Public Investment Management in Developing Countries: Experiences and Recommendations for German Development Cooperation

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On behalf of the
German Federal Ministry for Economic Cooperation and Development (BMZ)

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List of Abbreviations

AIIB	Asian Infrastructure Investment Bank
AU	African Union
AUC	African Union Commission
AUDA-NEPAD	African Union Development Agency – New Economy Partnership for African Development
BMUV	German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection
BMZ	German Federal Ministry for Economic Cooperation and Development
BRT	Bus Rapid Transport
CBN	Continental Business Network
CEPA II	China-Europe Public Administration Project
CHINCA	China International Contractors Association
CSO	Civil Society Organisations
CwA	Compact with Africa
D4D	Decentralisation for Development
DC	Development Cooperation
DESAL	Desalination of Sea Water and Brackish Water
DIAPOL	Dialog on Low Emissions and Resilient Economic Development
DP	Development Partner
EIB	European Investment Bank
EMDE	Emerging Markets and Developing Economies
EMSD	Emerging Markets Sustainability Dialogues
ENDEV	Energizing Development
ESIA	Environment and Social Impact Assessments
EU	European Union
EUTF	Emergency Trust Fund
FAD	Fiscal Affairs Department
G20	Group of 20
GAVI	Global Alliance for Vaccines and Immunisation
GCF	Green Climate Fund
GCoM	Global Covenant of Mayors
GFF	Global Financing Facility for Women, Children and Adolescents
GFG	Good Financial Governance
GFTAM	Global Fund to Fight AIDS, Tuberculosis and Malaria
GI	Global Infrastructure Hub
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
GID	Governance for Inclusive Development
GIF	Global Infrastructure Facility
HIC	High-Income States
ICESCR	International Covenant on Economic, Social, and Cultural Rights
ICT	Information and Communication Technology
IDA	International Development Association
IDP	Integrated Development Plan
IFI	International Financial Institutions
IFMIS	Integrated Financial Management Information System
IFRS	International Financial Reporting Standards
IKI	International Climate Initiative
ILO	International Labour Organisation
IMF	International Monetary Fund
INDOBUS	Indonesian Bus Rapid Transit Corridor Development Project
IO	International Organizations
IPACC II	Adapting public investment to climate change in Latin America
IPSI	Infrastructure Policy Support Initiative
ISF	Investment Support Facility

IWG	Infrastructure Working Group
KfW	Kreditanstalt für Wiederaufbau
KPESP	Khyber Pakhtunkhwa Education Sector Plan
LIC	Low-Income Countries
L-MIC	Lower-Middle-Income Countries
MDA	Ministry, Department or Agency
MIC	Middle-Income Countries
MIS	Information Management Systems
MLPS	Modernisation of Local Public Services
MoF	Ministry of Finance
MSCoA	Municipal Standard Chart of Accounts
MTBF	Medium-Term Budget Framework
MTEF	Medium-Term Expenditure Framework
MTFF	Medium-Term Fiscal Framework
MTP	Medium-Term Plans
NALAS	Network of Associations of Local Authorities of South-East Europe
NAMA	Nationally Appropriate Mitigation Action
NDP	National Development Plans
OE	Owning Entities
ONEA	Office National de l'Eau et de l'Assainissement
P4H	Providing for Health
PCI	Per-Capita Income
PCIA	Peace and Conflict Impact Assessments
PEFA	Public Expenditure and Financial Accountability
PFM	Public Financial Management
PICD	Public Investment Capacity Development
PIDA	Program for Infrastructure Development in Africa
PIM	Public Investment Management
PIM CoP	PIM Community of Practice
PIMA	Public Investment Management Assessment
PIP	Public Investment Projects
PMU	Project Management Unit
PPOA	Public Procurement Oversight Authority
PPP	Public Private Partnerships
SAI	Supreme Audit Institutions
SDG	Sustainable Development Goals
SecMin	Sector Ministry
SHCP	Secretaría de Hacienda y Crédito Público
SICA	Central American Integration System
SNG	Sub-National Governments
SOE	State-Owned Enterprises
TADAT	Tax Administration Diagnostic Assessment Tool
TC	Technical Cooperation
TI	Transparency International
TIA	Tunisia Investment Agency
TSA	Treasury Single Account
U-MIC	Upper-Middle-Income Countries
VGG	Vietnamese Green Growth Strategy

Executive Summary

This study analyses public investment management (PIM) in developing countries and presents proposals on how German Development Cooperation (GDC) can provide technical assistance to strengthen PIM in partner countries.[1] The rationale for this study is three-fold. First, against the background of spending pressures related to the COVID-19 pandemic and large post-pandemic recovery expenditure, it will be important to strengthen public investment in developing countries in terms of how it is prioritized across and within sectors. Second, to fight climate change as well as rising socio-economic disparities and inequality in many developing countries (just transition) more pro-poor investment is necessary. This calls for a fresh look at how public (investment) spending is allocated and managed. Finally, public investment spending is generally implemented very inefficiently in many developing countries. The evidence is stark in this regard, suggesting that if improvements in PIM can be achieved, public resources spent on investment projects can yield much more than they have done so far. According to IMF estimates, the benefits from investment projects worldwide are approximately 30 percent lower than what is technically possible, mainly due to inefficiencies in planning, funding, and implementation of public investment projects.

Against this background, this study aims at identifying entry points and proposals on how technical assistance as part of GDC can support partner countries of GDC in improving PIM and expanding investment activity that is not only economically efficient, but also considers the growing needs in terms of climate change as well as pro-poor orientation and social cohesion. Towards this objective, the study analyses PIM from various perspectives.

First, the study takes a look at how the role and perception of public investment has evolved over time in development theories and debates. Public investment has always been seen as a key determinant of economic development. In recent decades, the focus has broadened and increasingly encompassed also social and environmental concerns, as reflected in the Sustainable Development Goals (SDGs) and the Agenda 2030. Public investments can be defined as expenditures made for the purchase or the construction of economic assets that can be used in the long term. These are the economic infrastructure of a country (e.g., roads, railways, energy generation and transmission) as well as assets that are necessary for the provision of social services, the social infrastructure (e.g., hospitals, schools). Beyond these classical definitions, investments in the protection of the climate should also be considered.

Decision-making processes in many developing (and other) countries are not conducive to the poverty- and climate-oriented preparation and implementation of public investment projects. At the same time, the need for investment in more climate-sensitive technologies and facilities has increased considerably. Multilateral and bilateral donors are providing substantial additional funding in this area (e.g., through the Green Climate Fund). However, the implementation of public investment projects in many developing countries has often remained weak, requiring a modernisation of decision-making, structures, processes, and regulatory frameworks.

In a second step, the study reflects on international initiatives and donor perspectives on public investment. The G20 and the G7, the latter most recently at its summit in Elmau, Germany in June 2022, have repeatedly taken initiatives to promote investment and mobilize financing for it, implicitly or explicitly acknowledging that public investment must play a key role in this. Germany as one of the biggest bilateral donors in development cooperation has not only supported various international initiatives to promote (public) investment but has also provided much financial support and technical

[1] The study was prepared by Günther Taube, Philipp Decking and Peter Wenzel of GIZ's Sector Programme "Good Financial Governance" for the German Federal Ministry of Economic Cooperation and Development (BMZ). It is based on detailed background analysis provided by WINS Global Consult (Matthias Witt, Karen Ziemek, and Seth Terkper, supported by Fabian Gonzalez Neumann and Khalid Khoshal).

assistance to help increasing investment in partner countries and strengthening their PIM.

Third, the study takes a thorough look at the IMF's diagnostic tool to assess PIM and at the results of all available country assessments. To diagnose shortcomings in PIM and support countries to improve it, the IMF developed a tool to analyse the strengths and deficits in dealing with public investments - the Public Investment Management Assessment (PIMA). Based on the three dimensions "planning", "allocation," and "implementation", the decision-making and budget management processes of a country's PIM are analysed and evaluated. This study takes a close look at all publicly available PIMA reports for countries, with particular focus on partner countries of GDC. The tool as such is reviewed in this study, and the available PIMA reports have been analysed to identify common bottlenecks of PIM in developing countries.

While PIMA as a tool provides a useful framework for analysing a country's PIM, the study shows that it does have some shortcomings. For example, essential decision-making processes and interfaces between some key actors are not analysed in-depth. These include the involvement of parliament and civil society, the preparatory and decision-making processes within sector ministries, departments, and agencies responsible for investment (e.g., environment, energy, transport), as well as decision-making process between such sectoral entities and the central government's lead agency on investment planning, typically the Ministry of Finance or the Ministry of Planning.

Despite these shortcomings, the use of PIMA can be very helpful as a basis for designing approaches of bilateral technical assistance projects with partner countries of GDC. For example, PIMA findings and recommendations can be used as a basis for defining indicators in the results framework of such technical assistance projects. Another contribution can be that the highly aggregated process-relevant information of PIMA reports can complement the detailed information on actors and their roles that is necessary for technical assistance. At the same time, technical assistance projects of GDC can be complementary in supporting a country's reform programme and the implementation of PIMA recommendations. A particular strength of many GDC technical assistance projects is that they not only support countries at the national but also on subnational levels.

In a fourth step, the study analyses a broad and large selection of around 80 past and current GDC technical assistance projects implemented by GIZ that deal with PIM in one way or another. The selection includes the complete portfolio of about 30 bilateral and regional projects that support partner countries in improving good financial governance (GFG). Several of these projects explicitly focus, inter alia, on PIM or seek to strengthen other aspects of fiscal management, including internal and external audit, thereby implicitly strengthening PIM. In addition, a substantial number of GIZ projects have been reviewed that are implemented in different thematic clusters or sectors, including decentralisation and municipal development, energy, climate, transport as well as post-conflict and reconstruction.

The results show that these projects offer a wide range of experiences in situations that contribute to the strengthening of partner institutions in PIM, while focusing on poverty reduction, gender equality, and climate protection. Key approaches of these cluster or sector projects with relevance to PIM include support for the preparation and implementation of public budgets, advice to sector ministries, and direct support for the planning and implementation of investment projects, especially in crisis and post-conflict situations. However, these experiences in strengthening PIM are scattered across the large GIZ project portfolio and have so far neither been considered in their totality nor brought together in a systematic analysis focusing on PIM. This study provides such analysis, and thus yields a comprehensive and at the same time diverse and differentiated basis that allows to draw conclusions for further technical assistance work on PIM as part of GDC.

The analysis shows that many technical assistance projects that are implemented by GIZ as part of GDC provide advice on the design and management of public investments in selected areas. This can be, for example, in the design of municipal transport systems or in advisory services on energy and climate protection. A uniform approach does not exist, and probably does not need to be developed considering the variety of sectors and countries, keeping in mind that developing and implementing tailor-made projects in line with partner country authorities is a strength of GDC and should continue to guide GIZ's conceptual approach to technical assistance.

In relation to the framework conditions for public investment, two aspects pose challenges for PIM in general and for associated technical assistance. First, the longstanding trend that the role of the state in public services in some sectors has been shifting from an owner of infrastructure and producer of services to a regulatory status has significant implications for the provision of public services, and thus indirectly for the underlying investment processes as well as for technical assistance to strengthen such processes. Second, investment activity at sub-national levels, i.e., at regional and local/municipality levels, is often systemically constrained by the constitution of a country, i.e., unitary states with very centralised decision-making processes.

Considering the results of the different strands of the analysis, this study finally draws general conclusions for the technical assistance of GDC on PIM. In addition, the study develops a modular approach, called "Capacity Development for Public Investment Management." The 10 modules that form this approach can be used selectively either as a stand-alone approach to design a new technical assistance project on PIM or they can individually be integrated into existing technical assistance projects, be it in the GFG context or in cluster or sectoral projects.

The results of the study show that there is a strong case for intensifying technical assistance as part of GDC in support of systemic budget reforms in partner countries, with a particular focus on PIM. Other key findings, conclusions, and recommendations of this study include:

- A key weakness in PIM that is seldomly addressed is the insufficient consideration and budgeting of maintenance costs. Maintenance is not often explicitly addressed as an issue in GIZ's GFG project portfolios, and it is also not prominently considered in many sectoral and cluster projects. This is clearly at odds with the fact that maintenance is generally identified as a key weakness in many PIMA reports.
- Related to the neglect of maintenance are weaknesses in asset management, including investment infrastructure. Asset registries at central government as well at local government levels and associated reporting systems often require a major overhaul and should thus be considered in technical assistance projects as an important accountability issue. Such registries may also help to tackle illicit financial flows.
- An efficient and effective PIM system relies on strong coordination across ministries. This prepares the basis for an optimal use of public funds and assets. It often reflects the silo structure of ministries, with investments being planned by separate ministries, but ultimately decided upon by the central coordinating ministry (Ministry of Finance or Ministry of Planning) and, finally, at the political level by parliaments. While there is a broad understanding that interactions between sectoral ministries and the Ministry of Finance or Ministry of Planning are crucial, technical assistance project design and practice do not often support the collaboration between sector ministries and the ministry in charge of fiscal coordination.
- Strengthening investment planning and budgeting capacities in sector ministries should also receive much more attention in both GFG as well as sectoral or cluster technical assistance projects. This would strengthen PIM in general in the respective partner country and it would help improving financial management capacities in sectoral ministries, which are also often identified as a serious weakness. One reason for this is that investment projects in sectors are often designed primarily based on a sector rationale rather than considering either general whole of government concerns or financial implications (e.g., for maintenance, as argued above, or for interest and loan repayments). Fundamentally this reflects that in many

developing countries new investment projects tend to be prioritised over the maintenance of existing ones.

- Fostering the collaboration between levels of government would also be important to improve PIM. GIZ projects often focus on either the central government or local government level, but an approach for capacity development in subnational investment would require a collaboration between central ministries in sectors, the central ministry in charge of local government, and the central government ministries for finance and planning. Local governments are usually remote from central government decision making and they have a small lobby in the distribution battle over public funds. GIZ's technical assistance projects on fiscal decentralisation seek to support fiscal policy reforms aiming at improved local revenue generation (e.g., through property taxes), budget preparation and execution as well as mobilization of higher transfers from the central government. While this is often a challenge, it is a worthwhile endeavour as it can lead to higher as well as more efficient spending on local public investments that are pro-poor and reduce disparities.
- Environmental and sustainability aspects should be more prominently considered as part of PIM. This study has shown that technical assistance support to PIM is often rather focusing on the beginning of the project cycle when the criteria of impact assessment are being developed. The IMF has developed and is currently piloting an additional analytical tool called "Climate PIMA" which would appear to be a promising mechanism to introduce environmental concerns better into PIM. The results of such Climate PIMA could also be used in the context of designing new GFG projects or sectoral projects, thus strengthening their focus on climate change and environmental issues.
- More generally, this study has shown that the IMF's high-level policy advice and GIZ's strength of implementation, are highly complementary. The same holds true for the IMF's PIMA and bilateral GDC technical assistance projects, especially in the GFG area. While the main strength of the IMF's PIMA approach lies in its replicability and analytical focus at a more general level, the main comparative advantage of GIZ's approach to PIM in technical assistance projects is that it is based on partners' needs and tailor-made to specific country conditions. The IMF's PIMA framework and results of country-specific PIMA reports can provide very useful guidelines for designing country-specific advisory services of bilateral technical assistance projects implemented by GIZ.

1. Introduction

This study focuses on public investment management (PIM) in developing countries with a three-fold rationale and presents proposals on how German Development Cooperation (GDC) can provide technical assistance to strengthen PIM in partner countries. The present study aims at analyzing how PIM in developing countries works and how development partners, including Germany, are supporting it. The objective of the study is to yield conclusions on how PIM (both, policy and administration) can be improved, and what specific options exist for German development cooperation to play a role in this endeavor. The rationale for this study is rooted in three different arguments. First, while emergency spending received much attention during the early phases of the pandemic, more comprehensive expenditure packages, including public investment, are now coming to the forefront as part of recovery efforts. This calls for looking more attentively to how investment spending is prioritized, across and within sectors of any economy. Second, two fundamental issues have become central in the strive towards development and sustainability. One is the need to address climate change, to green the economies of richer and poorer countries alike, to get out of fossil energy sources, etc. The second issue is the unfortunate rise of inequalities and disparities in many countries. Clearly, economic policies and the path of public (investment) spending have produced economic growth in many countries, but the benefits have generally accrued more to the richer and middle-income segments of societies. This clearly calls for a fresh look at how public (investment) spending is allocated. Is it pro-poor enough? Does it address adequately the challenges related to climate change and sustainability? Third, public investment spending is implemented very inefficiently in many developing countries. The evidence is stark in this regard, suggesting that if improvements in PIM can be achieved, public resources spent on investment projects can yield much more than they have done so far.

The study is organized as follows. Chapter 2 takes a closer look at the issues outlined in the previous paragraph, elaborating on the rationale of this study. Chapter 3 will present theories and concepts on public investment in the development debate, and how these debates have evolved over time. It will also look at how development partners, including multilateral organizations and bilateral donor countries such as Germany, have dealt with the issue of public investment in international initiatives and development cooperation. Chapter 4 will analyze one of the prominent tools that is used to assess public investment, the IMF's Public Investment Management Assessment (PIMA) tool. For this study, the tool as such has been analyzed as well as publicly available PIMA country reports. Chapter 5 analyzes how German development cooperation has so far addressed PIM. With a particular focus on technical cooperation, it will be shown that there is a wealth of experiences gained through the implementation of technical assistance projects, implemented by GIZ on behalf of the German Ministry of Economic Cooperation and Development (BMZ) and other commissioning parties such as the EU. Chapter 6 will present conclusions and recommendations from the analysis of the preceding chapters for German development cooperation. The final chapter will go one step further and present possible approaches and technical assistance modules that could be used in technical cooperation projects of GIZ either on a stand-alone basis or as part of projects with a broader mandate, for example on macroeconomic policy advice, good financial governance projects or sectoral projects that are key for government investment spending.

2. Public Investment Management: Why it Matters

Interlinked crisis at the global and regional level are currently causing havoc to the world economy, reversing development progress, and risking the achievements of the SDGs by 2030. The world is currently challenged by multiple and interlinked global crises, ranging from the overarching, fundamental issue of climate change and the continued rise in socio-economic inequalities and disparities to the increase in violent conflicts and its associated numbers of refugee. In addition, over the past two years the COVID-19 pandemic has emerged as a new, worldwide crisis, with adverse impacts on the economies in many countries. On top of this, currently Russia's war on the Ukraine is causing turmoil on world markets especially in energy and food products, while exacerbating supply side disruptions in many other markets that were triggered during the Covid-19 pandemic, with widespread ramifications not only in Europe but adverse impacts on other parts of the world, while hitting poorer countries particularly hard through energy and food price increases. Inflation is back on the agenda in many countries, while poverty is rising again globally. Against this background, the UN notes that "years, or even decades, of development progress have been halted or reversed" and "the very viability of achieving the SDGs by 2030" is at risk (UN, 2022). This clearly calls for renewed focus on raising investment spending for the SDGs, including from the public sector, as well as better PIM.

The COVID-19 pandemic and other recent crises have had serious adverse impacts on fiscal balances, indebtedness, and shrinking fiscal space. During the COVID-19 pandemic, economic development slowed down or came to a halt, leading to revenue losses for governments. Moreover, short-term public sector emergency spending to counterbalance the adverse impact of the pandemic on the population and across sectors as well as higher spending on awareness and vaccination campaigns led to further increases in fiscal deficits. As the pandemic seems to be receding, big recovery spending packages are being initiated by governments, which however widen fiscal deficits even further and add to government indebtedness. More recently, food and energy prices are surging, putting pressure on governments to increase subsidies. Interest rates are rising in many countries against a background of increased inflation, making it more difficult and expensive to mobilize financing and putting further pressure on fiscal balances. While many developing countries were already accumulating too much (public) debt before the COVID-19 pandemic, indebtedness of governments has increased substantially to unsustainable levels over the past few years, with a tendency for further increases. All of this adds to fiscal imbalances, shrinks fiscal space, and reduces opportunities for proactive fiscal policies, including public investment. Increasing the efficiency of public investment spending through improved PIM therefore seems indispensable.

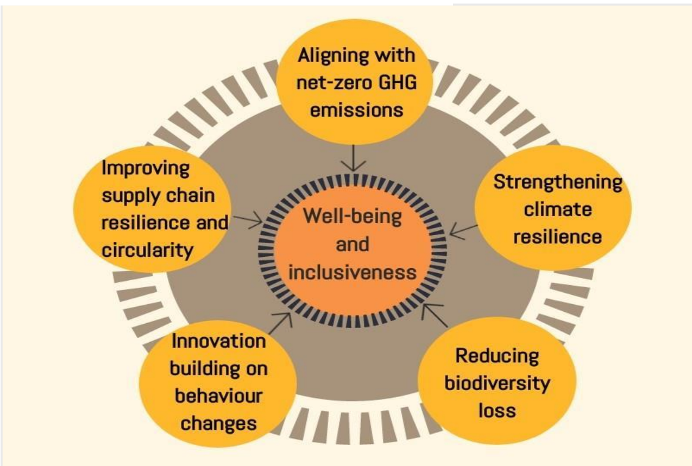
Strengthening public investment management can support just transition and green recovery to "build back better." With the right policies in place, this could be a chance for economies to become more resilient, inclusive, and greener (IMF, 2020). "Investment decisions made now will have an impact on the long-term competitiveness and resilience of societies and influence key environmental and social outcomes. Integrating investment decisions to meet immediate needs, such as in critical social infrastructure like healthcare, with other long-term goals such as the achievement of the SDGs and a decisive energy transition, can lay the groundwork for future gains and the ability to weather future crises" (OECD, 2020a). Regarding sectoral priorities for recovery, "build back better" provides for a chance streamlining climate change and protection of environment as decision factors for infrastructure and public investment (Figures 1 and 2). "An environmentally sustainable infrastructure push would support the Covid-19 recovery and boost global GDP" (IMF, 2021). According to the IMF (IMF, 2021), the impact of climate change can be mitigated by environmentally sustainable public investment; and quality infrastructure ensures resilient and long-term growth. The threat of climate change will keep getting bigger day by day, and one way to change course is investing and innovation in resilient infrastructure (World Bank, 2020).

Figure 1. Role of public investment for post-pandemic recovery

Phase	1. Great Lockdown	2. Partial Reopening	3. Post-Pandemic
Priority	Save lives and livelihoods	Safe reopening where possible	Transform to more inclusive, smart, and sustainable economies
Key fiscal policies	Lifelines for people and firms	Preserve lifelines; target support better; encourage workers to take new jobs	Depending on fiscal space, consider fiscal stimulus, repair balance sheets
Role of public investment	Continue projects where safe, start planning	Boost maintenance and job-rich projects; reassess priorities; prepare pipeline	Satisfy infrastructure needs and support progress toward the SDGs; increase resilience to crises
Preferable project characteristics	Maintenance	Maintenance; ready for implementation; small-size, job-intensive with large short-term multiplier	Large, transformational projects with large long-term multiplier
Public investment management actions	Review portfolio of planned and active projects	Review, reprioritize, restart feasible projects put on hold; plan for new priorities; prepare pipeline of appraised projects to be implemented within 24 months	Strengthen project planning, budgeting, and implementation practices to improve public investment efficiency
Priority sectors	Health	Health, including R&D in vaccine and therapeutics; water and sanitation; digital; safe buildings, schools and transportation	Health; climate change adaptation and mitigation; digital

Source: IMF (2020)

Figure 2. "Build Back Better" dimensions



Source: (OECD, 2020)

Planning environmentally sustainable infrastructure is a critical element in realization of global efforts, such as the Paris Agreement, to fight climate change (IMF, 2021). With the increasing climate change disasters happening in the recent years, and existence of a good economic case for post-Covid recovery, one would think that environmentally positive measures shall be very high on the public investment agenda of countries. However, unfortunately, that is not the case. According to OECD data, as of September 2021, only around 21% of economic recovery spending in OECD, EU, and Key Partner countries are allocated to environmentally positive measures. Moreover, the regular and ongoing annual support to the production of fossil fuels will offset any effort aimed at green recovery, or any environmentally positive measure. For example, the USD 677 billion budget for green recovery is a one-off budget which is to be spent over several years by countries; while in 2020 alone, USD 354 billion (which makes around 51% of green recovery budget) was given as fossil fuel production and consumption subsidy by G20 and emerging economies (OECD, 2021). Any return to "business as usual" will not only solve any problem; it will even be destructive in the long run. The "business as usual" way of our economic system drives environment degradation which could pose an even bigger threat to the global economy; therefore, there is a strong case for "build back better" which means doing more than just getting economies and livelihoods back on their feet (OECD, 2020). According to sample studies, it will be cheaper for the studied countries in net present value to invest in resilient infrastructure (ex-ante intervention) and avoid huge rebuilding costs after a disaster (Schwartz et al., 2020).

There is a huge need to address climate change and inequalities, including through higher public sector recurrent and investment spending. The urgency for governments to do more in addressing inequalities and poverty through higher spending on the one hand and to step-up public sector investment in this regard was already strong before the COVID-19 pandemic. The same is true for climate change, which requires higher spending on greening economies as well as reprioritizing spending, including investment spending, to better protect the climate and natural resources. This calls for a stronger emphasis on PIM and reorienting it based on becoming more pro-poor and environmentally sound, aiming at a just transition of economies through environmentally more sustainable and greener spending trajectories.

Public investment and its management should promote social inclusion and reduce inequality, with a strong focus on gender and children. With bringing "Leave no one behind" as one of the main principals of the SDGs and the Agenda 2030, the aim is to ensure that the poor and marginalized are not left behind, and the structural causes of discrimination are addressed. This is specifically important to address the socio-economic inequalities between different population groups which is not reflected in any economic health indicator. And yet, "the world is far from the goal of equal opportunity for all: circumstances beyond an individual's control, such as gender, race, ethnicity, migrant status and, for children, the socioeconomic status of their parents, continue to affect one's chances of succeeding in life (United Nations, 2020)."

