supported significant investment, but gaps remain. Private investment in infrastructure is in place in the power sector at federal level and transport sector at provincial level.[27]

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[19] The power sector has implemented multiple PPP projects under the Power Policy issued in 1994. The Private Power & Infrastructure Board is the 'One Window' facilitator for the prospective investors in power and related infrastructure projects in IPP mode. https://www.ppib.gov.pk/

[20] Act No VIII of 2017, Ordinance NO. VIII of 2020, Ordinance NO. XVIII of 2021, Act VI of 2021, and Act XVIII of 2022.

[21] Create the PPP Authority as a statutory body, that replaced the infrastructure Project Development Facility.

[22] An integrated PPP Policy, guidelines for Value for money and Fiscal impact assessments, and methodologies for socioeconomic evaluation and contingent liabilities valuation are pending for implementing good practices in PPP project preparation.

[23] The 10-year development plan Pakistan Vision 2025 proposes the development a comprehensive policy regime to promote PPPs.

[24] The Sindh, Punjab, and Khyber Pakhtunkhwa provinces issued their initial PPP regulation in 2009 (Act No IV), 2014 (Act No XXX), and 2014 (Act IX) respectively, all amended in the last 4 years. The province of Balochistan most recently passed its PPP Bill (ACT No xxv of 2021). All the systems include a PPP cell, but currently at very different implementation/consolidation stages.

[25] PTA Telecom Indicators. January 2023. https://www.pta.gov.pk/index.php/en/telecom-indicators/7

[26] https://www.ppib.gov.pk/commisioned_ipps.html

[27] The province of Sindh reported 9 operational/executed PPP projects and 6 under construction. https://www.pppunitsindh.gov.pk/projects_new.php?pid=31&pstatus=Under%20Construction.

Multiple power generation projects have been developed based on Power Purchase Agreements[28], some of which led to significant public liabilities.[29] Beside these liabilities, no other PPP contingent liabilities have been accounted for and the methodology to guide the valuation is not yet in place. under the new federal law.[30] The 2022-23 development program includes appropriations of Rs. 73 billion (~USD 240 million).[31] P3A has identified a portfolio of 47 projects, of mainly in transport and communication.[32] Building sufficient federal and provincial level capacity to manage the complexity and risks of PPPs is a challenge.

- Government does not systematically review the investment plans of SOEs. Reports by Finance Division outline financial performance albeit with delays.[33] Power Division produces an annual consolidated performance report[34] covering 22 public sector companies including the power distribution companies, and energy SOEs investment plans are reviewed by the regulator.

44. While good progress has been made, invigorating privatization, strengthening the governance frameworks for regulated infrastructure markets and PPPs, and implementing central oversight of SOEs will promote more effective infrastructure provision. Priority should be given to move forward the privatization and restructuring programs to support greater competition while strengthening the regulatory authorities and ensuring their independence. Given the Government's plans to make significant use of PPPs to develop infrastructure, it is urgent complete the regulatory framework, including an integrated PPP Policy, guidelines, and methodologies for project appraisal, to strengthen institutional capacity—as is planned, and the management of the fiscal risks of new and existing PPPs. Staffing, coordination mechanisms, and procedures are required for implementing an ambitious PPP program, while preserving sound checks and balances. Implementing and building capacity in the central monitoring unit for SOEs in Finance Division is an important reform.

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[28] In addition to the existing 45 IPPs, the Private Power & Infrastructure Board reports 12 incoming IPPs with expected Commercial Operation Date in the next 18 years.

[29] The highly priced take-or-pay contracts routinely require substantial subsidies to palliate chronic liquidity issues. As highlighted by ADB, the annual debt servicing costs exceeding Rs. 100 billion. (ADB. 2021. Circular Debt Impact on Power Sector Investment. Energy Sector Reforms and Financial Sustainability Program).

[30] Three more transport sector projects have been approved, completing a total of $3.2 billion authorized by the board of P3A.

[31] Financial long-term guarantees and fiscal commitments during construction phase are being granted for the first federal projects.

[32] The size and sectoral wise pipeline is available in the P3A web site, https://www.p3a.gov.pk/pipeline.php#popup1. A Qualified Project is a PPP project which involves one or more of the following namely: 1-Government Funding, including Viability Gap Funding (to improve the financial viability and bankability of the project), 2 -Sovereign Guarantee(s) to be issued by the Government, 3 -P3A Project Development Fund support (to meet transaction advisory costs related to development and procurement of a project on PPP basis), or 4 -Any project prescribed by P3WP or CDWP as a 'Qualified' project. https://www.p3a.gov.pk/psdp.php#

[33] Federal Footprint SOEs Annual Report. https://www.finance.gov.pk/publications/SOE_Report_FY19_Vol_I.pdf In January 2020, a SOE Triage report also categorized SOEs into those for retention, privatization, and liquidation. The report '*State-Owned Enterprises (SOEs) Triage: 'Reforms and Way Forward'* is the result of a collaborative work among Finance Division, International Monetary Fund, World Bank and Asian Development Bank.

[34] Power Division, Year Book 2021-22 https://power.gov.pk/SiteImage/Publication/YEAR%20BOOK%202021-22%20(1).pdf

Recommendations on the Planning Phase[35,36]

Issue 1. The lack of a comprehensive medium-term planning document weakens the link between the aspirations for economic development and their achievement through public infrastructure projects. A vision document (Vision 2025) exists but its term is ending, and it is nearly a decade old. Sectoral policies or plans are incomplete.

Recommendation 1: Develop a new five-year strategy identifying major projects across all sectors and funding sources to guide development of sectoral investment plans (Productivity Commission, by December 2024). Priority High

Issue 2: The appraisal process can be further strengthened. Larger projects should receive greater scrutiny than small projects with more in-depth analysis and review. Many countries find it helpful to have a sliding scale for project assessment and/or specific templates according to scale and complexity of projects. In addition, making feasibility studies and ex-post reviews public has proven to be strongly conducive to improving quality of these documents and accountability and is particularly important for major projects.

Recommendation 2.1: Review processes for core projects to ensure appropriate focus on very large projects, regardless of funding source. (Planning Commission, December 2023) Priority Medium

Recommendation 2.2: Continue plans to obtain independent scrutiny of major project proposals, including around cost estimation and increase transparency of project appraisal documents. (Planning Commission, December 2024) Priority Low

Recommendation 2.3: Develop more specific guidance with respect to key appraisal issues such as choosing the appropriate discount rate, shadow pricing standards and similar foundational inputs in order to ensure comparability across projects in the appraisal and selection stage. (Planning Commission, December 2024) Priority Medium

Issue 3: Public investments are not well coordinated and presented comprehensively across all funding sources. Substantial investment is undertaken by autonomous entities that are subject to less oversight and coordination when they use their own revenue to fund major projects. There is also scope to improve monitoring of the investment plans of SOEs and improve understanding of how they impact both on the wider public investment portfolio, and on the fiscal position.

Recommendation 3.1: Formalize processes to obtain information on investment projects funded from sources other than the PSDP and present aggregate information on the public sector investment program in the budget and/or expanded PSDP, showing major federal projects and their expected costs regardless of financing source. (Planning Commission and Finance Division, June 2024) Priority High

[35] These recommendations foreshadow some of those also relevant to later institutions in the PIMA where they are closely linked. For example. recommendations relevant to investment allocation are covered in this section. The high priority recommendations are summarized in Table 3 which also includes a mapping to PIMA institutions.

[36] The text in brackets at the end of the section includes the lead agency responsible for implementing the recommendation and the timeframe proposed.

Recommendation 3.2: Enhance central scrutiny, reporting and transparency to ensure that all investment projects by autonomous entities are undertaken in a sustainable manner. (Planning Commission, June 2024) Priority High

Recommendation 3.3: Implement the central monitoring system for SOEs and establish guidance for oversight/information exchange on SOE investment plans (Finance Division, June 2024) Priority High

Issue 4: Fragmented and incomplete PPP oversight frameworks can undermine confidence in the governance and sustainability of institutional arrangements for long term private investment and create risks to the budget. PPPs should not be seen as 'free' to the budget. Potential PPP obligations (covering direct and indirect calls on current spending) should be understood upfront, and liabilities monitored and managed throughout execution, so that the overall risk to the fiscal position is understood. There are diverse and separate legal and institutional frameworks for PPPs in the energy sector and in other traditional infrastructure sectors across federal and provincial levels, which makes management of these risks more difficult.

Recommendation 4.1: Update and complement the regulatory framework and appraisal methodologies for PPPs across sectors and level of governments (P3A, June 2024) Priority Medium

Recommendation 4.2: Develop a register of PPPs and initiate periodic reporting to Finance on contingent liabilities of PPPs across all sectors (Finance Division, September 2024) Priority High

Issue 5: There is scope to improve competition in some economic infrastructure markets. Some of those markets today controlled by public corporations are usually attractive for private participation, such us power distribution and air transportation.

Recommendation 5: Reinvigorate action to implement the SOE Triage report prepared in 2021 on the privatization and restructuring program for SOEs. (A task group coordinated by Finance Division with the participation of relevant line ministries and commissions, and supported by the new central monitoring, by June 2025) Priority Medium

D. Investment Allocation

6. Multi-year budgeting (Strength—Medium; Effectiveness—Medium; Reform Priority—High)

45. Multi-year budgeting provides ministries, departments and agencies with forward visibility of resource availability and longer-term funding guidance for investment projects. Major public investment projects take longer than the budget year to implement and have lumpy and volatile cost distributions, complicating capital budgeting. Providing agencies with reliable medium-term capital expenditure ceilings facilitates a strategic approach and more efficient execution of capital plans.

46. The medium-term budget strategy paper includes three-year projections for the PSDP, including the total cost of all projects, but no multi-year ceiling is set at the levels of ministries or sectors. The projections in the medium-term budget strategy paper released with the budget in June each year cover four broad categories (infrastructure, social, science and IT, and regional development) but not by ministry or specific sectors. They do not constitute multi-year ceilings. While the Finance Division sets multi-year indicative budget ceilings for line ministries, they are limited to the current budget. The Planning Commission only sets annual ceilings for the PSDP for line ministries. The PSDP, which is published, reports the total cost for projects benefiting from federal or external funds. There is, however, no annual breakdown of this cost over the medium term.

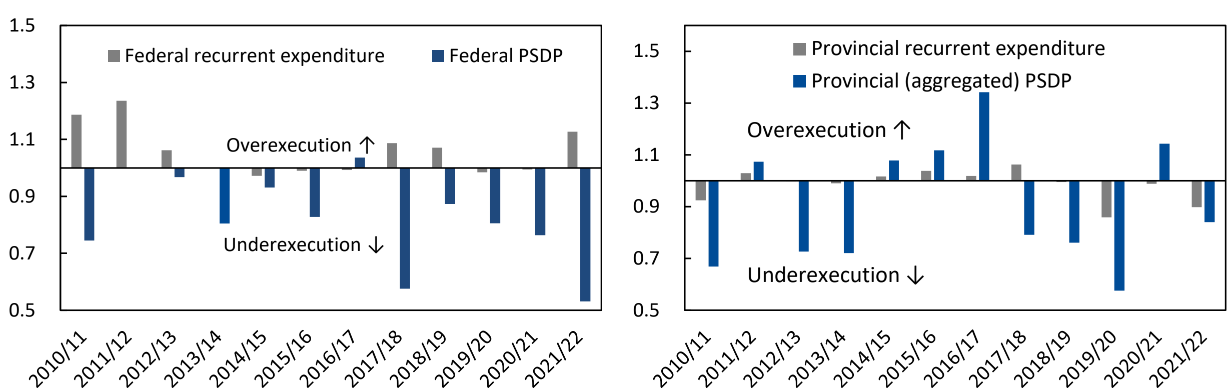
Box 3.4 Identifying Capital Spending in the PSDP

Federal and provincial governments in Pakistan separates their budgets into current and PSDP budgets. PSDP budgets encompass investment in physical (infrastructure and equipment) and in human capital. In addition to the acquisition of physical assets with a multi-year life span (the definition of physical capital), PSDPs cover spending on training, curriculum design, and one-off foreign scholarships, typically in the education sector. They also cover spending on general capacity building across the public sector. On the other hand, flagship poverty reduction programs, such as the Ehsaas Program and the Benazir Income Support Program, are reported in the current budget. An analysis of the PSDP for FY2023 reveals that the sum of projects in the PSDP that would need to be reclassified as current spending if a nomenclature recurrent-capital budget were to be adopted is small.

Source: IMF staff

47. While subsequent PSDP budgets did not deviate significantly from earlier outer year projections in the medium-term budget strategy paper, execution has been weak, and it is not possible to easily identify how the cost of major projects change over time. In recent years, significant under execution of the PSDP have put the realism of both PSDP budgets and multi-year projections into question. This is systematic across Federal and provincial governments (Figure 3.8). While successive PSDPs update the estimates of total cost of ongoing projects, the changes are not reported or explained in neither the PSDP nor the annual development plan.

Figure 3.8 Execution rate of PSDP (Federal and Provincial) (actual vs. budget)



Source: IMF staff calculations from PSDPs

48. In the absence of multiyear ceilings, line ministries lack visibility over resources that will be made available for their capital budget in the future. This can discourage medium term planning and efficient prioritization by line ministries. At the Federal level, the absence of multi-year ceilings may be a factor behind the high value of new projects (in relation to available fiscal space) that line ministries often propose for inclusion in the PSDP, despite the tight available fiscal space (see institution 8). The current arrangements do not enable line ministries to plan the delivery of a realistic multi-year capital program.

49. Insufficient information on the evolution of the total cost of major projects can explain instances when large cost overruns have only been identified ex post in the past. The Auditor General of Pakistan (AGP) has identified a number of such instances in performance audits of projects. A recent example is the Golen Gol Hydropower Project which showed a final cost of Rs. 30 billion for a project initially estimated at Rs. 7 billion. While information on total cost is updated in the IT system used by the Planning Commission, reporting its evolution can enhance the scrutiny of such projects during implementation.

7. Budget comprehensiveness (Strength—Low; Effectiveness—Medium; Reform Priority—Medium)

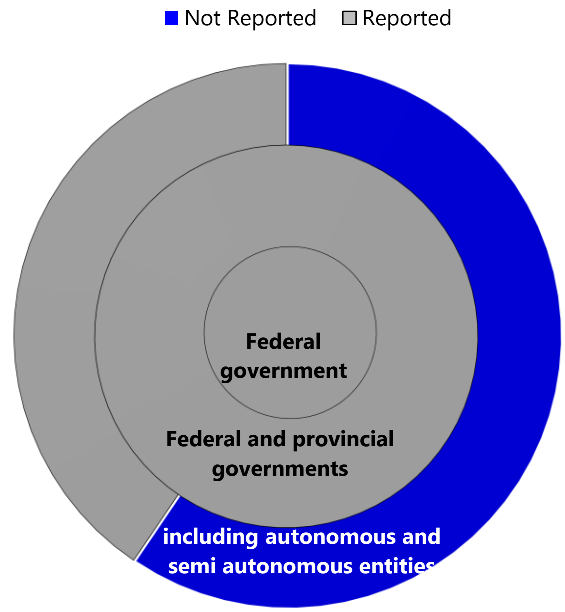
50. Capital expenditure proposals can only be effectively assessed during the budget approval process if the legislature has comprehensive information on all capital projects. That requires that no capital expenditure is excluded from the budget and conducted through extra-budgetary government entities without budgetary oversight. Comprehensiveness also considers that capital expenditure and current expenditure are prepared and presented together in the budget.

51. Pakistan's current and development budgets are prepared by separate ministries, and while the PSDP reports on capital projects regardless of funding source, extra budgetary entities undertake significant capital spending. The Finance Division prepares the current budget while the Planning Commission is responsible for the preparation of the development budget. Despite the different preparation processes, they are consolidated and presented together to the Parliament as part of the annual budget. The development budget (PSDP) reports on domestic and externally funded projects. It also includes the grant element provided by the federal government on PPP projects to ensure their financial viability, the so-called 'viability gap funding'. However, the legal and regulatory framework does not limit the creation of autonomous and semi-autonomous entities that operate outside the budget. There is a high number of these entities, and their capital spending is significant (see Chapter I).

52. There are a number of mechanisms to ensure that the preparation of current and development budgets are well coordinated in practice but a sizeable proportion of capital spending undertaken by extra budgetary entities fall outside the budget. Capital spending by extrabudgetary entities is only included in the PSDP if it is examined and approved by the Departmental Working Group. For this to be the case, the project must be (i) either funded fully or partly from domestic revenue or external sources; or (ii) self-funded but must have a foreign exchange component above 20 percent of its total value. An analysis for FY2021-22 shows that capital spending by these entities not included in the PSDP represented around 60 percent of their total capital spending (Figure 3.9). The bulk is in the telecommunication, transportation, port, and airport sectors. On the other hand, spending on capital projects by the National Highways Authority, Water and Power Development Authority and Pakistan Railways is typically included in the PSDP as they are typically budget funded (reflecting the generally weaker financial position of the entities).

53. Given the magnitude of self-funded projects, the Parliament in Pakistan is not presented with a comprehensive picture of public sector investment. The Pakistan Bureau of Statistics reports on Gross Domestic Fixed Capital Formation, but the definition is different from the PSDP, which makes it difficult to understand the investment footprint of the autonomous entities. The Planning Commission is trying to gather this information from ministries by including the request in the Development Budget Call Circular for FY2023-24.

Figure 3.9 Coverage of Development Projects in PSDP



Source: IMF staff calculations from PSDP and Pakistan National Accounts Statistics

8. Budgeting for investment (Strength—Medium; Effectiveness—Medium; Reform Priority—High)

54. This institution is intended to assess if project funding is protected over the implementation period. Major public investment projects are typically implemented over multiple years, and this presents challenges for budgeting. Budget and commitment procedures can make it more likely that funds are available when needed over the multiyear construction cycle of major projects.

55. Total costs for multiyear projects are in budget documentation and development budget appropriations cannot be shifted to current spending without National Assembly approval, but there is no mechanism to protect ongoing[37] projects over the medium term. Appropriations (grants) are made for planned expenditures for the budget year only, regardless of the number of years over which implementation is expected to occur. Once project contracts are signed, which can cover work conducted over multiple years, the Accounting Policies and Procedures Manual (APPM 1999) and the Guidelines for Commitment Control (2022) stipulate recording annual but not multiyear commitments. The Manual for Development Projects requires the PSDP document to show for each project expenditures to date, budget year allocations, and total cost. Funds appropriated for projects in the development budget cannot be shifted to the current budget without the approval of the National Assembly, per the System of Financial Control and Budgeting (2018). If needed, the executive can reduce the total development

[37] The term "ongoing project" applies to projects approved in a budget and for which expenditures for mobilization have occurred. It does not cover projects that have been allocated money in a PSDP, but for which no money has been spent. Thus, the size of ongoing projects presented by the Planning Commission understates the amount of money needed to complete all PSDP approved projects.

budget spending through the use of Supplementary Grants. The Manual for Development Projects (2021) Section 3.51 provides a mechanism to ensure that funds are available to complete ongoing projects in a timely manner.

56. Effectiveness is modest as commitments are not recorded as required and project completion is often delayed due to lack of funding. In addition to the PSDP, the PC-I form shows information on planned project costs by year over the medium-term. This form is widely recognized as authoritative and is accessible for every project included in the PSDP for registered users of the iPAS, described more fully in the Cross Cutting Information Technology Chapter V. Neither annual nor multiyear commitments are recorded in the accounting system in accordance with the APPM or the recently adopted Guidelines for Commitment Control (2022). There have been no negative Supplementary Grants, which could reduce the total development budget, requested for the three most recent years for which such grants have been requested (2018-19, 2019-20, 2020-21). The Planning Commission recognizes the importance of funding ongoing projects. The PC-I form classifies every request for development funding as new or supporting an ongoing project. This classification of projects is used prominently by the CDWP when reviewing projects for funding, and for sorting projects in the development budget information systems.[38] The Planning Commission has an informal policy of allocating annually 80 to 90 percent of available domestic development funding to ongoing projects. However, because the number and total funding needs of ongoing projects are large, ongoing projects receive significantly less funding than needed to complete them in a timely manner.

57. While the Planning Commission gives funding priority to ongoing projects, reforms are needed to provide a more credible basis for the PSDP budget. The total cost to completion of ongoing projects, the 'throw forward' is very large compared to realistic funding available in the medium term. Table 3.1, summarizes data from the 2022-23 PSDP.[39] It shows that, if the annual PSDP budget remains the same and no new projects are added, it will take approximately 14 years to complete the existing approved projects. However, in practice new projects continue to be added at a significant rate. In addition, the estimated years to completion is likely understated since i) ongoing projects not receiving funding in 2022-23 (known as unfunded projects) are not counted in the funding backlog, ii) the 2022-23 PSDP does not include flood related projects that have been subsequently approved, and iii) delays result in significant cost overruns. The Planning Commission estimates that a typical project requires 2-3 times its original estimated cost, due to inflation, damage to work already done and loss of materials at inactive building sites, and increased builder costs—which Planning Commission attributes largely to funding-induced delays. While the PSDP provides information on total project costs, this information would be more useful if compared to realistic funding available in the medium term.

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[38] The major information systems used by Planning Commission are i) the Intelligent Project Automation System (iPAS), and ii) the Project Monitoring and Evaluation System (PMES). These are described the Information Technology cross-cutting section of this report.

[39] Source: iPAS, retrieved March 22, 2023. The Planning Commission indicates that the throw-forward, or amount needed to complete ongoing projects is Rs. 10.729 trillion, more than the Rs.10.222.4 total cost of ongoing new and ongoing projects noted in Table 3.1. Both numbers come from authoritative sources, but the mission was not able to reconcile the difference.

Table 3.1 2022-23 PSDP Cost and Time to Completion

	No. of projects	Total cost Rs. billion
New projects	244	2,261.9
Funded ongoing projects	909	7,961.5
Total funding provided for 2022-23		727.5
Average years to completion (assuming current development budget funding and no new projects)		14.1

9. Maintenance Funding (Strength—Low; Effectiveness—Low; Reform Priority—Low)

58. **Infrastructure cannot deliver the benefits intended over its lifetime if not properly maintained**. It is therefore important to know maintenance needs and the condition of the assets to maintain the service delivery potential of the assets, and to ensure that rehabilitation of assets is factored into public investment plans in a timely manner.

59. **The estimations of routine and capital maintenance needs do not systematically follow standard methodologies (except for roads and economic infrastructure in regulated sectors) while routine and capital maintenance are identified in the budget.** The PFM Act requires that entities include in its demands for grants "adequate funds for maintenance of the physical infrastructure assets under its supervision" and that the Planning Commission "shall define adequacy requirements for different categories of physical infrastructure to be expressed as the ratio of the annual provision for maintenance and the current market value of the assets". The National Highways Authority has well established methodologies to estimate road maintenance needs. The network-level maintenance plan is to be prepared using the Road Asset Management System described in the Standard Operating Procedures.[40] The Manual for Development Projects and the Budget Manual state that the estimated cost of operation and maintenance of assets for project implementation should be identified in the project documentation (PC-I). The current and development budgets identify repair and maintenance activities using the object classification of the chart of accounts.[41]

60. **In practice routine and capital maintenance levels shown in the budget are considered inadequate to retain asset values.**

- In consolidated terms, low expenses for repair and maintenance are reflected in the financial statements of the federal government (0.2 percent of long-term assets).[42] For roads, maintenance funding for routine and periodic maintenance, rehabilitation, and geometric improvement has been consistently less than required. The funding gap has tripled since 2011, with the excess of needs over

[40] National Highway Authority Code 2005. https://nha.gov.pk/wp-content/uploads/2016/04/RMA-Rules.pdf https://nha.gov.pk/wp-content/uploads/2016/04/RMA-Rules.pdf

[41] A13- Repairs and Maintenance is a major head of account in the Economic/Object Classification in both the development and recurrent budget. Budget Manual 2020.

[42] Audited Financial Statements of the Federal Government. Financial Year 2020-21. According to the IPSAS cash standard, long-term assets include intangibles and work-in-progress and thus is only an approximation of the historical value of fixed assets. Assets for this purpose are not revalued to reflect the market value of the assets.

allocations increasing from 27 percent in 2010-11 to 86 percent in 2019-20.[43] The 2022-23 budget performance target for road maintenance is 10,700 km, covering just 2 percent of Pakistan road network[44]. The maintenance needs and actual spending related to public buildings could not be assessed because of the lack of systematic and specific information.

- All entities identify the demands for federal grants and appropriations related to repair and maintenance activities, in both the current and development budgets, using the object classification.[45] However, the maintenance expenses of relevant infrastructure assets covered by funds from authorities and other SOEs are not captured in federal finances.[46]

61. **Assessing the market value of the maintenance needs for relevant assets and identifying sufficient funding is necessary for preserving the value and quality of strategic public assets.** Finance Division plans to develop a standardized methodology for estimating routine maintenance needs by type of asset that can subsequently be implemented by the Productivity Commission, which would better facilitate maintenance planning. A more comprehensive view of public finances, including the gross expenditures of autonomous authorities and other non-commercial SOEs, would enable more comprehensive asset portfolio management and improve the budget allocation process for maintenance expenses.

10. Project Selection (Strength— Medium; Effectiveness— Medium; Reform Priority—High)

62. **Project selection is in its nature a separate process from planning and appraising projects.** Project selection involves choosing projects from a pool of appraised projects, with due consideration to relevant economic, social, environmental, and other objectives. The project selection process should include a central review of project proposals to ensure consistent analysis and build a pipeline of the most efficient project options, and criteria for project selection should be well-defined and transparent.

63. **All major projects are reviewed centrally to form a pipeline of appraised projects but there are no published criteria to guide selection decisions, and independent review is not required.** The Manual on Development Projects requires selection projects for funding in the PSDP. After receiving its indicative budget ceiling, each ministry allocates funds across technically approved projects. Each ministry proposal is reviewed by the CDWP, Annual Planning Coordinating Committee, and the NEC. Independent agencies or experts are not employed in the selection process though they may sometimes be used in the appraisal process. The same selection process is required for all projects funded domestically or externally, or through PPPs, although externally funded projects and PPPs will have additional selection steps unique to them. Guidance issued by the Planning Commission on preparation of the development budget provides minimal guidance on priorities, such as giving due priority to projects

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[43] National Highway Authority. 2021. Road Asset Management System of Pakistan. https://www.carecprogram.org/uploads/4_PAK-English_RAMS-20211006.pdf

[44] Pakistan road network is approximately 500,000 Km and National Highway Authority Network 13,570 Km. (National Highway Authority, 2021)

[45] For 2022-23, the demands for allocations identified as repairs and maintenance represent only 0.2 percent of the total demands net of principal and interest payments of loans.

[46] Eg. Roads covered by National Highways Authority maintenance fund or public airports funded by the Aviation Authority.

initiated under the regional equalization programs or packages, and analyses conducted during the project technical approval process should be taken into consideration. That said, comprehensive and clearly delineated selection criteria have not been formulated and published. As noted in Institution 4 (Appraisal), the technical approval process continues throughout the calendar year. Projects that have received technical approval through the appraisal process constitute a pipeline. A particularly strong practice in Pakistan is that all projects must be appraised before they can be included in the PSDP, as stated in the PFM Act.

64. All major projects are subject to the prescribed selection process, but requesting projects to be appraised during budget deliberations somewhat reduces the effectiveness of the process. All PSDP projects go through the selection process. Decisions are documented by the reviewing fora. However, projects can be, and are, suggested for inclusion in the PSDP by Cabinet and the National Assembly late in the process for finalizing the PSDP. While these projects still must be appraised if they are to be included in the PSDP, appraisals and the selection process under these circumstances could be rushed and subject to political pressure, even if implicit.[47] The effective pipeline of projects are those that have been appraised before the budget allocation process begins in April each year.

65. Looking ahead, putting in place selection criteria to guide allocation of the PSDP and decisions about projects funded in other ways would improve allocative efficiency. Selection requires consideration of the complementarity of new and ongoing projects, and political, economic, and social conditions of the moment. This is to say that selection is properly influenced by more than the technical characteristics of individual project shown on the PC-I form, which among other issues addresses alignment with national and sector plans. It is very easy for subjective considerations, applied inconsistently across projects, to influence selection decisions. Objectivity, and allocative efficiency, would be enhanced when criteria for selection are developed, published, and consistently applied when allocating funds in the PSDP. Scoring tables are a good way of achieving this objective. Scoring tables are constructed by first identifying factors, such as economic impact, balanced regional development, current public policy priority, and environmental impact. Second, the factors are scored on a common yardstick (eg. 1 to 10). Third, summing the scores gives the possibility for ranking projects. South Korea is a good example of using such scoring tables to select projects.

Recommendations on the Allocation Phase

Issue 6: Allocative efficiency can be improved with the application of comprehensive selection criteria to guide allocation of development budget funding. There is little guidance on how to choose projects to receive limited funding in the PSDP. In addition to the project rate of return, considerations include, among others, regional distribution, environmental impact, risk, obligations under international and provincial agreements, foreign currency impacts, and current government priorities. The criteria should also address limits on starting new projects, considering ongoing projects and available funding.

[47] Knowing when the PC-I approval was given would indicate the number and collective value of projects added after the development indicative budget ceilings were issued, and thus for which appraisal would be hurried. iPAS is designed to capture dates when technical approval of the PC-I is given, but iPAS staff believe the data is not accurate and there is no standard report sorting approvals by date. The number and value of projects added by Cabinet and the National Assembly could not be determined by the mission.

Ideally all projects would be subject to prioritization against consistent criteria, regardless of funding source (including budget funded projects and ones developed through PPPs).

Recommendation 6: Develop and publish criteria for selecting projects to receive funding in the PSDP. This should be developed by the Planning Commission, reviewed by the various fora up to the NEC, and concluded by December 2024 to guide preparation of the 2025-26 PSDP. Priority High

Issue 7: An unrealistically large stock of ongoing projects in the PSDP causes delays in completing projects and increases costs. A large stock of technically approved and ongoing projects compared to available funding means that projects cannot be completed on schedule. The Planning Commission estimates that projects are delayed, and costs increase, by 2 to 3 times the original plan. Undertaking a triage of existing projects across all funding sources to remove low priority projects would create a strong basis for planning future delivery and, potentially create space for new high priority projects like those needed to deal with flood recovery and climate change.[48]

Recommendation 7: Conduct a one-time review of all technically approved projects and reduce the set of active projects to high priority projects that can be completed in a timely manner. This should be carried out by the Planning Commission and reviewed by the various fora up to the NEC. It should be completed by the end of 2024, in time for the 2025-26 PSDP. Priority High

Issue 8: The budget framework does not establish a strong basis for the planning and execution of capital expenditure. Ministries are not given multi-year PSDP ceilings that would enable them to plan to execute their projects over a multiyear basis on an efficient basis. Furthermore, annual budgets are not implemented as approved given considerable scope for ministries and the executive to vary the budget within the year. As a result, the centrality of the budget in determining the annual spending is reduced. The uncertainty about which projects will be implemented in the near term can creates scope for influence and inefficiency in decisions about individual projects at all levels of decision making.

Recommendation 8.1: Set multi-year indicative budget ceilings by ministry. (Planning Commission and Finance Division Jun 2024). Priority Medium

Recommendation 8.2: Examine scope to reduce the within year adjustment of capital expenditure (including restricting the ability to add new projects through supplementary grants or virements). (Finance Division, Dec 2023). Priority High

E. Investment Implementation

11. Procurement (Strength—Medium; Effectiveness—Medium; Reform Priority—Low)

66. Public procurement plays a strategic role in building modern infrastructure and delivering public services. Using technology to support open competition for procurement strengthens transparency, enhances efficiency, helps generate fiscal savings, and builds trust in government.

[48] A note by IMF staff discusses relevant factors and considerations in downsizing a public investment project that continues to have applicability beyond the pandemic. See E. Tandberg and R. Allen, *Managing Public Investment Spending During the Crisis*, IMF Special Series of COVID 19, 2020.

67. Pakistan's law requires open and transparent procurement and establishes a process for independent review of procurement complaints, but a system for monitoring is not in place. The Public Procurement Rule 2004 under Rule 20 prescribes open competition as the principal method of procurement with mandatory consideration for transparency under Rule 4. It is mandatory for all the procuring agencies to publish the final evaluation report fifteen days prior to award of the contract in accordance with Rule 35. The rules include the provision of an independent complaint review forum, and any aggrieved party can file an appeal against the decision of procuring agency with the public procurement regulatory authority under Rule 48. The decision of the authority on such complaints is final under the rule. The rules for overall procurement framework do not require mandatory mechanism for monitoring the procurement through a procurement database to determine compliance percentage or overall performance of procurement function.

68. In practice most capital projects appear to follow a competitive process, but monitoring and data to support this are not available and there are questions about the impact of the complaint system.

- Almost all the procurement opportunities (over Rs. 3 million) are advertised publicly in a newspaper of wide circulation alongside the publication on website of the Public Procurement Regulatory Authority (PPRA) and award information is disclosed in a timely way prior to the award of the contract. The public procurement rules federally and in Punjab have undergone amendments in recent years and provisions have been introduced for the award of contract to SOEs without competition when projects are considered time sensitive and in the public interest. The use of this provision is limited; however, it poses the risk of reducing the opportunities to a competitive private sector.
- The procurements for all public investment projects are annually reviewed by the Auditor General of Pakistan. In addition, all procuring entities regularly submit information on contracts valued over Rs. 50 million under Section 33-B of National Accountability Ordinance to the National Accountability Bureau, which is the apex anti-corruption entity with a procurement oversight mandate. The PPRA also do a preliminary review of advertisements before publication and review complaints pertaining to the procurement process. The Competition Commission of Pakistan also has a legal mandate and powers to detect and prosecute collusive bidding in public procurement.
- Despite the mechanism and mandate of oversight for monitoring of procurement by different agencies on standalone basis, there is no structured procurement database with analytical capability that may evaluate the information available from different sources to identify and act when actual procurement practice deviates from the standard. The information on procurement is available in fragmented form such as advertisements, evaluation reports and disclosure of contract awards on the PPRA website; and audit observations indicating noncompliance in Auditor General reports. No structured data is available on compliance and performance.[49]
- The federal public procurement rules include provisions for the grievance redressal and review of complaints by the independent PPRA. The average time to resolve complaints is between two to six months. Their decisions on procurement complaints are not published and a significant fee is also

[49] Reports published by Balochistan PPRA for year 2019-2020 and Punjab PPRA for year 2017-2018 indicate that considerable noncompliance is observed in following the rules which reduce the effectiveness of open, transparent, and competitive procurement function within government's administrative and development expenditure. The data available from the monitoring and evaluation report of Balochistan PPRA for year 2019-2020 reveals 52 percent compliance and maximum violations are observed in forming a clear and unambiguous evaluation criteria, which comprises 60 percent of the total violations.

applicable for the appeal to the authority, reducing effectiveness. The decision on procurement complaints by the PPRA is final, however, it is not rigorously enforced; rather recommendations are made for enforcement. No data is available on the number of the complaints that are pursued in the court of law after the review by the authority or on the percentage of decisions reversed if pursued in the court.

69. While the procurement system has good foundations, further efforts to improve transparency and effectiveness are warranted. There are plans to launch e-Procurement systems in federal and provincial governments that would serve as databases for procurement with varying analytical capabilities.[50] Such a database with analytical capability available to analyze the data in standard reports and draw conclusions for decision making can improve the procurement and governance system. The capacity of the PPRA could also be enhanced to discharge its role of an independent forum more effectively in monitoring of the procurement function to improve efficiency and transparency in government spending.

12. Availability of funding (Strength—High; Effectiveness—Medium; Reform Priority—Medium)

70. This institution addresses the means to ensure that cash is available when needed to make payments for public investments. In a modern treasury system, the term 'cash' is equivalent to liquid resources that are readily available—mainly cash or equivalent in bank accounts, but also sometimes cash kept in money chests—to make payments.

71. Cash-flow forecasts are prepared monthly, ministries receive information on releases for the full fiscal year, cash is provided in line with the release schedule, and external financing is integrated into the treasury single account. The newly formed Cash Management Working Group began producing cash forecasts in early 2023, consisting of a forecast prepared monthly looking one month into the future.[51] The forecasts are used primarily to determine if quarterly spending releases[52] are financially sustainable. Finance Division issues two release strategy documents at the beginning of each fiscal year, one each for the current budget and the development budget. For the development budget, the release strategy indicates a percent of each ministry's approved annual budget that can be spent in each of the four quarters of the fiscal year. The percentage applies equally to all ministries, and thus does not reflect the specific timing of spending facing a ministry, such as amounts previously determined in multiyear contracts. Release strategies typically are not revised in-year to affect total funding available. However, the executive has legal authority to do so, if necessary, through the use of the Supplementary Grant procedure. The potential for formal arrears is not present because late payments are not defined in

[50] The provincial government of Balochistan through its PPRA has launched the e-Procurement system in March 2022 whereas federal PPRA under a World Bank financed Program for Results, namely PFM, is developing an e-Governance and Procurement system that shall also be adopted by the government of Punjab and Sindh. The Khyber Pakhtunkhwa province is also piloting the e-Procurement system developed with assistance of USAID.

[51] Cash-flow forecasts are authorized in the Cash Management Policy 2019-29, which was subsequently incorporated into the PFM Act 2019, and the Cash Management and Treasury Single Account Rules 2020.

[52] A spending release, the term used in Pakistan, is the practice of dividing the annual appropriation into smaller units – in other words, an amount of spending within the annual appropriation that is authorized within a certain portion of the fiscal year. Internationally, these are referred to as commitments, allotments, or allocations, and commonly specify amounts of money that can be spend by month or quarter.

regulation. Externally funded project accounts are located in the treasury single account in the central bank, in accordance with a Finance Division circular.

72. In practice, the misalignment between cash needs for project expenses and cash releases slows the delivery of projects and leads to inefficiencies. Ministries are informed of releases well in advance, and thus can plan activities on them. Cash is made available consistent with the announced releases. However, the release amounts are not based on financing expenditures when needed during the year, which requires reliable commitment information (see Institution 8, Budgeting for Investments). Rather, expenditures must be adjusted to conform to the cash releases. Contractors are informed of limited release amounts, who are expected to adjust work performed to reflect the amount that a ministry can pay. Cash-flow forecast methodology incorporates surveys of ministries regarding their plans for major payments, but this information is used for estimating monthly cash demands within the quarterly releases, not to adjust the size of releases. Short-term borrowing is not conducted by the federal government in any form to adjust the seasonal availability of releases to make payments according to the construction calendar laid out in contracts. The Finance Division has timely information on the balances of externally funded project accounts (lifting the effectiveness score to medium as set out in Annex 4).

73. **These arrangements are a substantial cause of the delays in the implementation of projects and resulting late payments to contractors.**[53] Improvement in the quarterly release strategy requires reliable commitment information, which although required in law is not occurring (as noted in Institution 8). When that is available. within year forecasting can be improved and form the basis for a move away from mechanical release forecasts.

13. Portfolio Management and Oversight (Strength—Medium; Effectiveness—Medium; Reform Priority—Medium)

74. Portfolio management of all major projects supports efficiency in public investment and the achievement of overarching policy objectives. The portfolio of major capital projects includes those previously approved, either in the budget or through other alternative financing mechanisms (development partner financing or PPPs). Through looking at the whole portfolio of major infrastructure projects, governments can collect and analyze data, and determine if projects and programs are on time, within budget and identify risks that require high level intervention. Systematic portfolio management also comprises optimizing available funds by assigning them to the best performing projects.

75. In Pakistan, a well-structured monitoring system is required for capital projects in execution in the legal framework; re-allocation of funds is permitted; and standardized ex post reviews include lessons learned.