The impact of public investments, especially regarding infrastructure investments, on different population groups and the income distribution deserves more attention in public investment management. Even though it is vital information and has potential importance in designing infrastructure policy, "there is lack of systematic information on how access to infrastructure varies across the income distribution" (Fay & Straub, 2017). Benefiting the poor and eliminating the existing inequalities should be taken into consideration in the design of every public investment and infrastructure project. In no way, public investment and infrastructure projects should deteriorate the economic situation of the poor and marginalised, deprive them of access to infrastructure, and, finally, make them worse off. According to (Bajar & Rajeev, 2015), at regional level in India, especially in lower income states, some components of infrastructure like energy and roads have not only reduced inequality but have even exacerbated it. Another very famous example can be the relocation of 640 households, or 2700 people, almost of all whom were an ethnic minority, by the Government of Laos to build the Houay Ho dam; because of the relocation, they have been facing severe crisis of food insecurity, and a shortage of land to grow food (Delang & Toro, 2011). Although the context of every country and the existing inequality might be different, according to (United Nations, 2020), "discrimination remains a pervasive driver of inequality", and the following three building blocks are suggested to reduce inequality.

Figure 3. Three building blocks to reduce inequality

Source: (United Nations, 2020)

Gender inequality remains pervasive and needs to be addressed much more coherently and intensively in public investment management. The most pervasive form of inequality relates to gender. Thus, investing in gender-sensitive infrastructure is an important aspect of empowering women and contributing to economic growth. "Evidence suggests that gender-sensitive infrastructure can promote more equitable access to social, economic and political opportunities, reduce poverty, increase women's empowerment and participation, and catalyse social inclusion" (Menon, 2019). Moreover, women are negatively affected by the effects of poorly planned infrastructure compared to men. They bear the heaviest burden of poor infrastructure due to gender inequalities in household maintenance and caretaking responsibilities (World Bank, 2010). Very often, the needs of the majority (women, girls, and vulnerable groups) of the society are not reflected in the design of infrastructure projects which in return reinforces their marginalization (Menon, 2019). For instance, in some Sahel countries it is mostly (young) women who spend several hours a day fetching water. Women are also more dependent on basic health facilities. To provide equal opportunities for women, and help them exercise their right, utmost effort shall be made to avoid developing gender-blind infrastructure. Moreover, each stage of an infrastructure project should ensure safety and fair access for each group of society including women, elderly, children, lesbian, gay, transgender, queer, and intersex, people living with disabilities, and other socially excluded groups (Menon, 2019).

Finally, the adverse impacts of the COVID-19 pandemic and other crises have exacerbated previously existing structural and perennial weaknesses in fiscal policies. These include low levels of revenues, weak tax administrations, inadequacies in public service delivery, including in social expenditure programmes that do not sufficiently focus on needy population groups, wasteful subsidies, inadequate financial control mechanisms, procurement, and ineffective public investment management. In many countries of the developing world, the pandemic has exposed weaknesses in fiscal management, while putting pressure on governments to increase recurrent and investment spending for the reasons outlined above. Therefore, there remains a strong rationale to address perennial fiscal policy weaknesses, one of them being PIM, including by making more use of tools such as the IMF's Public Investment Management Assessment (PIMA) and bilateral development assistance.

3. Public Investment and its Management: Concepts, Approaches, Sectoral Perspectives

To set the stage for the subsequent analyses and conclusions, this chapter first provides an account of how the roles and perceptions of public investment and its management in developing countries and emerging economies have evolved over time. The following sections of this chapter discuss the roles of the public and private sector in the implementation of investment projects, multilateral and bilateral donor initiatives on investment and, finally, different sectoral perspectives on public investment.

3.1 Public Investment in Development Theory and Practice

Public investment is a driver of economic growth. Early development theories assumed that the capital stock of an economy is the key determinant for growth. In practice, donor assistance from the 1950s to the 1970s concentrated on support to individual investment projects, funded through foreign direct investment (World Bank, 2020). Evidence suggests that success of this strategy was mixed at best (de Mello, 1999). Although several economically critical investment projects were successfully concluded, anecdotal evidence refers to failed and over-dimensioned investment projects ("white elephants") that were of little to no use to society. However, other projects were of significant contribution to economic development. While the focus of development practice shifting towards social development and pro-poor growth in the 1980s and 1990s, development strategies emphasizing public investment regained more attention in the late 1990s, notably in parallel with China's strategy of state- and investment-led growth.

There is a strong link between public investment and infrastructure, but they are not the same. Although the study targets public investment and its management, the major result of public investment is public infrastructure. The study will therefore refer to both concepts. Public infrastructure assets can be categorized in social and economic infrastructure. The categorization is best done on a project-by-project basis, with a view on the concrete use of the infrastructure – not least due to a tendency of commercialising or privatizing social infrastructure. However, affiliation to a sector can be a first indication: the main function of social infrastructure is to provide public services in social sectors (notably health and education), whereas economic infrastructure produces marketable goods and services (transport, electricity). However, such clear separation does not apply equally well to all sectors. For example, water is a mixed good – access to potable water is a basic need or human right (see below), while water is also used for commercial services. As a result, water infrastructure is difficult to categorize, which has implications in various ways, including possible financing sources of water infrastructure projects.

Public investment is now having a renaissance as a key driver of development, and it is key to fighting crises. Across the academic discourse there is broad consensus that public investment is a key determinant of economic growth. The stock of relevant theoretical and empirical studies that have highlighted the positive correlation between public investment and economic growth is vast and steadily growing.[2] The main argument is that public infrastructure is a production factor that determines the path of future economic growth. Equally, public investment is essential for social development because it determines the basic standards of living. The endowment of an economy with health facilities and education institutions, for example, are key determinants for the levels of health care and schooling which citizens can expect, and the public provision of care services for the elderly, children and vulnerable groups is linked, albeit weaker, with the existence of public facilities.

Delivery of public services for basic needs is generally seen as an obligation for governments. With the aim of balancing economic and social dimensions of development, the United Nations (UN) adopted in 1966 the International Covenant on Economic, Social, and Cultural Rights (ICESCR) which complements

[2] See for example: Aschauer (1989); Buffie et.al. (2012); Calderón & Servén (2004); Dev Bhatta (2003); Easterly and Rebelo (1993); Ghazanchyan and Stotsky (2013); IMF (2015)

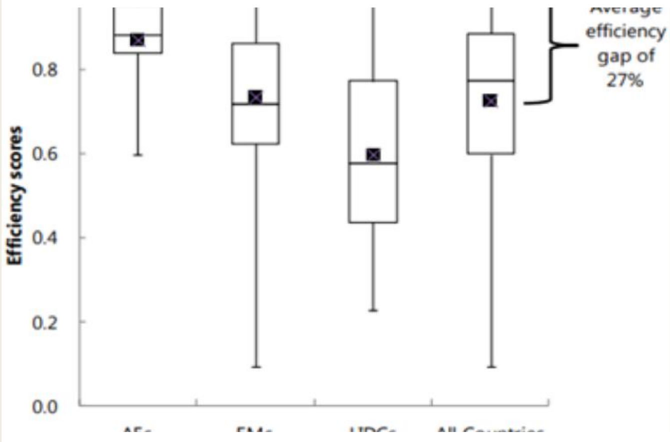
the Universal Bill of Human Rights. With the ICESCR, governments have accepted the obligation to pursue minimum living conditions, including access to free (primary) education and health services. Furthermore, in 2010, access to water was recognized as a human right by the UN General Assembly (United Nations , 2010). Also, at a more general level the obligation to strive for decent living conditions implies an obligation for public investment.

Public investment management efficiency also matters for economic growth. A recurring feature of this study is the focus on the efficiency of public investment spending. Conceptually, one needs to differentiate between the efficiency of individual public investment projects on the one hand, and the efficiency of the overall PIM management and spending. According to the IMF (2014), countries with more efficient public investment management frameworks can expect higher economic growth effects from their investments. Countries with the most efficient public investments experience twice the growth effect of the least efficient (IMF, 2014). This is also sustained by the fact that the growth rate of economic output per capita has been lower than the growth rate of accumulated public capital stock. According to the IMF (IMF 2015), inefficiencies in PIM are believed to lead to losses of around one third of potential gains on a world average, with substantially lower efficiency in low income and emerging economies. These findings underline the need to invest in increasing the efficiency in public investments as important prerequisite to increase growth potentials ("invest in investment"). This overall efficiency of PIM includes the efficiency of allocation.

More efficient PIM is needed to achieve the SDGs. Weak PIM hampers the implementation and achievement of the sustainable development goals (SDGs). As investment resources are scarce, their efficient allocation through sound overall PFM and, more narrowly, PIM are key for the successful implementation of development plans and the achievement of development objectives. Sound PIM policies ensure that budgets are planned, allocated and implemented in an effective manner, thereby increasing the chances of success for individual projects to achieve long-term visions and targets. Since the adoption of the SDGs in 2015, developing countries, and in fact all other signatory countries, have committed themselves to strengthen institutional foundations to achieve their SDGs, national development visions and specific targets by 2030 (JICA, 2015).

The IMF has developed a tool to gauge the different dimensions of investment efficiency. To visualize perceptions and dimensions of investment efficiency, the IMF has developed a public investment efficiency index. The hybrid indicator combines data of the coverage of infrastructure networks and physical output of public investments with a survey indicator. The results on country level for different income levels are presented below. The survey indicator is based on data from World Economic Forum's business leaders' impressions of the quality of key infrastructure services. Although the indicator is not based on precise scientific measurement, it provides an intuitive approach to perceived efficiency.

Figure 4. Public Investment Efficiency Index (PIE-X) (Hybrid indicator)

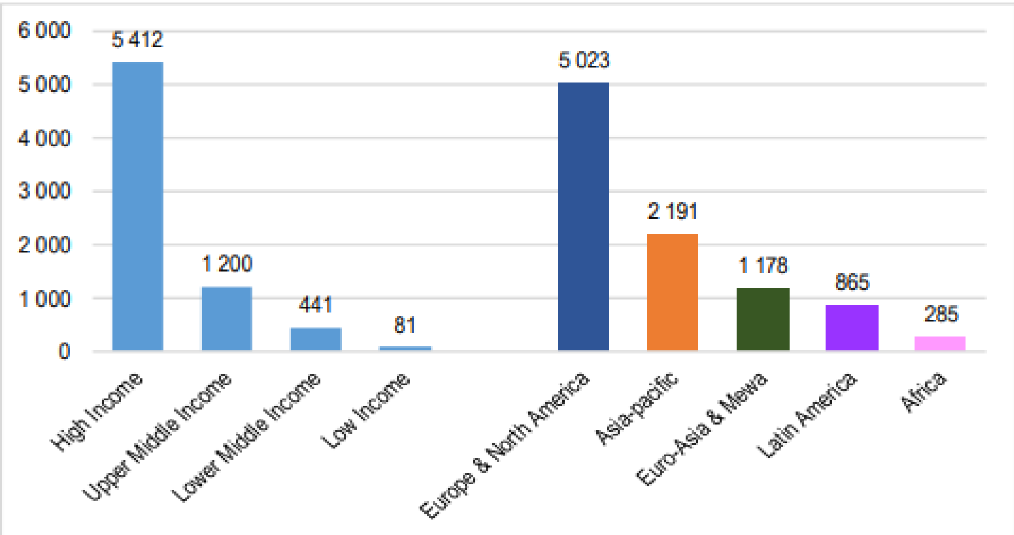


Source: IMF (2015)

Public investment impacts income distribution and poverty, thus exacerbating or alleviating disparities. Public investment should benefit the society. This implies that public investment should have a positive effect on income distribution: higher income percentiles should contribute more to financing while benefits should be distributed evenly. However, the relationship between income distribution and public investment is basically determined by the question of who pays and who benefits from public investment. On the financing side, the distributional impact depends on the incidence of the general tax system as well as the levels of tax and debt financing. Major public investment projects are usually funded to a substantial percentage through public loans, guaranteed and paid for by the government from general tax and nontax revenue. On the beneficiary side, distributional effects are usually better for investment in basic services. Based on numerous studies on the distributional effects in health and education sectors, it is very likely that the more specialized the services achieved through public investment are, the less positive are effects on redistributive effects and poverty impact.

Public investment on subnational government levels is generally small, while being overlooked as an issue. Even though decentralisation reforms in many countries started decades ago, most developing countries are still constituted as unitary states, with a strong role for central government in decision making even for subnational levels (see Figure 2). This is particularly true for planning, budgeting, and public expenditure management: spending powers of subnational authorities are typically very limited. From a macro-economic perspective, the share of subnational public investment in GDP remains low in many countries. Subnational public investment is only 1.3% of GDP around the world. It is even less in low-income countries. In 2016, in Africa it is 0.9% of GDP on average, comparatively higher in Latin America and twice as high in Asia Pacific (OECD, 2019). The size of an individual local investment project is also usually small. However, despite the comparatively limited volume of subnational public investments, local investments often play a crucial role for service delivery in partner countries and, therefore, have a strong and direct influence on the well-being of citizens.

Figure 5. Subnational governments by income groups and geographical areas in USD PPP per capita, 2016



Source: Authors' calculations based on SNG-WOFI database. www.sng-wofi.org

Public investment in a fragile context brings specific challenges. Examples are few resources, low institutional and policy-making capacity and implementation weakness.

3.2 The Roles of the Public and Private Sectors in Public Investment

The role and importance of the private sector in public investment management has changed over time. Traditionally, public investment projects have been planned, owned, and managed by public institutions, while the private sector has often provided the financing und has been contracted during the construction phase. Over the past 20-30 years, this traditional model has changed substantially, with the private sector having taken over bigger and different roles. Governments have often not been able any longer to mobilize themselves the necessary funds for the implementation phase of public investment projects, satisfying an increasing and structurally changing demand for public services, and delivering a growing diversity of public infrastructure that demands more complex management.

For some parts of the private sector, including the financial industry, public investment is of particular importance. On the supply side, financial sector institutions and other private sector businesses, most notably, construction companies and sectoral service providers, have developed an increased interest in the lucrative and relatively safe business of funding and managing public infrastructure. Against a growing diversity of infrastructure needs and funding options, several models for interaction between the private and public sector have emerged from the basic model of public private partnerships (PPPs) (World Bank, 2020).

The growing participation of the private sector in public investment comes with advantages and disadvantages. Among the advantages of engaging the private sector in public investment are the ability to raise additional capital from the private sector for investment as well as higher agility and competencies in solving complex issues. All of this would lead to a more efficient and timelier implementation of investment projects. By contrast, decision making in public sector is designed to support the public interest; a common argument is decision making is better thorough and inclusive than fast.

Experience has shown that it is difficult to strike a good balance in the distribution of risks when the private sector gets involved in public investment creation and management. Private funding is often bound to public guarantee of risk, and risk management in public institutions is not rife. PPP have led to user cost increases, lower or less stable quality, and regulatory burdens. Another argument is that not all sectors attract the same interest as can be seen clearly in the water and sanitation sector where cost coverage is unachievable for political reasons. The same can be argued for poor countries with unfavourable business frameworks.

Against the background of climate change, growing inequalities as well as the COVID-19 pandemic and other crises, a new equilibrium between public and private investments has to be found. In a post-pandemic scenario, it is safe to assume that governments face additional fiscal constraints. Hence, governments will increasingly turn towards private sector investment for realizing public infrastructure development. According to a report issued by the World Bank's Public Private Partnership Group, private investment commitments in all regions except for South Asia and the MENA region already display signs of recovery and some have almost reached pre-pandemic levels. The study indicated a 68% increase in investment commitments from the first half of 2021. Nonetheless, uncertainty caused by the unclear macroeconomic outlook remains high, especially in developing countries, which shifts investments in the infrastructure towards traditionally "safer" markets (World Bank, 2021). In this scenario, private sector involvement in public infrastructure, ceteris paribus, will increase the risks and costs of realizing investment projects for governments of developing and emerging countries.

3.3 Development Partner Approaches to PIM

The debates and changing perceptions on public investment and its management have been reflected both in implementation and at the level of knowledge development and sharing in major multilateral institutions, most notably the IMF, the World Bank, and OECD. Over the years, they have developed and promoted the use of a variety of analytical instruments and approaches to assess public investment management. These are presented as follows.

IMF – Public Investment Management Assessment (PIMA). The starting point of IMF's PIMA is that voluminous public investments can be critical for macroeconomic stability of an economy. A competent and efficient public investment management led by Ministry of Finance can, therefore, contribute to macroeconomic stability and growth. The PIMA provides for an analytic tool to assess the PIM as part of the budget process, which will be analysed in detail in chapter 4.

World Bank – Public Investment Handbook. As result of their long-standing experiences on infrastructure finance, the World Bank has degenerated numerous studies, policy briefs and reference guides for infrastructure finance. Recently, the combined knowledge was compiled as World Bank's

Public Investment Handbook. The handbook serves as a practical guideline for how to realize and support public investment projects. A particular view lies on the promotion of public private partnerships in public infrastructure. Furthermore, the World Bank has initiated a Community of Practice of PIM practitioners (PIM CoP) – an online collaboration platform that promotes exchange and learning from the Bank's knowledge in strengthening PIM frameworks.

OECD – Effective Public Investment Toolkit. In 2014, the OECD Regional Development Policy Committee endorsed the Recommendation on "Effective Public Investment Across Levels of Government". The principles for action gathered 10 concrete recommendations to tackle systemic challenges to public investment. By 2018, the Recommendation has been implemented by all OECD countries (36) and 3 non-OECD countries (Brazil, Colombia, and Morocco). The information has been consolidated and published as the online resource Effective Public Investment Toolkit (EPIT) (OECD, 2019). EPIT is particularly interesting for this study because it understands public investment as a comprehensive multi-stakeholder process and takes a closer look into the process quality. This approach is complementary to IMF's PIMA regarding the quality of budgetary outcomes and the World Bank's Public Investment Handbook regarding the quality of individual investment projects. Figure 3 presents an overview of the main recommendations of the OECD's toolkit. The EPIT recommendations focus on the quality of the decision-making process, promoting a strategic, coordinated, inclusive, transparent, and informed decision. The main complementarities to the IMF's PIMA and the World Bank's Public Investment Handbook are the recommendations to partner countries on the usefulness of (i) having a long-term strategy for infrastructure, (ii) applying a whole-of-government approach within government, and (iii) co-ordinating infrastructure policies across levels of government.

Figure 6. Recommendations by the OECD's EPIT

Source: OECD (2020)

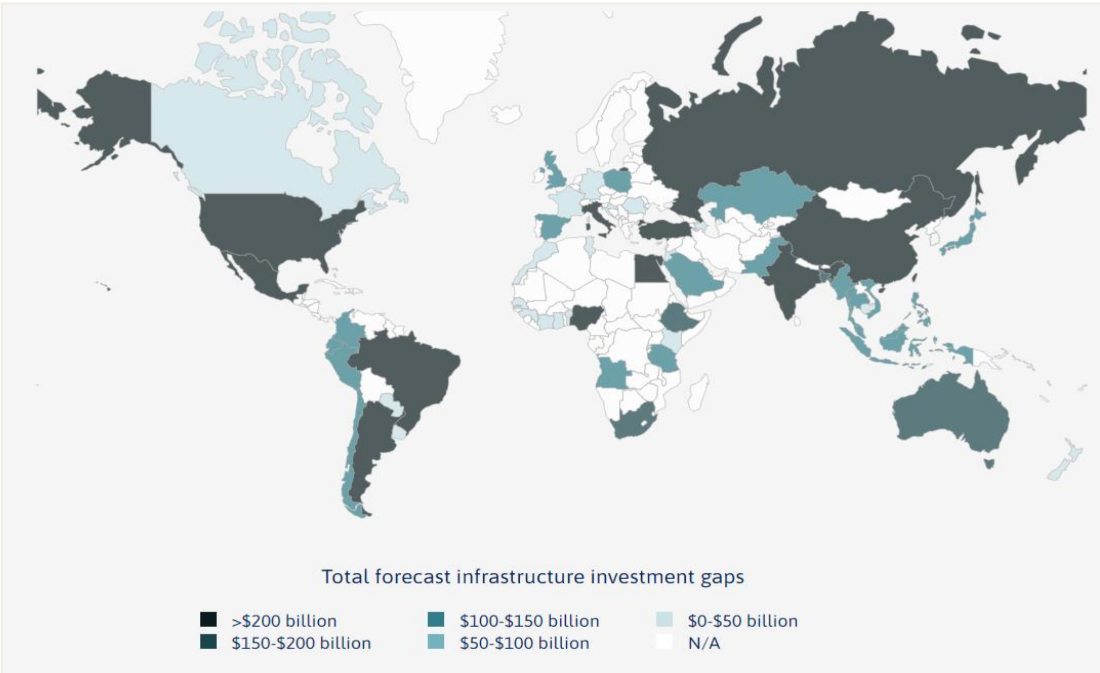
G7 and G20 Initiatives to boost investment

In **practice**, development partners have started several initiatives related to public investment. Major international initiatives and a few selected bilateral donor approaches, with particular focus on Germany, are presented as follows.

The G20 has repeatedly taken initiatives on promoting public investment and its management. The G20 understands itself as driver of global investment, and has thus placed the topic of public investment, often with a focus on specific sectors and mobilizing private capital to finance it, high on their agenda. For example, one of the major outcomes of Australia's G20 Presidency in 2014 was the initiation of the "Global Infrastructure Hub" (GI Hub), a non-profit organisation based in Brisbane (G20, 2014). The GI Hub was tasked by the G20 with publishing data on investment needs in the areas of energy, transport, telecommunication, and water. The starting point was the observation that developing countries are increasingly facing the need to renovate public infrastructure facilities built in the 1950–1970s. At the same time, developed economies have been experiencing a continuous decline in the public investment-GDP ratio since the 1980s, which has generated concerns on the sustainability of economic growth (JICA, 2018).

The GI Hub defined the global infrastructure or investment gap. To create awareness for public investment needs, GI Hub defined the "global infrastructure or investment gap". It was defined as the difference between investment need and the resources available to address that need in a form of "self-assessment" of participating countries. GI Hub noted that the investment gap be most acute in the provision of power, water, and roads but the double crisis of climate change and the corona pandemic might shift this impression to other needs. The gap has been estimated based on this self-assessment approach to reach USD 15 trillion by 2040. Two main factors explain this figure. Developing countries face challenges to mobilise resources for infrastructure funding, including rehabilitation and renovation as well as new investment needed to achieve the SDGs. In developed countries, the above-mentioned decline in public investment contributes significantly to the global infrastructure gap. This figure is expected to be even higher, if sustainable infrastructure needs are adequately and more comprehensively considered (IMF, 2015).

Figure 7. Infrastructure Investment Gap per region



Source: (Global Infrastructure Hub, 2021)

As one of the standing working groups under G20, the Infrastructure Working Group (IWG) informs Ministerial segments and the Summit. The IWG "advises on policies to improve preparation, financing, and management of quality infrastructure investments to secure the provision of inclusive, sustainable, and resilient basic infrastructure services to all. The Group aims to tackle the persistent gap in infrastructure investment, also by promoting them as an asset class as to stimulate private sector involvement" (G20, 2021).

Additional initiatives at the global level include the Global Infrastructure Facility (GIF). The GIF is a global collaboration platform that integrates efforts to boost private investment in sustainable, quality infrastructure projects in developing countries and emerging markets. It provides funding and advisory services to governments and multilateral development banks on how to select, design, structure, and bring to market sustainable, quality bankable infrastructure projects (GIF, 2021).

The G7 recently announced a huge investment initiative to support developing countries. At Elmau, Germany the G7 in June 2022 committed itself to a major US$ 600 billion investment initiative for the next five years in support of developing countries. Focusing on large infrastructure investments, this initiative will clearly stretch developing country capacities to prepare and implement such investment projects. The initiative can be interpreted as an answer to the growing influence of China in developing countries,[3] among other considerations such as the clear demonstration of G7 countries to act jointly and forcefully to strengthen democracy in partner countries and as a strong signal against Russia's war on Ukraine. The investment initiative will be financed through a mix of private capital, loans, and public funds. The initiative was already launched at the previous G7 summit in Cornwall, but the summit in Elmau now resulted in concrete financial commitments of individual G7 countries and the EU.

Germany

In 2017, the German Presidency launched the "Compact with Africa (CwA)" with a particular focus on increasing the interest of the German private sector in investments in partner countries. The CwA was established as an initiative to boost investment and employment, specifically on the African continent. The CwA aims at improving the macro, business, and financing framework to increase attractiveness of private investment. The idea is to promote private sector-led development and improve the investment environment. Since its launch in 2017, twelve African countries have joined the initiative: Benin, Burkina Faso, Côte d'Ivoire, Egypt, Ethiopia, Ghana, Guinea, Morocco, Rwanda, Senegal, Togo, and Tunisia. CwA partner countries receive support by IOs in formulating prospectuses for investors.[4]

The European Union

As a key player in international development, the European Union (EU) has undertaken various initiatives and specific support programmes for partner countries to boost public and private investment, often with a particular focus on Africa. In addition to the EU's commitment at the recent G7 summit at Elmau (see above), the EU has in the past started various initiatives to boost investments in developing countries. For example, in September 2018 the EU launched the "New Africa-Europe Alliance for Sustainable investment and Jobs" (EU, 2018). In 2017, the EU launched the European External Investment Plan (EIP) against the background of surging migration, with the aim of addressing the root causes of migration, while creating decent jobs and fostering sustainable and inclusive growth in partner countries. This plan focused on countries neighbouring EU and in Africa, seeking to mobilise investment by providing leveraging financial support and guarantees. With EU resources of 3.6 bn €, so far 54 bn € in investment have been created.[5]

The EU has also promoted blended financing for investment projects. Building on the EU's experience with blended finance, notably in its internal regional blending facilities, the EIP intends to use aid in a 'smarter' and more strategic way to spur sustainable private investments in partner countries by providing a new guarantee mechanism, tailored technical assistance and dedicated action to promote the investment climate. Perhaps even more importantly, the EU aims to do so by taking a comprehensive and integrated approach, combining financial and non-financial support to address current shortcomings and increase overall effectiveness and coherence of the EU support (Große-Puppendahl & San Bilal 2018).