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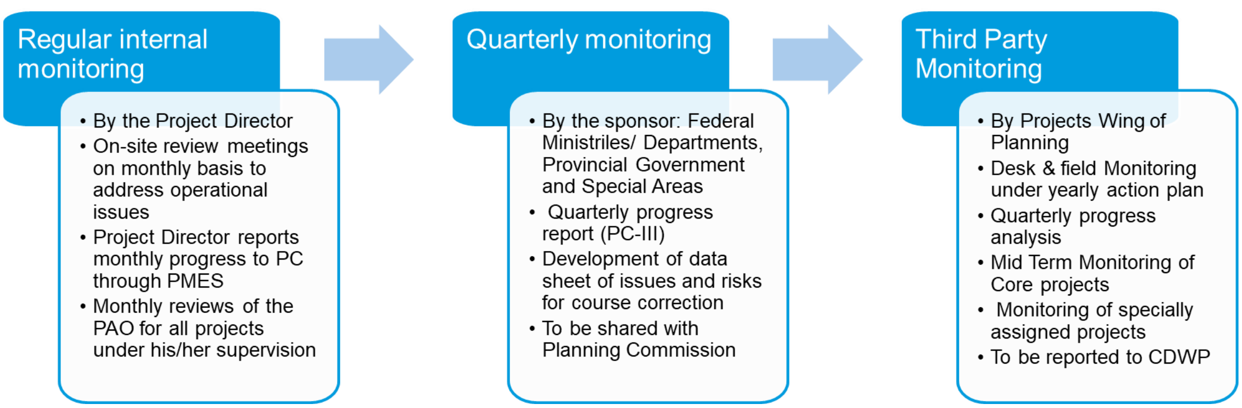
[53] The impact of adjusting spending to match cash availability reflected in releases is most clearly seen when considering the Development Budget Release Strategy for 2022-23. Releases for all ministries were announced at 10, 20, 30 and 40 percent for each quarter, respectively, of the fiscal year. Any expenses incurred by a contractor above the amount of available funding typically will not be billed to the ministry in that quarter, thus avoiding arrears from the perspective of government. If a contractor misjudges the level of work performed and thus incurs expenses above the amount that can be billed, the contractor absorbs the cost temporarily. It is likely the contractor will attempt to recover that expense in future periods. Such delays in payment, which are not reported, have the same financial effect on contractors as explicit arrears recorded by the government. If a contractor submits invoices in an amount greater than the available release, the invoice is not paid until additional releases are available. The delayed payment is not recorded as an arrear as there is no deadline for payment of invoices defined in law or regulation.

- The PFM Act requires monitoring and evaluation of all development projects. Project management rules in the 2021 Manual for Development Projects require systematic in-year progress reporting for all capital projects, including physical and cost progress as well as bottlenecks[54] (PC-III proforma by PMES). The monitoring process, involving different stakeholders,[55] sets the framework for course corrections, ensuring on time and within budget completion, and for re-allocation opportunities. In addition, the Planning Commission should monitor selective projects (around 25 percent of the development projects as indicated by the Planning Commission), and an Annual External and Mid Term Monitoring/Review of core projects should be presented to the ECNEC. Figure 3.10 shows the basic components of the monitoring process in Pakistan.
- The PFM Act allows reallocation of funds between investment projects before the last month of the fiscal year.[56] Although some general instructions have been established[57], clear rules for re-allocation (eg. limits on the amount/share that can be reallocated) are not in place.
- An ex-post review of projects after completion is part of the project management system established by the Manual and must involve not only the implementing agency but also relevant stakeholders. Once completed, each project should be evaluated considering initial targets (physical as well as financial) versus achievements, timelines, and lessons learned (PC-IV proforma). For core projects, an independent impact assessment should also be completed for the five years after completion of the project (PC-V proforma).

Figure 3.10 Components of the Project Monitoring Process in Pakistan



Source: IMF based on Manual for Development Projects 2021, Planning Commission of Pakistan

76. Most projects present cost overruns and delays which are systematically reported; reallocation is a common practice without evident impact in budget execution; few projects complete ex--post reviews. For most development projects monitoring reports are collected

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[54] Multi-term reporting (monthly, quarterly, and annual reviews by the diverse actors) is required at project or sector/cluster level.

[55] The monitoring process involves internal (Project Director, Principal Accounting Officer) and external parties (Consultants, Member implementation and Monitoring of PC, DCPC, other relevant stakeholders).

[56] According to the 2019 Public Finance Management Act, the re-allocations can be sanctioned by the Principal Accounting Officers (approved by de Competent Authority) by thirty-first day of May each year. Moreover, Planning Commission has standard Formats for re-appropriation, fund and time extension requests.

[57] In the Financial Management and Powers of Principal Accounting Officers Regulation (2021) and in the Strategy for additional allocation and re-appropriation of funds (Office Memorandum of the Finance Division).

systematically, allowing for capture of comprehensive data on cost overruns and delays.[58] Officials consistently indicated that most projects are subject to significant price increases and interruptions,[59] but no analyses were available related to portfolio management actions based on the structural cost overruns and delays. However, in 2022 the Planning Commission recommended adjustments in the PSDP for ensuring maximum utilization, due to the 39 percent reduction in the budget, the projects targeted for completion were reduced from 320 to only 170,[60] leaving a significant number of projects unfunded and forced delays. In practice, reallocations are permitted after the second quarter to transfer budget from slow moving projects to fast moving projects.[61] The aggregate impact of this mechanism is not clear since execution of the development expenses remains modest (71 percent on average over the last 5 years)—though individual cases emphasized the relevance of reallocation of funds for the completion of projects.[62] The team heard that ex-post reviews for major capital projects are submitted infrequently, limited in practice to a few major projects.

77. The strength of portfolio monitoring would be further enhanced by using data in monitoring systems for analysis and strategic portfolio management. Analyzing the recurrent information on project execution to determine portfolio level trends and summarize the status of the portfolio could be an important component of the Annual External and Mid Term Monitoring/Review of core projects. Stronger and more active portfolio management and oversight across projects would allow for sharing of common challenges, inform better decision-making on new projects and project implementation, and ultimately enhance the effectiveness of investment spending. Enforcement, support, and capacity building related to ex-post reviews of major development projects would also facilitate greater efficiency of public investment spending.

14. Management of Project Implementation (Institutional Strength—High; Effectiveness—High; Reform Priority—Low)

78. Effective project implementation is required to realize the full benefits of public investment. During the implementation stage the management of time, money and quality is of utmost importance. These questions should be addressed at the commencement of the project, to draft the scope and goals for the project. It is important to communicate roles, expectations, and objectives to finalize the project. Also, regular, and independent audits provide oversight and can identify common problems and solutions in infrastructure governance and delivery.

79. The design of project implementation is strong in Pakistan, involving: implementation plans, processes for monitoring and for major project adjustments, and ex post external auditing.

[58] Project execution is reported in the PMES System. According to the Manual for Development projects, the 'Project Director User' also has the responsibility of entering the project's financial and physical progress.

[59] Reported examples had over 50 percent overrun costs, with the principal cause attributed to budget allocations below project plans (see institution 8).

[60] Annual Plan 2022-23. https://www.pc.gov.pk/uploads/annualplan/Annual_Plan_2022-23.pdf

[61] The Mid-Year Budget Review 2021-22 reported the amount of fund re-appropriated and instructed Ministries/Divisions to complete the maximum number of project by providing required funs through re-appropriation.

[62] For the Water Resources sector's on-going development program, during 2021-22 additional funding was provided to the projects on fast track and near completion through re-appropriation for their timely closure. (Annual Plan 2022-23. Page 50. https://www.pc.gov.pk/uploads/annualplan/Annual_Plan_2022-23.pdf)

According to the Manual for Development Projects, sponsoring agencies are required to appoint a project director at the initial stage of projects. For major projects approved by the NEC and ECNEC,[63] independent project directors should be appointed.[64] The Selection and Appointment Committee for project directors and well as the appointment process are regulated. Work and cash flows should be provided with the project proposal,[65] as well as management structure and staffing requirements, and other additional projects/decisions required for project implementation. Risk assessments are required as part of feasibility studies for major or infrastructure projects.[66] Project management rules consider the needs for potential adjustments (scope, timeline, and cost) and establish criteria and procedures.[67] For cost overruns larger than 15 percent, the project should follow the whole appraisal and approval process to be adjusted.[68] The Auditor General has the legal mandate for external ex-post audit of projects.

80. These practices appear to be followed: implementation plans are provided before project approvals; project adjustments are scrutinized; and performance audits are regularly conducted by the Auditor General. Complete PC-I and PC-II proformas have been required for major project approvals.[69] However, there is not clear evidence that, in practice, for all major projects the proposals have appropriately included the key arrangements for adequate management and monitoring during implementation (eg. major milestones and target dates, key staff, and risks). Although the sponsoring and executing agencies are clearly identified in the project proposal, the project director is formally required for the project implementation. For mega projects that are above Rs. 3 billion and foreign financed, an independent project director is required to start soon after concept clearance. In practice, to adjust the scope of a major project by more than 15 percent of the initial estimated cost, they must follow the whole appraisal and approval process again. The Auditor General of Pakistan undertakes performance audits of major capital projects according to the annual audit plans, all of which are published on their website.[70] In 2021-22, 14 performance audits were carried out relating to major infrastructure projects. Audits are reported to Parliament, but are often considered by the relevant Parliamentary Committee with a lag. The Auditor General's Office provided examples of how these audit recommendations are having an impact.

81. Unavailability of funding hampers project implementation. Many challenges in project implementation appear related to systematic granting of budget allocations below what is consistent with original project delivery plans (see institution 8).

[63] Project costing beyond Rs10,000 million, any project involving foreign component, and any project of irrigation costing Rs. 1,000 billion or more.

[64] Independent directors for other project should be approved by the CDWP providing proper justification.

[65] PC-I proforma require year-wise estimation of physical activities and financing phasing, as well as implementation schedule. The financial phasing (2 years for Divisional Development Working Party, 5 years for CDWP and 7 years for ECNEC maximum) will be considered during the approval of projects.

[66] Projects which cost more than Rs. 500 million and/or infrastructure makes up 30 percent of project cost.

[67] "If the project executing agency determines (based on detailed justification) that the project cannot be implemented under the approved parameters and it requires revision of scope, physical components or financial allocation, a revised PC-I must be submitted to the competent forum for approval". Manual for Development Projects. Page 33.

[68] According to the Manual for Development Project, "if the cost of the project exceeds 15% of the approved budget at the time the contract is being awarded, PC-I will be revised immediately and should be submitted for approval of the competent forum". Page 77.

[69] In case, the PC-I is found deficient, it is returned to the sponsors by the Planning Commission.

[70] https://agp.gov.pk/AuditReports

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

82. This institution covers monitoring of public assets. The PIMA framework is based on a cycle. Monitoring of public assets is the last institution in the questionnaire, but it feeds information into many of the institutions listed earlier, such as when establishing sustainable fiscal policy (institution 1), developing national and sectoral plans (institution 2), budgeting for maintenance (institution 9), and selecting new capital projects (institution 10).

83. Asset registers are required to be comprehensive and updated regularly but are not consolidated; financial statements include non-financial asset information as memoranda only and without revaluation; and depreciation of fixed assets is not recorded. All federal ministries that own or control fixed assets costing a minimum of Rs. 100,000 at historical cost are required to keep a register, which is updated regularly as new asset purchases are made.[71] The federal government is not required to consolidate the data, and ministries are not required to ensure general access to registers maintained by them. Regarding financial recording keeping, the Accountant General adopted the New Accounting Model in 2000, which aimed to include fixed assets and depreciation in the annual financial statement. Expenditures on various types of fixed assets are recorded using the economic (object) classification of the chart of accounts,[72] with the specific asset purchased noted in the general ledger. The cost of fixed assets is included in the annual financial statements but only as a memorandum item. Depreciation is not required to be recorded in operating expenditures.

84. Some ministries have effective asset registers used for operational purposes, but information on these registers is not readily accessible and is not consolidated centrally. There are no guidelines covering rules, procedures, and reporting on physical asset registers for which federal ministries are responsible. There is no information on compliance with the APPM and knowledge of the requirements appears limited. Ministry asset registers are not readily accessible and are not consolidated into a central register. The National Highways Authority has developed asset registers and processes to assist in their maintenance and operations.[73] The portion of the New Accounting Model relating to Physical and Financial Assets Accounting has not been implemented, as stated in the most recent financial statements. However, the International Public Sector Accounting Standards (IPSAS) for cash, which are followed by the federal government, require disclosure of annual expenditures on assets in a memorandum to financial statements. This requirement is adhered to, but memoranda are not audited by the Auditor General, and thus the comprehensiveness and accuracy of the disclosure are not verified. IPSAS cash standards do not require depreciation to be recorded in operating expenditures, and this is not done in the financial statements.

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[71] See Handbook of Accounting Guidelines. The Accounting Policies and Procedures Manual (APPM) provides detailed guidance. Similar provisions are included in the PFM Act 2019 and the Manual for Development Projects.

[72] See details under the A09 Major Head, Physical Assets

[73] The National Highways Authority has a division devoted to maintaining an information system, collecting data, analyzing data, and assisting other Authority units in planning maintenance costs and activities. The Authority annually updates asset values, using replacement costs, as a basis for estimating maintenance costs and benefits.

85. The Finance Division recognizes the need for data on assets in order to properly budget for maintenance. The 2023-24 Budget Call Circular requests data on fixed assets costing more than Rs. 1 million. The data will be used to appraise utilization of the asset and estimate maintenance costs, two of the uses of asset data noted in this section. The Circular does not indicate how this information will be consolidated and classified. While ministries use asset information to justify development projects and maintenance budgets, budget allocations would be more efficient if there were a consolidated view of major assets and their condition, and the data complied with standards of quality and timeliness.

Recommendations on the Implementation Phase

Issue 9 Active portfolio oversight could improve project development and implementation. Data captured during project implementation and monitoring can be used for an analysis of portfolio trends and inform improvements to project implementation and development across the portfolio.[74]

Recommendation 9.1: Utilize data captured during project implementation and monitoring by the Planning Commission to develop analysis of portfolio trends and use to improve project implementation and development (Planning Commission, June 2025) Priority Medium

Recommendation 9.2: Planning Commission to lead efforts to increase compliance with requirements for ex-post review (Planning Commission, December 2025) Priority Low

Issue 10: Data on public assets does not uniformly support planning of public investment and budgeting for maintenance. While federal ministries are required to collect information on public fixed assets, each ministry develops its own approach. Except for roads and economic infrastructure in regulated sectors, the estimations of routine and capital maintenance needs do not systematically follow standard methodologies. This results in inconsistent data, with gaps, and increases the difficulty of consolidating the data -- and undermines its usefulness for policy making.

Recommendation 10.1 Prepare and publish rules and procedures for federal ministries to retain and make accessible information on public assets.[75] The guidelines should be prepared by the Finance Division, taking effect in mid-2024. Priority Medium

Recommendation 10.2 Develop standard methodologies for assessing the needs and cost of routine and capital maintenance for main asset classes (Finance and Planning Commission, Dec 2024) Priority Low

Issue 11: Strengthening procurement implementation and monitoring would improve the outcomes for investment projects.

Recommendation 11.1: Government should adopt and gradually convert to the use of e-Procurement for development (and non-development) expenditure. (PPRA, 2024)

Recommendation 11.2 Build capacity to monitor of procurement using a database; use this to monitor and assess compliance with procurement rules; and improve complaints disclosure. (PPRA, 2024)

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[74] For example, the UK Infrastructure and Projects Authority Annual Report on Major Projects 2021-22 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1092181/IPA_AR2022.pdf

[75] The guidelines for asset management should ensure consistent information in support of specific national policies, such as maintenance and climate change. Data should include responsible agency, a standard classification of assets, date of acquisition and condition of assets, a schedule for updating the information, means to access the information, and periodic consolidation of the information centrally from all federal ministries.

IV. The Climate PIMA

A. Climate Change and Public Infrastructure

86. Even under a scenario of declining global greenhouse gas emissions, average annual temperatures are expected to rise by 0.8 degrees in the next two decades in Pakistan. Climate change models for all global warming scenarios predict that Pakistan's weather patterns will become more volatile and extreme. Under a high emissions climate scenario (SSP 3-7.0), the median annual temperature is predicted to rise 4.6 degrees above the 2015 level by the end of the century (Figure 4.1), and the number of days with temperatures above 40 degrees rising from around 60 to over 100 (Figure 4.2). Precipitation is also projected to rise gradually under the high emissions scenario (Figure 4.3). This combination of rising temperatures, more extreme heat events, and rising precipitation present multi-dimensional, complex risks to infrastructure management.

Figure 4.1 Temperature Projections Under Alternative Emissions Scenarios

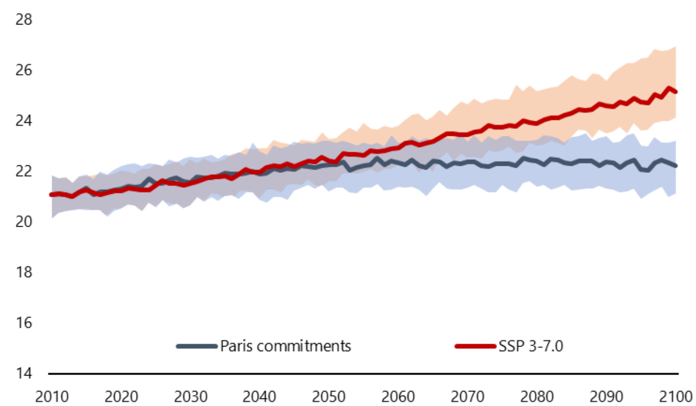


Figure 4.2 Days with Temperatures > 40 degrees (High emissions SSP 3-7.0)

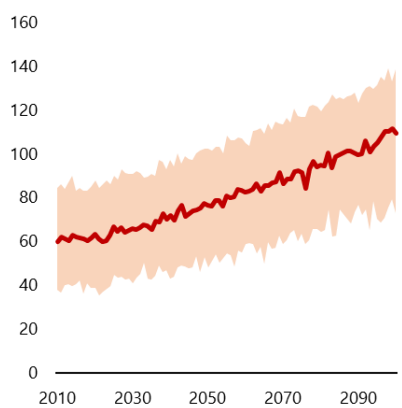
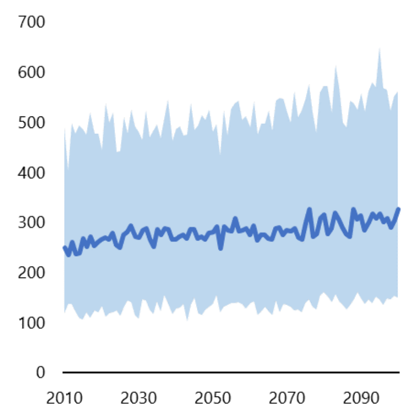


Figure 4.3 Annual Precipitation (High emissions SSP 3-7.0)



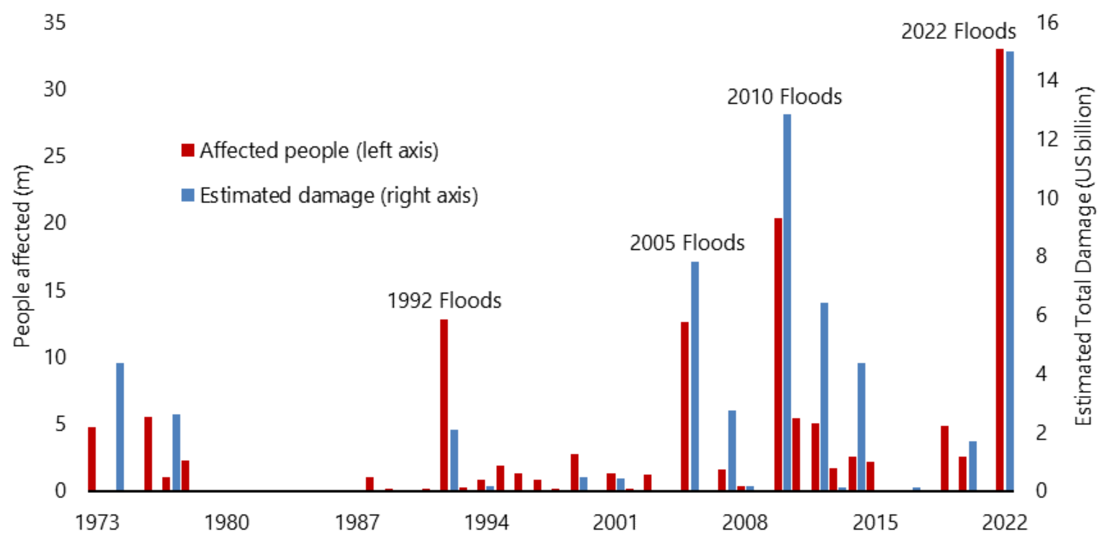
Source: World Bank Climate Knowledge Portal

87. Pakistan faces significant risks from climate change, with rising temperatures and unpredictable rainfall patterns increasing the risk of floods, cyclones, droughts, and heatwaves.

The country is particularly vulnerable to extreme weather events such as floods, heatwaves, and droughts, which are becoming increasingly frequent and severe. Since the early 2000s, climate disasters have, on average, directly affected more than 4 million people, killed 500 people, and caused USD2 billion in material damages per year.[76] Moreover, as a predominantly agricultural economy, Pakistan's food security is at risk due to changing precipitation patterns and decreased water availability. The melting of glaciers in the Himalayas, which supply the Indus River system, poses a severe threat to water resources, as well as the energy sector, which relies on hydropower for a considerable portion of its electricity generation. The country's densely populated coastal areas are also at risk of sea-level rise, exacerbating the potential for land erosion, saltwater intrusion, and loss of critical habitats.