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[3] Especially through China's Belt and Road Initiative, see: https://www.idos-research.de/uploads/media/Belt_and_Road_V1.pdf
[4] See: Compact with Africa; https://www.compactwithafrica.org/content/compactwithafrica/home/about.html
[5] See: https://ec.europa.eu/eu-external-investment-plan/home_en

The EU established the Global Gateway Initiative as an investment initiative in 2020. In 2020, the EC and the EU High Representative have set out the Global Gateway, a new European strategy to boost smart, clean, and secure links in digital, energy and transport sectors and to strengthen health, education, and research systems across the world. More generally, the EU is stepping up its offer to its partners with major investments in infrastructure development around the world, including most recently with its New Green Deal and associated initiatives. Between 2021 and 2027, Team Europe, i.e., the EU institutions and EU Member States jointly, have committed to mobilising up to EUR 300 billion of investments in digital sector, climate and energy, transport, health, education, and research. The initiative seeks to combine investment instruments of European institutions (EU, EIB, EBRD) and EU Member States. [6]

The Global Gateway initiative can be interpreted as a reaction to China's Belt and Road initiative (BRI). Beyond the regionally focused EIP, the Global Gateway is the EU's first major plan for global infrastructure development. Although the funds mobilised by EU stay well below the volume of China's financial support, the EU's main selling point is investment quality. Its "world-leading industry, private sector knowledge and investment capacity" is sold as an "attractive alternative for partner countries." From the outset, the narrative is focused on countering Chinese finance, which has been criticized for saddling governments with unsustainable debt, attempting to differentiate the EU as "forging links" rather than "creating dependencies."

The Role of Multilateral, Regional and Bilateral Development Banks

Multilateral and bilateral development finance institutions play a major role in funding public investments in developing countries. Supporting governments in funding public investment projects in developing and emerging countries is a core business of development banks. This applies to international financial institutions (IfIs) like the World Bank Group, the European Investment Bank (EIB) or regional development banks (e.g., African Development Bank, Asian Development Bank, Inter-American Development Bank). Initiated by China, the Asian Infrastructure Investment Bank (AIIB) has been dedicated exclusively to infrastructure finance. Among the bilateral development banks, major institutions are the Japan Bank for International Cooperation and Germany's Kreditanstalt für Wiederaufbau (KfW).

The role of development banks in public investment is to identify investment projects that are feasible and mobilize funding. Feasibility has several aspects; these include the technical feasibility, economic viability, and environmental sustainability, as well as legal compliance and social compatibility. Regarding funding, development banks usually have access to public funds and public guarantees that they can use for raising additional funds from capital markets. Financing public investment projects by development banks is, therefore, usually a mix of public and private funds based on the client-government's collateral. As public institutions, they can provide financing models with interest and risk balances attractive for LICs and MICs.

KfW is the key institution for Financial Cooperation as part of German Development Cooperation. Within the German Development Cooperation (GDC), KfW finances infrastructure projects in partner countries (Financial Cooperation, FC). This is defined as supporting investment in partner countries in areas relevant for Official Development Assistance (ODA) by mobilizing funds and supplementary measures, including a variety of specific financing instruments (e.g., loans, fiduciary participations and quasi-equity loans, financial contributions to capital funds, and programme-based lending).[7] Often, FC activities by KfW either include technical assistance or they are planned and implemented alongside technical assistance provided by GIZ. Because the focus of this study is on technical assistance on PIM provided

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[6] See: https://ec.europa.eu/info/strategy/priorities-2019-2024/stronger-europe-world/global-gateway_en

[7] See: BMZ (2021): Leitlinien der Bundesregierung für die bilaterale Finanzielle und Technische Zusammenarbeit mit Kooperationspartnern der deutschen Entwicklungszusammenarbeit. S. 9

by GIZ, FC activities are not analysed but considered whenever appropriate in the context of country-specific GDC.

3.4 Sector Perspectives on Public Investment

Health sector perspectives on public investment are particularly complex. On the one hand, core products of the health sector are typical public goods (e.g., population immunity against specific diseases). In addition, however, the sector also delivers private goods, when it comes to highly specific health services. On the other hand, in recent decades, the service delivery model has evolved in many countries, allowing for more private sector participation, while reserving a regulatory, managerial, and funding role for government. With this shift, investment in health sector is increasingly considered private investments in public services. But notwithstanding the sector management model, international assessments reveal challenges in infrastructure and service provision.

The challenges related to public investment in the health sector have been discussed exhaustively in the so-called Lancet Report.[8] At the core of the report is the finding that providing health services without guaranteeing a minimum level of quality is ineffective, wasteful, and unethical. Of the four core financing functions (revenue mobilisation, pooling, purchasing, and benefit design), purchasing—or the allocation of funds to providers—has the greatest direct influence on quality of care. The report calculated that in 91 LMICs, amenable deaths due to insufficient quality of care equal a projected cumulative loss of US$11.2 trillion from 2015 to 2030. This economic output loss was greatest in low-income countries, estimated at 2.6% of GDP compared with 0.9% GDP in upper-middle-income countries (Kruk, et al., 2018). Financing is often concentrated in countries' capitals and major cities, where the competition between private and public suppliers of health services results in a relatively better provision of health services. By contrast, the delivery of health care services in remote and rural areas is often lacking.

The water and sanitation sector entails particular challenges to public investment. Regarding the water sector, challenges are comparable to the health sector. Potable water is a basic need and access to water is a human right. Although water does not meet the economic criteria for a public good as its use can be privatized by excluding users from the consumption, the provision of water and sanitation are core public services. Water supply depends heavily on public investments which include, for example, dams, treatment plants and transmission pipes. Since water quality can raise the quality of live substantially, OECD notes that there is substantial underinvestment in the sector, hampering prospects of achieving the SDGs (OECD, 2018). Among the reasons, OECD refers to the nature of the product – water often under-priced, mainly for social reasons – the nature of the investment – water transmission creates high sunk cost – and the nature of the projects – small projects, highly context specific. In addition, water and sanitation services are often under municipal responsibility, therefore, local investment rules apply.

While the privatization of water and sanitation has not yielded satisfactory results, public investment in the sector remains inadequate with serious adverse impact on development opportunities. In recent decades, the private sector has taken a stronger role, especially in the production of potable water and in the treatment of water. This trend was supported by World Bank strategies that advocated privatisation.[9] However, experiences in developing countries, including in Uganda, Tanzania, Chile, and Bolivia, shows that privatisation in the water and sanitation sector has often not worked satisfactorily. The state thus remains largely responsible for the provision of potable water, while the maintenance of pipelines is regarded as a natural monopoly. This is often done so by centralised approaches with few major producing entities, which however remains riddled with transportation and leakage problems. In

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[8] See: https://www.thelancet.com/pdfs/journals/langlo/PIIS2214-109X(18)30386-3.pdf

[9] See, for example, Degol Hailu, Rafael Guerreiro Osorio and Raquel Tsukad (2012): What went wrong in Bolivia's water sector? in: World Development vol 40, issue 12, December 2012, Pages 2564-2577

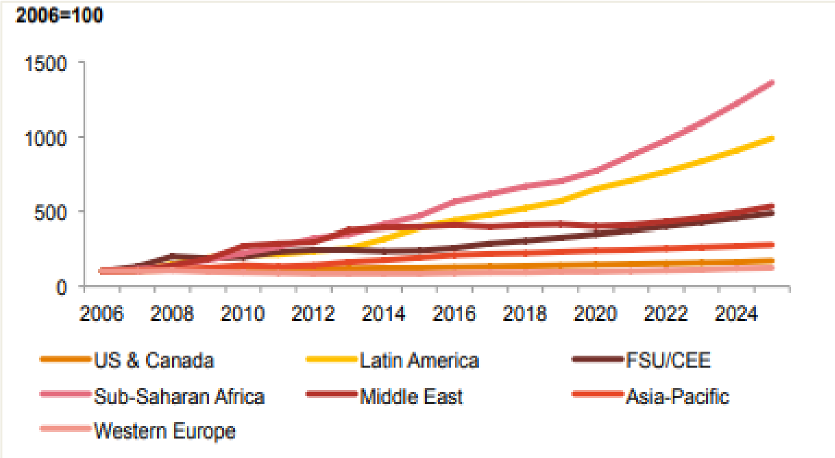
addition, low water prices have considerable negative consequences for cost recovery and financial sustainability of providers, thus reducing attractiveness for private investors. Financing gaps for further investments thus have far-reaching adverse consequences for the economy and poorer sections of the population as regards the provision with water. Experts on the water and sanitation sector observe that poor PIM in the sector, including inadequate financing for new investment projects and poor management of existing infrastructure, are causing considerable long-term investment backlogs. This in turn has severe adverse effects on development opportunities. For example, the formerly industrial city of Bulawayo in Zimbabwe has experienced a massive withdrawal of industry due to water scarcity and is now severely impoverished.

In the transport sector, public investment in infrastructure is crucial, while transport services are often organized privately, except for public transport in cities and in the railway sector. Unlike the health and water sectors, the provision of transport services is largely organized privately, and it is very important for the economy. The transport sector produces services that are inputs for many other sectors of an economy. Therefore, it carries a high relevance for the economy, and efficient transportation systems come with numerous social and economic benefits. For example, it can boost an economy by increasing mobility of factors of production, lead to agricultural and rural development, and stimulate economies of scale. Most transport operations in developing countries and emerging markets are private, with the notable exception of local transport.

Although it is used by private actors, the sector is heavily dependent on infrastructure such as roads. Investments in roads are considered to bring the highest economic return. However, against the background of climate change and emissions from cars, lorries, and buses, ecological considerations increasingly play a role in strategic considerations and public investment planning in the transport sector. Specifically in the case of public transport, many cities fail to meet transportation needs of increasing urbanization rates. Lack of maintenance and inefficiencies in the transport systems lead to long traveling times, security issues, and high emissions. Ineffective public transportation systems might disincentivize its use as people (who can afford it) seek for faster alternatives such as private car use, which comes with higher environmental costs and hampers sustainability.

Improving the transport sector considering economic, social, and environmental concerns requires large public investment at all levels of government. Many countries still experience large deficits when it comes to financing economically efficient, socially-oriented and climate-friendly transport systems. Therefore, establishing a rigorous financing framework to finance infrastructure needs remains a critical aspect for governments and policymakers. With a growing population, increasing urbanization rates and long-term infrastructure gaps, investment in this sector is not expected to decrease. According to a study by PWC, which assessed the lobal market for transport infrastructure until 2025, transport infrastructure investments are expected to increase at an average annual rate of 5% worldwide over the period of 2014 to 2025. Of all the regions, Sub-Saharan Africa is the region experiencing the fastest growing transport spending, with an estimated average increase of over 11% per year from 2015 to 2025. Most of the growth is expected in roads and ports (pwc, 2015).

Figure 8. Growth in Worldwide Infrastructure Spending to 2025

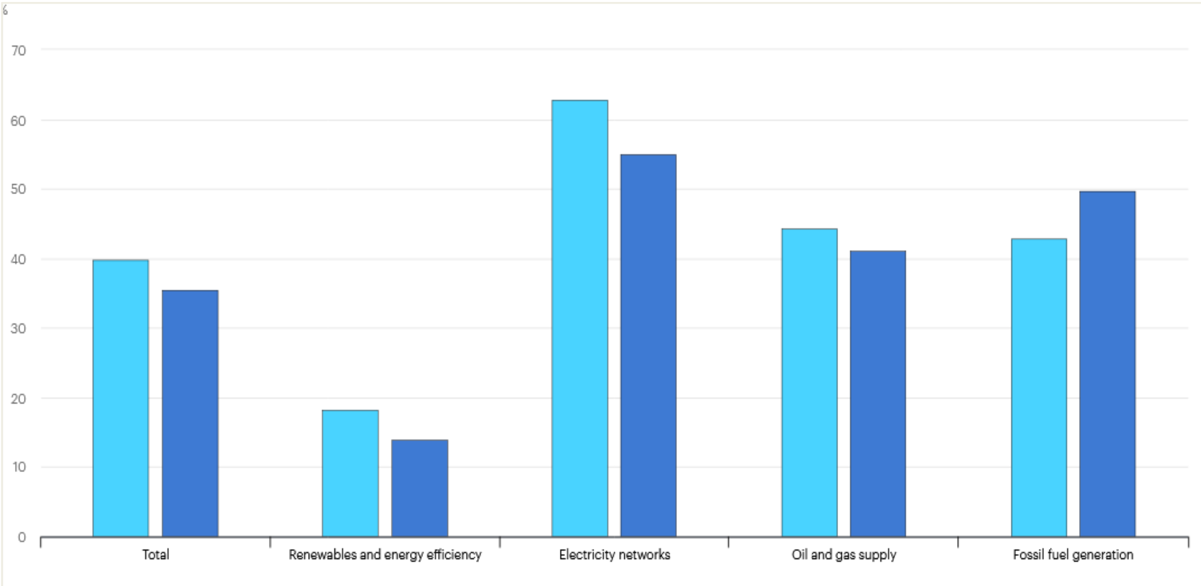


Source: (pwc, 2015)

Recurrent spending on public transport infrastructure and services depends on general taxes, user fees and other forms of financing. Operating and maintaining public transport infrastructure requires primary tax and nontax revenue sources (i.e., general tax revenue, transport infrastructure users' fees, vehicle registration and driver licence fees) as well as intra-government transfers. In this context, the growing participation of the private sector through PPPs in this context constitutes a mixture of public and private financing and meeting recurrent costs. However, considering that public entities still are, and will likely remain, the major players in the financing, development, and delivery and maintenance of transport infrastructure services in developing countries and emerging markets, an effective PIM framework should also pay attention to the operations and maintenance of any system, its recurrent cost implications and how those will be financed.

The energy sector remains heavily state-driven and is of key relevance for public finances. In the energy sector the provision of infrastructure is mainly in the hands of private companies working under state regulation in form of local franchise monopolies. While the share of government and state-owned enterprise (SOE) ownership in global energy investment declined to 36% in 2019, governments and SOEs remain hugely important for energy sector investments and the provision of energy services, especially regarding electricity and fossil fuels (Figure 9). In many cases private companies rely in their operations on contractual arrangements with the government, for instance through licences with a strong mandate or even with the condition to ensure energy security and affordability or to support employment, which they tend to fulfil with limited success. Especially remote areas in developing countries suffer from being cut from electricity networks or from irregular provision of power.

Figure 9. Share of government ownership (dark blue)/private ownership (light blue) in global energy investment (in percent)



Source: (iea, 2020)

4. The IMF's Public Investment Management Assessment (PIMA)

This study analyses the IMF's PIMA tool analytically, regarding its usefulness as a diagnostic tool for low- and middle-income countries, and regarding German technical cooperation projects on good financial governance. As a first step, the analytical framework of PIM is presented and critically analysed. The assessment relates to the consistency of the PIMA Tool for analysis of existing PIM systems, the relevance of PIMA for concept development for reform processes of PIM in low-income countries (LICs) and middle-income countries (MICs), and the usefulness for guiding reform processes in these countries, particularly considering partner countries of German Development Cooperation (GDC).

The IMF developed the Public Investment Management Assessment (PIMA) as part of its advisory and capacity development support to strengthen fiscal policy for macroeconomic stability. The IMF provides financing, policy advice and capacity development support to preserve global macroeconomic and financial stability and to help its member countries build and maintain strong economies (IMF, 2021). Public investment and its management are understood as critical for sustainable and equitable macroeconomic growth. Over the years, PIMA has become a flagship fiscal tool of IMF's analytical work.

The key outcome of a country's PIMA is a report prepared by the IMF staff. The reports that the IMF produces on a country's public investment framework are based on the IMF's PIMA framework ("PIMA Tool"). Since the PIMA's launch in 2015, 22 country reports have been published based on this framework, in addition the IMF has conducted 44 PIMA country assessments which have not been published. The analysis presented in this study is based on the 22 published PIMA reports. As a PIM assessment and report is a service of IMF to its clients, the latter decide whether the reports will be published. Recently, the PIMA tool has been complemented by the PIMA Climate Change Tool and the Public-Private Partnership (PPP) Fiscal Risk Assessment Model (PFRAM). The PIMA Climate Change Tool is still under development.

4.1 Methodology of this study

This study analyses PIMA from an analytical perspective and regarding its usefulness as a basis or guideline for Germany's official development cooperation with partner countries. As Table 1 shows, the categorization of countries according to international organizations does not match the categorization used by Germany's official development cooperation. The international classification in this study uses the World Bank's Classification of Countries according to per-capita income (PCI), based on the 2022 values used by the Bank. The economic classification used by World Bank determines the class of loans (terms and conditions) that it offers to these countries, namely International Development Association (IDA) terms, International Bank for Reconstruction and Development terms (IBRD), and Blend (a mix of IDA and IBRD terms). The Blend category is important because it also affects many countries that have transitioned from LICs to L-MICs in the last decade. The countries that transitioned are often faced with a high debt burden because, in part, with transition, they lost access to World Bank's concessional loans and development partner (DP) grants and are exposed to capital market lending. Also, the classification reflects the capacity of countries in the PIMA scores that the IMF uses to assess countries uniformly on its PIMA grid.

Table 1: Country Categories according to PCI

Country Category	Annual per-capita income
Lower-Income countries (LICs)	< US$ 1,045
Lower-Middle-Income Countries (L-MICs)	> US$ 1,046 < US$ 4,095
Upper Middle-Income Countries (U-MICs)	> US$ 4,096 < US$ 12,695
High-Income States (HICs)	> US$ 12,696

Source: (World Bank, 2022)

Categories of Germany's partner countries. According to the reform agenda 2030, partner countries are categorized as "Bilateral Partners", "Global Partners", and "Nexus and Peace Partners". Among the 42 *Bilateral Partners*, 7 are defined as *"Reform Partner"* countries and 7 as *"Transformation Partners"* (BMZ, 2020). For this study, the *bilateral reform partner countries* Benin, Malawi, Mali and Jordan, the *bilateral transformation partner countries* Kosovo, Ukraine and Georgia, and the *global partners* Mexico and Brazil have been chosen. The latter two are particularly relevant, because they are not only global partners, but also constituted as federal states. Therefore, Mexico has been chosen as a country case (see Box 1 below). Table 2 below provides for a comparison between the two systems of classification. In addition, other countries beyond the classifications of German Development Cooperation have been chosen for this study so that a larger sample of PIMA reports could be considered.

Table 2: German Development /World Bank Partnerships Matrix, 2022

Classification of PIMA Analysed Countries

#	World Bank Classification Partners	Lower Income Countries (LICs) (IDA)	Lower Middle-Income Countries (L-MICS) (Blend)	Upper Middle-Income Countries (U-MICs) (IBRD)	High Income Countries (Commercial)
	Per Capita & Loan Group	$1,045 or less (IDA)	$1,046 to $4,095 (Blend)	$4,096 to $12,695 (IBRD)	Above $12,696 (unclassified)
1	Bilateral Partners	Mali, Malawi	Benin	Jordan	
2	Transformation Partners		Ukraine	Georgia, Kosovo	
3	Global Partners			Brazil, Mexico	
4	Other Countries	Gambia, Guinea, Liberia, Sierra Leone	Belize, Philippines	Armenia, Botswana, Gabon, Maldives, Slovak Republic	Estonia, Ireland

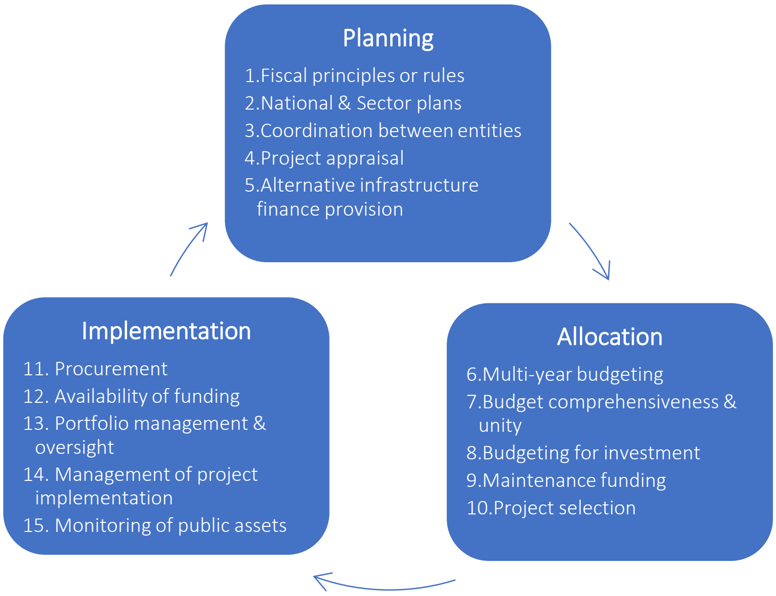
Sources of Classification: (World Bank, 2022)

4.2 The Analytical Approach of PIMA

The IMF has developed PIMA as a specific analytical tool for analysing PIM, i.e. to assess the laws, regulations, processes, and systems of government investments. The PIMA seeks to analyse the procedures, tools, decision-making, and monitoring processes used by governments to provide infrastructure assets and services to the public; help identify reform priorities; and devise practical steps for their implementation. In this context, and as part of the IMF's Infrastructure Policy Support Initiative (IPSI), PIMAs also promote the implementation of the 2015 Addis Ababa Action Agenda for financing sustainable development and the infrastructure-related Sustainable Development Goals (SDG) (IMF, 2018). It is important to note that PIMA is also a complex and integrated inter-governmental organization tool. It is designed to evaluate the effectiveness of the PIM system in a country among central governments and their sector ministries or agencies. It also aims at covering the PIM relationship between the central government and sub-national governments (SNGs) as well as SOEs.

The PIMA Framework encompasses 15 key practices called "institutions" and 3 cross-cutting dimensions or enabling factors. The 15 key practices or institutions shape decision-making at three stages of the public investment cycle – planning, allocation, and implementation - as shown in Figure 10 below. In this framework, investments should be planned to be sustainable across the whole of government and the public sector, in conformity with "best-practice" fiscal rules and processes. Allocation of resources for these investments should be done in credible ways to central and subnational government entities, sectors, and projects via the annual and medium-term budget and legislative processes of a country. Finally, implementation of investment projects should take place on time and on budget under appropriate project management and monitoring processes, including external auditing. As cross-cutting dimensions or enabling factors of the PIMA cycle, the IMF highlights the legal-institutional framework, staff capacity, and the need to have a sound information technology (IT) or digital framework. The 15 institutions and the 3 cross-cutting dimensions are the main points of interventions for development cooperation, including technical assistance, as they comprise the whole public investment cycle.

Figure 10. The PIMA Framework



The PIMA appraisal process involves a series of questions and a scoring of results. The IMF undertakes an appraisal of the PIM of any country via a series of questions that are aligned to the fifteen criteria or institutions in Figure 10. Three key questions are asked for each of the 15 institutions (see Table 3 below) and scores are assigned as follows:

- *high:* the ideal is that all the 45 key features are ***fully met*** and given a score of ten (10);
- *low:* the least is that all the key features are ***not met (low)*** and will be given a score of zero (0); and
- *medium:* many or few of the elements are ***partly met (medium)*** and given scores on the continuum between zero (0) and ten (10).

The scores are awarded by the PIMA assessment team. Whereas the numerical scores are used to categorize into the publicly available categories (high; medium; low), the underlying scores are not published. Some of the reports include other intermediate scores of “good” and “moderate” that seem to be above and below the “medium” score that can be regard as the median score. These also seem to accommodate the diversity of countries under the PIMA.

Table 3: Summary of PIMA Appraisal and Scoring Criteria

#	CRITERIA	SPECIFIC MEASURES [SCORES]

1	Fiscal Rules	Debt sustainability, fiscal rules & medium-term budget framework?
2	National and sectoral planning	National & sectoral strategies, costing & measurable targets for PIPs?
3	Central-local planning	Central/SNG coordination, rules-based transfers, and reporting contingent liabilities?
4	Public-Private Partnership	Rigorous technical, financial & economic analysis, appraisal & risk assessment?
5	Regulation: Infrastructure entities	Market based regulations and monitoring processes for PPPs & SOES?
6	Multiyear programming	Multi-year forecasting capital spending, with ceilings & forecasting major projects?
7	Budget comprehensiveness	Capital/recurrent spending & disclosure from all sources through budget?
8	Budget unity	Legal project appropriation, control of virement & priority for pipeline projects?
9	Ex-ante project assessment	Standard methodology for estimating & determining improvement in capital projects?
10	Project selection	Pre-budget review of appraisals, including pipeline & publication of selection criteria?
11	Procurement of investments	Procurement process & monitoring; dealing with complaints in fair & timely manner?
12	Availability of financing	Reliable cash-flow forecast, timely releases & integration in main government account?
13	Transparency in execution	Process for monitoring, re-allocating funds & ex-post review of major capital projects?
14	Implementation management	Effective project management rules & processes for adjustments & ex post audits?
15	Accounting of public assets	Update of asset registers, recording of non-financial assets in accounts & depreciation?

As an analytical tool PIMA is applied to highly diverse countries, mostly developing countries. As with other multilateral evaluation tools such as Public Expenditure and Financial Accountability (PEFA) hosted by World Bank and Tax Administration Diagnostic Assessment Tool (TADAT) developed by IMF, the PIMA scores apply evenly across IMF member-states. Hence, various IMF reports and studies note that the efficient planning, implementation, and monitoring of public investments depend on the capacity of member states. However, the countries that can be subject to PIMA are diverse and include Advanced Economies, Emerging Market (EM) or U-MICs, L-MICs or Developing Countries and Fragile States. In practice, many advanced countries have relatively efficient project management structures and have thus not been subject to PIMAs.

The IMF's PIMA reports are published only with the consent of the country authorities, and the analysis of this study is based only on publicly available individual PIMA country reports. For the analysis undertaken in this study, the publicly available twenty-two PIMA country reports have been screened for common issues and findings, which will be summarized in the ensuing sections of this chapter. In addition, PIMA reports on partner countries of GDC are analysed in depth, to identify concrete conclusions and recommendations for this country group. The bilateral partners Malawi and Mali are LICs. While Benin and Ukraine are categorized as L- MIC, Jordan as well as transformation partners Kosovo, Georgia is categorized as a U-MIC. Mexico is analysed as a case study (see Box 1 below).