88. Hydrological hazards such as floods and landslides represent more than 70 percent of the recorded climate event occurrences in Pakistan (Figure 4.4). The 2022 floods were most severe monsoon floods ever seen in Pakistan, affecting more than 30 million people (or around 14 percent of the population) (Figure 4.4). More than 1,700 individuals lost their lives to the deluge, with children comprising a third of the casualties. Sindh province was hit the hardest, accounting for nearly 70 percent of the total damages and losses, followed by Balochistan, Khyber Pakhtunkhwa, and Punjab. Initial estimates of the overall requirements to rebuild the affected areas amount to USD 16.3 billion.[77] The 2022 floods highlight the country's vulnerability to climate change and underscore the urgent need for implementing robust mitigation and adaptation measures.

Figure 4.4 Climatological, Hydrological, and Meteorological Disasters in Pakistan



Source: EM-DAT, CRED / UCLouvain, Brussels, Belgium – www.emdat.be

89. Investment in climate-resilient infrastructure will be essential to mitigate the impacts of climate change and natural disasters in Pakistan. Precipitation changes could both increase damage from intense monsoon flooding but also decrease overall water availability, affecting food security and hydropower production. Poor city planning exacerbates the impact of urban flooding disasters, and

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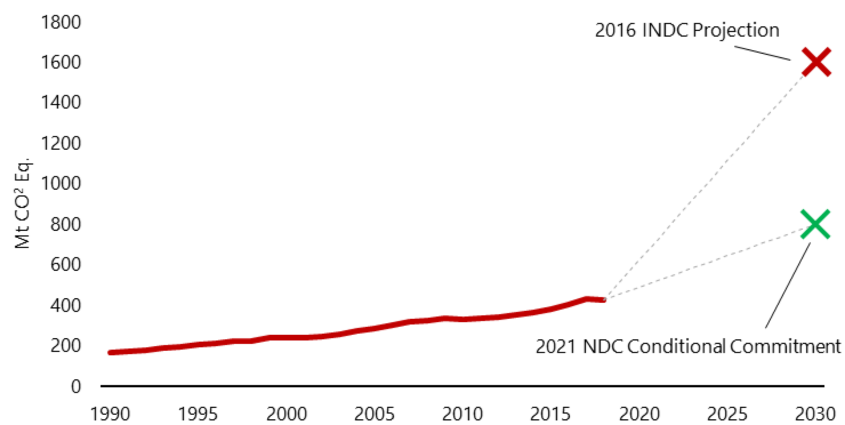
[76] EM-DAT, CRED / UCLouvain, Brussels, Belgium – www.emdat.be

[77] World Bank, CCDR, 2023.

building codes are yet to adapt to the pressures that climate change is bringing. The World Bank's 2023 Country Climate and Development Report estimates that between 6.5 and 9.0 percent of GDP will likely be lost by 2050 to climate change unless the challenge is addressed, as increased floods and heatwaves reduce agriculture yields, destroy infrastructure and lower labor productivity. The 2022 floods sharply demonstrate the need for greater investment in climate-resilient infrastructure and improved early warning systems, as well as support mechanisms for affected communities in their efforts to rebuild and adapt.

90. While Pakistan currently contributes less than one percent of global emissions, Pakistan's emissions could become globally relevant without mitigation measures. In 2018, the country's total greenhouse gas (GHG) emissions were between 400 and 500 metric tons of carbon dioxide equivalent (MtCO2e), inclusive of land use and forestry.[78] As Pakistan's economy continues to grow, driven by rapid urbanization, industrialization, and rapid population growth, its energy demand and subsequent GHG emissions are expected to rise significantly (Figure 4.5). The growing transportation sector, fueled by increasing vehicle ownership, and the expansion of energy-intensive industries are anticipated to be major contributors to the nation's GHG emissions. The agriculture sector, a key part of Pakistan's economy, is also responsible for a significant portion of emissions, with key sources including enteric fermentation from livestock, rice cultivation, and the use of nitrogen-based fertilizers.[79] Without proactive policies and investments in cleaner, more efficient technologies and infrastructure, Pakistan's emissions trajectory may become increasingly detrimental to global climate change efforts.

Figure 4.5 Historical Greenhouse Gas Emissions and Projections and Targets in Pakistan's Nationally Determined Contribution



Source: Climate Watch. 2022. Washington, DC: World Resources Institute at https://www.climatewatchdata.org, Pakistan Initial Nationally Determined Contribution (2016), and Pakistan's Updated Nationally Determined Contribution (2021).

[78] Estimates vary. The Global Change Impact Studies Centre, National Greenhouse Gas Inventory Information for Pakistan estimates 499 Mt CO2 Eq. in 2018, while ClimateWatch estimates around 428 Mt CO2 Eq. in the same year.

[79] See Global Change Impact Studies Centre, National Greenhouse Gas Inventory Information for Pakistan and World Bank (2023), Pakistan Country Climate and Development Report.

B. Climate Change Objectives and Strategies

91. Pakistan has an ambitious conditional target of reducing its projected greenhouse gas emissions by 50 percent by 2030. The 2021 Revised Nationally Determined Contribution (NDC) envisages a 15 percent reduction in emissions through the country's own investments, and a 35 percent reduction conditional on international grant finance (Box 4.1). The updated NDC covers new sectors and gases, such as waste and fluorinated gases, and proposes a broader approach to adaptation. Mitigation efforts are concentrated on reducing greenhouse gas emissions by promoting renewable energy, enhancing energy efficiency, and developing sustainable transportation infrastructure. The NDC also emphasize the importance of the agriculture and forestry sectors in managing emissions, advocating for sustainable land use, afforestation, and reforestation initiatives to increase carbon sequestration. Adaptation policies underscore the need for building resilience against climate-related risks, particularly in vulnerable sectors such as agriculture, water resources, and flood-prone zones. The NDC also highlights the importance of early warning systems, improved water management, climate-resilient infrastructure, and the preservation of ecosystems and biodiversity to cope with the adverse impacts of climate change.

92. Pakistan's climate change objectives are established in both the updated National Climate Change Policy (2021) and the Revised Nationally Determined Contribution (2021). The original NCCP was approved in 2012 and updated in 2021 to align with the Paris Agreement on climate change, Sustainable Development Goals and Sendai Framework for Disaster Risk Reduction. Both the NCCP and NDC outline the country's approach to addressing climate change by incorporating mitigation and adaptation goals across various sectors. The NCCP is supported by a national implementation framework with sectoral mitigation and adaptation measures, and implementation committees at the national and provincial level. The latest NCCP Implementation Framework Progress Report was produced in 2021, summarizing the activities and projects that had been undertaken across the country toward the goals of the NCCP.

93. In addition to the NCCP and NDC, Pakistan has also formulated supporting policies and institutions (Table 4.1). Provinces have established provincial climate change policies, and some have created climate change departments. Other supporting national policies including the National Electric Vehicle Policy, the Renewable Energy Policy, and the 2018 Transport Sector Policy. The National Electric Vehicle Policy aims to promote the adoption of electric vehicles, reduce dependence on fossil fuels, and decrease air pollution. The Renewable Energy Policy sets targets for increasing the share of renewable energy in the national energy mix, promoting investment in renewable technologies like solar and wind power. The 2018 Transport Sector Policy focuses on improving public transport, enhancing fuel efficiency standards, and promoting environmentally friendly transport options. The Pakistan Climate Change Act (2017) was created to establish the Pakistan Climate Change Council and the Pakistan Climate Change Authority and ensure effective climate governance. However, the Climate Change Authority is not yet fully staffed, and its ambitious mandate is not yet being met.

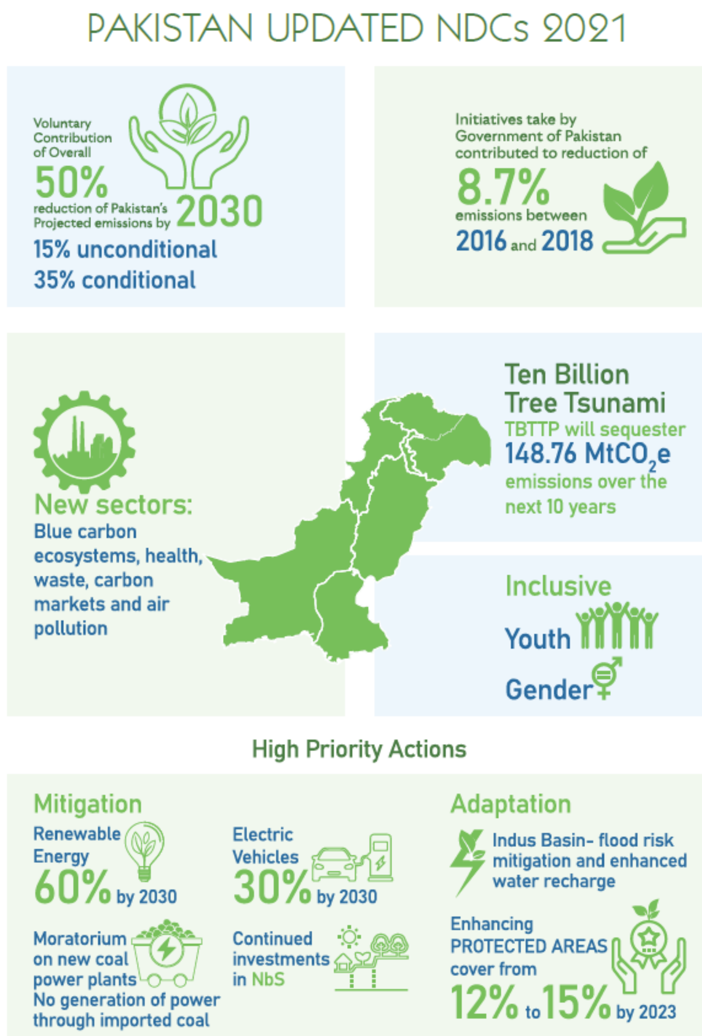
Box 4.1. The 2021 Updated Nationally Determined Contribution

The 2021 NDC presents Pakistan's conditional commitment to voluntarily reduce emissions by 15 percent by 2030 (Figure 4.6). A further 35 percent is conditional on grant financing. The highest priority actions include the shift to renewable energy, the shift to electric vehicles, and the adoption of flood risk mitigation measures in the Indus Basin.

The NDC projects the total cost of NDC implementation to reach USD 200 billion by 2030 and estimates the clean energy transition alone will require USD101 billion by 2030 and a further USD65 billion by 2040. The rapid expansion of renewable energy is projected to require around USD 50 billion by 2030 and USD 80 billion by 2040, while a further USD 20 billion is needed to upgrade the distribution network. The MoCC estimates the cost of adaptation to be around USD 86 billion over the period to 2030.

The revised NDC includes a commitment to the development of a National Adaptation Plan. The proposed NAP will focus on strengthening capacities for climate change adaptation and aiding vulnerable communities in adapting to climate change impacts. The plan is expected to also integrate adaptation measures into policies, strategies, legislation, and programs, and create systems for knowledge generation and sharing at national and sub-national levels. Additionally, the NAP will facilitate scaling up government efforts in adaptation and ensure regular updates to maintain its relevance and effectiveness.

Figure 4.6 Summary Excerpt from the Pakistan 2021 NDC



Source: Pakistan: Updated National Determined Contributions 2021.

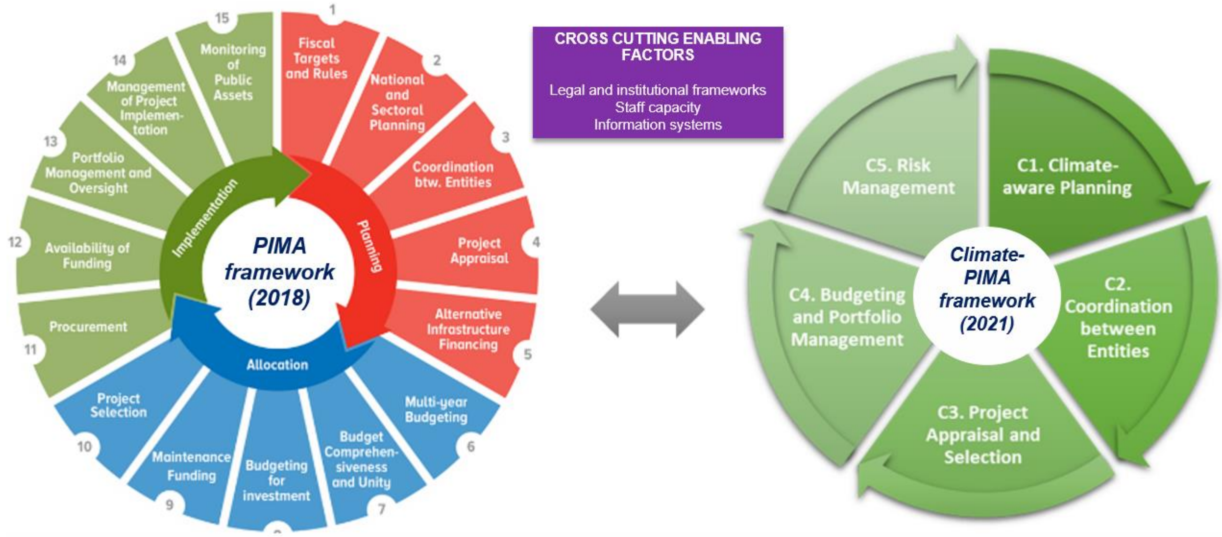
Table 4.1 Climate Change Strategies and Institutions in Pakistan

Key Strategies and Plans	Coverage
National Climate Change Policy	The National Climate Change Policy (NCCP) was originally published in 2012 and updated in 2021. The NCCP presents Pakistan's climate policy challenges and priorities, sets out the institutional framework and implementation arrangements, and the monitoring and evaluation framework for the NCCP. The NCCP is supported by the Framework for the Implementation of Climate Change Policy.
Nationally Determined Contribution	Pakistan submitted its Initial Nationally Determined Contribution in 2016, communicating its commitment towards 2030 in the context of the objectives of the Paris Agreement to hold the increase of the global average temperature to well below 2C above pre-industrial levels while pursuing efforts to limit the increase to 1.5C. A revised NDC was submitted in 2021 which commits to condition 50 percent reduction in emissions against the Initial NDC projection by 2030. The NDC covers climate adaptation and mitigation and includes cost estimates across key sectors. The NDC foreshadows the preparation of a National Adaptation Plan in 2024.
Vision 2025	Pakistan's 'Vision 2025' was formulated in 2024 and is the country's most recent long-term strategic plan developed by the government of Pakistan. Vision 2025 identifies particular steps the government planned with respect to climate change actions, including setting emission goals and emphasizing the importance of resilience and adaptation, along with incorporating an inclusive methodology in the overall process.
Sector Plans and Policies	Specific sectoral policies address climate change include: the National Electric Vehicle Policy (2019), Alternative and Renewable Energy Policy (2019), Transport Sector Policy (2018), National Electricity Policy (2021), National Water Policy (2018), National Forest Policy (2017), the National Clean Air Policy (2023), and the Strategic Plan for Energy Efficiency & Conservation (2020–2023).
National Disaster Management Plan	The National Disaster Management Plan and 2019 the 2019 National Disaster Response Plan provide the overall strategy and guiding principles for Pakistan's disaster risk reduction and management agenda. The Plan also sets out institutional framework across government, operations system, as well as implementation plan. Annual contingency plans provide more specific analysis of risks and planned responses.
Institutions	**Climate Related Responsibilities**
National Climate Change Implementation Committee	Pakistan's National Climate Change Policy Implementation Committee is a dedicated body responsible for overseeing the execution of the NCCP. The committee consists of representatives from relevant federal and provincial ministries, departments, and stakeholders. Its primary functions include monitoring the progress of climate change policy implementation, ensuring inter-sectoral coordination, and addressing any challenges that arise during the execution of the NCCP.
Climate Change Council	A Climate Change Council has been created under the Climate Change Act of 2017 with the aim of ensuring inter-ministerial coordination across federal and provincial governments and promoting public awareness and education on climate change issues. The Council is also intended to be responsible for facilitating climate change research and development, as well as monitoring and reporting on the progress of Pakistan's climate change actions. However, the council has met only once since the Act was introduced, and most of the positions on the council remain vacant.
Ministry of Climate Change	The NCCP envisages the Ministry of Climate Change in Pakistan as the central coordinating body for climate change actions across various sectors. The ministry's role involves formulating climate policies, facilitating the implementation of mitigation and adaptation measures, and ensuring inter-ministerial coordination. In practice, the ministry oversees the execution of climate-related initiatives, develops partnerships with stakeholders, and represents Pakistan's interests in international climate negotiations and forums.
Sector Ministries	Under the NCCP, sector ministries are expected to develop and implement climate change mitigation and adaptation strategies tailored to their specific sectors. Sector ministries must ensure inter-ministerial coordination, share best practices, and collaborate with other stakeholders to promote a comprehensive and integrated approach to climate change management in Pakistan.
Ministry of Planning and Special Initiatives	The Planning Commission collaborates with the Ministry of Climate Change and other relevant ministries to streamline climate-responsive projects, allocate resources, and monitor progress of these initiatives.

C. Climate PIMA Framework

94. The Climate PIMA assesses five key public investment management practices from the climate change perspective and is an extension of the existing PIMA framework. Figure 4.7 describes the main elements.

Figure 4.7 Climate Public Investment Management Assessment Framework



95. The Climate PIMA covers the following specific issues:

- *C1. Climate-aware planning:* Is public investment planned from a climate change perspective? This is necessary to ensure that long- and medium-term plans contribute to meeting climate objectives and facilitate effective prioritization and decision-making.
- *C2. Coordination across public sector:* Is there effective coordination of decision making on climate change-related public investment across the public sector? In addition to the federal government, subnational governments, public corporations, and private sector entities play key roles in realizing climate-related public investment. Climate adaptation investments will often take place at the subnational level, and both public corporations and private sector entities may play key roles for instance in energy production.
- *C3. Project appraisal and selection*: Do project appraisal and selection include climate-related analysis and criteria? This is necessary to ensure that the most effective and efficient investments are prioritized and maximizes the climate impacts of public investments within available resources.
- *C.4 Budgeting and Portfolio management:* Is climate-related investment spending clearly identified in the budget and subject to active management and oversight? Because the climate benefits may be less tangible and more difficult to quantify than other project benefits, systematic and consistent management, and oversight of benefits over the project lifecycle is critical.
- *C5. Risk management:* Are fiscal risks relating to climate change and infrastructure incorporated in budgets and fiscal risk analysis and managed according to a plan? The likelihood of climate related disasters is expected to increase over time. The impacts of these risks on public infrastructure must be systematically assessed and monitored, to facilitate adequate and effective risk mitigation by government.
- See Annex 3 for the C-PIMA Questionnaire.

D. Detailed Assessment

C1. Climate-aware Planning (Strength—Low; Reform Priority—Medium)

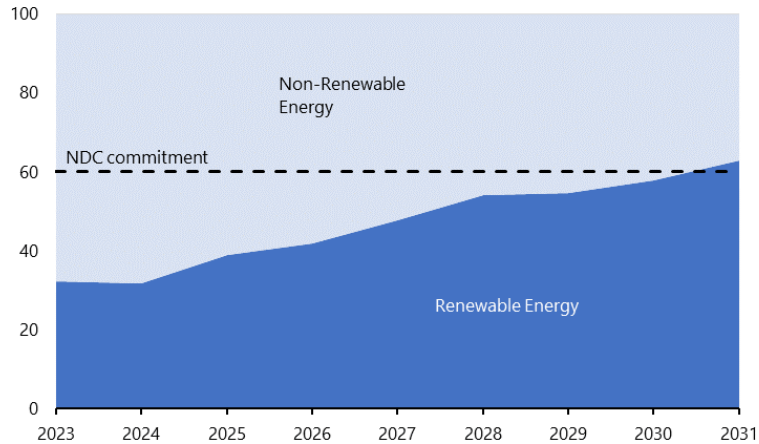
96. **Public investment planning at a national and sectoral level should address both the need to mitigate climate change and to adapt to its consequences.** Public investment should be planned in a manner that is consistent with the government's climate change objectives and international commitments. In addition, planning should ensure that the investment projects are resilient not only against physical climate risks, but also reflect the economic uncertainty associated with a transition to a low-carbon society.

97. **Pakistan's investment planning for climate change is weakened by gaps in the national planning process.** Vision 2025, the 2021 National Climate Change Policy (NCCP), and the Revised Nationally Determined Contribution (2021) are the overarching strategic policy documents on climate change investments in Pakistan. The NCCP is closely linked with Pakistan's Nationally Determined Contribution (NDC). However, the 2012-18 National Strategy is obsolete and has not been updated. While the 2022-23 Annual Development Plan does highlight progress toward projects that feature in the NDC, such as the Ten Billion Tree Tsunami Program, it does not provide a multi-year investment strategy for achieving national development objectives, including climate change objectives.