In addition to GDC, relevant technical assistance of other development agencies in GDC partner countries is also analyzed. Because GIZ often operates in partnership with other development partners and implements projects on behalf of other commissioning agencies (e.g., European Union, World Bank, DFID, and others), the assessment will not be limited to GDC but, where applicable, will consider all relevant technical assistance instruments and approaches. However, in line with the Terms of Reference of this study, conclusions and recommendations will only focus on technical assistance provided by GIZ as part of GDC.

4.3 Results of PIMA Country Reports

4.3.1 Results at the Aggregate Level

This section summarizes the outcomes for the twenty-two countries in their World Bank's per capita income classification—LICs, L-MICs, U-MICs, and HICs – with particular consideration of bilateral partner countries of GDC. These bilateral partner countries fall under three economic categories and are almost representative for other countries in these categories, except for the absence of any in the advanced country category.

GDC Bilateral Partner Countries

Table 4 below shows the IMF's summary of the respective scores for the bilateral partner countries (Benin, Jordan, Malawi, and Mali) in the 15 PIMA institutions.

- *Low-Income Countries [LIC]—Malawi and Mali*: The highest scores are in the planning category, where legislation (e.g., Fiscal rules) and centralized control of budgets and financing enable good scores. In contrast, PPP and SOE structure add to poor implementation and monitoring.
- *Lower-Middle-Income Country [L-MIC]—Benin:* The country is among Africa's economies that are transitioning from LIC to L-MIC status and where the World Bank's "blend" financing is designed to mitigate the impact of the loss of concessional loans and grants. The country scores in the medium range on most scores in almost all categories but with some exception in implementation and monitoring. The focus of the separate planning or economic ministry on priority projects seems to have a positive impact on capital budgeting by the Finance Ministry.
- *Upper-Middle-Income Country [U-MIC]—Jordan:* The only U-MIC is dragged down by the low scores on effectiveness in all the five scores under the planning category—even though a medium score is recorded for institutional strength under planning. The allocation and implementation scores are also mixed, a factor that the PIMA report attributes to the toll that the budget is taking from managing migration from surrounding conflict states—a situation that seems to shift the emphasis on PIM to the PPP model.

Table 4: Summary of PIMA Assessment Outcomes for Bilateral GDC Partner Countries

		BILATERAL COUNTRIES							
Institutions		Benin [L-MIC]		Jordan [U-MIC]		Malawi [LIC]		Mali [LIC]	
		Institutio-nal Strength	Effective-ness	Institutio-nal Strength	Effective-ness	Institutio-nal Strength	Effective-ness	Institutio-nal Strength	Effective-ness
Planning									
1	Fiscal Rules	Medium	High	Medium	Low	Medium	Medium	Moderate	High
2	National & Sectoral Planning	High	Medium	Medium	Low	Medium	Low	High	High
3	Central Planning	Medium	Medium	Medium	Low	Medium	Medium	High	Low
4	Public-Private Partnership	Medium	Low	Medium	Low	Low	Low	Moderate	Low
5	Regulation of Infra enterprise	Medium	Medium	Medium	Low	Medium	Medium	Moderate	Low
Allocation (of resources)									
6	Multi-year programming	Medium	Medium	Medium	Medium	Medium	Low	High	High
7	Budget Comprehensive-ness	High	Medium	Medium	Medium	Medium	Medium	Moderate	Moderate
8	Budget Unity	Medium	Medium	Good	Medium	Medium	Low	Moderate	Moderate
9	Ex-ante project assessment	Low	Low	Low	Low	Medium	Low	Moderate	Low
10	Project Selection	Medium	Low	Low	Low	Medium	Medium	Moderate	Low
Implementation									

11	Protection of investment	High	Medium	Low	Medium	Low	Low	High	Moderate
12	Availability of financing	Medium	Low	Medium	Low	Low	Low	Moderate	Moderate
13	Transparency in execution	High	Medium	Medium	Medium	Medium	Low	High	Moderate
14	Implementation management	Medium	Low	Medium	Low	Low	Low	Moderate	Moderate
15	Accounting of public asses	Low	Low	Low	Low	Medium	Low	Low	Low

Other GDC Partner Countries

Many advanced and upper-middle income countries have relatively efficient project planning, implementation, and management structures, due mainly to the role of relatively strong governance institutions. In fact, countries such as Brazil and Mexico (on the latter see Box 1 below) are also increasingly active as donors to other countries through financial and technical assistance. At the same time, both countries are "global partners" of GDC. The case of Ukraine is a special one in this category as it is a "transformation partner country" of GDC. In addition, because of Russia's war on Ukraine GDC cooperation with Ukraine is currently in an "emergency mode."

The relative importance of peer comparison is obvious from the analyses in Table 5 below. As the PIMA report on Brazil clearly notes, as a U-MIC economy, the scores that include several "lows" are compared to a peer group from other Emerging (EME), Latin America Country (LAC) and BRIC states (see IMF Brazil PIMA Report p. 7).

It is obvious that in rendering technical assistance this score cannot be interpreted in relation to the scores for developing countries. In the case of Sierra Leone, a LIC economy that is also fragile, its "other" status does not make any difference with the scores for similar peers in the publications that are also predominantly West African. The scoring principle does not differ among groups of countries: the PIMA scores apply evenly across IMF member-states. Hence, various IMF reports and studies note that the efficient planning, implementation, and monitoring of public investments depend on the capacity of member-states. This implies that the score must orientate towards an average member country of the fund – hence to the stylized system of a MIC.

Table 5:Summary of PIMA Assessment Outcomes for GDC Transformation and Global Partners

TRANSFORMATION, GLOBAL AND OTHER PARTNER-STATES									
Institutions		**Transformation [L-MIC]**		**Global [U-MIC]**		**Other [HIC]**		**Other [LIC]**	
		Ukraine		**Brazil**		**Ireland**		**Sierra Leone**	
		Institutional Strength	**Effective-ness**	**Institutional Strength**	**Effective-ness**	**Institutional Strength**	**Effective-ness**	**Institutional Strength**	**Effective-ness**
Planning									
1	Fiscal Rules	Medium	Low	Medium	Low	Good	Medium	Low	Medium
2	National & Sectoral Planning	Low	Low	High	Low	Medium	Medium	Medium	Low
3	Central Planning	Medium	Medium	Medium	Low	Medium	Medium	Medium	Medium
4	Public-Private Partnership	Low	Low	Low	Medium	Good	Medium	Low	Low
5	Regulation of Infra enterprise	Medium	Medium	High	Low	Good	Good	Low	Low
Allocation (of resources)									
6	Multi-year programming	Medium	Low	Medium	Medium	Medium	Medium	Medium	Low
7	Budget Comprehensiveness	Medium	Medium	High	High	Good	Medium	Medium	Medium
8	Budget Unity	Medium	Medium	Medium	Medium	Good	Medium	Medium	Low
9	Ex-ante project assessment	Low	Medium	Low	Low	Good	Good	Low	Low
10	Project Selection	Low	Low	Low	Low	Medium	Medium	Low	Low
Implementation									

11	Protection of investment	High	Medium	Low	Low	Medium	Good	Low	Low
12	Availability of financing	High	High	Medium	Low	Good	Good	Low	Low
13	Transparency in execution	Medium	Medium	Medium	Low	Medium	Medium	Low	Low
14	Implementation management	Low	Low	Low	Low	Good	Medium	Medium	Low
15	Accounting of public asses	Medium	Medium	Medium	Medium	Low	Medium	Low	Medium

Box 1: PIMA Case Study Mexico

Mexico is a federal state, which makes its report particularly important in a PIMA analysis of sub-national governments. The IMF notes (PIMA Mexico, page 7) that the "assessment found that most of Mexico's institutions scored as medium strength in terms of institutional design and effectiveness." The report continues to note that, as in most other countries that were analysed using the PIMA framework, there is a difference between what is on paper, in terms of design features and legal frameworks, and actual practices. Details of the assessment can be found in Table A1 in the Annex.

While the PIMA shows the difficulty in coordinating the federal government's budget and project management activities with those of subnational governments and with shortcomings in resource allocation, in general Mexico scores high in basic budget processes. The overall goal is to implement sound systems and processes to achieve a comprehensive "general" government reporting framework.

- Recommendation 1: Strengthen fiscal discipline by improving the Medium-Term Fiscal Framework (MTFF), the application of Fiscal Rules (FRs) and establishing independent oversight of fiscal planning
- Recommendation 2: Improve the effectiveness of national and sector strategies to guide investment project planning
- Recommendation 3: Strengthen medium-term budget planning

The PIMA for Mexico is unique as it provides specific recommendations for strengthening federal and subnational fiscal structures and processes. This shows that Mexico (as well as Brazil) is compared in the PIMA framework with their peers in the OECD and G20, going beyond of what the IMF would expect from other countries in the same country income category (U-MIC).

The case study of Mexico also shows that the level of the PIMA findings oscillates between abstract and general on the one side and very detail-specific on the other side. Generally, the PIMA report on Mexico provides interesting insights and a very good comprehensive overview, thus providing a good basis for designing specific reforms that could, if requested by Mexico, be supported by technical assistance.

Quelle: Annex 1

Other High-Income and Upper Middle-Income Countries

Tables 6 and 7 below show the IMF's summary of the respective high-level scores for the high-income countries (HICs) and upper middle-income countries (UMICs), respectively for the fifteen PIMA institutions. Table 6 shows that not even one of the HICs received a "good" result across all criteria. Although a comparison between criteria is difficult, given the qualitative nature of the assessment, in general, the institutional strength is consistently rated better than effectiveness. The comparison of assessments of U-MICs with HICs reiterates the observation: there is only one situation in which the effectiveness of PIMA is rated higher than the institutional strength (institution four, Armenia). In all other cases, institutional strength is rated at least as good as effectiveness. As to the general assessment, the grading is slightly lower than the one of HICs.

Table 6: Summary of PIMA Assessment Outcomes for High-Income Countries (HICs)

Institutions		Ireland		Estonia		Slovak Republic	
		Institutional Strength	Effectiveness	Institutional Strength	Effectiveness	Institutional Strength	Effectiveness
Planning							
1	Fiscal Rules	Good	Medium	High	High	High	High
2	National & Sectoral Planning	Medium	Medium	Medium	Medium	Medium	Low
3	Central Planning	Medium	Medium	Medium	High	Medium	Medium
4	Public-Private Partnership	Good	Medium	Medium	Medium	Medium	Medium
5	Regulation of Infra enterprise	Medium	Medium	Low	Medium	Medium	Medium
Allocation (of resources)							
6	Multi-year programming	Medium	Medium	Medium	Medium	Medium	Medium
7	Budget Comprehensiveness	Good	Medium	Medium	Medium	Medium	Medium
8	Budget Unity	Good	Medium	Low	Medium	Medium	Low
9	Ex-ante project assessment	Good	Good	High	High	Medium	Medium
10	Project Selection	Medium	Medium	Low	Low	Medium	Low
Implementation							
11	Protection of investment	Medium	Good	High	High	High	Medium
12	Availability of financing	Good	Good	High	High	High	High
13	Transparency in execution	Medium	Medium	Medium	Medium	High	Medium
14	Implementation management	Good	Medium	High	High	Medium	Medium
15	Accounting of public asses	Low	Medium	High	High	Medium	Medium

Table 7: Summary of PIMA Assessment Outcomes for Upper Middle-Income Countries (UMICs)

Upper Middle-Income Countries (UMICS)

Institutions		Armenia		Botswana		Gabon		Maldives	
		Institutional Strength	Effective-ness	Institutional Strength	Effective-ness	Institutional Strength	Effective-ness	Institutional Strength	Effective-ness
Planning									
1	Fiscal Rules	High	Medium	Medium	Medium	High	Low	Medium	Low
2	National & Sectoral Planning	Medium	Low	High	High	Weak	Medium	Low	Low
3	Central Planning	Medium	Medium	Medium	Medium	Weak	Medium	High	High
4	Public-Private Partnership	Low	Medium	Medium	Low	Weak	Low	Low	Low

5	Regulation of Infra enterprise	Medium	Medium	Medium	Medium	Medium	Weak	Medium	Medium
Allocation (of resources)									
6	Multi-year programming	Medium	Low	High	High	Medium	Weak	Medium	Low
7	Budget Comprehensiveness	High	High	Medium	Medium	High	Medium	Medium	Medium
8	Budget Unity	Low	Low	Medium	Low	Medium	Weak	Medium	Low
9	Ex-ante project assessment	Medium	Medium	High	Low	Weak	Weak	Low	Low
10	Project Selection	Low	Low	Medium	Low	Weak	Weak	Low	Low
Implementation									
11	Protection of investment	High	Medium	High	Medium	Weak	Weak	Medium	Low
12	Availability of financing	High	High	High	High	Medium	Weak	Medium	Low
13	Transparency in execution	Medium	Medium	Medium	Medium	Weak	Weak	Low	Low
14	Implementation management	Medium	Low	Medium	Low	Medium	Weak	Low	Low
15	Accounting of public asses	Medium	Medium	High	Medium	Medium	Medium	Low	Low

Other Low-Income Countries

Table 8 shows the IMF's summary of the respective high-level scores for the lower middle-income countries (L-MICs) for the fifteen assessment criteria and conclusions. The assessment of L-MIC countries reinforces the trend stated above: the grading is again lower than the grading of the UMIC countries as not even one dimension is rated "high", while effectiveness is generally rated less well than institutional strength. Finally, Table 9 shows the IMF's summary of the respective high-level scores for the low-income countries (LICs) for the fifteen assessment criteria and conclusions.

Table 9 clearly demonstrates that LICs generally received the lowest grading. It is only country group in which dimensions were scored as "weak", which is used in French language IMF reports as synonymous with "low" in English speaking reports. In comparison of institutional strength and effectiveness, the overall picture is the same as in the other country groups: *effectiveness is generally rated lower than institutional strength*. Here, however, one finds two notable exceptions: regarding implementation management, institutional strength in The Gambia and Guinea are rated lower than effectiveness.

The results of the country reports make a strong point for capacity development. While the institutions in general are comparatively well established, the decision-making shows (much) room for improvement. This is in line with the capacity development concept of a partner-oriented long-term approach that intervenes at individual and institutional levels.

Table 8: Summary of PIMA Assessment Outcomes for Lower Middle-Income Countries

Institutions		**Philippines**		**Belize**	
		Institutional Strength	**Effectiveness**	**Institutional Strength**	**Effectiveness**
Planning					
1	Fiscal Rules	Medium	Medium	Medium	Low
2	National & Sectoral Planning	High	Medium	Medium	Medium
3	Central Planning	Medium	Medium	Low	Low

4	Public-Private Partnership	Medium	Low	Low	Low
5	Regulation of Infra enterprise	Medium	Medium	Low	Low
Allocation (of resources)					
6	Multi-year programming	Medium	Low	Medium	Medium
7	Budget Comprehensiveness	Medium	Medium	High	High
8	Budget Unity	Medium	High	Low	Medium
9	Ex-ante project assessment	Medium	Low	Low	Medium
10	Project Selection	Medium	Low	Medium	Low
Implementation					
11	Protection of investment	Medium	Low	Low	Low
12	Availability of financing	High	Medium	Medium	Medium
13	Transparency in execution	Medium	Medium	Medium	Low
14	Implementation management	Medium	Medium	Low	Low
15	Accounting of public asses	High	Medium	Low	Low

Table 9: Summary of PIMA Assessment Outcomes for Lower-Income Countries

Institutions		**Gambia, The**		**Guinea**		**Liberia**		**Sierra Leone**	
		Institutional Strength	**Effective-ness**	**Institutional Strength**	**Effective-ness**	**Institutional Strength**	**Effective-ness**	**Institutional Strength**	**Effective-ness**
Planning									
1	Fiscal Rules	Low	Low	Medium	Medium	Medium	Medium	Low	Medium
2	National & Sectoral Planning	Medium	Medium	Medium	Medium	Weak	Improving	Medium	Low
3	Central Planning	Medium	Medium	Medium	Weak	Medium	Low	Medium	Medium
4	Public-Private Partnership	Low	Medium	Weak	Weak	Low	Low	Low	Low
5	Regulation of Infra enterprise	Low	Low	Medium	Medium	Low	Medium	Low	Low
Allocation (of resources)									
6	Multi-year programming	Low	Low	Medium	Medium	Low	Low	Medium	Low
7	Budget Comprehensiveness	Medium	Medium	Medium	Medium	Medium	Low	Medium	Medium
8	Budget Unity	Low	Medium	Medium	Weak	Medium	Medium	Medium	Low
9	Ex-ante project assessment	Low	Low	Weak	Weak	Medium	Medium	Low	Low
10	Project Selection	Medium	Low	Weak	Weak	Medium	Low	Low	Low
Implementation									
11	Protection of investment	Medium	Medium	Medium	Weak	Medium	Medium	Low	Low
12	Availability of financing	Medium	Medium	Medium	Weak	Low	Low	Low	Low

13	Transparency in execution	Low	Medium	Weak	Medium	Medium	Low	Low	Low
14	Implementation management	Low	Medium	Medium	Weak	Improving	Medium	Medium	Low
15	Accounting of public asses	Low	Low	Weak	Weak	Medium	Low	Low	Medium

4.3.2 Results per Institution

As shown in the tables above, PIMA assesses for each institution its institutional design ("what is on paper") and effectiveness ("what is in practice"). Generally, the design of formal rules is better than how they are implemented in practice, due to capacity constraints among others.

A. **Planning** – this stage covers the processes that constitute the framework of the investment decision, starting with the funding framework (fiscal rules) from the 5 institutions**.**

Fiscal rules. The countries in the PIMA evaluation have fiscal rules in the form of laws, fiscal guidelines, or regulations. In some cases, the rules form part of the guidelines or protocols of regional organizations (e.g., WAEMU and OECD). The targets may be primary or secondary criteria that are often quantitative (e.g., 60% of GDP for public debt levels).

Given that PIP rules are acknowledged, the need is to improve the specific frameworks in place at various levels to protect capital budgets. In particular, the low-income bilateral partners – Mali and Malawi – must prioritize among policy goals ("primary and secondary rules") to provide enhanced and specific guidelines to protect the allocation of resources to public investments. The need for a "cyclical" view, such as happens during crisis or austerity programming – to effectively protect capital budgets is discussed regarding the case of Mexico in section 4.2 below.

National and sectoral planning. The PIMA outcomes confirm the fact that investment or capital expenditure are large and spread across sectors in all countries. For the partner countries of German Development Cooperation, even when PIM is constrained by budgets or accessibility to loans, commitments typically lack effective control and monitoring mechanisms across sectors. This is the case with the lower and upper MIC economies covered by the PIMA reports.

The follow-up consideration is to assist countries to link their PIM to the budget processes in effective Integrated Financial Management Information System (IFMIS) modules for semi-accrual and asset management. It is necessary to focus future tasks on asset and contract registers (i.e., low-income states) and on integrated IFMIS modules that link the core treasury capital budget and investment modules (MIC/EM states) to those of real sector ministries and their agencies.

Central and local or SNG planning: The score for effectiveness of SNG participation in decision-making (Malawi) and transparency (Jordan) are low—with all other scores high or medium. The authorities have rules on SNG borrowing and including SNGs in the budgetary process, hence limiting the exposure to deficits and debt.

As recommendation, the advisory that is provided in a wider bilateral agenda should enhance the positivity of work done by the authorities, in conjunction with upgrading the weaknesses in the preceding paragraph.

Public Private Partnership (PPP): Since the partner states rely on concessional financing (and grants) for capital projects, the partners score low on PPP planning and effectiveness. The two medium scores are legal and regulatory frameworks, including value for money (VfM). The **course of action** is likely a highly selective approach to strengthening capacities in partner countries for understanding the legal framework and financial risks of PPP required for utilizing and controlling PPPs for commercial projects.

Regulation of SOEs and their PIPs: A large amount of loans and budget funds for public infrastructure pass through SOEs that are government business or profit-making entities. The notable ones are electricity, roads, water, and other infrastructure systems that may involve PPPs and sovereign risk of borrowing to the state, through the loans that the state guarantees.

The common issues arising from the PIMA evaluation include the competitiveness of transactional processes and appropriate regulatory frameworks. SOEs are semi-independent entities that are subject to financial and operational reporting to the legislature—but with executive oversight. SOEs need regular updates of their laws, regulations, and processes, including audited financial statements, to minimize quasi-fiscal actual and contingent liabilities.

B. **Allocation of Resources –**this stage covers the allocation of resources to PIPs, notably through budget and planning legislation and regulatory processes. In some cases, they provide a medium-term perspective for the annual budget process.

Multi-year programming: These are typically expressed as medium-term expenditure frameworks (MTEFs), medium-term plans (MTPs) and PIPs. In many PIMA evaluations, the integration into the capital budget process is examined and, hence, the allocation of resources to execute the underlying projects effectively.

Medium-term programming exists in most of the partner countries of German Development Cooperation, usually on a rolling 3-year planning. However, there are varying degrees of adherence to principles such as setting the ceilings for outer years and consistent update of datasets. These are the recommended refinements that are required in TA programs that seek to improve efficiency and effectiveness.

Budget comprehensiveness: The annual capital or development budgets are executed in conjunction with recurrent expenditure in the annual budget. However, together with the inaccurate and non-transparent inclusion of costs in medium-term plans discussed earlier, the coverage of the PIPs and PPPs for SOEs are also not adequate.

Advisory on PIM must be targeted and aim at enhancing the techniques for medium-term costing of projects, inclusion of foreign financing and projects in detail, and mechanism for including SOE projects that may pose quasi-fiscal risks to the country.

Budget unity: Usually, the recurrent and capital budgets are prepared by one authority but may be different in states where economic or planning ministries exist alongside finance. This is the case in only one bilateral partner (Benin). The ***recommendations*** in the paragraph below comprehensiveness and proper costing of projects are similar – thus meaning that recommendations for budget unity are similar to those made for budget comprehensiveness.

Ex-ante assessment: The evaluation covers ex-ante assessment of projects and adequate budget provision for maintenance of executed projects or assets. The scores being low, they seem to reflect the inadequacy of capital or project-related budgets in many countries—especially where external resources are not sufficient to support projects.

It is necessary to integrate the elements of capital budgeting to broad-based PFM reforms. This will ensure training in balanced budgeting for both capital and recurrent expenditures, with maintenance costs forming part of the latter.

Project selection: this refers to the processes for selecting PIPs, notably centralization; standardization of selection criteria; as well as transparency and public awareness. It continues to cover the compilation and monitoring of pipeline projects and the provision of adequate budget resources to complete—especially, if not subject to external loan disbursement plans.

There is a need for advisory in all three elements of the PIMA selection criteria, given the low scores for both selection and transparency. The existence of public procurement agencies or regulators has helped to improve both selection and transparency in many countries, including partner countries of German Development Cooperation. In addition, the need to provide advisory is not limited to Ministry of Finance, Economy, and Planning, but also to sector ministries.

C. **Implementation**—the last five (5) PIMA criteria cover protection, availability of financing, transparent execution, implementation management and accounting for public assets. These are diverse and cover operational, budget and accounting auditing needs to make PIPs effective.

Protection of investment: one country (Benin) scores well on adequate budget process to protect capital investment, with the others lacking tendering and reallocation. However, this finding of a PIMA report is a good example for the time-boundness of PIMA analysis: anecdotal evidence suggests that with a change in president in 2017, the system of protecting capital investment was challenged by the new government. Apart from this single observation, in all cases outcomes are undermined or made worse by the wide discretion and poor information management systems (MIS).

The conclusions from the evaluation of this criteria point to the need for integrated and solid budget, planning and accounting systems to augment the design of processes. As noted earlier, we propose to address this need within a comprehensive public financial management reform program—as more effective than a selected approach.

Availability of financing: funds are often disbursed well in improved appropriation systems that are undermined by poor treasury single account (TSA) measures. These may leave scarce resources, including external loan disbursements, in commercial banks. Other factors include poor forecasting and commitment controls as well as discretionary budget cuts that undermine ceilings.

Again, these **point to** sound PIM and budgeting modules in integrated IFMIS, and PFM reforms supported by well-structured programs of TC.

Transparency of execution: the evaluation of the transparency of procurement, PIPs databases, and controls is mixed on planning and low on execution. These include good project monitoring management in selected cases but weak auditing and databases for projects.

While tackling public project-specific issues in substance TA, it is necessary to take note of the regulatory environment and resource allocation processes that will promote the execution of PIPs well in a general context.

Implementation management: the evaluation under this theme covers effective PIM at the agency level and oversight through external audits and sound guidelines for their operations. In general, the scores point to weak effectiveness despite the presence of management teams in some instances.

It reflects the first evaluation criteria under Planning where relatively sound fiscal and operational rules and regulations exist in some cases. However, as in that instance, the implementation is weak despite the existence of some sound budget allocation processes. Clearly, the focus is operational oversight and monitoring of projects.

Accounting for public assets. To maintain current information on government assets, a system needs to be applied that keeps record of up-to-date public assets – either a comprehensive asset register, or registers according to asset classes (financial, non-financial, land etc.). Once an asset register has been developed, maintenance is key. This includes —updating through regular surveys where systems are lacking; regular valuation of non-financial assets; and depreciation of fixed assets. Given the full or semi-accrual notions underlying these topics, all the scores are “low”, except in one instance of a “medium” score.

Given that the medium score relates to the keeping of an asset register, one recommendation following from PIMA could be to support the development of adequate procedures for asset recording. However, although rated high by IMF, this might not be the highest priority of the partner country; therefore, it may be helpful to be selective and target with follow-up assistance to implement the projects underlying the PIMA evaluations.

4.4 PIMA in the Context of Post-COVID-19 Recovery Prospects

Global economic performance slowed down considerably in 2020 and 2021 due to the COVID-19 pandemic, with significant direct and indirect implications for fiscal performance in many countries. The main features and consequences of the pandemic for fiscal outcomes have included the following:

- **Shutdowns and restrictions in movement**: the goal of these government actions was to control the fast spreading of the pandemic through internal confinements and restrictions in movements of people and goods across land, sea, and air borders. For many LMIC and developing states, the fall in demand in the advanced economies had a severer but known contagious economic effect on fiscal revenues.
- **Setback to global financing of public investment programmes (PIPs):** countries turned inward to direct funding to assist their citizens which, together with the restrictions on the movements of goods and people, resulted in the freezing of funding for the PIPs that PIMAs evaluate.
- **Pressure on government recurrent and emergency expenditures**: Spending on vaccines, vaccination campaigns, and other emergency activities related to the pandemic plus emergency spending to compensate the adverse impact of the pandemic on individuals and companies and the implementation of fiscal stimulus packages have resulted in significant expenditure pressure for governments around the world.
- **Delayed implementation of PIMA recommendations:** The time lost for implementation during the Covid-19 pandemic era, has worsened the situation where many PIMA recommendations were no longer relevant. Moreover, the lack of budget provision often leads to deterioration in sustaining or maintaining public investment projects.
- **Increased debt vulnerability**: As budget revenues declined and pandemic-related emergency spending rose, governments resorted to standard and unorthodox borrowing to finance larger deficits. This accelerated the pace of debt accumulation in advanced, EM/MIC, and developing countries alike. However, the “risk of debt distress” under IMF and WB criteria has so far been mainly felt in developing and LMIC states.

Against this background, the most recent IMF general PIMA review recommends that governments are likely to place the emphasis on “pipeline” projects in immediate post-Covid-19 medium term plans. Further, given the rising debt levels and slowdown in PIP implementation, according to the IMF, the use of PPP’s could increase in many EM and MIC countries that already suffered from the decline in grants and concessional financing during the pre-Covid-19 era although the instrument may increase financial dependency (see above).

To mend the Covid-19 related delays in the implementation of PIM reform proposals, the IMF has suggested quick-fix interventions for PIM improvements. These interventions are not meant to replace fully fledged reform programs, but to open possibilities for immediate impact. Table 14 summarizes the IMF’s proposals, conclusions, and recommendations as basic, medium, and advanced capacities. The IMF notes that the basic and medium practices reflect simplified approaches that can be applied quickly by countries with limited capacities, within existing legal and regulatory frameworks. In the medium-to-long term, these will contribute to improvement in institutional capacity which is the main goal of PIMA.

Table 10: Recommendations for Boosting Public Investment in Post-crisis Recovery

	Basic Practice	Medium Practice	Advanced Practice

Political Guidance and Institutional Arrangements	Ad hoc review of existing project pipeline.	Partial review of the PIP by a dedicated investment committee.	Full review of the PIP with endorsement by the cabinet and parliament.
Project Appraisal	Multi criteria analysis (simplified).	Cost effectiveness and multi-criteria analysis.	Comprehensive B/C analysis.
Project Selection	Limited criteria set based on multi criteria analysis.	Selection based on cost-effectiveness and limited B/C analysis.	Selection based on B/C analysis and additional multi criteria analysis.
Maintenance Projects	General allocations to routine maintenance.	General allocations for routine maintenance; selective allocations for capital repairs.	Comprehensive program for maintenance and capital repairs based on documented needs.
Medium-Term Budgets	Political commitment to medium-term PIP.	Published medium-term budget framework incorporates medium-term PIP.	Medium-term appropriations to finance the PIP.
Public Procurement	Good documentation of procurement tenders and contracts.	Approval of procurement contracts within minimum time periods, high degree of transparency, and compliance with law.	Active pretender market engagement with advance procurement notices.
Project Management	All projects in the post-crisis PIP have identified responsible project managers and clear implementation plans.	Post-crisis public investment support unit supports project managers and helps address implementation challenges.	All investment projects in the recovery PIP are subject to advanced management arrangements.
Portfolio Oversight	Major projects for special scrutiny and reporting by each ministry are identified.	Central monitoring of all major projects, including public summary reports.	Consolidated public investment portfolio with automated monitoring and reporting.
Note: B/C = benefit/cost; PIP = Public Investment Plan.			

Source: IMF, FAD

4.5 Climate PIMA

As the analysis show, the current PIMA is designed as a general approach that does not allow for an analysis of sector-specific issues. Because climate change related challenges have attracted an increasing amount of investment, IMF has decided to develop a new PIMA module, the "Climate-PIMA" (C-PIMA). The IMF notes that "Climate change creates additional challenges and opportunities for PIM with respect to both mitigation and adaptation," which are not explicitly addressed in the general PIMA. The goal of C-PIMA is to assist governments with identifying potential improvements in public investment institutions and processes to build low-carbon and climate-resilient infrastructure. The tool is designed around five pillars of public investment management that are key for climate-smart infrastructure: planning, coordination across government, project appraisal and selection; budgeting and portfolio management, and risk management:

1. Planning: Aligning national and sectoral plans and associated investment portfolios to climate objectives is essential in transforming public sector infrastructure in the direction of climate resilience and sustainability. The planning phase is also seen as particularly relevant for incorporating climate into spatial planning and construction requirements.
2. Coordination: Public investment can involve various layers of government, state-owned enterprises, and public-private partnerships (PPPs). Integrating green considerations into PIM thus means coordinating across all parts of the public sector, and on joint ventures with the private sector.
3. Appraisal and selection: This phase is crucial in the decision-making process on major infrastructure projects. It determines which projects get done. It is essential that climate-related analysis of mitigation and adaptation impacts of investments are included in this phase.

4. Budget and portfolio management: Green investment and maintenance allocations should be budgeted for and reported on through the annual budget and other fiscal instruments such as the medium-term expenditure framework and the government's financial statements. Asset management and ex-post audit and review should similarly consider climate objectives.
5. Fiscal risk management: Climate change involves risks that will have potential impacts on public infrastructure and the budget. It is important that natural disaster management strategies and fiscal risk analyses incorporate such risks, and that risk mitigation strategies also take climate considerations into account.

Table 15 and Figure 11 below provide an overview of the interface between PIMA and C-PIMA. Table 15 also shows the definition of C-PIMA institutions as practices and framework for planning, allocating, and implementing infrastructure investment spending. As each institution is further drilled down into three dimensions, the questionnaire has a total of fifteen dimensions.

Table 11: Interface between PIMA and C PIMA

PIMA and C-PIMA Framework				
Planning			C-PIMA	
1	Fiscal Targets and Rules			
2	National and Sectoral Planning			
3	Coordination between State Entities			
4	Project Appraisal			
5	Alternative Infra Financing			
Monitoring			C.1	Climate-aware Planning
6	Multi-year Budgeting		C.2	Coordination between Entities
7	Budget Comprehensiveness and Unity		C.3	Project Appraisal and Selection
8	Budgeting for Investment		C.4	Budgeting and Portfolio Management
9	Maintenance Funding		C.5	Risk Management
10	Project Selection			
Implementation				
11	Procurement			
12	Availability of Funding			
13	Portfolio Management & Oversight			
14	Management of Project Implementation			

Source: IMF (2021): Strengthening Infrastructure Governance, for climate-responsive public investment

Figure 11. Overview of the Climate PIMA

C1. Climate-aware planning	• 1a: National and sectoral public planning • 1b: Spatial planning—land use regulations and building codes • 1c: Centralized guidance and support for planning
C2. Coordination between entities	• 2a: Coordination across central government • 2b: Coordination with sub-national governments • 2c: Coordination with and oversight of public corporations
C3. Project appraisal and selection	• 3a: Project appraisal with climate change • 3b: PPP framework and allocation of climate risks • 3c: Project selection with climate outcomes
C5. Budgeting and portfolio management	• 4a: Tagging of climate-related public investment expenditures • 4b: Ex-post reviews of climate outcomes • 4c: Asset management and maintenance with climate change
C4. Risk management	• 5a: National disaster risk management strategy • 5b: Ex-ante financing mechanisms to manage climate risks • 5c: Fiscal risk analysis with climate change

It is important to note that the framework aims to address the institutional strength and effectiveness in SNG and SOE where mega projects occur with significant financing, public private partnerships, and quasi-fiscal risk implications for the whole economy. The C-PIMA reports are designed to also provide prioritized recommendations to strengthen climate-responsive aspects of infrastructure governance. The instrument has so far been tested in eleven countries, providing early lessons on its applicability and efficacy.

4.6 PIMA as an Analytical Tool: General Conclusions

PIMA is a useful analytical tool, but it has some shortcomings. PIMA is designed as an analytical tool for the assessment of the quality of public investment in one country compared to international standard of sound public investment management. As such, the analytical approach as well as the country findings provide very useful insights. With its target on macro-critical investments, however, PIMA can only be part of a general guideline of how to organize a public investment system because there is a greater variety of decision-making processes for smaller, less relevant projects. Moreover, PIMA recommendations can drastically vary in scope, between major institutional changes and small procedural amendments. Good examples for the former are the recommendations to Kenya (2018) to "establish a central public investment unit to improve coordination among ministries and agencies," or to Mongolia (2016) to "transfer off-budget investment projects to the budget." Other benchmarking systems like the World Bank PIM handbook or OECD's guidelines might offer additional support to designing concrete guidelines for PIM. On the other hand, understanding PIMA's narrow scope of target projects, the analysis can reveal shortcomings that are systemic in nature, while the findings can serve as basis for reform programs.

PIMA provides good general orientation for public investment reform, but it has limits in terms of considering country-specific circumstances. Regarding the question of whether PIMA can serve as a guidance for a reform process in public investment institutions, the answer is complex. In the first place, PIMA is a tool for a time-specific analysis, i.e., it delivers a baseline. Secondly, recommendations are based on the baseline findings and their difference to a certain end state, which is not clearly defined. However, as a tendency and compared to other, similar processes, the end state resembles the stylized public investment system of a middle-income economy. However, there is not one solution that is to be applied in all countries. Decision-making processes need to be rationally designed, based on the nature of the problem to be solved and on the country-specific institutional, legal, and regulatory environment.

The PIMA questionnaire is conclusive on the PFM matters and addresses the main points a public investment decision and implementation is based on. Because the questionnaire is generic, it captures the basic information about the formal PFM system. The information obtained can answer the question of whether the Ministry of Finance or the Ministry of Planning and Economy ask the right questions during the preparation and implementation of a macro critical public investment project. From the answers, conclusions can be drawn regarding the public investment system. However, this interpretation requires a good understanding of a PIM system in practice.

PIMA addresses almost exclusively central government systems, procedures, and institutions, thereby neglecting subnational and distributional concerns. One the one hand, this is understandable as most planning and decision-making processes very often take place at the central government level. On the other hand, however, considering that many government investments are implemented at subnational levels and have strong distributional impact and directly affect specific regions, districts, and municipalities (e.g., district hospitals and schools, feeder roads, municipal transport and energy infrastructure), it could be argued that PIMA should pay more attention to subnational participation and consideration in PIM.

The PIMA framework appears to be more relevant for countries at the upper end of the low- and middle-income scale. Given its general nature, the PIMA framework seems more relevant to countries at the upper end of the low- and middle-income spectre, reflecting their more advanced practices. In this context, PIMA provide a very good basis for identifying specific reforms in particular PIM areas, focusing, for example, on fiscal rules, PPP management, and investment project appraisal and selection. Beyond investment issues, for this group of countries the PIMA may also provide a first useful basis for bringing the monitoring of public assets more into focus, as this is an issue that is sometimes neglected in public administration and government budgeting.

4.7 Conclusions from the Analysis of PIMA for German Development Cooperation

PIMA generally offers a very good high-level valuable guideline for bilateral German development cooperation, including technical assistance. German bilateral development cooperation on budget management generally focusses strongly on providing technical assistance to strengthen capacities of individuals, institutions, and systems, often across levels of government. If such assistance focusses, among other topics, on PIM, the PIMA tool can inform the assistance approach if used as a questionnaire to assess the status quo. Similarly, PIMA results can provide for a general perception of the PIM system. However, as basis for a more specific appraisal and implementation of technical assistance, the PIMA analysis is possibly lacking detail. PIMA recommendations nonetheless tend to be useful complementary contributions and a good baseline for German bilateral assistance projects, especially when these focus on streamlining PIM as part of standard budgeting procedures, developing coordination processes for intra-government vertical and horizontal coordination, reforming procedures and roles of the key ministries (e.g., Ministry of Finance, Ministry of Planning), and the units in sectoral ministries in charge of planning and managing public investment projects.

Strengthening PIM in sector ministries could be an excellent complementary area for German development cooperation, especially when based on PIMA diagnostics and combined with assistance to the key fiscal institutions of central governments such as the Ministry of Finance. While the PIMA tool is focused on analysing PIM processes from a perspective of overall central government planning and budgeting, improvements of PIM generally also require changes to processes, regulations and management in (key) sector ministries. Within these sector ministries, the processes for planning investment projects involve a variety of issues and technical aspects, including engineering, spatial planning, economic analyses, and social planning. For example, major infrastructure projects (e.g., land acquisition for road construction or resettlements for dam projects) need to be looked at in terms of their technical design and implementation, but also regarding their economic and social impacts (e.g., gender-responsive investment planning). This needs to be interlinked with budgetary aspects – financial planning, mobilizing resources, cash management, etc. This requires investment-conducive elements in the budget framework, but also a stronger role for the budget officials of sector ministries. Change processes to PIM in sector ministries thus require long-term interventions involving legislative changes, sub-legal changes of procedures, and organizational reforms as well as capacity development of sector ministry staff. Supporting such change processes through advisory services and training are typical tasks for development cooperation programmes.

Beyond the budget and PIM processes within Ministries and Departments, the coordination among the owning sectoral ministries and the Ministry in charge of budgeting and budget execution (e.g., Ministry of Finance) should receive more attention. At what stage would the sector ministry officially inform the Ministry of Finance about a particular investment project? How does the government decide about priorities across sectors – e.g., whether to invest in a highway project or an electricity transmission line, given scarce resources? While PIMA addresses these questions for macro-critical projects, the question of investment prioritization across sectors is also relevant for non-macro critical projects, and, similarly, for small-scale public investments at subnational levels. Therefore, the coordination of all public investment and prioritization across sectors and ministries, involving also the key fiscal institution in the central government (e.g., Ministry of Finance), should receive more attention.

Transparency and accountability of public investment should be strengthened. As investment decisions are about comparatively high volumes of money, and decisions are often technically complex bearing long-term consequences, holding decision makers to account is a challenging task. The PIMA tool does not go into detail, as its focus lies on executive budgeting. A complementary intervention is, therefore, in strengthening accountability institutions. This includes political accountability through legislature, as well as financial accountability and oversight, as mandate of external audit institution. The accountability function could even be extended to the judiciary, ensuring a fair process in verifying responsibilities. While the IMF's PIMA approach does not concentrate on the role of external audit, the complementary support of bilateral technical cooperation could include strengthening the capacities of Supreme Audit Institutions in providing accountability to investment decisions, and possibly strengthening parliaments' understanding and role in public investment governance. Finally, the role of Civil Society Organizations (CSOs) in ensuring transparency and accountability should be strengthened. Greater transparency and accountability would also help to fight illicit financial flows.

Public investment across levels of government is an issue often overlooked. It has been highlighted in the general conclusions in the previous chapter that the PIMA tool focuses on macro-critical investments. The tool, therefore, is based on an understanding of international good practices to control and finance "mega-projects" of the central government. On the subnational level, however, the situation is different. Investment decisions of local councils usually need approval by upper levels of government, and – if they exceed the local annual budget – a credit guarantee by the central government Ministry of Finance. Thus, local investment is well controlled by central government. At the same time, local councils are under direct control of citizens. Investment needs on the local level are often very concrete, and citizens represent themselves to identify and prioritize investment projects. Local communities have been very innovative in providing for ways of direct representation, including citizen participation in local public investment decision making and monitoring. Strengthening public investment decisions of subnational governments is therefore another area which would lend itself nicely to additional bilateral technical cooperation.

German development cooperation could consider advocating in the IMF for an adaptation of PIMA for subnational public investment. Considering the wealth of experience in German development cooperation in municipal development and strengthening fiscal decentralization, it may be useful to consider lobbying at the IMF the great variation regarding partner countries' constitution and subnational competences, GIZ might consider approaching IMF for adapting the PIMA methodology for subnational PIM. A similar process has been initiated by SECO for PEFA, and subnational PEFA assessments are a rich source for concrete reform approaches of subnational budgeting procedures. Similarly, the IMF's Tax Administration Diagnostic Assessment Tool (TADAT) have first been used exclusively for tax administrations at the national level but have more recently been extended for use at subnational government level in some countries.

5. Capacity Development for PIM in Partner Countries: GIZ's Experiences

5.1 Background

GIZ has a longstanding experience in providing technical advice on budget management and fiscal policy, including on the topic of public investment management. Within the broader framework of German Development Cooperation, GIZ's role has focused on strengthening the capacities of project partners in areas such as public investment planning, public participation in investment planning, procurement and monitoring of public investment projects, and gender-sensitive PIM. In several partner countries, the capacity development work of GIZ has been combined with financial cooperation support. This allows for complementarity and ensures coherence and effective coordination of German development policies in partner countries. GIZ services can include:[10]

- Advisory through provision of long-term and short-term experts as well as strategic and project related development of competencies
- Grants for advisory services
- Procurement of goods as well as services, including research, studies, evaluations, etc.
- Design and implementation of trainings and capacity building
- Secondment of staff in case of (temporary) staff shortages in partner organisations

While GIZ currently does not implement projects focusing primarily or exclusively on public investment, a substantial number of projects within the portfolio of Good Financial Governance (GFG) and other sectors with high public investment rates (e.g., transport, health) that address PIM elements. This chapter will analyse many of these projects to identify PIM elements within their activities and determine to what extent GIZ is addressing PIM throughout its current project portfolio.

GIZ's rationale for support to public investment. Public infrastructure governance should be designed in such a way that it serves the economic, social, and environmental development goals of the country. Similarly, public investment processes should be designed in such a way that they consider the technical, social, and environmental feasibility, political legitimacy, accountability of the actors and decisions (including adequately addressing integrity and corruption risks), and conflict potentials. Furthermore, an adequate distribution of tasks between the public sector and private actors should be established (Fischer and Sägert, 2017). Weak PIM can lead to ineffective allocation of resources and hamper the achievement of development goals. It therefore remains essential that the PIM dimension is considered across GFG projects and relevant projects in other sectors.

Additional to its advisory role, GIZ also provides services as an implementing agent for major construction projects, for example, as general contractor or as project management unit (PMU). This mandate is often realized for profit by GIZ's market-oriented International Services Department (GIZ InS).[11] GIZ's experience in this regard include, for example, realising the construction of universities in Ethiopia. Under these mandates, the financing organisation determines the project design, outcome, and methodology and carries out the analysis of the feasibility and impact assessments.

In a comparable way, but on a smaller scale, GIZ also manages investment projects, for example implementing construction works, as part of the standard implementation procedures of TC programs and projects. These services are often applied in fragile contexts, in post-conflict or post-disaster situations (e.g., Aceh in Indonesia or Support to Municipalities in Libya). In this constellation, usually a list of planned projects is validated by a local authority. Involvement of local authorities in project

[10] TZ/FZ Leitlinie, S. 10

11 Both sections of GIZ, the public benefit section (here referred to as GIZ) and the section offering market-related services (GIZ-INS), act independently, but share knowledge and complement each other.

implementation can be rather extensive. In this case, infrastructure realisation is part of GIZ's standard project implementation procedures – planning and designing the activities, using its own procurement system, recruiting architects and engineers for oversight, and creating management committees for management and maintenance.

The following sections of this chapter will describe the methodology implemented for the analysis of the GIZ projects, and explore the major findings obtained through the analysis in the specific sectors.

5.2 Methodology

The review of projects aimed at better understanding the rationale for GIZ to focus on PIM. The objective of the review of GIZ experiences is to better understand GIZ's specific contributions to the improvement of PIM systems, including the constraints and opportunities of current advisory approaches. Secondly, the analysis focused on the perspective of GIZ projects towards the PIM system to which the projects contribute. The review of project experiences is focused on the project concept, as well as on the practical implementation.

The analysis was conducted in four steps. As preparatory step, the relevant project portfolios were identified and, within the portfolios, relevant projects and programs selected. The second step focused on document analysis of the projects and programs considered relevant. Project documents were derived from GIZ's project data base and staff. In this step, different projects were screened and ranked according to their relevance for PIM support. That was necessary to narrow down the total project portfolio to projects and programs that bear relevant experiences. As a third step, selected deep dives into 21 selected projects were undertaken via semi-structured interviews with GIZ project staff. Once the projects where identified, the GIZ facilitated the contact to the corresponding project directors. Interviews were conducted virtually with representatives of each of the projects. The interviews had the objective of providing a better understanding of the different projects as well as their scope of work and potential intersections with PIM. Answers were recorded by note taking and used for further analysis and elaboration of advisory approaches. Through this step, the analysis focused on ongoing projects; projects concluded were considered if a close relation to PIM topics was known and documented. Finally, the fourth step consisted in data analysis and interpretation as well as documentation.

Potentially relevant approaches to PIM were found in GIZ projects in seven thematic clusters. In terms of advisory approach, several potential contributions to PIM were identified. Potentially relevant approaches were found in seven thematic clusters (portfolios). At the core of the review are projects tasked with improving Good Financial Governance (GFG) – which comprises topics relevant to the public finance side of public investment, including budget reforms, strengthening external audit, public procurement, and inter-governmental fiscal relations. Other relevant cross cutting sectors include Economic Policy Advice as part of Private Sector Development – which entails topics of national economic planning, statistics, and medium term fiscal planning – Decentralisation and Local Development – which treats investment decisions in subnational levels, Climate Change – containing investment in climate related infrastructure across different sectors – and Conflict prevention and resolution, peace and security – which contains rebuilding of infrastructure after disasters, crises and conflicts. Furthermore, the review included the classical infrastructure related sectors like Transport (infrastructure in roads and ports), Health (hospital infrastructure), Education (schools and other learning facilities), Energy (energy policy as well as renewables) and Water.

The projects in the GFG cluster were at the centre of the analysis of this study. According to the ToR for this study, GIZ's complete project portfolio supporting reforms of public finance policy and management (OECD DAC codes 15111 "Public Financial Management" and 15114 "Domestic Resource Mobilization") were to be screened. Main counterparts are Ministries of Finance (MoF), Supreme Audit Institutions (SAIs), as well as agencies and departments under the MoF. The core topics relevant to the study include budget reforms, public financial management, external as well as internal audit. The interventions in this area are defined as GIZ's GFG Portfolio. The list of relevant projects includes projects and programs that exclusively focus on reforms of public finance policy and management as well as projects and programs that target the aforementioned areas only partly, for example as specific modules or components (see Table 16). The conclusions and recommendations presented below only consider the public finance components, while other components are assessed under the relevant portfolio.

Some GIZ projects in the economic policy cluster also focus on PIM. The project portfolio in regard to (Macro-)Economic Policy advice is potentially relevant for PIM. The main counterparts include Ministries of Planning, Statistical Offices and Parliamentary Committees for Economic Policy. The portfolio implies topics of economic planning, including budgetary forecast and medium-term fiscal planning, as well as support to statistical services. The topics are especially relevant for the Planning stage of PIM.

Table 12: Good Financial Governance Portfolio

Project Title GIZ	Country
Support to the reform of public finances to achieve the SDGs and mobilise public revenues	Benin
Governance for Inclusive Growth*	Ghana
Support in modernizing public financial management	Cameroon
Good Financial Governance	Mozambique
Management of local revenue from the commodities sector	Democratic Republic of Congo
Good Governance *	Kenya
Support to Public Financial and Economic Management	Malawi
Good Financial Governance Morocco	Morocco
Sustainable Development Goals - Initiative Namibia*	Namibia
Good Financial Governance Zambia III	Zambia
Advisory Assistance for results-based development and budget planning	Senegal
Governance Support Programme II*	South Africa
Public Finance Management in the South Caucasus	Georgia/ Armenia
Public Finance Management	Kosovo
Macroeconomic Reform - Green Growth	Vietnam
Support to the Reform of Public Finances	Ukraine
Good Financial Governance for a green and inclusive economic recovery in the countries of the Central American Integration System (SICA)	Central America
Project Title GIZ InS	**Country**
Public Financial Management (PFM)	Afghanistan
Improving the Public Procurement System in Serbia	Serbia

* Projects marked with an asterisk are only partly Public Finance

Table 13: Portfolio Economic Policy Advice

Project Title GIZ	Country
Enabling Investment in Tunisia	Tunisia
Program for Infrastructure Development in Africa (PIDA)	Africa N.A.
Economic and investment policy	Rwanda
Innovation and Training Park in Prizren	Kosovo
Consulting services on public shareholding management and the privatization of public enterprises	Azerbaijan, Cuba, Georgia, Moldova, Russia, Uzbekistan, Vietnam
Project Title GIZ InS	**Country**

Technical assistance for business environment and investment climate, including e-government	Ethiopia
Investment Support Facility (ISF) for the EU-Nepal Trade and Investment program	Nepal
Support to the trade sector	Ecuador
Economic Governance for Equitable Growth (EG4EG)	Mongolia
Competition and Public Procurement System	Ukraine
Project Preparation Facility (PPF Kosovo)	Kosovo
Project Preparation Facility (PPF 7)	Serbia
Support for Coordination with International Financial Institutions and Bilateral Donors in the Western Balkans (IFICO 3)	Serbia

Decentralisation and Local Development. The project portfolio regarding Decentralisation and Local Development consists of projects devoted to strengthening the role and capacities of SNG. Main partners are – depending on constitutional state and the organisation of the partner country – the Ministries in charge of intergovernmental relations, the Ministry of Finance, line ministries as well as subnational governments and councils and their associations and other organisations from civil society. Directly related to central government public investment system is fiscal decentralisation as well as local investment decision making, municipal asset registers and citizen participation in municipal decision making and social auditing. However, because the scope of decision making is limited on subnational levels (for example major decisions regarding planning, commitment, funding etc. may need central government approval of guarantees), and because of possibilities of direct user participation in decision making and oversight on the local level, decision making on decentralized levels follows a rationale different from central government decision making. Thus, experiences in the local governance sphere do not serve as example for central government processes and vice versa.