98. **The NCCP Implementation Framework outlines sectoral actions to achieve mitigation and adaptation objectives, and these have been incorporated in some sectoral strategies.** PIMA Institution 2 highlights while sectoral policies are prepared, many of these do not have costed project plans for achieving sectoral objectives. Still, the National Water Policy (2021), the National Electricity Policy (2021), and the Alternative and Renewable Energy Policy (2019) are examples of sectoral policies that are aligned with the NCCP. In the energy sector, more detailed projections of generation capacity and composition (including renewable energy composition) are presented in the Indicative Generation Capacity Expansion Plan (Figure 4.8) which is consistent with the NDC target of achieving 60 percent renewable energy by 2030. The plan projects that 63 percent of the energy mix will be from renewable energy sources (hydropower, solar, wind and bagasse) by 2030, reversing the large dependence on imported fossil fuel. The forthcoming National Energy Plan is expected to include additional detail and costed plans for expanded renewable energy generation through more efficient distribution.

99. **Pakistan's forthcoming National Adaptation Plan (NAP) will contribute significantly as a guiding document for national and sectoral development strategies**. The NAP is anticipated to refine and update current national initiatives and integrate them into a cohesive climate adaptation plan. The plan will facilitate the integration of climate change considerations into national decision-making processes and provide guidance for implementation and regular review. As national and sectoral development plans are updated to incorporate NDC and NAP commitments, costed investment plans for meeting the ambitious targets should be prepared and incorporated.

Figure 4.8 Indicative Generation Capacity Expansion Plan, 2023 to 2031



Source: National Electric Power Regulatory Authority, Indicative Generation Capacity Expansion Plan 2022-31 (IGCEP-2022) https://nepra.org.pk/licensing/Licences/IGCEP/IGCEP%202022-31%20.pdf.

100. Regulations on spatial and urban planning and construction largely do not address climate-related risks and impacts on public investment in Pakistan. Pakistan's building code does not address the challenges of minimizing greenhouse gas emissions or specify requirements for adapting to climate change. While some provincial and city urban planning guidelines make provision for managing flood risks, the emerging challenges of meeting greenhouse gas emission targets and building in resilience to climate change are generally not addressed. Still, some provinces and urban master plans are beginning to incorporate steps to address climate change. For instance, the surveys conducted under the Land and Building Acts of 2021 in Khyber-Pakhtunkhwa address several key factors, including natural hazards, availability of open and green spaces, the type and structure of buildings. The 2021 Strategic Urban Master Plan for Umerkot includes an extensive climate change emergency contingency plan and identifies the challenges posed by climate change to the district, which could be used to support the preparation of urban planning guidelines in the district.

101. To enhance urban resilience, a nationwide strategy is needed, as well as adaptation plans at the provincial and city levels. The original 2012 NCCP highlighted the importance of introducing changes to urban planning and building codes and laid out ten planned policy measures to support this process. The Climate Resilient Urban Human Settlements Unit in the MoCC in Pakistan was subsequently established to strengthen the city governments' capacity in engaging the line departments and agencies to meet the urban development challenges throughout Pakistan. A Climate Change Resilient Urban Human Settlement Strategy is in the final stages of preparation and will contain a detailed databank of all provincial and federal buildings and codes for use in the future. This strategy should be used as a basis for the incorporation of emissions reduction and resilience in new urban planning guidelines across the country.

102. Specific guidance for the incorporation and costing of climate change considerations in sectoral plans is not yet provided, but there are sources of general guidance and work is underway to produce a detailed handbook. No formal guidance is provided to ministries or provinces on how to align their sectoral plans with the NCCP and the NDC. However, there is a range of broader guidance, including the NCCP itself. For instance, the 4R Framework (Reduce, Respond, Rehabilitate, and Rebuild) provides guidelines for provinces and line ministries to align their projects with the NCCP's strategic objectives. The framework includes project proposals, strategic objectives, and guidelines for implementing climate-resilient projects. The Planning Commission also has a role in mainstreaming climate in all planning processes. To aid in this, the ministry has prepared a handbook to incorporate climate resilience and adaptability in the preparation of project design and development planning, but it is not yet published. The Commission advises that the draft handbook provides guidance on Climate Hazard Initial Risk Assessment, Climate Adaptation and Resilience Assessment and Climate Mitigation Assessment, and includes a list of climate indicators and templates for use in preparing these assessments. However, both the MoCC and the Planning Commission also remain weakly resourced for overseeing and guiding a whole-of-government response to the climate change challenge, which undermines their capacity in fulfilling this critical role.

C2. Coordination Between Entities (Strength—High; Reform Priority—Low)

103. This institution assesses if there is a whole-of-government approach to climate change facilitating the coordination of public investment across all levels of the public sector. Such coordination needs to take place within and across federal and provincial governments. Climate-related decision-making should consider externally financed projects, extra-budgetary entities, and PPPs. Finally, the regulatory and oversight framework for SOEs should ensure that their climate-related investments are consistent with national policies and guidelines.

104. While public investment coordination is generally weak in Pakistan (PIMA Institution 2) climate change relevant public investment decisions are an exception, and are well-coordinated across the federal government through the Framework for Implementation of National Climate Change Policy.[80] The coordination of decision-making across federal government from a climate-change perspective is one of the key objectives of Pakistan's NCCP. The National Climate Change Policy Implementation Committee is responsible for regularly monitoring and updating the NCCP. The MoCC supports the NCCP Implementation Committee with policy formulation, planning and implementation at federal level, and the coordination with other federal ministries to mainstream climate change considerations into their policies, plans and programs.The CDWP evaluates investment proposals to ensure alignment with the NCCP's strategic objectives.The NCCP Implementation Committee, with the support of the MoCC and UNDP, prepares progress reports on the achievement of the NCCP and its implementation framework. The latest progress report (2021) provides an overview of 44 major climate change initiatives that includes projects with a combined value of around USD 5.2 billion, and a listing of another 381 projects across the federal government and provinces that have been implemented in line with the NCCP.[81]

105. The NCCP Implementation Framework and NCCP Implementation Committee provide platforms for national and provincial coordination. However, the planning and implementation of capital spending of sub-national governments in Pakistan is not always coordinated with the federal

[80] Climate Change Division, *Framework for Implementation of Climate Change Policy 2014-2030* https://mocc.gov.pk/SiteImage/Misc/files/Framework%20for%20Implementation%20of%20CC%20Policy%20(1).pdf

[81] Ministry of Climate Change, Progress Report Regarding Implementation of National Climate Change Policy (NCCP) and its Implementation Framework. https://mocc.gov.pk/SiteImage/Misc/files/NCCP%20Framework%20Progress%20Report-FINAL.pdf

government from a climate-change perspective. Provincial Implementation Committees have been established in each province to implement the NCCP. These committees consist of representatives from various departments and agencies within the province. The committees develop plans and projects that align with the NCCP's objectives, and they report to the NCCP Implementation Committee on their progress. Progress on large projects conducted at the provincial level are published in the NCCP Implementation Committee's Progress report. Three provinces have climate change action plans that outline investments and actions to achieve provincial adaptation targets and national mitigation targets (Table 4.2).

106. The existing oversight framework for SOEs does not ensure all SOE investments are consistent with climate related objectives, but regulators in some key sectors align their frameworks with climate objectives. SOE projects that are scrutinized through the PSDP process are subject to the same review criteria as other government projects by the CDWP, which includes consistency with climate change mitigation and adaptation objectives. However, this does not apply for self-financed projects of SOEs. Still, some regulatory frameworks target the achievement of climate-relevant objectives for their sector. For example, the Alternative Energy Development Board is responsible for undertaking evaluations of renewable energy proposals and aiding in filling of required licensing applications and tariff petitions to the National Electric Power Regulatory Authority. The Alternative and Renewable Energy Act (2019) specifies the process for the procurement of alternative and renewable energy by federally owned public power utilities and specifies that the Indicative Generation Capacity Expansion Plan forms the basis of all on-grid procurements.[82]

Table 4.2 Provincial Climate-focused Action and Investment Plans

Province	Climate-focused Action and Investment Plans
Balochistan	Balochistan has not yet formulated a climate plan that links with the NCCP.
Khyber Pakhtunkhwa	The Khyber Pakhtunkhwa Climate Change Policy 2022 aims to reduce the vulnerability of natural and human systems as well as lessen greenhouse gas emissions through technological or nature-based solutions. The policy is aligned with the NCCP. The policy also has an action plan and investment plan that outlines specific measures and activities for achieving its objectives in relevant sectors. The action plan identifies potential sources of financing and implementation mechanisms for each sector.
Punjab	The Punjab Provincial Climate Change Action Plan contains planned actions and projects to improve climate change resilience and achieve mitigation targets, but these are not costed.
Sindh	Sindh developed a Provincial Climate Change Policy in 2022 and a Provincial Climate Change Action Plan with the support of UNDP.

Source: Provincial government documents.

107. The new State-Owned Enterprises (Governance and Operations) Act (2023) could facilitate more consistent and streamlined oversight of climate-related investments by SOEs. The Act requires the preparation and adoption of an ownership policy and centralizes oversight in the new Central Monitoring Unit in the Corporate Finance Wing of the Finance Division. This offers an opportunity to

[82] See National Electric Power Regulatory Authority, *Indicative Generation Capacity Expansion Plan 2022-31*, 2022.

incorporate climate sensitivity in the oversight framework for SOEs, and to more clearly track the contribution SOE projects are making toward meeting mitigation and adaptation targets. Compulsory reporting on climate change issues by SOEs could be enforced, and SOEs could be asked to adopt the environmental disclosure practices of the private sector, including how they manage climate change impacts.

108. While the institutional design for coordinated climate-sensitive investment management is comprehensive, there are challenges in implementation that undermine its effectiveness. Capacity constraints across the federal and provincial governments, and particularly in the MoCC and the Planning Commission, significantly hinder the implementation of a coordinated climate-focused public investment program. While the MoCC has an important and ambitious role in coordinating and overseeing the implementation of the NCCP, it has a limited budget and capacity, and lacks the authority to provide guidance and direction. The new Climate Change Authority lacks dedicated staff, and the Planning Commission faces challenges in integrating climate change considerations into development planning and coordinating cross-sectoral efforts. Addressing these capacity and resourcing constraints will be necessary to leverage and strengthen the existing coordination mechanisms.

C3. Project Appraisal and Selection (Strength—Low, Reform Priority—High)

109. The climate impacts of project proposals and the exposure of projects to climate -related harm should be fully understood prior to project approval. Public investment can play a pivotal role in governments' climate mitigation policies by expanding renewable energy supply, supporting modal shift to public transport, and improving the energy efficiency of public buildings. At the same time, many projects will lead to additional emissions in the implementation and operational phases. On the adaptation side, infrastructure projects are increasingly exposed to damage from climate-related events. The implications of these factors should be incorporated in project appraisal and should guide project selection decisions.

110. In Pakistan, Climate change aspects are included in the appraisal process for public investment, but without a standard methodology containing technical details, publication requirements or external review. The Manual for Development Projects regulates the investment appraisal process and states that the project's environmental analysis should consider the natural environment, transboundary and global environmental aspects, with a special focus on climate change (both mitigation and adaptation aspects). The Instructions for Techno-Economic Feasibility Studies set out requirements for climate assessments (Climate Adaptation and Resilience Assessments and Climate Mitigation Assessments) and integrates climate into many aspects of project preparation, but it does not contain a methodology with technical details on climate change adaptation and mitigation assessments.[83,] The Environmental Impact Assessment is fundamental component in the implementation of the Environment Protection Act (1997, 2000) and all infrastructure projects must obtain an approval to proceed. However, presently climate change is not required to be included in the environmental assessments. The National Disaster Management Authority (NDMA) has developed various guidance documents that do include climate change such as the Checklist for Disaster Risk Reduction.[84] The

[83] Planning Commission, Instructions for Techno-Economic Feasibility Studies, 2022.

[84] https://cms.ndma.gov.pk/storage/app/public/plans/September2020/ULSOkBhdkkEtvS83Fpnl.pdf

Planning Commission advised they are working on extensive guidance in the climate change area that would operationalize the high-level guidance included in the Manual and the Instructions for Techno-Economic Feasibility Studies.

Box 4.2 What is Climate Related Appraisal?

Appraisal methodology across the world is in the process of being updated to fully consider the effects of climate change and a suite of core approaches is emerging. In the context of the Climate PIMA, by climate-related appraisal analysis is meant assessments containing technical details relating to:

- climate change adaptation e.g., hazard analysis, risk mapping and screening, loss and damage estimation, vulnerability analysis, use of risk scenarios, dealing with climate uncertainty in project design e.g., through climate-robust physical design features, delaying full implementation until better information is available, by implementing in stages, by doing 'no regrets' elements first, or through the use of real options.
- climate change mitigation e.g., estimation of business-as-usual greenhouse gas (GHG) emissions and gross and net GHG impacts of alternative technologies; estimation of marginal abatement cost curves; use of parameters such as the social cost of carbon, shadow price of carbon, appropriate long-term discount rates.

One example of a comprehensive approach is the project screening undertaken for World Bank Group financed projects. The World Bank mainstreams climate change into the analysis of infrastructure project proposals, through (i) screening for climate risks and building in appropriate risk mitigation measures, (ii) conducting GHG accounting, and (iii) applying a shadow carbon price for all material investments.

Source: IMF staff; https://climatescreeningtools.worldbank.org/

111. While climate change is included in the Manual and Instructions, the exposure of PPP assets to future climate change is not an explicit technical element in the design of PPPs and requirements for risk allocation. Pakistan has a quite extensive PPP portfolio, which involves significant climate impacts (Box 4.3). A new PPP framework at the federal level and a number of guidance documents are at various stages of development. While there is no explicit guidance on climate change, natural disasters and extreme weather are included in the PPP Risk Allocation Guidelines, which are currently in draft form.

Box 4.3 Incorporation of Climate into PPP Contracting and Operation

PPPs and similar infrastructure contracts commit the government for long term contracts, typically 20-30 years. This means that risks from climate change – either adaptation exposures or mitigation risks such as lock-in of high emitting infrastructure, or both – are likely to arise at some point during the term of the contract depending on the nature of the project.

It is therefore important that careful analysis of climate-related risks is conducted at the design and appraisal stages of PPPs. It is also important for the portfolio of existing PPPs when they are large, and that contract management considers the climate implications of the assets' operation and future transfer to government.

Source: IMF staff.

112. There are no explicit project selection criteria for including a project in the annual Public Sector Development Program. This decision to fund a project as part of the PSDP is ultimately a decision for the NEC, on the basis of a recommendation from the Annual Plan Coordination Committee.[85] Prior to inclusion in the PSDP all projects have gone through an appraisal process within the Planning Commission and received technical approval which means they are considered "investment ready" (see PIMA Institutions 4 and 10). As part of this process the project's alignment with the annual, medium, and long-term plans have been considered. As recommended under Institution 10 it would be good practice to develop explicit selection criteria to compare projects across sectors.

C4. Budgeting and Portfolio Management (Strength—Medium; Reform Priority—Medium)

113. Effective management of the government's portfolio of climate-related investment projects at all stages of the project cycle is critical for achieving climate change mitigation and adaptation targets. Failure to assess the additional costs arising from climate change geophysical risks may lead to an underestimation of future asset maintenance costs and erode public assets. The adoption of good practices in budgeting, review, and asset maintenance will provide the government with greater insights into the fiscal risks posed by climate change.

114. Some climate-related public investment expenditures are identified in Pakistan's annual budget, projects are reviewed ex-post when they have climate-related objectives, but there is no guidance for the maintenance of assets exposed to climate-related risks. The PSDP shows projects undertaken by the MoCC and the Annual Development Plan reviews their progress. In 2021-22 for example, when the bulk of PSDP allocation to the MoCC went to the "Ten Billion Trees Tsunami Program" (Rs. 14 billion of Rs. 14.3 billion), the 2022-23 Annual Development Plan reviewed the progress of the project (year by year), across the provinces and special areas. The Auditor General of Pakistan has recently performed several climate-related audits (see Box 4.4). At the request of the MoCC, it is currently auditing the first phase of the Ten Billion Trees Tsunami program. In the absence of standard methodologies to estimate maintenance needs (see Institution 9), there is currently no guidance on how to estimate maintenance needs of infrastructure assets exposed to climate change. An exception is the National Highway Authority which has a register of its highway network and the extent to which various sections are vulnerable to natural disasters, including climate-related risks. It also incorporates climate risks in its estimation of maintenance needs.

115. The Finance Division does not yet track climate-related investments or spending but is taking important steps to strengthen its capacity to track and prioritize climate-related public investment. As part of the Government's commitment to Green Responsive Budgeting, it has recently initiated a green tagging exercise. The 2023-24 Budget Call Circular asks line ministries to estimate the share of their 2022-23 budget—and ex post spending—that relate to climate adaption and mitigation, under a well-defined typology. It specifically requests them to report on their current and capital spending. The same information is asked for their 2023-24 budget submissions. As part of performance-based budgeting, the Budget Call Circular also asks line ministries to clearly identify key performance indicators related to climate when preparing their budget submissions. This exercise will be greatly facilitated by existing functionalities in the Government's Financial Accounting and Budgeting System (FABS), which

[85] See Figure 1 PSDP Formulation and Approval Process, Manual for Development Projects (2021).

includes a standardized chart of accounts and allows for tagging at the various stages of budget preparation, execution, and reporting. Going forward, the ambitions are to (i) prepare and issue green-budget statements in budget documents; and (ii) include provincial governments in the green tracking system.

Box 4.4 Performance Audits undertaken by the Auditor General of Pakistan Relevant To Climate Change Policies and Impacts

The Auditor General of Pakistan has carried out three types of climate-related audits:

- **Performance audit of specific projects.** When auditing projects, the Auditor General of Pakistan reviews their achievements against their intended objectives. Recent audits include hydro projects, many of which had climate-mitigation objectives. For example, an audit of the Golen Hydropower Project performed in 2021 identified design flaws in the project that did not incorporate mitigation information (on maximum flood levels) that was known after the 2010 floods that affected the region.
- **Performance audits of organizations related to climate change and environment.** In 2022, the Auditor General of Pakistan undertook compliance and performance audits of climate change, environment, and disaster management organizations at the Federal level, and of such organizations at the level of all four provinces. At the Federal level, organizations audited were the Ministry of Climate Change, the Earthquake Reconstruction and Rehabilitation Authority, National Disaster Risk Management Fund, and the National Disaster Management Authority.
- **Thematic audit.** A thematic audit assessed the policy framework for implementation of National Disaster Management Plan 2012-22 and evaluated the efforts made by and steps taken by agencies involved in implementing the Plan towards Disaster Risk Reduction.

Source: AGP audit report available at www.agp.gov.pk

C5. Risk Management (Strength—Medium; Reform Priority—Medium)

116. Identifying and managing fiscal risks to public infrastructure arising from climate change should be an integral part of the government's risk management function. As with other types of fiscal risks, governments need to be aware of climate-related risks of public investments and their potential impact on public finances.

117. In Pakistan, government publishes comprehensive information on its disaster risk management strategy, but analysis of climate change disaster risks in the strategy is light. The 2012 National Disaster Management Plan and the 2019 National Disaster Response Plan both lay out the government's disaster management strategy. This includes hazard and vulnerability analysis of climate-related risks, including floods, droughts, and cyclones. The Flood Management Plan IV also presents comprehensive flood risk modelling and mitigation measures for managing flood risks, and the National Highway Authority has drawn on this information to assess vulnerabilities to climate flood, and presents this information in the National Disaster Management Authority's annual Contingency Plan for the Monsoon.[86] However, there is no central assessment of the exposure of public infrastructure and assets to climate-related risks, and the link between the disaster risks and climate change is weak. Government is in the process of preparing an updated National Disaster Management Plan that will elaborate more clearly on the changing vulnerability to disaster risks as a result of climate change. Modelling by the

[86] National Disaster Management Authority, 2022, "National Monsoon Contingency Plan-2022".

National Disaster Risk Management Fund (NDRMF) is also being undertaken, which will provide a database of public (and private) infrastructure exposed to disaster risks, including from climate change.