Table 14: Portfolio Decentralisation and Local Development

Project Title GIZ	Country
Support to Decentralisation and local development (previous phase)	Benin
Decentralisation and social cohesion	Burkina Faso
Community Development	Cameroon
Decentralisation for Development IV	Zambia
Poverty-oriented communal development and decentralisation	Madagascar
Support of decentralisation and reform of public finance	Mauretania
Decentralised solutions for regional development	Morocco
Modernisation of Local Public Services (MLPS)	Moldova
Decentralisation Support	Tunisia

The cross-cutting cluster "conflict prevention and resolution, peace, and security." Because the underlying reasons (natural disasters, conflicts) usually have a heavy toll on infrastructure, the portfolio addresses (re-)construction of infrastructure as contribution to emergency relief and social cohesion. This, therefore, is in a way complementing the PIMA approach: this portfolio focuses on the "physical" aspect of public investment, the realization of construction works, exclusively.

Table 15: Portfolio Conflict prevention and resolution, peace, and security

Project Title GIZ	Country
Stabilisation of livelihoods for returnees and population in Ninewa	Iraq
Integrated Management of Border Regions in Burkina Faso	Burkina Faso

Improvement of Livelihood through strengthening of resilience and social cohesion	Niger

Priority sectors for public investment: Climate change, Transport, Energy, Water, Sanitation, Health, and Education. Of the sectors relevant for development policy and priority sectors under BMZ's Agenda 2030, these are the ones that are based on infrastructure equipment. Although the sectors change and infrastructure is more and more privately provided, the sectors can still provide lessons for public investment.

Table 16: Sectoral Portfolios: Infrastructure, Transport, Energy and Climate Change, Water and Sanitation, Health, and Education

Sectoral Portfolios	
Project Title GIZ	Country
Transport	
Sustainable urban mobility in secondary cities	Peru
Indonesian Bus Rapid Transit Corridor Development Project (INDOBUS)	Indonesia
Road maintenance	Somalia
Health	
Health Projects GIZ	
Support for the health care system in the South Kivu region	DRC
Support to Health Sector strategy	Nepal
Social Health Protection IV	Cambodia
Health Projects GIZ InS	
GIZ INS: Project Management Organization (PMO) in the Ministry of Health	Yemen
GIZ INS: Technical Cooperation Program to the Ministry of Public Health	Afghanistan
Rural Development and Agriculture	
Support of the National Program for Sustainable Small-Scale Irrigation	Mali
Energy	
Energy Efficiency for Sustainable Urban Development	Brazil
Support for the implementation of the energy transition in Mexico	Mexico
Energy efficient building refurbishment in Mongolia	Mongolia
Energizing Development (ENDEV)	worldwide
GIZ INS: Stabilization through quick-impact Energy supply	The Gambia
Water	
Drinking Water and Sanitation supply in Boucle du Mouhoun, Hauts-Bassins and South-West	Burkina Faso
Improving the planning and operational performance of desalination plants in Jordan	Jordan
Modernization and strengthening in water supply and sanitation Programme	Peru
Asset management for water and sanitation sector	South-East Europe
GIZ INS: Damascus Rural Water S1	Syria
Climate Change	
Climate resilient and inclusive urban development	Bangladesh
Felicity II	Global
Adaptation to Climate Change into the National and Local Development Planning II	Bangladesh
former Adapting public investment to climate change in Latin America (IPACC II)	LA

Education	
GIZ INS: University Capacity Building Program	Ethiopia
GIZ INS: University Renewal and Reorganization Program	Morocco
Support to the Khyber Pakhtunkhwa Education Sector Plan (KPESP)	Pakistan
Other sectors	
China-Europe Public Administration Project (CEPA) II	China
Development of the Cohesion Policy Management System (PPF 4)	Serbia
Support to NIPAC in IPA programming (PPF)	Bosnia and Herzegovina

Limitations of the methodology. Although the methodology is relatively robust and the sample quite broad, it has two limitations. The first limitation arises from its concentration on the current portfolio. GIZ experiences include a broader knowledge around public investment. The decision to do the analysis without a systematic analysis of projects concluded in recent decades might limit the scope of experiences substantially. While projects concluded are not part of the systematic review, selected experiences are cited wherever known and fitting. Secondly, out of practicability reasons, the sectors and projects to be analysed were preselected. Analysing the entire project portfolio in certain sectors could possibly reveal further insights.

5.3 Results of the Analysis

GIZ projects have substantial technical and wide regional experience in capacity development on PIM across all PIMA institutions. The able below relates the interventions of GIZ projects to the institutions of public investment as categorized under IMF's PIMA. The graph shows that GIZ has knowledge and experience in supporting each of the 15 PIMA institutions. While experiences stretch across sectors and projects in many different country settings, a few common patterns emerge. For example, GIZ projects generally take a pro-poor approach. While on the central level, the pro-poor approach is reflected basically in policy formulation and in a criteria-based planning process that emphasizes pro-poor aspects, the decentralisation project portfolio is quite rich in examples of strengthening direct participation in (pilot) communities. Similarly, elements of gender-sensitive budgeting as well as direct citizen participation in budgeting processes (e.g., citizen budgets and social accountability mechanisms of government actions) are common. An increasing number of projects seek to integrate green aspects of public investment.

Table 17: Overview of PIM activities of GIZ projects reviewed

	INSTITUTIONS		GIZ GFG and selected other projects active in an area of PIMA
PLANNING	1	Fiscal Targets and Rules	Ghana Governance for inclusive Development; in previous phases GFG Kosovo, Benin SDG, Zambia GFG, Poverty reduction Senegal, GFG Malawi, GFG Cameroon
	2	National and sectoral planning	Benin SDG, GFG Cameroon, GID Ghana, SDG Initiative Namibia II, Zambia GFG, Senegal, Vietnam Macroeconomic Reform - Green Growth, SICA
	3	Central-local planning	Benin, Management of local revenue from the extractive sector in DRC, Mauretania, Moldova Modernization of Local Public Services, Morocco GFG, Zambia Dec, Madagascar Dec, Cameroon Dec, Vietnam Macroeconomic Reform - Green Growth
	4	Project Appraisal	Benin SDG, GFG Morocco, SDG Initiative Namibia II, Rwanda Economic Policy, GFG Zambia, Senegal, Vietnam Green Growth,

			PIDA
	5	Alternative Financing	Benin SDG, SDG Initiative Namibia II, Rwanda Economic Policy, South Africa Governance, SICA all projects in the field of climate funds
ALLOCATION	6	Multiyear programming	Benin SDG, Zambia GFG, Senegal, Malawi, GFG Cameroon, Ukraine GFG
	7	Budget comprehensiveness and unity	GFG Morocco, Ghana Governance for inclusive Growth, previously Vietnam
	8	Protection of investment funding	Ghana Governance for inclusive Growth, (Zambia + Cameroon Dec)
	9	Maintenance Funding	GFG Morocco (Dec Cameroon); (Projects of health centre construction and partly of water infrastructure)
	10	Project selection	Ghana Governance for inclusive Growth, Morocco GFG, Zambia GFG, Morocco GFG, Vietnam, Benin SDG
IMPLEMENTATION	11	Procurement	Morocco GFG, Moldova Dec, Namibia SDG Initiative, Ukraine GFG, South Africa Governance, Improvement of public procurement system in Serbia (GIZ- INS)
	12	Availability of financing	Ghana GID, GFG_Malawi, Zambia Dec
	13	Project Monitoring and Oversight	Cote d'Ivoire (Anticorruption), GFG Malawi, Moldova Decentralisation, Rwanda Economic Policy, South Africa Governance, GFG Tanzania, Uganda Governance, Ukraine GFG, SICA, GFG Mozambique
	14	Implementation management	Ghana GID
	15	Accounting of public assets	South Africa Governance

5.3.1 Results by Sector: Good Financial Governance

Public Investment management issues are scattered across the project portfolio. Within the GFG portfolio, several bilateral projects (in Morocco[12], Ghana, Kosovo, Vietnam, Benin) and the regional project with SICA in Central America have explicitly addressed issues related to public investment management and the investment project cycle. A particular strength of most GIZ GFG projects lies in the fact that they have developed over time long-lasting relations of trust with MoF and Supreme Audit Institutions, as well as with the relevant bilateral development partners of PFM, the IMF, and World Bank. This includes that some GIZ staff members have been involved in PIMA missions in the countries their projects are active.

Several GFG projects address the key issue of weak intra-government coordination in (investment) budget planning. GFG projects implemented by GIZ in partner countries often seek to address weaknesses in intra-government coordination between (i) the central government's key fiscal ministry (e.g., Ministry of Finance, Ministry of Economy and Planning) and sectoral line ministries (Ministry of Energy, Ministry of Water, etc.) as well as (ii) across levels of government. This weakness adversely affects PIM. In fact, in many countries one finds a multitude of ministries, sometimes more than 40, with an unclear and overlapping allocation of portfolios. All ministries compete for power, political attention, and scarce resources. Political economy aspects tend to dominate budget processes, with

[12] GFG Morocco is a new project that is currently on hold due to the current political situation in the country and foreign policy disturbances with the EU and Germany. The activities are expected to start as soon as the local context allows for it.

clientelism often playing a role in the distribution of resources in both the recurrent and investment budgets. A further challenge is that the recurrent budget often takes up a large part of the budget, leaving less space for investments. GIZ projects working in the field of governance and particularly GFG strive to strengthen sector ministries' role in the budget process. Institutional limitations include a concentration on sectoral planning and policy processes, while budget units are often equipped with little staff and local affairs units in central government often underfunded and given little importance. For example, in Senegal only one person in each of the numerous sector ministries is responsible of receiving, assessing, and transmitting investment projects to the MoF. In Namibia, the coordination between the sectoral ministries on the one hand and the National Planning Agency, which is attributed to the Presidency, and the MoF, which is considered the dominant player, on the other hand has been identified as a major problem. The GIZ project aims to introduce criteria on a more inclusive, pro-poor approach of public investment foremost by providing more and better data (on this project see also below).

Senegal provides a good example of how sector GIZ's work seeks to support improving sector coordination in budget management. The approach of offering cross-sectoral advice at the macro level was an important factor for success in the establishment of programme budgeting and multiyear budget and expenditure planning in sectors like education in which other GIZ projects are active. Learning experiences made in this context in one ministry were shared via the National Network of Planning Departments and used by other line ministries.

GIZ projects seek to strengthen budget management without getting involved in political decision-making. The budgeting process is a core element of any government's management of public resources. However, GIZ projects are rarely involved in budget policy decision-making, with notable exceptions of the projects in Ghana and Malawi. The rationale behind this is that allocative decisions are the result of a political process and, therefore, considered the prerogative of partner governments. Regarding PIM, allocation decisions are an important stage for investment decisions, and the PIMA framework has identified interventions that address allocation on a systemic level, rather than the political decision making. For example, introducing standard processes (e.g., criteria-based project selection) can support fact-based decision making without crossing the line to political decisions.

Planning Stage of Public Investment

Fiscal rules can be indirectly instrumental to improve PIM. PIM can be guided by a variety of fiscal rules which can address, for example, the protection of the capital budget, the share of resources to be transferred to subnational governments, and the prioritization of projects over time (e.g., often projects that have already started the construction phase are prioritized over new projects). GIZ projects relatively often address rules for intergovernmental transfers as part of GFG's focus on improving intergovernmental fiscal relations and fiscal decentralization.

Multi-annual budgeting frameworks can be used as an instrument to guide and improve PIM. Multi-annual budgetary frameworks are guided by specific fiscal rules that seek to establish an indicative planning of investment expenditure over time and inform cash management to avoid liquidity-driven construction stops or unsustainable debt levels. Medium-term budgetary frameworks (MTBF, forecasting revenue and expenditure) and Medium-Term Expenditure Framework (MTEF – focusing on expenditure management) are often used as specific tools in this context. In most cases these tools are used on a rolling-basis for a three-year time span, but sometimes even for five years. Currently, the MTEF and MTBF are a subject in a high number of projects from the current and former GFG portfolio. For example, the GFG project in Cameroon supports the two central ministries in charge of finance and economy in developing the guidelines for the MTEF by assisting these ministries to provide all documents required and prepare mature projects within their MTEFs. They were first followed by three pilot sector ministries whose staff were trained. The projects registered were more readable, better presented and more mature so that they could be implemented without further delay. All in all, the improved MTEFs of the sectoral ministries involved received a better rating during the budget conferences than the other line ministries, hence receiving budget allocations more easily.

Programme budgeting has proven to be challenging. Regarding the link between planning and budgeting, some GIZ projects have supported programme-based budgeting, often in combination with multi-year planning (MTEFs), to improve the link between policy priorities and budget allocations. Conceptually, programme budgeting shall allow for a clear definition of the performance needed to achieve public policy objectives and produce results and allow for thorough prioritization, both of political initiatives as well as for administrative efforts. However, in practice programme budgeting systems often fall short of that ambition, which has specially been observed in francophone African countries.

An example of tailor-made support: capacity development for improving long-term budget planning processes in Vietnam. In various countries, governments have a rather long-term planning horizon of up to 10 years, which regularly extends beyond individual legislative terms and the terms of office of decision makers in governments. However, often these plans require shifts in such plans because of new political priorities, changes in the economic situation or external shocks (e.g., the COVID-19 pandemic, natural disasters, internal conflicts). The experience with the Vietnamese Green Growth (VGG) Strategy is a good example in this regard. The country's 10-year development plan is generally the guiding document for political decision-making. By law, only projects can be budgeted that are included in this plan. However, the VGG strategy was developed in the middle of a development planning cycle. Hence, projects under the VGG strategy can only be funded once the 10-year plan has been reviewed. GIZ supports the Vietnamese government in reforming the organic budget legislation to take such changes at the strategic level of government decisions into account.

The appraisal of investment projects. The appraisal stage of IMF's PIMA cycle includes two crucial steps for public investment projects. Usually, the appraisal stage is divided into **ex-ante evaluation and impact assessment**. Ex-ante evaluation is in many countries a responsibility of Ministry of Planning. For instance, in Benin, criteria for feasibility and impact assessment are developed with the Ministry of Planning. Green issues are currently not at the heart of those processes but are increasingly to be included in the prioritisation process.

The gender dimension is often a blind spot in budgeting, and it is not covered by PIMA. A specific blind spot of PIMA, but also of conventional planning of public investment in partner countries, lies in the gender dimension of public investment planning. The main challenge is the limited availability of disaggregated gender data. Gender sensitivity needs disaggregated data on the (future) use of public facilities. On this, GIZ has a long experience in working with statistical offices. Gender budgeting is also promoted in Benin and Ghana among other countries. These projects build upon achievements from previous phases, especially on impact analysis and ex-post evaluations of public investments.

Considering the SDGs in public investment management. The "Initiative Namibia II" is a GIZ project with the following three pillars, all focusing on improving planning processes: (i) National Planning Agency: Improvement of national planning processes; (ii) MoF: Alignment of the investment projects with the Agenda 2030 and the SDGs; (iii) National Statistical Agency: Improvement of data collection, provision of disaggregated data to observe gender and regional disparities.

Allocation Stage of Public Investment

In Malawi, cash management is a reform priority. The GIZ **GFG in Malawi** Program contributes to strengthening the Cash Management Committee in the Ministry of Finance and Development Planning to use monthly updated forecasts of cash requirements of all 17 ministries for the timely and orderly resource allocation. The Government Contracting Units in the Office of the President and the Treasury Single Account are also supported. For the latter, an initial inventory/ registration of existing accounts will be undertaken. The lasting performance of the new Integrated Financial Information Management

Systems (IFMIS)[13] will also be promoted.

While recurrent spending on the maintenance of public infrastructure is a key problem in many countries, GIZ's GFG projects do not focus on this in their work. Concerning public investment projects, a critical issue usually is the insufficient allocation of recurrent expenditures on the maintenance of public infrastructure. However, evidence that GIZ's GFG projects currently focus on this issue in their work on budget management could only be found in Morocco.

Mobilisation of private financing for investment projects. Under the project "SDG initiative II" in Namibia, GIZ advises the PPP unit in the MoF on the transfer of about 30 state-owned enterprises into (private) holding companies. This would help mobilizing private sector financing. Similarly, the Programme for Infrastructure Development in Africa (PIDA) as the continental strategic infrastructure framework is a critical programme for the African Union (AU) to assist Member States in implementing 51 cross-border programmes covering transport, energy, information and communication technology (ICT), and transboundary water projects. Part of the advisory work of this project is to support the mobilisation of private financing for the realization of selected infrastructure investments in African countries with the PIDA Continental Business Network (CBN).

Implementation Stage of Public Investment

Public procurement is a key issue for the implementation stage of public investment, and it receives increasing attention in GIZ's GFG projects. GIZ provides for a growing portfolio of support to public procurement in GFG projects.[14] Beyond the procurement strategy, government ministries, departments and agencies are supported to establish processes to guarantee competitive and efficient procurements. For example, in Kenya the former project "Support to Budget Reforms in Kenya" assisted the MoF in establishing the Public Procurement Oversight Authority (PPOA). GIZ advisory services included assistance in drafting the PPOA's legal framework, developing a strategy for its interventions, and organizing staff trainings. In Serbia, until 2019 GIZ supported a systemic approach to public procurement under the EU-funded project "Improving the Public Procurement System in Serbia." This included the review of the public procurement system's strategic, legal, and institutional dimensions in line with European directives. In addition, an e-procurement platform was developed, while capacities of the contracting entity and other stakeholders were strengthened.

The project "Support to Public Finance Reform in the Ukraine" is a unique and particularly successful example of GIZ advisory services on procurement. As part of the project "ULEAD (Ukraine Local Empowerment, Accountability and Development)" GIZ has supported the establishment of e-procurement in the form of the internet platform "ProZorro", which is compulsory for publishing Ukrainian government tenders. ProZorro was initiated on a voluntary basis by young IT specialists to make the bidding procedures transparent. It makes publicly visible which companies are bidding and what they are offering. This makes a fair bidding process possible, which is why more suppliers participate in the competition. Since ProZorro's introduction in 2016, the number of bidders for tenders has increased by 50 per cent, while corruption and misappropriation of funds have been made more difficult. The ULEAD project trained staff from up to 380 municipalities in the use of the ProZorro system.

GIZ projects often seek to strengthen internal control and audit functions, which indirectly strengthens PIM. The internal audit function is a function of government that is tasked with reviewing budget-related decision making. The function can be centralized, based in the Ministry of Finance, or spread up horizontally as function of each ministry. Competently performing the internal audit function is

[13] IFMIS computerizes the budget management and accounting system for a government. It consists of several core sub-systems which plan, process and report on the use of public resources. It normally combines accounting, budgeting, cash, and debt management.

[14] The support to competitive procurement system is also part of GIZ projects focusing on anti-corruption, which are part of GIZ's broader governance portfolio.

specifically relevant for the financial control of voluminous budgetary items, including complex public investment projects. As part of the project "GFG in Tanzania," the MoF in cooperation with the Institute of Internal Auditors is supported in setting up and subsequently strengthening the internal audit function across government. This includes formulating guidelines for internal audit, designing audit procedures and training internal auditors.

Financial monitoring of investment projects does not feature much in GIZ's GFG projects. The monitoring function as considered under the IMF's PIMA tool relates to the financial monitoring of investment projects. However, in practice monitoring is in the first place interpreted as a technical or physical exercise, with the respective sector ministries responsible for leading in the monitoring of their public investment projects. The MoF usually has only a secondary monitoring function, focussed on the financial dimension. There is little evidence in GIZ's GFG portfolio that this secondary (financial) monitoring function is supported.

By contrast, external audit is a stronghold of GIZ's GFG projects. The external oversight over investment projects is part of IMF's third stage of the public investment cycle. The role of the Supreme Audit Institutions (SAIs) is to provide ex-post scrutiny and inform parliament and government about the results of public investment management. As a standard procedure, the entity in charge of the infrastructure must certify that a certain public investment is completed according to the plan. This is usually done based on an ex-post financial audit. GIZ has a rich experience in strengthening the external audit function in partner countries and at the regional level. The GIZ approach to institutional change in external auditing, i.e., setting up and strengthening SAIs, has been particularly helpful for many formerly socialist countries in their transition to market economies (e.g., China, Vietnam, Mongolia, Georgia, and Montenegro). GIZ has also provided support to SAIs in Malawi, Mozambique, Tanzania, Uganda, and more recently also in Cote d'Ivoire. The support takes the form of clarification of mandate, organisational and capacity development, and introduction of (IT-based) auditing and audit reporting according to international standards. In Ukraine, GIZ currently advises the SAI on its strategic planning, communication, and knowledge management.

In addition to the ex-post auditing function, GIZ's experience includes working with systems where the SAI is tasked with ex-ante controls of public investment. This is often the case in francophone administrative systems and former socialist countries. The function of ex-ante audit and approval is particularly relevant for public investment. One the one hand it can result in slowing down the investment process, but on the other hand it can contribute to taking a financially sound investment decision. In Georgia, the project "Public Finance in South Caucasus" concentrated on strengthening SAIs in the region. Major infrastructure projects in Georgia require approval from the national auditing organisation. With support of GIZ, financial auditing was professionalised. Specifically, infrastructure audit was strengthened; this included on-site inspections of critical infrastructure projects, involving technical experts (civil engineers etc.) to verify the quality of public works projects. A similar process was supported in Peru until 2019. A component of GIZ's project "GFG in Mozambique" supports the *Tribunal Administrativo de Mocambique* in its role of auditing major public contracts ex-ante. This approval is a necessary precondition before government is allowed to sign contracts. The pre-audit process requires a financial and legal inspection. In Armenia, the GIZ project "Support to Armenia's Auditor General's Office" supported the SAI in auditing of public roads. With GIZ's support, the SAI developed an audit procedure that includes site visits. For the first time, civil engineers tested the quality and strength of tarmac of newly constructed public roads, partly with devastating results.

External auditing can be useful in the context of cross-cutting issues, including social impacts of spending or emergency expenditures during and after the COVID-19 pandemic. Concerning cross-cutting issues, *Ghana SAI* decided that all projects issued from Covid-19 Funds were systematically audited. GIZ supports this process through the Governance for Inclusive Development project (GID) in Ghana. Social auditing can play a major role for the improvement of public investment but has scarcely been found in GFG projects, but GIZ is supporting transparency as a first step towards social auditing. One example is the internet platform E-Data that enables people in Ukraine, to view data on the use of state budget funds, a service that 20,000 people use every day. The data is updated daily and as detailed as the smallest budget unit (e.g., individual schools or hospitals).

Asset management is sometimes considered in GIZ's projects. Analysing the two aspects of managing public assets highlights that asset management is a shared responsibility in government. The management of financial assets is basically a function of annual budgeting and reporting under the responsibility of the MoF. The objective is to demonstrate the economic status of the state. Management of non-financial assets focuses on state owned enterprises, but also on other physical assets. This might include major infrastructure (e.g., hospitals, dams, government buildings). GIZ has some experience in asset management. For example, on the local level, GIZ in South Africa has commissioned a team to undertake a full audit of the City of Mbombela's asset management process and assist the finance officials in developing a comprehensive business process and a procedure manual to improve the entire asset management in the City of Mbombela in 2021.

5.3.2 Results for the Economic Policy Cluster

GIZ's economic policy advisory portfolio is complementary to that of GFG regarding PIM. With economic and fiscal policies generally being interrelated, the projects related to macroeconomic policy generally touch upon budget processes from an economic planning perspective at the Ministry of Planning, highlighting medium term economic and social consequences of governmental decisions. Thus, projects focusing on economic policy advisory services often deal with public investment planning and project selection. Generally, the aim is to improve the analytic foundation of public investment decisions, to install a pro-poor, criteria-based approach that helps to orient the scarce resources of the capital budget towards feasible projects inside the framework of the SDGs. GIZ provides advisory on rules and regulations and supports the development of handbooks and guides for instance for project appraisal.

Advice on selection criteria and processes for prioritizing public investment projects is a key element in GIZ projects focusing on economic policy making. In many countries, public investment projects are selected and approved on basis of ad hoc criteria. This leaves the outcome very much to political negotiations. However, economic decision-making generally benefits from criteria- and fact-based decision making. For example, a GIZ project advises on project preparation as part of PIM at the level of the African Union (AU). The project "Public Infrastructure Development in Africa (PIDA)" helps to prioritise and prepare cross-border (public) infrastructure investment projects across the African continent. The GIZ team has supported the commission of the AU in developing criteria for the prioritisation of public infrastructure projects, which resulted in a so called PIDA Action Plan, a priority list adopted on highest political level. In addition, the GIZ team has supported the development agency of the AU, the African Union Development Agency – New Economy Partnership for African Development (AUDA NEPAD), in developing a structure for prioritized infrastructure projects. PIDA also has a public-private sector dialogue facility to encourage funding from non-public sources.

Projects related to public investment management are currently implemented in Serbia as well as in Bosnia and Herzegovina as part of the preparation for EU accession. The goal of these projects is to manage and absorb EU pre-accession funds effectively and efficiently. The "EU PPF – Project Preparation Facility (EU PPF8)" supports the Ministry of European Integration in Serbia in the implementation of a so-called Single Project Pipeline. Line ministries, national agencies and relevant public utility companies are assisted in the preparation of relevant infrastructure projects according to the national and European laws and norms.

The project "Macroeconomic and Investment Policies in Rwanda" is a flagship on public investment. The project supports the Ministry of Finance and Economic Planning in macroeconomic projections and analysis. This informs short-term macroeconomic policy responses, the medium-term budget, and the

National Strategy for Transformation. Investment appraisal processes are strengthened through guidelines for feasibility studies using transparent financial and socio-economic criteria. Investment monitoring is strengthened through enhanced monitoring and evaluation procedures and investment planning, execution, and monitoring are integrated in the budget execution system. The program supports training also for sector ministry staffs, covering both public and public-private partnership investments. A newly developed database contains all newly proposed projects, which is to inform the monitoring and evaluation of all projects proposed for the investment and development budget. The National Guidelines on Monitoring and Evaluation of public projects and programs have been developed and form the basis for two ex-post evaluations that are currently being drawn up. These should provide conclusions about the effectiveness of selected investments for future planning. Another example has been identified in the GIZ project "Private sector Development in Tunisia" where the Tunisia investment agency (TIA) is supported in attracting (foreign) investors to invest in private and public assets in the country. GIZ support concentrates in strategy development as well as support to implementation through organizing investors fora and other marketing initiatives.

5.3.3 Results for Other Clusters and Sectors

Decentralisation and Local Development

The portfolio of decentralisation and municipal development is among the largest within GIZ. Projects supporting decentralisation and municipal development aim at strengthening subnational governments in their functions, and to a lesser degree in supporting state reforms that strengthen the role of subnational levels of government. Public finance management is a core issue in the classical decentralisation projects but seems to be given less priority than before. Furthermore, they focus on the interaction between local and national planning and often support he entire budgetary cycle from the participative preparation to the reporting.

The **Decentralisation for Development (D4D) Zambia** project supports effective local investment planning and local performance assessments in 24 districts in the Southern province of Luapula and figures as a typical example of many decentralisation projects within GIZ. Manifested weaknesses are the management capacity of the councils and the coordination between central and local level with the consequence that insufficient funds are allocated for the subnational level (unfunded mandates). 90% of the transfers incurred are used for recurrent expenditure. Councils face massive debt problems also stemming from the fact that the municipality has not decision power on the local personnel. Councils are assisted in the production and soon implementation of an integrated development plan (IDP) that shall stimulate public investment. The projects included in the IDP are costed and part of the medium-term budgeting of all the supported districts.

The **D4D IV** also supports the ring-fencing of local investments by supporting the establishment of local performance assessments. Local authorities have embarked into a self-assessment procedure along on several indicators like compliance in disbursement and earmarking of funding. Validation by external auditors is to improve credibility of the assessments. The aim is to improve the performance of local authorities and build trust of public and private investors and ultimately improve budget allocation to the municipalities.

In the **Modernisation of Local Public Services in Moldova** project, the improvement of planning coordination and monitoring of regional development strategies is achieved by holding meetings of regional development councils and decentralised sector representatives. The main partners for capacity development are the four regional development agencies - North, Centre, South and Gagauzia which are enabled to organise participatory strategy development, integrated planning, and project development. A project pipeline, based on previously developed sector plans, now encompasses public investment projects at various stages of development to develop and apply improved results-based monitoring procedures. A strong focus is on the effective provision of local investments in infrastructure, as prioritized in a participatory process in rural areas, in four sectors:

- Water supply and sanitation
- Solid waste management
- Regional and local roads
- Energy efficiency of public buildings

The project's measures include the provision of training in regional planning and programming, public procurement, corruption prevention and the management of local public services. The experience in Moldova shows that regions and municipalities can accomplish significant investments. Nevertheless, two obstacles remain. First, the constitutional mandates of central and subnational governments require developing a complex process for public investment management. Second, the lack of own resources at the subnational levels remains the main financial challenge for public investment.

Local planning. In many projects, local planning is the strongest entry point for the promotion of public investment. Beneath the described examples above local planning is supported in Benin, Burkina Faso, Cameroon, DRC, Mauretania, Madagascar, and Morocco. The approach of GIZ follows a multi-level approach with a limited number of partner municipalities in the respective partner country. The partner municipalities are thoroughly chosen and include remote and weaker ones to be pilot municipalities with the aspiration for up-scaling. The GIZ projects assist local authorities in the organisation of a timely and realistic planning process that helps align public spending at the local level with the needs of the private sector and civil society with instruments of citizen participation. Mostly citizen participation is organised via town hall meetings. In Cameroon, the focus of the decentralisation project is on the participation of women in budget procedures including investment planning.

The precarious financial situation in the partner communities often leads to the situation that the thoroughly planned projects are difficult to implement, and the existing infrastructure is poorly maintained. There are several systemic reasons why maintenance needs are often neglected. First, political economy considerations lead to the finding that maintenance might be neglected because it is less politically exploitable than new buildings. Budgeting and accounting, in many countries, do not provide for specific line items for maintenance cost - especially at the local level. The budget classification system does not foresee the category of maintenance costs in the capital budget. The impact on economy and the climate are disastrous: public infrastructure is not as good maintained as it could, reducing the life span considerably and requiring resource-intensive new construction.

Reliable and predictable cash management and maintenance funding has been a particularly identified weakness that only few projects address like the Decentralisation programme in Cameroon. It observes an indicator claiming that at least 50% of the municipalities in the intervention regions have allocated funds in their budgets for the maintenance of municipal infrastructure based on imputed depreciation. Such indicators are standard for KfW projects on financing subnational infrastructure.

As a rather unique example, GIZ experiences include subnational procurement in South Africa. The component seeks to strengthen provincial treasuries in their oversight role over municipal procurement and strengthening municipalities in complying with the procurement rules and regulations, in implementation of the Municipal Standard Chart of Accounts (MSCoA). The component on subnational procurement is implemented in some of the target municipalities of the program.

The Health Sector

GIZ is supporting the construction of income generating or self-supporting infrastructures at the local level in DRC and in Burkina Faso for example. We could not identify any project advising directly on PFM in the health sector at the central level. The programme for the improvement of PFM in Cameroon is a singular example where -as a rather indirect support to PIM- the programme budgeting and budget tracking is being strengthened in the health sector.

Project examples of construction initiatives in Burkina Faso and the DRC show that the communities can be made responsible for the maintenance of the buildings. Partly, as in the case of the health centres, it is assumed that they can finance themselves through the sale of medicines. With the help of GIZ, the municipalities have set up and trained committees of oversight with 7 citizen representatives in Burkina Faso. A maintenance manual describing the regular maintenance and up keeping measures is still being prepared. Local electricians will also be trained in the maintenance of water pumps and solar panels.

Box 2: Health Sector Case Study: The Medical Supply Centre Kivu, DRC

The building of a medical supply depot in South Kivu by the GIZ-INS is commissioned by the Swiss development cooperation and can be seen as good practise. South Kivu was one of the few regions in DRC where the Congolese government had not established such an infrastructure yet. It will improve supply management, inventory management and distribution of essential medicines to health centres in outlying areas. The project included construction management for the distribution centre. During construction an engineer of the project was tasked with **controlling the quality of the building**. The project sets the stage for the development of a pilot model for various reasons.

First, the new distribution centre will be integrated into the National Health Policy for Medicines Supply and has brought to existence with the **closest possible link to the local public administration**. The land for the construction was allocated by public agencies.

Second, the project has paid the necessary attention to the **post- building phase such as the management and maintenance of the medical supply centre**. It is meant to be financially self-sufficient. From the start, the project supports the establishment of the distribution centre as a non-profit association. A model for cost recovery and economic efficiency of the drug cycle have been also developed. It will be fully handed over once the salaries are taken over by a quorate body consisting of local organisations of the health sector.

Third, GIZ does not retreat after the construction, the building project is **closely linked to a locally operating health sector project**. The technical cooperation from the non-profit project builds primary health centres in cooperation with the provincial Ministry of Health and can and will continue to support the management and accounting of the depot by partly deploying one employee. Various development partners in South Kivu have partnered up and build up a performance-based financing system to the health sector with works similar to local subsidies and being regularly evaluated.

Regrettably, the non-profit GIZ health project in South- Kivu does not operate in DRC capital Kinshasa, which is why, GIZ at the current stage cannot address the financing gaps of urgently needed health infrastructure with the Congolese central government.

The Water Sector

Currently, GIZ is one of the two or three biggest bilateral implementing agencies in development cooperation in the water sector. Few projects can be related to public investment management by central government. Most GIZ projects are involved in the planning stage, cost-effective operation, and asset management of public investment. One way to address the financing gap is to help speed up fund disbursement by supporting planning. The Modernization and strengthening in water supply and sanitation Programme PROAgua II in Peru names the lack of coordination on water management between ministries, water supply utilities, local water authorities and regional governments as one of two major threats to water security in Lima, Trujillo, and Piura. It is improving the information base, analysis, quantification, and modelling of water supply risks and providing support in the establishment of efficient coordination mechanisms and in the planning of measures to allow the MoF to speed up fund disbursement. It is aspired that in three cities measures of at least € 30 million are submitted to the MoF for financing protection of water resources.

Drinking Water and Sanitation supply in Boucle du Mouhoun, Hauts-Bassins and South-West in Burkina Faso helps the parastatal water supply company *Office national de l'eau et de l'assainissement* (ONEA) to leverage domestic funds for construction of new facilities and improve cost management and thereby increases ONEA's self-financing capacity. Up to 34 new sludge treatment plants are to be built. The project strengthens the middle management and technical staff of the Ministry of Water and Sanitation, ONEA (in the areas of investment planning, operation and maintenance of the drinking water network, energy audits, planning and monitoring of sanitation) and municipalities (monitoring of environmental standards).

Another intervention strategy is to reduce environmental damage and cut operational costs as in the Desalination of Sea Water and Brackish Water (DESAL) in GIZ's Jordan project. The DESAL project aims to help local institutions improve their investment planning and ultimately achieve more water supply security. By improving human resources capabilities, the aim is to have more efficient site management and reduce operational costs. Better regulatory instruments concerning licensing and environment and social impact assessments (ESIA) are being developed to reduce environmental damage.

The project "Asset management for water and sanitation sector in South-East Europe" which GIZ implemented with the Network of Associations of Local Authorities of South-East Europe (NALAS) produced a Municipal Asset Management Toolkit as guidelines for Local Decision Makers which appears applicable to other contexts. [15]

The Transport Sector

Unlike the health and water sectors, transport services are basically a private good, based on public infrastructure (roads, airports etc.). GIZ services concentrate on the development of sustainable transport services, mostly urban and public transport. This sector has a strong infrastructure component – public roads – and a high relevance for climate change / mitigation. The projects address mainly the planning stage of public infrastructure investment

For example, in Peru, the project "Making urban mobility in Peruvian cities sustainable and climate-friendly" provides support in improving mobility in secondary cities and the conditions for the development of a more sustainable, low-carbon urban transport. The project has been actively supporting the planning and monitoring of public investment projects, building institutional capacities, and improving conditions for financing of public transport infrastructure.

A second project example refers to the support to the "Indonesian Bus Rapid Transit Corridor Development Project" (INDOBUS). The project is financed by German and Swiss development cooperation and concentrates on preparation and pre-feasibility of Bus Rapid Transport (BRT) corridors. The extension of the network of dedicated BRT corridors shall contribute to mitigating traffic congestion across Indonesian metropolitan cities. Main partner is the Indonesian Ministry of Transportation, the project is funded by SECO / Switzerland. Main activities include pre-feasibility studies for construction works for BRT.

The GIZ services are supporting typical public investment projects on municipal level. The interventions are directed to the planning stage of public investment; therefore, they are complementary to PIMA analysis: mobilization of finance and budgetary implementation are in the hands of project partners. It could not be established whether GIZ interventions with finance departments are included.

Conflict Prevention, Peace and Security

The approach in this sector is distinctively different from other sectors as GIZ is conducting building projects itself. The reason is that, in fragile situations, (re-)establishment of public infrastructure is of utmost priority. At the same time, the structures and processes of public administration are often

[15] See: GIZ; Swiss Eidgenossenschaft; NALAS (2014): Municipal Asset Management Toolkit. Mimeo, available on request to the authors

severely damaged and dysfunctional.

In these fragile situations, (re-)establishment of infrastructure is approached in emergency mode. The abundance and urgency of the demands for infrastructure in post-conflict settings demands for a quick provision that a weakened administration is not able to furnish. Decisions are taken outside the “normal” processes, with development agencies often acting in lieu of public administration.

The accompanying advice to governments and / or municipalities on the organisation of administrative processes, forms of financing, prioritisation of regional infrastructure investment programmes can serve short-term needs and be transferred into longer-term support measures - e.g., the qualification of personnel for the maintenance and operation of infrastructure.

For GIZ, this often translates into realising infrastructure work with no or only little cooperation of the administration in the partner country. This means that GIZ plans, designs, allocates, procures, and monitors the infrastructure projects all along the project cycle.

Typical projects in the field of Management of Crises, Conflicts, and Social Cohesion have been identified in Ninewa, Iraq, Burkina Faso, and Niger. The focus of the construction component lies on the assurance of appropriate construction in essential areas like schools, health centres, water provision and offices for the security sector. Usually, those projects accompany the building phase only but intends to leave support material for the post- building phase for example for maintenance. The installation of committees of oversight or other mechanism of citizen audit can be considered good practice.

Box 3: Case Study Integrated Border Management Burkina Faso

The Integrated Management of Border Regions in Burkina Faso is operating in the fragile border regions with Mali and Niger. With funding by the European Union's Emergency Trust Fund for Africa (EUTF) and by the German Federal Foreign Office, GIZ is assisting Burkina Faso in implementing the border management strategy. To provide clean drinking water, medical care, education, and hygiene in three border regions, the infrastructure is expanded or built by a building component of the project. The population in Mali and Niger should also benefit from the social services.

These measures shall improve basic services, expand the state's presence in the remote regions and increase the population's trust in the government. Moreover, the expansion of infrastructure not only creates short-term opportunities to earn wages, but also promotes employment in the regions in the long term.

The project is designed so that GIZ implements the construction itself which caused resistance from the Ministry of Territorial Administration, Decentralisation and Social Cohesion at the beginning. In workshops with communities and municipalities, the need for wells, schools, health stations and latrines was first identified. Construction of basic health centres and schools were aligned to the identified needs at the sector level. The list of the planned constructions was validated by the ministry. A focus was also on the needs of the security institutions (Gendarmerie, police, and customs offices).

The Energy Sector

The energy sector provides three basic services: energy production, transmission, and distribution. GIZ activities in the energy sector support energy production, with a general trend towards using renewable energies and new energy sources. Some projects advise on a strategic level like in India and Mexico where the provision of energy is state ruled and solar energy is promoted to feed in energy grids. Here overall planning is assisting in developing energy action plans, disseminating proven models and instruments for improving the basic energy supply and establishing a conceptual basis for enhancing the energy supply.

The global programme Energising Development (EnDev) aims to improve access of poor households, social institutions, and small and medium enterprises to renewable energy in currently 26 countries in Asia, Latin America and Africa through direct intervention, the development of energy markets and results-based financing. EnDev itself is financed by several bilateral donors and disposes over more than 270 million Euro. EnDev promotes the competitiveness of the private sector on the local markets of solar systems, grid densification, micro-hydropower plants, energy-efficient stoves, and biogas. In carrying out its projects in the partner countries, EnDev cooperates closely with non-governmental organisations and the scientific community but rather avoids the administration of the partner countries.

In Gambia, the project “Stabilisation through improvement of the energy provision” provided typical public investment services. The project contributed to the technical mapping of the grid, the planning and management of energy infrastructure. This project was exemplary, as it was financed by the German Foreign Office. It was in a way a good example that budgetary procedures were not addressed; the infrastructure contribution had elements of a once-off contribution to technical capacities only. Another strand of work in GIZ's energy sector deals with energy efficiency in public buildings. For instance, in Brazil and Mongolia, the link to PIM is more evident as partner municipalities are being supported in the medium-term planning and operation of public investments in the local public infrastructure like schools and kindergartens that shall contain energy losses and reduce maintenance costs.

Climate Change and Green Recovery

To foster criteria- and fact-based decision making on identifying sound green investment projects, a GIZ project in Rwanda named “Policy Dialog on Low Emissions and Resilient Economic Development (DIAPOL)” contributes to a recently founded green macro-modelling group with the World Bank and UNDP that exchanges and develops perspectives on a recovery plan for Rwanda. A study by this project on the potential green priorities of the recovery plan is underway.

The engagement with public investments in the field of climate revealed that there are several activities/projects that take place through three overarching instruments of financing, namely the Green Climate Fund, the Nama Facility, and the Felicity II project. GIZ is involved with all of them, mostly in project preparation and planning and to some extent seeking alternative financing from international and private financiers.

GIZ is accredited to the Green Climate Fund (GCF) and participates in its call for projects. The GCF invests in four sectors; energy and industry; human security, livelihoods, and wellbeing; and land-use, forests, and ecosystems. It promotes integrated strategies and planning for mitigation, adaptation, and sustainable development. It seeks to mobilize finance at scale: by pooling public resources and crowd-in private finance.[16]

The NAMA (Nationally Appropriate Mitigation Action) Facility finances projects that address specific local emission reduction challenges like energy efficiency in public buildings, renewable energy, e-mobility, and waste management. The last Ambition Initiative Call from December 2020 was themed Green Recovery and was endowed with 174 million €, but always additional private sector participation is sought for.[17] The facility prioritises projects that have the potential for up-scaling, replication, and the ability to influence broader sectoral change.

Felicity II is a global programme commissioned by the German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV) and operated by GIZ. It supports cities and municipalities to build up the institutional framework as well as the know-how to develop and implement low-carbon infrastructure projects. The investments focus on the energy, water, transport, and waste sectors. So far, projects in Mexico, Indonesia, Ecuador, and Brazil with an estimated investment volume of 317 million euros have been financed.

GIZ gives demand-oriented advisory to cities on applying for and using financing, as well as support in

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[16] See: https://www.greenclimate.fund/about

[17] GIZ and KfW have been mandated to implement the NAMA Facility. Since the end of 2020, GIZ has been the designated NAMA Facility Grant Agent (NFGA), taking over all functions previously shared between GIZ and KfW. In this sense, GIZ has two roles here: on the one hand, it runs an independent secretariat; on the other hand, GIZ is certified for implementing projects funded under NAMA facility.

the preparation of concrete low carbon projects, subsequently to be financed by the European Investment Bank (EIB). The project has implemented capacity development measures for 3,300 municipal, regional, and national experts and produced various guidelines and handbooks like the one in Mexico on energy efficiency in the planning, construction, and operation of hotels, and on energy transition methods in buildings.

On 23 September 2020, a new City Climate Gap Fund (Gap Fund) was launched[18]. The Gap Fund is an initiative of the governments of Germany and Luxembourg together with the Global Covenant of Mayors (GCoM), in partnership with several other key players in the field of climate finance. The envisaged budget of at least 100 million Euros is supposed to unlock 4 billion Euros of private and local investments to implement cities' climate plans. One pool is managed by the European Investment Bank (EIB) in partnership with GIZ, the other one by the World Bank. Again, GIZ is here in the role of a project facilitator of those funds.

In addition to the portfolio of BMZ projects, there are about 10 BMUV-funded **bilateral projects** in Asia and Latin America that are structured similarly to the one supporting the Paris Agreement in Vietnam. GIZ supports the Vietnamese government in developing project proposals for which funding is then sought from other sources. The project serves as an interface for the International Climate Initiative (IKI) of the BMUV. Here, too, support is limited to the preparatory phase.

Beyond the current portfolio, GIZ has developed good practise in the past in the project appraisal stage of green investments. The project "Adapting public investment to Climate Change" in Latin America (IPACC II) commissioned by BMZ as part of the international climate initiative brought representatives from the Ministries of Economy, Finance and Planning from Brazil, Colombia, and Peru together with the objective to minimise climate risks in public investment management. Climate change adaptation measures became a binding requirement for public investment projects. The focus in Peru was on regional investment projects and budget programmes in the agriculture and health sector. In Peru, the new multi-year programming and investment management scheme INVIERTE.PE came into force in February 2017. All public investment projects are required to include climate risk management. In Colombia investment projects are required to carry out a disaster risk analysis since November 2017. The project ended after one phase in 2019.

In northern Peru, research was conducted with a local university following the extreme weather event El Niño to identify the key characteristics of infrastructure that had remained intact. These best practices serve as models for regional and local governments on how bridges, roads and other public investments can be made climate resilient. The researchers involved in the study were able to experience climate risk management in practice and can now integrate what they learned into their work.[19]

5.4 Conclusions from the GIZ Project Portfolio Analysis

In this part we concentrate on the conclusion from the projects' reality that is more directly in relation to public investment although we acknowledge that public and private investment underlie under the conditions of the general governance system.

Systematic Focus on Public Investment Management

The analysis shows that public investment management was addressed by each project from its own sectoral, regional, and thematic logic. From the perspective of the sectors analysed, this makes perfect sense. However, the result is that no cross-cutting standards or comprehensive approaches to strengthening PIM have been developed that could be used by sectoral projects that engage in support to PIM as part of their project activities.

[18] See: https://www.citygapfund.org/
[19] See: https://www.giz.de/en/worldwide/13314.html

Given the fundamental relevance of PIM for both partner countries (in terms of investment needs) and development partners (where dysfunctional partner systems are bottlenecks for strengthening PIM in partner countries), the results of the previous parts of the study will be used to developing a consistent and comprehensive approach to capacity development in PIM.

A major strength of GIZ's approach is partner orientation and the focus on tailor-made solutions and approaches. A strong commitment for ownership of the partners, the use of partner systems and sustainability of the interventions. Thus, refining and further developing the PIM approach for GDC technical assistance should build on this strength. However, on the level of analysis, standard instruments for the preparation of relevant projects like Peace and Conflict Impact Assessments (PCIA) and Gender Analyses do not relate to public administration capacities, and specifically to the public financial system. This leads to a situation where, in the assessment phase, crucial information is not systematically collected. This is even more the case as PIM is currently considered a secondary topic and specific expertise is not available. Although understandable from the sectoral logic, but a limited understanding of key partner processes certainly limits the potential for success of the projects.

While in general, governance is considered a cross-cutting issue, instruments are not specific enough to address public finance matters such as PIM. These are often perceived as technical topics for public finance experts, rather than cross-cutting, systemic elements for systematically strengthening decision making. Consequentially, in many cases the PIM elements of GIZ's portfolio are not explicitly recognised as such by the respective project design. This can lead to projects not recognising the importance and necessity of sound PIM systems in partner countries and bring about some risks of sustainability of the investment.

The need to strengthen procedures might be difficult in situations where specific practical experience in PIM is limited. During interviews for this study, a specific understanding for public investment procedures was rarely found. GIZ staff, especially experts in sectors, considered the PIM beyond influence of the individual project. PIM reform needs were perceived part of the political economy of the partner country and the relationship between sectoral investment planning and the budgeting was not considered relevant for the project's success.

How the GFG project portfolio can better support PIM

Although the current GFG portfolio is rich in connections to issues in public investment management, only few projects were identified that explicitly and intensively address reforms of the public investment system. If PIM is addressed, the scope is often quite limited, such as in Ghana on inclusiveness, in Vietnam on green growth or in Senegal on performance of the public administration. Most projects intervene at the early stage of the PIM cycle – in the planning processes. Although a sound planning provides a good basis for public investment, reforms along the whole PIM cycle need to interrelate to improve PIM. TC provides a good chance for success: Taking in a PIM perspective needs a rather long time and trust bound approach and certain political stability.

In terms of opportunities, weaknesses in partner systems regarding budget allocation might provide opportunities for providing advice on budget strategy; in particular, this relates to budgeting of maintenance funding, earmarking and protection of investment budgets and public procurement systems, but also asset registry. Maintenance funding has been but is currently not a topic for the GFG portfolio. This may be because data on infrastructure investment does not include reporting on spending on maintenance. Asset management would need an immense effort to overhaul existing asset management as it implies asset registries and nationwide reporting systems. Regarding external ex-post audit of investment projects, the topic is currently not addressed, but could be included in the portfolio of current external audit and accountability mechanisms on the national level.

An Opportunity: Strengthen Sector Coordination and Collaboration

As the study has highlighted at various points, an efficient and effective PIM system relies on a strong coordination among ministries. This prepares the basis for an optimised use of the public assets produced by public investment. Providing efficient services requires well-planned interaction among assets and sectors. The Interamerican Development Bank concludes that "a key dimension often neglected in selecting infrastructure projects is the interaction among different types of assets. This reflects the silo structure and mentality in most countries, which have sector-specific ministries and no central agency to take a comprehensive and holistic approach to infrastructure planning" (Cavallo et al, 2020). Investment activities are often planned by separate ministries, but ultimately decided upon by the Ministry of Finance (administratively) and the parliament (politically).

Financial management capacities in sectors are identified as a serious gap. While there is a broad understanding that interactions between sectoral ministries and the Ministry of Finance are crucial, project design and practice do not support the collaboration between sector ministries and central ministries (Finance and Planning). One of the reasons is that currently, projects are still designed along sectoral rationale rather than whole of government processes. The interviews found rare occasions that sectoral budgeting issues are addressed by GIZ projects. Project staff though is aware that for instance maintenance poses a challenge as new investment projects are prioritised over the maintenance of existing ones. In the health and transport sector, models for self-financing have been identified, meaning that after the construction of the infrastructure, revenues can be obtained that help cover the follow-up costs.

Another Opportunity: Strengthen Budget Units in Sector Ministries.

GIZ has a rich history of strengthening planning and budgeting capacities in sector ministries. However, these approaches were at general planning and budgeting, not specifically designed for supporting public investment. In perspective of the need to realise public investment projects, these approaches could be revived and focused on PIM – with a specific regional focus on countries under reform partnership.

Strengthening Collaboration Across Levels of Government

The observations regarding horizontal collaboration among ministries and departments – focus on one ministry, rare support to cooperation procedures among government entities across sectors – are similar when it comes to vertical cooperation – collaboration between levels of government. What applies to institutions of partner countries is repeated by GIZ projects; the approach usually focuses on strengthening either central government or local government, but an approach for capacity development in subnational investment would require a collaboration between central ministries in sectors, the central ministry in charge of local government, and the central ministries for Finance and Planning.

GIZ continues to support the development of intergovernmental fiscal relations (strengthening transfers) and local domestic resource mobilisation, but reforms take time to effectively broaden the fiscal space of subnational governments. Local governments as being remote from central decision making have a small lobby in the distribution battle over public funds. As part of decentralisation projects, support to fiscal policy reforms that enhance the resources for subnational governments, e.g., through support to the associations of local governments, is common. However, it has been observed that transfer levels have decreased in conflict or pandemic situations, which aggravates inequality in social service provision.