118. The government maintains several ex-ante financing mechanisms that can be used to respond to climate-related fiscal risks related to infrastructure assets. The Ministry of Finance is authorized to provide technical supplementary grants, which can be utilized in the event of a natural disaster. Around Rs. 195 billion is maintained by the Ministry of Finance to support any organization that requires a technical supplementary grant when it is needed.[87] The National Disaster Management Authority also manages the National Disaster Management Fund, which is a special purpose vehicle that can be drawn on for quick disbursement when natural disasters occur. The fund has privileges and immunities that exempt it from many of the government's standard disbursement controls. The separate National Disaster Risk Management Fund was established to provide financing for disaster risk mitigation but has also been called on to provide funding during large disasters, most recently during the 2022 floods. Provinces also maintain Provincial Disaster Management Funds for similar purposes. These ex-ante mechanisms provide a readily accessible source of funding for an immediate response in a crisis. However, the guidelines and regulatory framework for their use are vague and could be strengthened.

119. While a Statement of Fiscal Risk is prepared as part of the Annual Budget Statement, it does not present any information on climate change related risks. The 2022-23 Statement of Fiscal Risks has limited, qualitative information on fiscal risks. With the support of the Asian Development Bank, the government is in the process of preparing a new and more detailed Statement of Fiscal Risks to accompany 2023-24 Annual Budget Statement. The 2023-24 statement is expected to contain a section that summarizes both qualitatively and quantitatively the fiscal risks from climate change in Pakistan drawing on analysis undertaken by the Asian Development Bank. The authorities also plan to include analysis of long-term fiscal sustainability under different climate scenarios Some international examples of the latter are included in Box 4.5.

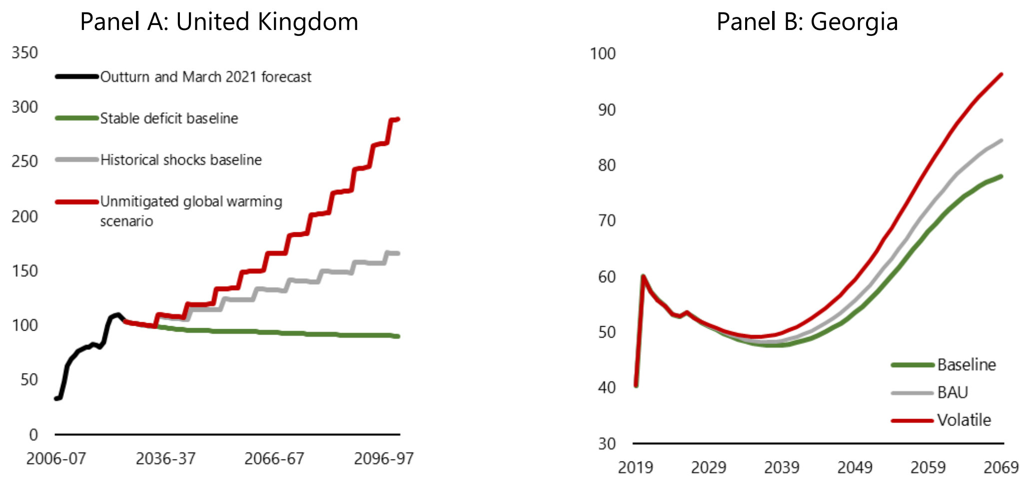
[87] There is substantial flexibility for additional spending without ex-ante authorization in Pakistan relative to other countries. While this provides a nimble source of funding when climate risks or other disasters materialize, its wider application complicates fiscal management in Pakistan.

Box 4.5 Climate Change Fiscal Risk Analysis in the United Kingdom and Georgia

In its 2021 Fiscal Risk Report, the *United Kingdom*'s Office of Budget Responsibility (OBR) outlines the fiscal implications and fiscal risks related to climate change. The OBR began by creating a simple long-term fiscal baseline for the budget deficit called the 'stable deficit baseline.' Based on historical experiences in the United Kingdom and worldwide, the additional impact of periodic fiscal risks was layered on top of that baseline, creating the "historical shocks baseline." The OBR then added an "unmitigated global warming scenario", which builds on the RCP8.5-scenario and assumes the cost of adaptation to be 0.3 percent of GDP a year. It also assumes the cost of natural disasters is twice as high and natural disasters occur twice as frequently (Figure B4.5). This simple framework provides illustrative scenarios that illustrate the potential fiscal scale of climate change risks in the United Kingdom.

In *Georgia*, the Ministry of Finance, with the support of IMF technical assistance, assessed the fiscal impact of climate change from three complementary perspectives. They first examined the growing impact of higher temperatures on the macroeconomy through lower productivity and its consequences for public finances. Second, they then modeled the fiscal cost of more frequent and severe natural disasters, particularly floods, landslides, and droughts, which Georgia is already predisposed to. Third, they qualitatively reviewed climate change-related discrete fiscal risks such as long-run power contracts, guarantees and on-lent loans to state-owned enterprises that may be affected by changing weather patterns. Their analysis found that climate change could reduce GDP per capita by 13 percent by the end of the century and increase public debt levels by 18 percent of GDP, both relative to the baseline.

Figure B4.5 Long-Run Fiscal Sustainability Analysis with Climate Change (percent of GDP)



Source: UK OBR Fiscal Risk Report 2021, 2021, and Harris, J., et. al, "Georgia: Updating the Balance Sheet and Quantifying Fiscal Risks from Climate Change", IMF Technical Assistance Report, 2022..

Recommendations on Climate-Sensitive Public Investment

Issue C1. There is insufficient analysis or awareness regarding the vulnerability of Pakistan's infrastructure assets to climate-related risks such as floods, cyclones, and heatwaves. While the National Disaster Management Plan of 2012 and the National Disaster Response Plan of 2019 both address the government's disaster management strategy, including the analysis of hazards and vulnerability to climate-related risks, there is no centralized assessment of public infrastructure's exposure to these risks. To understand the fiscal risks and government's exposure to climate-related infrastructure risks, assets in key sectors (such as energy, transport, communications, and health) that are susceptible to climate-related natural disaster risks (such as flooding, cyclones, and heatwaves) need to be identified.

Recommendation C1. Identify and document infrastructure assets in key sectors (e.g., energy, transport and communications, and health) that are exposed to climate-related natural disaster risks, such as flooding, cyclones, and heatwaves (National Disaster Management Authority, 2024) Priority Medium

Issue C2. Gaps in the national planning framework also weaken investment planning to meet climate change objectives. While the NCCP Implementation Framework provides some guidance to sectors on actions to mitigate and adapt to climate change, these have not been adopted uniformly across sectors. There is also no specific guidance for incorporating and costing of climate change projects in sectoral plans. Ministries and provinces in Pakistan do not receive any formal guidance on aligning their sectoral plans with the NCCP and the Nationally Determined Contribution (NDC).

Recommendation C2.1: Clearly identify sectoral contributions to climate change mitigation (NDC) and adaptation targets (forthcoming NAP) and prepare costed investment plans that contribute to the achievement of these goals as part of the sectoral and national planning process. (This should be undertaken through the NCCP Implementation Committee Processes, coordinated by the MoCC and Planning Commission during the preparation of the NAP, taking effect in 2024.) Priority Medium

Recommendation C2.2: Finalize and publish the handbook on incorporating climate resilience and adaptability in sectoral planning and project preparation processes (Planning Commission, 2023). Priority High

Issue C3. Regulations on spatial and urban planning and construction do not address climate-related risks and impacts on public investment. Pakistan's building code fails to tackle the issue of reducing greenhouse gas emissions and lacks specifications for adapting to climate change. Although certain provincial and city urban planning guidelines do account for flood risk management, the pressing issues of achieving greenhouse gas emission targets and incorporating climate change resilience into building practices are usually not covered.

Recommendation C3: Finalize the Climate Change Resilient Urban Human Settlement Strategy and incorporate climate-resilience and mitigation measures in future building codes and urban planning guidelines (MoCC, 2023). Priority High

Issue C4. The appraisal process can be further strengthened to include climate factors.

Recommendation C4**:** Develop more specific guidance with respect to key appraisal issues such as valuation of GHG emissions and climate impacts in order to ensure comparability across projects in the appraisal and selection stage. (Planning Commission, December 2024) Priority Medium

Issue C5. There is insufficient information on the implications of climate related actions on the budget. There is a need to be transparent on climate related actions that have budgetary implications to (i) to support policy making; and (ii) climate financing.

Recommendation C5.1: Improve transparency by presenting in budget documentation summary information on key aspects of the PSDP and the wider public investment program.[88] The Planning Commission should develop a proposal in concert with the Finance Division for approval by ECNEC. Agreement on the approach should be reached by mid-2023 for inclusion in the 2024-25 budget documentation. Priority Medium

Recommendation C5.2: Advance the work on green budgeting, including budget tracking and publish information on climate related costs to the budget: Finance Division to publish climate-related spending for FY2023-24, following budget tracking exercise; Budget statement to include a section on the objectives, targets, outcomes, and medium-term spending plans (FY2023-24 budget); Finance Division to build on current tracking exercise to provide more guidance to line ministries in BCC for FY24-25, and gradually extend tracking to revenue measures; Extend green tracking system to all provinces (Provinces with support from Controller General of Accounts). Priority Medium

Recommendation C5.3: Prepare and publish long-term fiscal sustainability analysis in the Statement of Fiscal Risks under different climate change scenarios, and assess and publish information on discrete fiscal risks arising under these scenarios. (Economic Adviser, mid 2024) Priority Medium

Issue C6. Allocative efficiency can be improved with the application of comprehensive selection criteria to guide allocation of development budget funding that include climate change. Among other factors, these could include impact on the government's climate targets and goals and resilience.

Recommendation C6: Include climate factors in the in the criteria for selecting projects to be developed and published. Priority High

Issue C7. Capacity constraints pose a significant challenge to the implementation of Pakistan's climate change agenda.

Recommendation C7: Train staff to strengthen the capacity of the Ministry of Climate Change, PC, and Climate Change Authority to oversee and coordinate investment projects targeting the achievement of NCCP and NDC goals. Maximize training opportunities afforded by development partners and develop domestic training capabilities. Priority High

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[88] Summary information in budget papers should include the number, total value in the PSDP, total value to completion, and the average estimated years to completion (using estimates of available funding from the MTFF or multiyear development budget indicative ceilings, if any) for new, ongoing, and all projects in the PSDP. Additional information should summarize the number and value of climate related projects, projects associated with major current issues, such as flood recovery, total financing sources, and major projects of public interest not included in the PSDP, such as those carried out under CPEC or by SOEs. The summary data should include all PSDP projects carried out from all financing sources and should not be split. The presentation of this information should be in the budget documents sent to the National Assembly, such as in the Annual Budget Statement or the Details of Demands for Grants and Appropriations Vol IV.

V. Cross-Cutting Issues

A. Legal and Regulatory Framework

120. **Public investment is governed by a comprehensive legal and regulatory framework which has recently undergone significant revision.** The PFM Act, updated in 2019, lays the foundation for public investment management. It sets out the governing rules for the development budget in Chapter III, and the Manual for Development Projects (2021) sets out the detailed implementing process and standards.[89] The Budget Manual explains necessary cash management and the budget making processes. The Public-Private Partnership Act (2016, revised 2020) establishes a PPP Authority to oversee the implementation of PPP projects at federal level and regulate and provides guidance for sub-national PPPs. The FRDLA (amended in 2022) sets the parameters for public investment by setting targets for fiscal deficits, debt, and revenue. The new SOE law (2023) provides for the creation of a federal ownership policy, including investments where relevant. The Public Procurement Rules (2004) lay out the procurement framework and the National Accountability Ordinance (1999) sets out the national anti-corruption efforts. Key institutions of the Auditor General of Pakistan and the Public Accounts Committee play an important role in providing accountability and scrutiny. Table 5.1 below provides an overview of the legal and regulatory framework impacting public investment management in Pakistan, including from a climate change perspective.

121. **A number of issues have been raised with respect to the regulatory framework.** In addition to the two manuals related to the PFM Act, more specific guidance and technical instructions would be helpful. One example is the need for additional guidance with respect to the responsibilities of accounting officers for maintenance of public assets and keeping appropriate asset registers. With regards to PPPs, additional detailed regulation on procurement is necessary to standardize the process. In addition, strong capacity building in the form of training, further IT system development and other supporting activities would be helpful and support Pakistan's efforts to get the full value out of a number of new and good practice laws that have been enacted.

122. **Pakistan's environmental and PFM framework would benefit from an update to reflect the Government's focus on climate mitigation, adaptation, disaster resilience, and delivering on its NDCs.** Although there are existing climate-relevant laws and regulations, there are some legal and institutional gaps to effectively coordinate and implement national climate change objectives in Pakistan. The country would benefit from a framework that provides an institutional mechanism to plan and implement projects to meet objectives of the NDC and forthcoming NAP that dovetails with the Climate Change Act (2017). Regulations and guidelines on urban planning and building codes should also be updated.

[89] The Manual(s) are listed as having legal force because it is authorized by relevant legislation – in this case the PFM Law (2019).

Table 5.1. Pakistan's PIM Legal and Regulatory Framework

Act / Regulation / Policy	Year
The Constitution of Pakistan	1973
The Rules of Business	1973
Public Finance Management Act	2019, rev 2020
Manual for Development Projects	2021
The Fiscal Responsibility and Debt Limitation Act	2005, rev 2022
The Public Procurement Rules	2004
Budget Manual	2020
National Accountability Ordinance	1999
State Owned Enterprises Act	2023
The Public-Private Partnership Act	2017, rev 2020, 2021
Article 168 of Constitution established the Auditor-General	1973
Functions of the Auditor-General Ordnance XXIII	2001
Art 171 of Constitution creating the Public Accounts Committee	1972
System of Financial Control and Budgeting	2018
Accounting Policies and Procedures Manual	1999
Pakistan Environmental Protection Act	(1997)
National Environment Policy	(2005)
National Climate Change Policy	(2012)
Framework for implementation of National Climate Change Policy	(2014-2030)
Climate Change Act	(2017)
National Forest Policy	(2017)
National Water Policy	(2018)
National Food Security Policy	(2018)
National Electric Vehicle Policy	(2019)
Alternative and Renewable Energy Policy	(2019)
Pakistan NDCs	(2021)
Updated National Climate Change Policy	(2021)

B. Information Systems

123. Three IT systems support development and implementation of the PSDP. These are the Intelligent Project Automation System (iPAS), the Project Monitoring and Evaluation System (PMES) and the Financial Accounting and Budgeting System (FABS). There are no major systems supporting plan development or asset management. Principal characteristics of each existing system are as follows:

- iPAS: the system, administered by the Planning Commission, became operational for the 2021-22 fiscal year. It is intended to track the submission, review, and approval at all stages for the PC-I and PC-II forms, and allocation of funding among technically approved projects in the PSDP. Beginning with the preparation of the 2024-25 PSDP, and subsequent implementation, it will incorporate similar tracking for the PC-III and PC-IV forms currently under the responsibility of the PMES. The system is web-based and widely accessible. It was designed and is being developed locally. Provinces use the system for projects included in the PSDP and provincial projects of national importance approved by the NEC. The system will retain historical information (such as the original and revised PC-I and PC-ii forms) but has not been populated with the stock of ongoing projects and their related forms. The system exchanges data automatically with FABS. It is not currently used to track projects relating to climate change.
- PMES: the system, administered by the Planning Commission, became operational in 2008. It is designed to track the review and approval of the PC-III (annual project implementation plans) and PC-IV (project completion) forms. The system was designed and developed locally. The system is scheduled to cease operations at the beginning of the 2025-26 fiscal year, after its functions have been absorbed into iPAS. Currently, the system does not share data automatically with FABS.
- FABS: administered by the Controller General, FABS is an SAP financials system first graded from legacy systems in 2004 and again in 2014. It is used for federal, provincial, and district level budgeting, expenditure control and payments, and financial reporting. Relating to key issues pertaining to the PSDP, FABS is used to record releases, re-appropriations, supplementary grants, and surrenders. Designed with the premise that accounting principles would shift from cash to modified cash, this shift has not occurred with the result that its capabilities relating to commitments, asset management, and liabilities have not been implemented.

124. The systems provide effective support for the PSDP but there are several areas in which this support can be enhanced. First, greater attention should be given to the quality of data in iPAS. Users enter data directly, but there is no central quality control of data. For example, ministries classify some requests as PC-I rather than PC-II, and approval dates in iPAS are often not consistent with the date of authorization letters. Second, iPAS should include standard analytical reports. iPAS is more than a repository of data and tracking of processes. It has great potential for analysis, beyond simple descriptive statistics, to improve public investment management. Third, there is no central asset management system. While some ministries have sophisticated systems in support of their operation and maintenance, a central system containing a minimum set of standard data on assets would support planning, maintenance, appraisal, and selection components of the PIM cycle, including alignment with specific policy goals such climate change. Fourth, iPAS, as a bespoke locally developed system, can relatively easily be modified to handle additional classifications, such as to identify climate change mitigation and adaptation projects, and, regarding maintenance, rehabilitation projects to extend the life of an existing asset or re-construction to replace an aging asset.

C. Capacity

125. The Planning Commission is staffed principally by the Economic and Technical establishment cadres. The Economic cadre has two components addressing economic policy and operational issues, respectively. There are 29 Technical cadres, such as engineering, physical planning and housing, and water. These staff provide the expertise to evaluate project proposals from sectors. Staff typically rotate every three years. In the case of the Economic cadre, the rotation requirement can be satisfied by moving from economic policy to the operational group, or vice versa. Generally, rotation means transfer to another administrative unit. There are multiple reasons to rotate staff, but the principal benefits for the Planning Commission are the populating of line ministries and provinces with staff with experience in the Commission, and enriching the work of the Commission by staff with experience in line ministries and provinces. These benefits outweigh the loss of persons with operational knowledge of Planning Commission policies and procedures.

126. The Planning Commission builds capacity through two major training venues. First, the Pakistan Planning and Management Institute under the Planning Commission regularly schedules courses open to Commission staff, line ministries, and provincial governments pertaining to tasks of immediate interest of the PC. Recent courses covered PC-I and PC-II preparation, project appraisal and risk management, monitoring and evaluation techniques, and project life cycle management. Second, the Secretariat Training Institute under the Establishment Division, Cabinet Secretariat, conducts specialized training and general capacity development. Recent Secretariat Training Institute training courses have covered topics of more general interest to the Commission, such as General Financial Rules and Procedures, and Public Sector Management. In addition, the Commission coordinates participation in training outside of Pakistan, often offered by development partners. No major initiatives are underway to increase training opportunities, or to shift the direction of current capacity development venues. Neither training venue currently incorporates climate change issues in its curricula.

127. Capacity constraints pose a significant challenge to the implementation of Pakistan's climate change agenda. The MoCC, which is responsible for climate change policymaking, coordination, and monitoring international agreements, is limited in its effectiveness due to insufficient staffing. Similarly, capacity constraints within the Planning Commission impact the government's capacity to design and implement sustainable green-growth policies. As the Climate Change Authority begins operation, it is important to ensure that it is adequately staffed and appropriately empowered to effectively engage with public and private sectors in climate action at both national and provincial levels. Supporting provinces in implementing the climate change agenda will also require addressing the current weaknesses in their institutional and technical capacities.

128. Training on climate change issues currently is largely dependent on external resources. The MoCC does not have its own means to train staff at a scale to materially meet the need for trained staff. The Pakistan Planning and Management Institute and Secretariat Training Institute currently have not incorporated climate change issues into their existing courses and have not adopted new courses covering climate change issues. International agencies, such as the UNDP and UNFCCC, may be prepared to finance and conduct training to meet short run staffing needs. Local training should focus on specific climate change measures in Pakistan, such as the National Climate Change Policy, the Nationally Determined Contributions document, and the National Adaptation Plan currently under development. In the long run, local capacity to train staff on climate change issues should be developed.

Annex 1. PIMA and C-PIMA Action Plan

Issue	Recommendations	Action	Priority	Responsibility	Timing
Planning Phase					
1. The lack of a comprehensive medium-term planning document weakens the link between the aspirations for economic development and their achievement through public infrastructure projects.	1 Develop a five-year infrastructure strategy identifying major projects across all sectors and funding sources to guide development of sectoral investment plans	Establish high level commitment to developing a five-year strategy from NEC	High	PC	Immediate
		Start stakeholder meetings and follow earlier process behind preparation of five-year plan, including the creation of sectoral working groups for bottom-up preparation of strategy	High	PC	End-2023
		Prepare strategy and submit to relevant approving bodies for publication	High	PC	End-2024
2. The appraisal process can be further strengthened.	2.1 Review processes for core projects to ensure appropriate focus on very large projects, regardless of funding source.	Set up a stakeholder group to discuss the experiences with PCI and PCII to determine whether the current appraisal requirements are suitable and whether "CORE" projects receive sufficient attention and resources to ensure a good outcome	Medium	PC	Immediately
	2.2 Continue plans to obtain independent security of major project proposals, including around cost estimation and increase transparency of project appraisal documents.	Determine which projects should be subject to scrutiny by independent experts.	Low	PC	Dec 2024
		Formalize TORs for independent experts to manage conflicts of interest.	Low	PC	Dec 2024
	2.3 Develop specific technical guidance on key issues such as how to conduct various forms of economic, financial, technical analysis including on discount rates, and shadow pricing.	Set up inter-ministerial stakeholder – MoF, line ministries, NHA, PPA, provinces to take stock of assessment tools that are currently used and needs for central support and guidance.	Medium	PC	Immediately
		Develop standard guidance, by sector where relevant, including methodology for comparison across sectors	Medium	PC and Finance Division	Early 2024
		Approve new guidance and procedures.	Medium	NEC	Mid-2024
3. Substantial investment is undertaken by autonomous entities that are not subject to ordinary investment procedures should they use their own revenue.	3.1 Formalize processes to obtain information on projects funded from sources other than the PSDP and present aggregate information on the public sector investment program in the budget showing major federal projects and their costs regardless of financing source	Review powers to obtain information on investment projects across funding sources and identify any needed legislative amendments	High	PC and Finance Division	Dec 2023
		Develop template for information request to entities and establish a periodic data request	High	PC	Jun 2024

Issue	Recommendations	Action	Priority	Responsibility	Timing
	3.2. Enhance central scrutiny, reporting and transparency to ensure that all investment projects by autonomous entities are undertaken in a sustainable manner, including relevant climate change policies	Update the Manual for Investment Projects to mandate that all final appraisal reports are published in principled.	High	PC	End-2023
		Ensure that planning and methodologies are updated and aligned with government policy, particularly with respect to climate change	High	PC	End-2023
	3.3 Implement the central monitoring system for SOEs and establish guidance for oversight/information exchange on SOE investment plans	Put in place mechanisms for reporting on SOE fiscal risks related to public investments e.g., PPPs and other contingent liabilities	High	Finance Division	September 2024
		Subject to development of SOE ownership policy, put in place mechanisms for coordination on SOE projects of national significance	Medium	Finance Division with PC	June 2025
4. Fragmented and unconnected PPP frameworks undermine confidence in the governance and sustainability of institutional arrangements for long term private investment.	4.1 Update and complement the regulatory framework and appraisal methodologies for PPPs across sectors and level of governments	Build interinstitutional consensus and action plan for formulating and implementing common/ similar procedures and methodologies for project appraisal	Medium	P3A	September 2023
		Develop an integrated and long-term national PPP strategy or policy	Medium	P3A	End-2023
	4 2 Develop register of PPPs and initiate periodic reporting to Finance on CLs of PPPs across all sectors.	Consolidate a PPP register across federal and provincial governments covering all sectors including completed and pipeline PPPs	High	Finance Division and P3A	Sep 2024
		Put in place procedures for periodic reporting on the status of PPPs in execution	High	Finance Division	Sep 2024
5. There is likely scope to improve competition in some economic infrastructure markets through privatization.	5 Reinvigorate action to implement the SOE Triage report prepared in 2021 on the privatization and restructuring program for SOEs.	Undertake combined analysis to articulate findings of different markets and SOEs assessments, economic development targets, and ongoing actions or programs to privatized or reform economic infrastructure markets with low private participation.	Medium	Finance Division coordinated task group.	End-2023
		Form a consensus on the medium-term action plan regarding: i) complementary regulatory and economic reforms to foster competition in well-regulated markets, ii) privatizations or strategic partnerships program for SOEs, iii) Restructuring and liquidation program of SOEs	Medium	Finance Division coordinated task group.	Mid-2024
		Design and approval of funding strategy for the medium-term action plan	Medium	Finance Division coordinated task group.	End-2024

Issue	Recommendations	Action	Priority	Responsibility	Timing
		Implement the regulatory and economic reforms	Medium	Finance Division coordinated task group.	Mid-2025
Investment Allocation					
6. Allocative efficiency can be improved with the application of comprehensive criteria to guide allocation of development budget funding.	6 Develop and publish criteria for selecting projects to receive funding in the PSDP.	Draft for internal proposal	High	PC	End-2023
		Undertake stakeholder consultation with CDWP, ECNEC, Finance Division, key line ministries, and provinces	High	PC	Early 2024
		Present final draft proposal for approval	High	PC and NEC	Mid-2024
7. An unrealistically large stock of ongoing projects causes delays in completing projects and increases costs.	7 Conduct a one-time review of all technically approved projects to reduce the set of active projects to high priority projects that can be completed in a timely manner.	Draft criteria for conducting the review and obtain approval from the ECNEC	High	PC (and ECNEC)	First half of 2024
		Conduct the review using the new criteria	High	PC	Second half of 2024
		Approve list of projects for which technical approval is removed.	High	NEC	End-2024
8. The budget framework does not establish a strong basis of the planning and execution of capital expenditure.	8.1 Set multi-year indicative budget ceilings by ministry.	Prepare multi-year indicative budget ceilings on the overall development (PSDP) budget. A bottom-up approach (based on existing PSDP commitments) should complement the current top-down approach based on resource availability. Finance Division should also indicate the split between the current PSDP and the space available for new projects	Medium	Finance Division and PC	Budget preparation FY24-25
		Use multi-year indicative budget ceilings to prepare multi-year ceilings. These ceilings should be included in the Project Call Circular	Medium	PC	Budget preparation FY24-25
		Provide guidance to line ministries on how to prepare multi-year budget submissions within that ceiling. The PC should also scrutinize main project submissions for inconsistency in multi-year estimates	Medium	PC	Budget preparation FY24-25
	8.2 Examine scope to reduce the within year adjustment of capital expenditure (including restricting the ability to add new projects thorough supplementary grants or virements)	Review rules to restrict the ability of agencies to fund projects not formally approved as part of the budget	Medium	Finance Division	End 2023
		Review rules for supplementary grants for development projects	Medium	Finance Division	End 2023

Issue	Recommendations	Action	Priority	Responsibility	Timing
9. There is insufficient information on the investment budget.	9 Improve transparency by presenting in budget documentation summary information on key aspects of the PSDP.	Develop the format and location of the presentation in budget documents	Medium	PC and Finance Division jointly.	End-2023
		Approve the format and location	Medium	ECNEC	Early 2024
		Include this summary information using the new format in the FY24/25 Budget	Medium	PC	Budget FY24/25
Investment Implementation					
10. Active portfolio oversight could improve project development and implementation.	10.1 Utilize data captured during project implementation and monitoring by the Planning Commission to develop analysis of portfolio trends and use to improve project implementation and development	Develop dashboards and summary data for information in PMES and iPAS	Medium	PC	Dec 2024
		Develop a monitoring report on major projects and submit at least annually to NEC	Medium	PC	June 2025
	10.2 Increase compliance with requirements for ex-post review	PC to provide training and guidance to sector and report on compliance with ex-post review requirements in the portfolio monitoring report above	Low	PC	Dec 2025
11. Data on public assets is inconsistent and not easily centralized to support planning of public investment and budgeting for maintenance.	11.1 Prepare and publish rules and procedures for federal ministries to retain and make accessible information on public assets.	Draft guidelines, in consultation with PC and line ministries	Medium	Finance Division	End-2023
		Present draft guidelines to CDWP and ECNEC for approval	Medium	Finance Division (CDWP and ECNEC)	Mid-2024
		Provide training and implement using a phased approach	Medium	Finance Division	Beginning second half of 2024
	11.2 Develop standard methodologies for assessing the needs and cost of routine and capital maintenance for main asset classes	Complete work of group already commissioned by Finance Division and notify results to agencies	Low	Finance Division and Planning Commission	Due end 2023
12. Strengthening procurement implementation would improve outcomes for investment projects.	12.1 Adopt and progressively convert to the use of e-procurement for development and non-development expenditure.	Implement e-procurement system and establish a database of procurement	Medium	PPRA	End 2024
	12.2 Build the capacity to monitor public procurement using a database; and monitor and assess compliance with procurement rules; and share information on procurement complaints.	Assign staff to be responsible for monitoring procurement system data	Medium	PPRA	End 2024
		Develop a reporting template for periodic procurement reporting, including on complaints	Medium		

Issue	Recommendations	Action	Priority	Responsibility	Timing
Climate Sensitive Public Investment Management					
C1. There is a lack of sufficient analysis or awareness regarding the vulnerability of Pakistan's infrastructure assets to climate-related risks such as floods, cyclones, and heatwaves.	C1 Identify and document infrastructure assets in key sectors (e.g., energy, transport and communications, and health) that are exposed to climate-related natural disaster risks, such as flooding, cyclones, and heatwaves.	Drawing on hydrological modelling and modelling undertaken at the National Disaster Risk Management Fund, prepare analysis of energy, health, and transport and communication assets vulnerable to flood risks	Medium	NDMA, with NDRMF and Sector Ministries and Agencies	Mid-2024
C2. Gaps in the national planning framework weaken investment planning to meet climate change objectives	C2.1 Clearly identify sectoral contributions to climate change mitigation (NDC) and adaptation targets (forthcoming NAP) and prepare costed investment plans that contribute to the achievement of these goals as part of the sectoral and national planning process.	Expand modelling to include climatological and meteorological disaster risks	Medium	NDMA, with NDRMF and Sector Ministries and Agencies	End-2025
		As part of the preparation of strategies in Recommendation 1 (above), identify policies and costed projects for meeting the climate-related goals, as part of the development of the next five-year national plan	High	MoCC with Sector Groups and PC	Mid-2024
	C2.2 Finalize and publish the handbook on incorporating climate sensitivity in sectoral planning and project preparation processes	Finalize and publish the handbook on integrating climate resilience and adaption into project design and development planning	High	PC	Immediately
C3. Regulations on spatial and urban planning and construction do not address climate-related risks and impacts on public investment in Pakistan.	C3 Finalize the Climate Change Resilient Urban Human Settlement Strategy and incorporate climate-resilience and mitigation measures in future building codes and urban planning guidelines	Finalize and publish the Climate Change Resilient Urban Human Settlement Strategy	High	MoCC	Immediately
		Review and revise the Building Code to incorporate climate resilience and emissions mitigation	High	MoCC, NDMA, and Pakistan Engineering Council	End-2024
		Update provincial urban planning codes to adopt principles included in the Climate Change Resilient Urban Human Settlement Strategy	High	MoCC and provincial governments	End-2024
C4. The appraisal process can be further strengthened.	C4 Develop specific technical guidance on key issues such as how to conduct various forms of climate, economic, financial, technical analysis including on discount rates, shadow pricing and quantification of climate costs, systematically incorporating climate risks.	Set up inter-ministerial stakeholder – MoF, line ministries, NHA, PPA, provinces to take stock of assessment tools that are currently used and needs for central support and guidance	Medium	PC	Immediately
		Develop standard guidance, by sector where relevant, including methodology for comparison across sectors	Medium	PC and Finance Division	Early 2024
		Approve new guidance and procedures	Medium	NEC	Mid-2024

Issue	Recommendations	Action	Priority	Responsibility	Timing
C5. There is insufficient information on the investment budget.	C5.1 Advance the work on green budgeting, including budget tracking and publish information on climate related costs to the budget.	Publish climate-related spending for FY2023-24, following budget tracking exercise. Budget statement to include a section on the objectives, targets, outcomes, and medium-term spending plans	Medium	Finance Division	FY23/24 Budget
		Build on current tracking exercise to provide more guidance to line ministries in BCC for FY24-25, and gradually extend tracking to revenue measures	Medium	Finance Division	FY24/25 Budget
		Extend green tracking system to all provinces	Medium	Finance / provinces	End 2025
	C5.2 Prepare and publish long term fiscal sustainability analysis under different climate change scenarios, and assess and publish information on discrete fiscal risks arising under these scenarios.	Incorporate technical analysis undertaken with ADB on climate-related fiscal risks in the Statement on Fiscal Risks	Medium	Economic Adviser	FY23/24 Budget
		Undertake modelling of long-term fiscal sustainability under different climate change scenarios	Medium	Economic Adviser	End-2023
		Estimate discrete fiscal risks (e.g. from PPPs and SOEs) related to climate change	Medium	Economic Adviser	End-2023
		Publish long-term modelling and discrete fiscal risks in Statement of Fiscal Risks	Medium	Economic Adviser	FY24/25 Budget
C6. Allocative efficiency can be improved with selection criteria that include climate change	C6 Include climate factors in the criteria for selecting projects	Draft for internal proposal with genera selection criteria mentioned above	High	PC	End-2023
		Undertake stakeholder consultation with CDWP, ECNEC, Finance Division, key line ministries, and provinces	High	PC	Early 2024
		Present final draft proposal for approval	High	PC and NEC	Mid-2024
C7. Capacity constraints pose a significant challenge to the implementation of Pakistan's climate change agenda.	C7 Train staff to strengthen the capacity of MoCC, PC, and Climate Change Authority to oversee and coordinate investment projects targeting the achievement of NCCP and NDC goals. Maximize training opportunities afforded by development partners and develop domestic training capabilities.	Maximize training opportunities offered by development partners, coordinated by MoCC.	High	MoCC, PC, and Climate Change Authority	Ongoing
		Develop a plan for long term training of staff needed to implement national policies, plans, and commitments by all federal agencies	High	MoCC	Mid-2024
		Expand coverage of climate issues in Pakistan Planning and Management Institute courses – after policies and procedures that affect development planning and the PSDP are clear	High	MoCC in liaison with PC	End-2024

Annex 2. PIMA Questionnaire

Indicator		Scoring		
		1 = To no or a lesser extent	**2 = To some extent**	**3 = To a greater extent**
A.	**Planning Sustainable Levels of Public Investment**			
1.	**Fiscal targets and rules: Does the government have fiscal institutions to support fiscal sustainability and to facilitate medium-term planning for public investment?**			
1.a.	Is there a target or limit for government to ensure debt sustainability?	There is no target or limit to ensure debt sustainability.	There is at least one target or limit to ensure central government debt sustainability.	There is at least one target or limit to ensure general government debt sustainability.
1.b.	Is fiscal policy guided by one or more permanent fiscal rules?	There are no permanent fiscal rules.	There is at least one permanent fiscal rule applicable to central government.	There is at least one permanent fiscal rule applicable to central government, and at least one comparable rule applicable to a major additional component of general government, such as subnational government (SNG).
1.c.	Is there a medium-term fiscal framework (MTFF) to align budget preparation with fiscal policy?	There is no MTFF prepared prior to budget preparation.	There is an MTFF prepared prior to budget preparation but it is limited to fiscal aggregates, such as expenditure, revenue, the deficit, or total borrowing.	There is an MTFF prepared prior to budget preparation, which includes fiscal aggregates and allows distinctions between recurrent and capital spending, and ongoing and new projects.
2.	**National and Sectoral Planning: Are investment allocation decisions based on sectoral and inter-sectoral strategies?**			
2.a.	Does the government prepare national and sectoral strategies for public investment?	National or sectoral public investment strategies or plans are prepared, covering only some projects found in the budget.	National or sectoral public investment strategies or plans are published covering projects funded through the budget.	Both national and sectoral public investment strategies or plans are published and cover all projects funded through the budget regardless of financing source (e.g. donor, public corporation (PC), or PPP financing).
2.b.	Are the government's national and sectoral strategies or plans for public investment costed?	The government's investment strategies or plans include no cost information on planned public investment.	The government's investment strategies include broad estimates of aggregate and sectoral investment plans.	The government's investment strategies include costing of individual, major investment projects within an overall financial constraint.
2.c.	Do sector strategies include measurable targets for the outputs and outcomes of investment projects?	Sector strategies do not include measurable targets for outputs or outcomes.	Sector strategies include measurable targets for outputs (e.g., miles of roads constructed).	Sector strategies include measurable targets for both outputs and outcomes (e.g., reduction in traffic congestion).

Indicator		Scoring		
		1 = To no or a lesser extent	**2 = To some extent**	**3 = To a greater extent**
3.	**Coordination between Entities: Is there effective coordination of the investment plans of central and other government entities?**			
3.a.	Is capital spending by SNGs, coordinated with the central government?	Capital spending plans of SNGs are not submitted to, nor discussed with central government.	Major SNG capital spending plans are published alongside central government investments, but there are no formal discussions, between the central government and SNGs on investment priorities.	Major SNG capital spending plans are published alongside central government investments, and there are formal discussions between central government and SNGs on investment priorities.
3.b.	Does the central government have a transparent, rule-based system for making capital transfers to SNGs, and for providing timely information on such transfers?	The central government does not have a transparent rule-based system for making capital transfers to SNGs.	The central government uses a transparent rule-based system for making capital transfers to SNGs, but SNGs are notified about expected transfers less than six months before the start of each fiscal year.	The central government uses a transparent rule-based system for making capital transfers to SNGs, and expected transfers are made known to SNGs at least six months before the start of each fiscal year.
3.c	Are contingent liabilities arising from capital projects of SNGs, PCs, and PPPs reported to the central government?	Contingent liabilities arising from major projects of SNGs, PCs, and PPPs are not reported to the central government.	Contingent liabilities arising from major projects of SNGs, PCs, and PPPs are reported to the central government, but are generally not presented in the central government's budget documents.	Contingent liabilities arising from major projects of SNGs, PCs, and PPPs are reported to the central government, and are presented in full in the central government's budget documents.
4.	**Project Appraisal: Are project proposals subject to systematic project appraisal?**			
4.a.	Are major capital projects subject to rigorous technical, economic, and financial analysis?	Major capital projects are not systematically subject to rigorous, technical, economic, and financial analysis.	Major projects are systematically subject to rigorous technical, economic, and financial analysis.	Major projects are systematically subject to rigorous technical, economic, and financial analysis, and selected results of this analysis are published or undergo independent external review.
4.b.	Is there a standard methodology and central support for the appraisal of projects?	There is no standard methodology or central support for project appraisal.	There is either a standard methodology or central support for project appraisal.	There is both a standard methodology and central support for project appraisal.
4.c.	Are risks taken into account in conducting project appraisals?	Risks are not systematically assessed as part of the project appraisal.	A risk assessment covering a range of potential risks is included in the project appraisal.	A risk assessment covering a range of potential risks is included in the project appraisal, and plans are prepared to mitigate these risks.

Indicator		Scoring		
		1 = To no or a lesser extent	**2 = To some extent**	**3 = To a greater extent**
5.	**Alternative Infrastructure Financing: Is there a favorable climate for the private sector, PPPs, and PCs to finance in infrastructure?**			
5.a.	Does the regulatory framework support competition in contestable markets for economic infrastructure (e.g., power, water, telecoms, and transport)?	Provision of economic infrastructure is restricted to domestic monopolies, or there are few established economic regulators.	There is competition in some economic infrastructure markets, and a few economic regulators have been established.	There is competition in major economic infrastructure markets, and economic regulators are independent and well established.
5.b.	Has the government published a strategy/policy for PPPs, and a legal/regulatory framework which guides the preparation, selection, and management of PPP projects?	There is no published strategy/policy framework for PPPs, and the legal/regulatory framework is weak.	A PPP strategy/policy has been published, but the legal/regulatory framework is weak.	A PPP strategy/policy has been published, and there is a strong legal/regulatory framework that guides the preparation, selection, and management of PPP projects.
5.c.	Does the government oversee the investment plans of public corporations (PCs) and monitor their financial performance?	The government does not systematically review the investment plans of PCs.	The government reviews the investment plans of PCs, but does not publish a consolidated report on these plans or the financial performance of PCs.	The government reviews and publishes a consolidated report on the investment plans and financial performance of PCs.
B.	**Ensuring Public Investment is Allocated to the Right Sectors and Projects**			
6.	**Multi-Year Budgeting: Does the government prepare medium-term projections of capital spending on a full cost basis?**			
6.a.	Is capital spending by ministry or sector forecasted over a multiyear horizon?	No projections of capital spending are published beyond the budget year.	Projections of total capital spending are published over a three to five-year horizon.	Projections of capital spending disaggregated by ministry or sector are published over a three to five-year horizon.
6.b	Are there multiyear ceilings on capital expenditure by ministry, sector, or program?	There are no multiyear ceilings on capital expenditure by ministry, sector, or program.	There are indicative multiyear ceilings on capital expenditure by ministry, sector, or program.	There are binding multiyear ceilings on capital expenditure by ministry, sector, or program.
6.c.	Are projections of the total construction cost of major capital projects published?	Projections of the total construction cost of major capital projects are not published.	Projections of the total construction cost of major capital projects are published.	Projections of the total construction cost of major capital projects are published, together with the annual breakdown of these cost over a three-five-year horizon.

Indicator		Scoring		
		1 = To no or a lesser extent	2 = To some extent	3 = To a greater extent
7.	**Budget Comprehensiveness and Unity: To what extent is capital spending, and related recurrent spending, undertaken through the budget process?**			
7.a.	Is capital spending mostly undertaken through the budget?	Significant capital spending is undertaken by extra-budgetary entities with no legislative authorization or disclosure in the budget documentation.	Significant capital spending is undertaken by extra-budgetary entities, but with legislative authorization and disclosure in the budget documentation.	Little or no capital spending is undertaken by extra-budgetary entities.
7.b.	Are all capital projects, regardless of financing source, shown in the budget documentation?	Capital projects are not comprehensively presented in the budget documentation, including PPPs, externally financed, and PCs' projects.	Most capital projects are included in the budget documentation, but either PPPs, externally financed, or PCs' projects are not shown.	All capital projects, regardless of financing sources, are included in the budget documentation.
7.c.	Are capital and recurrent budgets prepared and presented together in the budget?	Capital and recurrent budgets are prepared by separate ministries, and/or presented in separate budget documents.	Capital and recurrent budgets are prepared by a single ministry and presented together in the budget documents, but without using a program or functional classification.	Capital and recurrent budgets are prepared by a single ministry and presented together in the budget documents, using a program or functional classification.
8.	**Budgeting for Investment: Are investment projects protected during budget implementation?**			
8.a.	Are total project outlays appropriated by the legislature at the time of a project's commencement?	Outlays are appropriated on an annual basis, but information on total project costs is not included in the budget documentation.	Outlays are appropriated on an annual basis, and information on total project costs is included in the budget documentation.	Outlays are appropriated on an annual basis and information on total project costs, and multiyear commitments is included in the budget documentation.
8.b.	Are in-year transfers of appropriations (virement) from capital to current spending prevented?	There are no limitations on virement from capital to current spending.	The finance ministry may approve virement from capital to current spending.	Virement from capital to current spending requires the approval of the legislature.
8.c	Is the completion of ongoing projects given priority over starting new projects?	There is no mechanism in place to protect funding of ongoing projects.	There is a mechanism to protect funding for ongoing projects in the annual budget.	There is a mechanism to protect funding for ongoing projects in the annual budget and over the medium term.

Indicator		Scoring		
		1 = To no or a lesser extent	2 = To some extent	3 = To a greater extent
9.	**Maintenance Funding: Are routine maintenance and major improvements receiving adequate funding?**			
9.a.	Is there a standard methodology for estimating routine maintenance needs and budget funding?	There is no standard methodology for determining the needs for routine maintenance.	There is a standard methodology for determining the needs for routine maintenance and its cost.	There is a standard methodology for determining the needs for routine maintenance and its cost, and the appropriate amounts are generally allocated in the budget.
9.b.	Is there a standard methodology for determining major improvements (e.g. renovations, reconstructions, enlargements) to existing assets, and are they included in national and sectoral investment plans?	There is no standard methodology for determining major improvements, and they are not included in national or sectoral plans.	There is a standard methodology for determining major improvements, but they are not included in national or sectoral plans.	There is a standard methodology for determining major improvements, and they are included in national or sectoral plans.
9.c.	Can expenditures relating to routine maintenance and major improvements be identified in the budget?	Routine maintenance and major improvements are not systematically identified in the budget.	Routine maintenance and major improvements are systematically identified in the budget.	Routine maintenance and major improvements are systematically identified in the budget, and are reported.
10.	**Project Selection: Are there institutions and procedures in place to guide project selection?**			
10.a.	Does the government undertake a central review of major project appraisals before decisions are taken to include projects in the budget?	Major projects (including donor- or PPP-funded) are not reviewed by a central ministry prior to inclusion in the budget.	Major projects (including donor- or PPP-funded) are reviewed by a central ministry prior to inclusion in the budget.	All major projects (including donor- or PPP-funded) are scrutinized by a central ministry, with input from an independent agency or experts prior to inclusion in the budget.
10.b.	Does the government publish and adhere to standard criteria, and stipulate a required process for project selection?	There are no published criteria or a required process for project selection.	There are published criteria for project selection, but projects can be selected without going through the required process.	There are published criteria for project selection, and generally projects are selected through the required process.
10.c.	Does the government maintain a pipeline of appraised investment projects for inclusion in the annual budget?	The government does not maintain a pipeline of appraised investment projects.	The government maintains a pipeline of appraised investment projects but other projects may be selected for financing through the annual budget.	The government maintains a comprehensive pipeline of appraised investment projects, which is used for selecting projects for inclusion in the annual budget, and over the medium term.

Indicator		Scoring		
		1 = To no or a lesser extent	2 = To some extent	3 = To a greater extent
C. Delivering Productive and Durable Public Assets				
11. Procurement				
11.a.	Is the procurement process for major capital projects open and transparent?	Few major projects are tendered in a competitive process, and the public has limited access to procurement information.	Many major projects are tendered in a competitive process, but the public has only limited access to procurement information.	Most major projects are tendered in a competitive process, and the public has access to complete, reliable and timely procurement information.
11.b	Is there a system in place to ensure that procurement is monitored adequately?	There is no procurement database, or the information is incomplete or not timely for most phases of the procurement process.	There is a procurement database with reasonably complete information, but no standard analytical reports are produced from the database.	There is a procurement database with reasonably complete information, and standard analytical reports are produced to support a formal monitoring system.
11.c	Are procurement complaints review process conducted in a fair and timely manner?	Procurement complaints are not reviewed by an independent body.	Procurement complaints are reviewed by an independent body, but the recommendations of this body are not produced on a timely basis, nor published, nor rigorously enforced.	Procurement complaints are reviewed by an independent body whose recommendations are timely, published, and rigorously enforced.
12. Availability of Funding: Is financing for capital spending made available in a timely manner?				
12.a.	Are ministries/agencies able to plan and commit expenditure on capital projects in advance on the basis of reliable cash-flow forecasts?	Cash-flow forecasts are not prepared or updated regularly, and ministries/agencies are not provided with commitment ceilings in a timely manner.	Cash-flow forecasts are prepared or updated quarterly, and ministries/agencies are provided with commitment ceilings at least a quarter in advance.	Cash-flow forecasts are prepared or updated monthly, and ministries/agencies are provided with commitment ceilings for the full fiscal year.
12.b	Is cash for project outlays released in a timely manner?	The financing of project outlays is frequently subject to cash rationing.	Cash for project outlays is sometimes released with delays.	Cash for project outlays is normally released in a timely manner, based on the appropriation.
12.c	Is external (donor) funding of capital projects fully integrated into the main government bank account structure?	External financing is largely held in commercial bank accounts outside the central bank.	External financing is held at the central bank, but is not part of the main government bank account structure.	External financing is fully integrated into the main government bank account structure.

Indicator		Scoring		
		1 = To no or a lesser extent	2 = To some extent	3 = To a greater extent
13. Portfolio Management and Oversight: Is adequate oversight exercised over implementation of the entire public investment portfolio				
13.a	Are major capital projects subject to monitoring during project implementation?	Most major capital projects are not monitored during project implementation.	For most major projects, annual project costs, as well as physical progress, are monitored during project implementation.	For all major projects, total project costs, as well as physical progress, are centrally monitored during project implementation.
13.b	Can funds be re-allocated between investment projects during implementation?	Funds cannot be re-allocated between projects during implementation.	Funds can be reallocated between projects during implementation, but not using systematic monitoring and transparent procedures.	Funds can be re-allocated between projects during implementation, using systematic monitoring and transparent procedures.
13.c	Does the government adjust project implementation policies and procedures by systematically conducting ex post reviews of projects that have completed their construction phase?	Ex post reviews of major projects are neither systematically required, nor frequently conducted.	Ex post reviews of major projects, focusing on project costs, deliverables and outputs, are sometimes conducted.	Ex post reviews of major projects focusing on project costs, deliverables, and outputs are conducted regularly by an independent entity or experts, and are used to adjust project implementation policies and procedures.
14. Management of Project Implementation: Are capital projects well managed and controlled during the execution stage?				
14.a	Do ministries/agencies have effective project management arrangements in place?	Ministries/agencies do not systematically identify senior responsible officers for major investment projects, and implementation plans are not prepared prior to budget approval.	Ministries/agencies systematically identify senior responsible officers for major investment projects, but implementation plans are not prepared prior to budget approval.	Ministries/agencies systematically identify senior responsible officers for major investment projects, and implementation plans are prepared prior to budget approval.
14.b.	Has the government issued rules, procedures and guidelines for project adjustments that are applied systematically across all major projects?	There are no standardized rules and procedures for project adjustments.	For major projects, there are standardized rules and procedures for project adjustments, but do not include, if required, a fundamental review and reappraisal of a project's rationale, costs, and expected outputs.	For all projects, there are standardized rules and procedures for project adjustments and, if required, include a fundamental review of the project's rationale, costs, and expected outputs.
14.c.	Are ex post audits of capital projects routinely undertaken?	Major capital projects are usually not subject to ex post external audits.	Some major capital projects are subject to ex post external audit, information on which is published by the external auditor.	Most major capital projects are subject to ex post external audit information on which is regularly published and scrutinized by the legislature.

Indicator		Scoring		
		1 = To no or a lesser extent	2 = To some extent	3 = To a greater extent
15. Monitoring of Public Assets: Is the value of assets properly accounted for and reported in financial statements?				
15.a	Are asset registers updated by surveys of the stocks, values, and conditions of public assets regularly?	Asset registers are neither comprehensive nor updated regularly.	Asset registers are either comprehensive or updated regularly at reasonable intervals.	Asset registers are comprehensive and updated regularly at reasonable intervals.
15.b	Are nonfinancial asset values recorded in the government financial accounts?	Government financial accounts do not include the value of non- financial assets.	Government financial accounts include the value of some non- financial assets, which are revalued irregularly.	Government financial accounts include the value of most nonfinancial assets, which are revalued regularly.
15.c	Is the depreciation of fixed assets captured in the government's operating statements?	The depreciation of fixed assets is not recorded in operating statements.	The depreciation of fixed assets is recorded in operating statements, based on statistical estimates.	The depreciation of fixed assets is recorded in operating expenditures, based on asset-specific assumptions.

Cross-cutting issues	
A	**IT support**. Is there a comprehensive computerized information system for public investment projects to support decision making and monitoring?
B	**Legal Framework**. Is there a legal and regulatory framework that supports institutional arrangements, mandates, coverage, procedures, standards and accountability for effective PIM?
C	**Staff capacity.** Does staff capacity (number of staff and/or their knowledge, skills, and experience) and clarity of roles and responsibilities support effective institutions?

Annex 3. C-PIMA Questionnaire

Indicator		Scoring		
		1 = To no or a lesser extent	2 = To some extent	3 = To a greater extent
C1. Climate-aware planning: Is public investment planned from a climate change perspective?				
C.1.a	Are national and sectoral public investment strategies and plans consistent with NDC or other overarching climate change strategy on mitigation and adaptation?	National and sectoral public investment strategies and plans are not consistent with NDC or other overarching climate change strategy.	National public investment strategies and plans are consistent with NDC or other overarching climate change strategy for ***some*** sectors.	National and sectoral public investment strategies and plans are consistent with NDC or other overarching climate change strategy for ***most*** sectors.
C.1.b	Do central government and/or sub-national government regulations on spatial and urban planning, and construction address climate-related risks and impacts on public investment?	Central government and/or sub-national government regulations on spatial and urban planning, and construction do not address climate-related risks and impacts on public investment.	Central government and/or sub-national government regulations on spatial and urban planning, ***or*** construction (through building codes) addresses climate-related risks and impacts on public investment.	Central government and/or sub-national government regulations on spatial and urban planning, ***and*** construction (through building codes) address climate-related risks and impacts on public investment.
C.1.c	Is there centralized guidance/support for government agencies on the preparation and costing of climate-aware public investment strategies?	There is no centralized guidance/support for government agencies on the preparation and costing of climate-aware public investment strategies.	There is centralized guidance/support for government agencies on the ***preparation*** of climate-aware public investment strategies.	There is centralized guidance/support for government agencies on the ***preparation and costing*** of climate-aware public investment strategies.
C2. Coordination between entities: Is there effective coordination of decision making on climate change-related public investment across the public sector?				
C.2.a	Is decision making on public investment coordinated across central government from a climate-change perspective?	Decision making on public investment is not coordinated across central government from a climate-change perspective.	Decision making on public investment is coordinated across budgetary central government from a climate-change perspective.	Decision making on public investment is coordinated across all central government, including externally financed projects, PPPs and extra-budgetary entities, from a climate-change perspective.

Indicator		Scoring		
		1 = To no or a lesser extent	2 = To some extent	3 = To a greater extent
C.2.b	Is the planning and implementation of capital spending of SNGs coordinated with the central government from a climate-change perspective?	The planning and implementation of capital spending of SNGs is not coordinated with the central government from a climate-change perspective.	The central government issues guidance on the planning and implementation of capital spending from a climate-change perspective and information on major climate-related projects of SNGs is shared with the central government and is published alongside data on central government projects.	The central government issues guidance on the planning and implementation of capital spending from a climate-change perspective, information on major climate-related projects of SNGs is shared with the central government and is published alongside data on central government projects, and there are formal discussions between central government and SNGs on the planning and implementation of climate-related investments.
C.2.c	Does the regulatory and oversight framework for public corporations ensure that their climate-related investments are consistent with national climate policies and guidelines?	The regulatory and oversight framework for public corporations does not promote consistency between their climate-related investments and national climate policies and guidelines.	The regulatory and oversight framework for public corporations promotes consistency between their climate-related investments and national climate policies and guidelines.	The regulatory and oversight framework for public corporations requires that their climate-related investments be consistent with national climate policies and guidelines.
C3. Do project appraisal and selection include climate-related analysis and criteria?				
C.3.a	Does the appraisal of major infrastructure projects require climate-related analysis to be conducted according to a standard methodology with central support?	The appraisal of major infrastructure projects does not require climate-related analysis to be conducted according to a standard methodology.	The appraisal of major infrastructure projects requires climate-related analysis to be conducted according to a standard methodology.	The appraisal of major infrastructure projects requires climate-related analysis to be conducted according to a standard methodology, and a summary of appraisals is published or subject to independent external review.
C3b	Does the framework for managing longer-term public investment contracts, such as PPPs, explicitly address climate-related challenges?	The referred framework does not include explicit consideration of climate change for risk allocation or contract management.	The referred framework includes explicit consideration of climate change with respect to how risks are allocated between the parties in infrastructure contracts.	The referred framework includes explicit consideration of climate change with respect to how risks are allocated between the parties in infrastructure contracts, and contract managers in government departments and agencies are mandated to address climate-related challenges.

Indicator		Scoring		
		1 = To no or a lesser extent	2 = To some extent	3 = To a greater extent
C.3.c	Are climate-related elements included among the criteria used by the government for the selection of infrastructure projects?	Either there are no explicit selection criteria or climate-related elements are not included among the criteria used by the government for the selection of projects for financing.	Climate-related elements are included among the criteria used by the government for the selection of all major budget-funded projects, and the criteria are published.	Climate-related elements are included among the criteria used by the government for the selection of all major projects, including externally financed projects, projects financed by extra-budgetary entities, and PPPs, and the criteria are published.
C.4 Budgeting and portfolio management: Is climate-related investment spending subject to active management and oversight?				
C.4.a.	Are planned climate-related public investment expenditure, sources of financing, outputs and outcomes identified in the budget and related documents, monitored, and reported?	Planned climate-related public investment expenditure are not identified in the budget and related documents.	Some planned climate-related public investment expenditure are identified in the budget and related documents, including investment expenditure funded externally, by extra-budgetary entities, and PPPs.	Most planned climate-related public investment expenditure, sources of financing, and outputs and outcomes are identified in the budget and related documents, including investment expenditure funded externally, by extra-budgetary entities, and PPPs, and expenditure on these projects is monitored and reported.
C4.b.	Are ex-post reviews or audits conducted of the climate change mitigation and adaptation outcomes of public investments?	No ex-post reviews or audits are conducted of the climate change mitigation and adaptation outcomes of public investments.	Ex-post reviews or audits are conducted for selected major public investments of either the climate change mitigation or adaptation outcomes.	Ex-post reviews or audits are conducted and published for selected major public investments of both the climate change mitigation and adaptation outcomes.
C4.c.	Do the government’s asset management policies and practices, including the maintenance of assets, address climate-related risks?	Neither the government’s asset management policies and practices nor methodologies for estimating the maintenance needs of climate change-exposed infrastructure assets address climate-related risks.	Methodologies prepared by the government for estimating the maintenance needs of some climate change-exposed infrastructure assets address climate-related risks.	Methodologies prepared by the government for estimating the maintenance needs and associated costs of most climate change-exposed infrastructure assets address climate-related risks, and government asset registers include climate-related information of these assets.

Indicator		Scoring		
		1 = To no or a lesser extent	2 = To some extent	3 = To a greater extent
C5. Risk management: Are fiscal risks relating to climate change and infrastructure incorporated in budgets and fiscal risk analysis and managed according to a plan?				
C5.a.	Does the government publish a national disaster risk management strategy that incorporates the potential impact of climate change on public infrastructure assets and networks?	Either there is no published national disaster risk management strategy, or the strategy does not identify the key climate-related risks to public infrastructure assets and networks.	The government publishes a national disaster risk management strategy that identifies the key climate-related risks to public infrastructure assets and networks in terms of hazards, exposure, and vulnerability.	The government publishes a national disaster risk management strategy that identifies and analyses the key climate-related risks to public infrastructure assets and networks in terms of hazards, exposure and vulnerability, and includes the government's plans to mitigate and respond to these risks.
C5.b.	Has the government put in place ex ante financing mechanisms to manage the exposure of the stock of public infrastructure to climate-related risks?	The government has not put in place any ex-ante financing mechanisms to manage the exposure of the stock of public infrastructure to climate-related risks.	There is an annual contingency appropriation in the budget or other financing mechanisms that is available to meet the costs of climate-related damages to public infrastructure.	There is an annual contingency appropriation in the budget and other financing mechanisms that are available to meet the costs of climate-related damages to public infrastructure.
C5.c.	Does the government conduct and publish a fiscal risk analysis that incorporates climate-related risks to public infrastructure assets?	The government does not conduct a fiscal risk analysis that incorporates climate-related risks to public infrastructure assets.	The government conducts and publishes a fiscal risk analysis that incorporates a qualitative assessment of climate-related risks to public infrastructure assets over the medium term.	The government conducts and publishes a fiscal risk analysis that incorporates a quantitative assessment of climate-related risks to public infrastructure assets over the medium term and policies to mitigate these risks, and a qualitative assessment of the risks that may arise over the long-term.
Cross-cutting issues				
A	**IT support**. Is there a comprehensive computerized information system for public investment projects to support decision making and monitoring?			
B	**Legal Framework**. Is there a legal and regulatory framework that supports institutional arrangements, mandates, coverage, standards and accountability for effective			
C	**Staff capacity.** Does staff capacity (number of staff and/or their knowledge, skills, and experience) and clarity of roles and responsibilities support effective			

Annex 4. Detailed PIMA Scores

The following color coding is used in presenting the scores:

Score	1	2	3
Color	Red	Yellow	Green

A. Planning			B. Allocation			C. Implementation		
	Institutional Design	Effectiveness		Institutional Design	Effectiveness		Institutional Design	Effectiveness
1.a.	3	1	6.a.	2	2	11.a.	3	2
1.b.	3	1	6.b.	1	1	11.b.	1	1
1.c.	2	2	6.c.	2	2	11.c.	2	2
2.a.	2	1	7.a.	1	1	12.a.	3	1
2.b.	1	1	7.b.	2	2	12.b.	2	1
2.c.	1	1	7.c.	1	2	12.c.	3	3
3.a.	3	3	8.a.	2	2	13.a.	3	2
3.b.	2	2	8.b.	3	3	13.b.	2	2
3.c.	1	2	8.c.	2	1	13.c.	2	2
4.a.	2	2	9.a.	1	1	14.a.	3	2
4.b.	2	2	9.b.	1	1	14.b.	3	3
4.c.	2	1	9.c.	3	2	14.c.	3	3
5.a.	3	2	10.a.	2	2	15.a.	3	1
5.b.	2	2	10.b.	2	2	15.b.	1	2
5.c.	2	1	10.c.	3	2	15.c.	1	1