To enhance subnational investments, reforms at the central level are crucial. However, such reforms are difficult to achieve, partly due to the political economy reasons. At any rate, strengthening the municipal revenue base through changes in the tax regime (e.g., assignation of revenue sources to subnational governments), widening the tax base (e.g., via property taxation) and improved intergovernmental fiscal relations can all contribute to making more resources available for local investments.

Balancing the Benefits and Risks of Private Sector Engagement

With the changing role of the state in public service provision and new cooperation models between private and public sector, the "social contract" has changed, which also affects the management of public investment projects. Investment projects involve increasingly a number of stakeholders, including state-owned enterprises, banks, private companies (including private regulated utilities and multinational entities), and investment funds.

In principle, it is the obligation of government to provide public service to all citizens; as one of the aspects, government needs to address pro poor service delivery. Beyond service provision, government agencies play a crucial role in public investment projects as funders, regulator of services, and guarantees for long-term use, including maintenance. By contrast, private investors, in principle, need to realize profits; they have, therefore, the obligation to minimize risks for their business.

Risks of public investment projects can be quite substantial. They include financial risks (e.g., the risks from credit, inflation, or liquidity), technical risks (i.e., unforeseen challenges and delays in the construction process, operational risks) as well as political risks (e.g., changes in policies might render the investment irrelevant). The main benefits from a public investment project are the positive impacts on the society, i.e., reduced transport cost in case of a road construction, improved health status of the population in case of investment in health facilities, or improved access to water and sanitation etc.

Each stakeholder in a public investment project needs to evaluate the risks and benefits. While the evaluation of private benefits and risks of the investor can be straight forward, the evaluation of social benefits and of social risks can become a complex process, based on user scenarios and assumptions of user behaviour over a long period – the lifespan of the public infrastructure. The roles and obligations of the parties involved in a public investment project are subject of project contracts, which can be very complex in case of complex public investment project. In many cases, promising collaborations have not materialized because of limited capacities of government agencies to assess risks and benefits and, therefore, define the "business case" for a public investment realized jointly with private sector actors. Thus, there is a demand for more knowledge regarding models of private participation in public service delivery. However, an independent advisory regarding the opportunities and risks of various service models is currently inexistent.

A similar situation has been observed in the mining sector. Mining contracts between governments (as owners of resources under the surface of the country's terrain) and mining companies have proven to overstress the capacities of governments. The CONNEX initiative sought to provide on demand legal support to governments in their negotiation of mining contracts. The German Development Cooperation could consider initiating a facility to provide demand-based support to government agencies for establishing public-private cooperation in the realization of public investment projects.

The significance of environmental and sustainability aspects

Environmental and sustainability aspects are not yet firmly anchored in the projects that deal with public investments. Currently, most public investments in developing countries are still geared towards an economic return. The assessment has revealed that support to public investment management is rather at the beginning of the project cycle when the criteria of impact assessment and ultimately project selection were being developed. On the local level, there are some projects that aim at green investment (smart cities). It is fair to assume that the topic will also be relevant in medium term perspective at the national level when scaling up initiatives take shape. At the central level, we have identified only the Vietnamese Green Growth project.

To combine support to a sustainable public investment means to pay a particular attention to this pre-investment phase. Sustainability aspects mainly rely on the life cycle costs, to think from the start to compensate for environmental damage and promote a more circular economy and resilience to natural disasters. In 2019, GIZ launched a website named "Sustainable Infrastructure Tool Navigator" that serves as a hub of ideas mainly for project preparation which, combined with GFG aspects, can yield synergies between GFG and the green investment topics.[20]

Alignment with international initiatives to support PIM

In certain areas such as climate protection and EU accession, development partners have designed specific programmes to support partner countries. The international discussion suggests that, despite funding being available, absorption remains a challenge.

International discussions, particularly on the level of G20, suggest that the backlog in public investment is mainly caused by bottlenecks and challenges in project identification and preparation of bankable projects that meet standards of international investors. These standards apparently include elements of public financial management. Despite the efforts of development partners on political level (G20 infrastructure hub; G20 infrastructure working group etc.) and in mobilising counterpart funds (e.g., EU's External Investment Plan), only few projects in LDCs, notably in Africa, have been approved for financing and realization started.

While country ownership is required, there is a lack of projects presented by partner countries to international donors for funding. This is particularly true for climate finance; only a limited number of projects have been presented and approved for funding. Part of the explanation might lie in political economy; the position of some developing countries seems to suggest Climate finance modalities are currently sometimes perceived as a welcome additional source of financing rather than as an opportunity to avoid and / or mitigate the mistakes of fossil-based industrialisation.

Beyond bilateral interventions to support PIM in partner countries, GIZ activities could play a stronger role in partner-oriented project preparation in international initiatives. For initiatives like the very successful NAMA facility, support to project preparation and implementation along the national PIM system would add substantial ownership by partner countries. This could improve the long-term impact and project sustainability of climate financing, for example through budgeting for long-term maintenance cost or incorporating the project in national asset registers. Stronger inclusion in national ownership and national PFM systems could contribute to a better use of the projects and to learning from good investment management for other systems in the partner country. This also raises questions of regulation, liability management, maintenance, contract management, and monitoring. Finally, the realisation of projects funded under international climate facilities is usually linked to mobilizing substantial contributions from private investors, which requires addressing challenges related to pro-poor orientation.

[20] See: https://sustainable-infrastructure-tools.org/

6. General Conclusions and Recommendations

6.1 Conclusions

Benefits from linking multilateral and bilateral work

The analysis of Public Investment Management has shown that linking international approaches and bilateral work can be highly complementary. The mandates and approaches of the IMF – as an international, member-based organization and standard setting body with strong and exclusively macroeconomic focus – and GIZ – as bilateral, implementing agency of donor funded projects and programs in many thematic fields and sectors – are fundamentally different. While the main strength of IMF's PIMA approach lies in its replicability and analytical approach, the main comparative advantage of GIZ's approach is that it is based on the partners' needs and their current status. By using the IMF's competences, findings, and conclusions from the PIMA approach as a guideline and basis for country-specific advisory services in partner countries, GIZ advisory can increase its relevance, while IMF's findings can directly inform necessary structural reforms.

Having said this, the main limitations of the PIMA arise from the fact that the approach to standardize comes naturally with the necessity to generalize. In a system that is as complex and evolutionary as the decision-making process on public investment management, not mentioning the diversity of countries' economic, legal, administrative, and social context, any generalization comes with a strong loss of information. A second limitation arises from the fact that PIMA as an analysis tool maps a state at a point in time. However, "development" is dynamic in the literal sense of the word. The point-in-time approach leads to conclusions and results that have only limited significance in a dynamic environment.

In contrast, the approach of TC is an evolutionary one. The initial situation is usually analysed only insofar as it is relevant for the foreseeable intervention time (usually three years). Moreover, the analysis is a strongly political-economic one: for TC, it is important to understand who the decision-makers are, who the participants are, and what the scope for action is in each case. The limitations of TC lie in the perception that each situation is unique – the country circumstances, the point in time, and current reform status are never completely replicable. However, this approach harbours the danger of arbitrariness: understanding of the context and design of an intervention depend highly on the individual perception, rather than on standards and guidelines.

This study on public investment management shows a case where both approaches can be mutually beneficial – to the benefit of the partners. Incorporating PIMA's principles and possibly adapting the instrument with a political economy lens would be direct suggestions; given the currently small portfolio which tackles public investment systems in a structured, systemic way, this is only worth it if strengthening public investment systems in partner countries is a priority for BMZ in the future. There would be a strong merit for that: the analysis has shown that there is a need for better public investment systems, and German TC has tools and experiences that would allow to create an impact for partner countries. This even more so as German Development Cooperation focuses on less countries than before, i.e., in those countries more resources are available for public investment related approaches.

Redistributional Effects and Poverty Impacts of Public Investment

The analysis of public investment management has concentrated on the decision-making processes of PIM. Little consideration is given in PIMA to the distributional effects of PIM. Regarding high-volume PIM projects that consume a substantial portion of public resources, a closer look into distributional effect is possibly helpful.

The summary of international discussion has shown that public investment matters for the current international development policy debate. At the same time, the role of government in service provision has dramatically changed in the recent decade. From an initial situation where governments world-wide sought to finance, provide and regulate public services and own the respective infrastructure as government responsibility, governments find themselves in a situation where financing is scarce – with decreasing windfall profits from mineral resources, soaring levels of public debt and domestic tax base still underexplored – and the recurrent cost soaring – not only in regard to maintenance, but also in regard to guaranteeing public security, a necessary precondition for the use of public infrastructure – governments globally are developing the role of the state.

The role model of the state, either implicitly or explicitly, in many countries is that of a regulatory state, rather than provider and funder of public services and owner of infrastructure. The recent international debate has contributed a strong focus on mobilizing private funding for public investment projects.

However, economic theory suggests that the changing role of the state regarding public investment projects has a strong impact on the distribution of income and property. First, the definition of public investment needs to be sharpened. Is a private hospital that includes publicly insured patients considered a public entity?

On the financing side, the incidence of funding for public investment deserves a closer look; in particular, the distributional effect of participation of international (private) investors in public investment finance need to be better understood. On the operational side, poverty impact is considered strongly positive if infrastructure facilities that serve the poor are rolled out.

Declining public investment in public infrastructure entails medium-term problems of access to services, especially for poorer groups of the population. At the same time, it is not particularly bold to argue that the private provision of public services is accompanied by income concentration. Shrinking public investment activity is thus both, an expression, but also a driver of growing inequality.

This trend will be drastically intensified if private capital is increasingly used to finance public investment at "market conditions". However, the underlying assumption is that the market is efficient, no local monopolies etc. If competition is low, providing public services through private service providers risks that the quest for profit may result in rising cost for standard services, and, hence, the risk of unaffordability for poorer groups of society, or in the need for government resources increasingly tied to debt service, with less room for recurrent expenditure.

Possible solutions could include strengthening the ability of partner countries to mobilize domestic revenues, in particular from tax revenues, to strengthen financing capacities of the state, and to consider reconfiguring mandates of subnational levels of government for allowing decisions on local investment projects close to the level of the issue at hand (principle of subsidiarity). In addition, more work needs to be done to understand the poverty impact of reduced levels of public investment.

Strengthening Capacities for Planning, Budgeting, and Monitoring

The review of the international discussion has shown that an improved public investment management (PIM) can bring substantial gains in both, (i) project planning – by better prioritizing investment projects, national planning by strengthening planning processes, expenditure management and allocation of resources, budgeting, and implementation – by strengthening the legal basis for budgeting – and (ii) implementation. Currently, as noted above the average country loses about 30 percent of the returns on its investment to inefficiencies in its PIM processes. This requires improvements in central processes – especially planning, budgeting and financial and technical monitoring.

While the PIMA approach is excellently prepared for analysing the underperforming stages, the process-oriented approach of TC can increase its impact by targeting systemically relevant processes and issues. Therefore, the approach of Good Financial Governance, with a focus on Budgeting and Public Financial Management, as well as the vast experience in strengthening Supreme Audit Institutions can be focused on specific topics of PIM, namely accountability in public investment (strengthening the role of the SAI) or PIM across levels of government.

Public Investment across Levels of Government – Interventions for Systemic Changes

The discussion of IMF's PIMA approach has shed light on the importance of intervention levels. PIMA's focus strictly on central government level is derived from IMF's mandate. And, as an institution that focuses on analysis rather than institutional change, central government for IMF is the natural focus of interest.

By contrast, GIZ's portfolio reflects the reality in countries: a shrinking scope of public sector, as more and more quality public services are provided by the private sector, whereas the quality of basic services diminishes. Sectoral interventions, especially in health and energy sectors, that concentrate on strengthening the capacity to regulate rather than to build and maintain. And interventions on decentralized levels, where decision making can be more inclusive, and stakeholder driven – but also the scope for decision making is rather limited.

These observations lead to two conclusions. One, a structured approach to strengthening public investment across levels of government – with a perspective of strengthening capacities for investment in local level – would be extremely helpful for strengthening the impact of interventions that address subnational – regional or municipal – investment. This would require, though, a further development of a tool for SNG PIMA analysis. Standardization of solutions for public investment management on subnational level is even less helpful than the attempt to standardize on central level.

Secondly, the link between levels of government needs to be strengthened. Regarding PIMA, this refers to the concrete decision making – are subnational governments involved in planning investment projects financed and executed by central government? Does this involvement include decision making – or just information?

Regarding technical assistance, systemic improvements can be intensified through work across levels of government. Such work would need to focus on strengthening the "appropriate level", rather than pursuing the objective of "decentralization".

Different Realities in Different Ministries

The analysis of the PIMA approach has revealed an instrument strongly focused on decision making by central institutions – planning and budgeting. We have argued above that, in pursuit of a successful, efficient, and effective public investment, this perspective is too narrow.

The insights into the portfolio of the TC seem to indicate that the impact of TC could be improved by a better understanding of the challenges on the level of the system of government. The focus on the needs of the respective partner – e.g., a sectoral authority – can lead to an optimization of a subsystem, at the expense of weakening the system.

A better understanding of the functionality of system of public investment, and orientation towards improving partner processes towards an overall better system may, therefore, offer dramatic increases in the results and impacts of international cooperation.

6.2 Recommendations

Strengthen the Portfolio on Budget Reforms as Part of BMZ 2030

With the evolutionary approach of TC, the German Development Cooperation has a powerful tool to support partner countries in strengthening core strategy and policy processes. This has proven to deliver key support on the way to establish a more transparent, more capable, more efficient budgeting and public financial management. The experiences in strengthening Budgeting and Accountability Systems and institutions are plenty. Examples are the long-term support to Viet Nam's Budgeting system, the support to budget transparency in Ghana, budget reform in Kosovo or to China's Supreme Audit Institution. However, compared to the current portfolio, the share of long-term in-depth budget reform interventions is quite small.

The first point of intervention for strengthening PIM, though, is the legal basis for budgeting – the organic budget law. Therefore, as shown in chapter 4, strengthening public investment without a strong focus on budgeting for investment is not recommended.

Table 18: Summary - Recommendations regarding the GFG portfolio

Counterparts	Current status GIZ projects	Recommendations
Main counterparts are Ministries of Finance (MoF), Supreme Audit Institutions (SAI) and Parliamentary Committees on Budget and on Public Accounts, as well as agencies and departments under the MoF.	Few projects focus exclusively on reforms of core public finance policy and management – i.e., comprehensive budget reforms, public financial management, external as well as internal audit.	Good Financial Governance (GFG) as standard intervention for partner countries under BMZ 2030; use adapted PIMA questionnaire for needs assessment; core modules: 1) Budget reform and PIM, focusing on allocation, coordination, implementation, and accountability; 2) Domestic Resource Mobilization; 3) Intergovernmental Fiscal Reforms. The PIMA questionnaires could serve as basis for developing an assessment instrument for subnational investment.
	Most projects and programs target the planning aspects.	Provide exchange, tools, and guidelines for PIM related weaknesses in Planning and Budgeting, such as asset management and maintenance cost, multiannual fiscal frameworks, procurement, and accountability – external audit
	Connections to sectors are rare	Link GFG with relevant sector interventions, with priority for green public investments. Build up PIM support system to increase central PFM in sector projects

With the efforts of concentrating German development ("BMZ 2030") and focusing on partnerships with reforms partner countries, BMZ has endeavoured to strengthen impact of German Development Cooperation. To pursue lasting changes, central government systems are key. Although GIZ has plenty of experience on subnational levels, to get the basics right, projects need to perform a systemic view, strengthening national institutions and setting national standards. Therefore, strengthening Planning, Budgeting, and Auditing systems in BMZ's partner countries would contribute to enhancing the impact also for interventions in sectors. In addition, within the projects intervening on subnational levels, GIZ should focus more on fiscal issues, including intergovernmental fiscal relations and subnational PIM.

More concretely, we recommend performing a mapping of needs, reform status, and development partner interventions as standard process in reform partner countries and BMZ 2030 partner countries. The result would be an overview of potential interventions, and potentially beneficial for German Financial Cooperation as well.

Explore the incidence of public investment spending and benefits

This section draws on the analysis of the international discussion. While stakeholders in international discussion are strongly calling for more private funding for public investment in developing countries, the economic rationale is incomplete. The core arguments center around the "investment gap" which needs to be closed through mobilization of private funding; International organizations are calling on international investors (banks, investment vehicles, etc.). However, the distributional effects are not well understood, neither on the level of international finance (use development aid for funding global investors) nor on the level of beneficiaries (incidence of benefits of investments; incidence of funding arrangements). An analysis of the incidence of funding for public investment would strengthen decision making regarding the most effective and efficient approaches to improve public investment.

Explore Synergies between Financial Systems Development and Good Financial Governance

The review of international discussion as well as the analysis of GIZ's sector portfolio has revealed that the role of the state in developing countries has changed substantially. Population dynamics, the state of existing public infrastructure including the need to repair and replace, as well as funding constraints have influenced this development. However, models for deciding on and funding of public investment in developing countries have not been in the same pace. While these developments touch upon the understanding of the role of the state in general, with view on public investment, GIZ is in an advantageous position to develop adequate funding models for (smaller?) public investment projects.

GIZ has been highly successful in developing solutions for developing financial systems in partner countries which are adequate and partner-oriented, particularly microfinance-based approaches. Against the backdrop of the findings of the international discussion as well as GIZ experiences regarding the economic effects of involving international investors in financing public investment in partner countries, and against the fact that private funding sources for public investment need to be identified, the experiences may offer potential for mobilizing funding for public investment. Therefore, it is recommended that the potential for microfinance-based funding models for public investment is explored.

Develop Standards for Considering the Risks of Private Funding as Part of PIM

Private funding of public investment will be a necessity in the foreseeable future. However, the benefits from public investment are associated with risks for government and societies.

Anecdotal evidence suggests that there is a high risk that private funding of major public investment projects leads to increasing indebtedness of the state to private lenders. This is because infrastructure projects can be voluminous, and their implementation can take long – and investors provide funding against state guarantees. The case of South Africa's investment in transport infrastructure prior to the World Cup 2010 is a well-known example.[21] In case of a default of the owning entity of the investment object, investors invoke state guarantees.

The guarantee scheme comes with risks:

- governance risks on the border between private and public sector, including corruption;
- social risks emanating from the fact that a bigger share of public funding is devoted to debt service and not available for social spending; and
- a substantial redistribution from taxpayers' resources to the beneficiaries (owners and shareholders) of private lending entities.

These risks are particularly pertinent in low income, resource rich countries. The GDC could explore, for example, the usefulness of establishing a risk advisory facility for developing countries. Built on the successful CONNEX initiative, GIZ could develop and propose to the BMZ a public-private collaboration risk (PPCR) advisory service. Any stakeholder, be it governments, businesses, or private citizens, would be entitled to using this service for requesting advice regarding the risks of specific legal and financial arrangement of investment projects.

Strengthen Evidence-Based Planning and Budgeting for PIM

While GIZ carries experience in supporting partner countries in reforms of their own budget systems, the approach to core reforms of public investment management (PIM) could be broadened in line with recent international practices – with the objective of strengthening evidence-based decision making in budgeting. New approaches should not replace but build on standard interventions – reforming budget institutions (organic budget law, budget processes etc.) – and include use of technology, support to applying behavioural economics for policy making and strengthening internal accountability and

[21] For background information on the case, refer to: Roy Cocayne (2020): SANRAL unable to meet its financing obligations; moneyweb, 29.10.2020, https://www.moneyweb.co.za/in-depth/budget/sanral-is-unable-to-meet-its-financing-obligations/ retrieved March 01, 2022; Infrastructurenews (2012): Government promises to cover SANRAL's debt; in: Infrastructurenews, Jul 03, 2012; https://infrastructurenews.co.za/2012/07/03/government-promises-to-cover-sanrals-debt/ retrieved on March 01, 2022

reporting.

So far, the use of technology in public budgeting is mostly limited to the use of standardized accounting tools that allow for monitoring financial management decisions (Integrated Financial Management Information Systems – IFMIS). In addition, more recent approaches including the emergence of e-procurement, and furthermore, of digital tools to enhance accountability in procurement (e.g., Ukraine's ProZorro portal) are examples for a more widespread potential of digitalisation of public functions. The future focus of use of technology could be to come closer towards evidence-based budgeting. This would include the use of data – both planning as well as expenditure data – as basis for budgetary decisions. Concrete steps consist in training budget analysts in data analysis. The circle of evidence-based budgeting is closed with support to strengthening internal accountability, impact reporting, and external oversight.

Strengthen Public Investment Management across Sectors

The portfolio analysis has revealed strong linkages between PIM from a budgetary and sectoral point of view. When it comes to supporting public investment in sectors, a strong link between sectoral interventions and advisory in budget systems allows for realizing immediate results (i.e., improved targeting and funding of public investment) and systemic development (better prioritization, stronger coordination between technical and financial aspects of PIM).

Table 19: Summary of Recommendations

Sector	State engagement in investment	GIZ approach(es)	Recommendations
Climate resilience	Adaptation to climate change and mitigation of effects of climate change require large scale public investment. The current GIZ portfolio contains public investment in a variety of projects. Funding available through bilateral and international facilities; expected engagement of the private sector	Focus on project preparation Policy advisory, including climate finance and budgeting Project selection (e.g., NAMA facility)	Prioritize Climate change sector for public investment governance in sectors, to realize synergies with other Developing partners (i.e., SECO). Develop approaches for the effective use of partner systems, avoiding off-budget planning and implementation of projects. Support national accountability mechanisms. Put a focus on project implementation and monitoring
Health	Strong private engagement in profit bearing health care services; strong regulation necessary for guaranteeing decent health care coverage (scope and quality)	Bilateral projects with a focus on health financing could very rare Investment in health facilities, sometimes ownership unclear. The Backup Initiatives (Health, Education) support public sector and civil society organizations in making efficient use of resources provided by global financing mechanisms in four focus countries	Explore cooperation with Backup Initiative on Health Finance. Generalize support in the sense of PFM for Health (integrating central level advisory to all projects). Strengthen support to budget units in the central health administration. Strengthen alignment with partner structures and policies.
Water	Some private engagement - no perspective of cost coverage; strongly dependent on government engagement, chronically underfinanced; Maintenance as management issue	Focus on procedures for speeding up project implementation (disbursements of grants and loans); reduction of operational costs and environmental damage; Exceptionally asset management (one project)	Focus of water sector interventions on water finance; Streamline efforts for cost coverage; Awareness for public investment management

Sector	State engagement in investment	GIZ approach(es)	Recommendations
Transport	Many cases of public investment; weak points are financial monitoring and maintenance cost; substantial participation of the private sector in building and operation	Focus on broadening the scope of public transport systems	Connect the sector with PFM tools, especially for project selection (impact assessment) and maintenance funding; Support partner countries to include life cycle and other environmental aspects in value for money appraisals and procurement:
Energy	Sector has transformed from state-only to strong private sector participation, especially in energy generation; exceptions (e.g., water energy – public investment) Challenge for government: effective regulation	Support to decentralized energy production (mini-grids; use of renewables for energy production; role of public buildings in energy saving and solar power production)	Strengthen alignment with partner PIM systems Include knowledge transfer on maintenance in all projects

Develop an Approach to PIM across Levels of Government

So far, the overview of GIZ approaches has demonstrated a rich set of experiences about planning and managing public investment. However, experiences are scattered across three core sectors – GFG, macroeconomic policy, and local development and decentralisation. Strengthening the impact on the public investment system as well as the practice, including on subnational level, could benefit from pooling experiences and resources. Internally, a working group on public investment, led by public sector competence, could develop an integrated approach, and design a pilot intervention. The following table presents an overview of intervention priorities for macroeconomic technical assistance and local development.

Table 20: Overview of Intervention Priorities for Macroeconomic Advice and Local Development

Sector	State engagement in investment	GIZ approach	Recommendations
Macroeconomic Advice	Ministry of Finance and Ministry of Planning	National planning, medium term plans, impact assessment, support to statistics, PPP, and project preparation advisory	Strengthen prioritization and criteria-based selection; standardize project preparation and to increase fact-based decision making Include aspects of climate and environmental protection, possibly through strengthening national plans.
Local Development / Decentralisation	Central Government (Ministry of Local Government); local authorities, specifying needs (e.g., interventions with Cities Alliance); municipal service providers in some countries (Tshwane Energy and Water Services; Nairobi Roads Department) or private service providers, regulated by public authorities	Local public investment support is part of almost all projects, focus is on participatory planning Some experiences in social auditing and PPP support	Basics first: strengthen decentralized decision making (mandates) and funding capacities Strong focus on maintenance Support sector coordination on subnational levels

It is recommended to develop a structured approach to PIM across levels of government. This approach should focus on addressing the investment procedures on local level. However, as the study has pointed out that one of the impediments for municipal investment is anchored in the mandates of subnational governments, such an approach might also provide the opportunity to address this issue. As a key element of this approach, GIZ could – either by itself or in collaboration with the IMF – initiate the development of an instrument for subnational PIMA. There is a precedence: the PEFA instrument, developed by the PEFA secretariate at the World Bank, has recently been enriched by a PEFA module for subnational governments. While the scope for standardization even on central government level is limited because of different legal and budgetary designs, it is even less on subnational levels. This implies that an analytic approach on subnational PIMA would need to orientate towards a learning system rather than the communication of standards.

Strengthen Civil Society Engagement in PIM

The analysis of GIZ's experiences has revealed anecdotal evidence for civil society engagement in public investment management. Some of them, at the forefront the example of Ukraine's public procurement oversight platform ProZorro, have the potential to develop systemic importance and / or serve as an example for other countries or situations.

Given that civil society involvement is increasingly relevant for the design and implementation of TC projects in general, and particularly in the sector of Good Governance, this result was both, unexpected and interesting. However, although civil society involvement was not the focus of this study, the anecdotal evidence suggests that there might be more examples for civil society engagement that would merit a closer analysis.

The perspective of analyzing civil society approaches, strategies, results, and instruments would be to identify experiences that exert influence beyond civil society (systemic reach) are repeatable or scalable. The engagement of Ukraine's civil society in delving into technical issues like public procurement as means to change a societal behavior and curb corruption cannot be highlighted enough.

7. Capacity Development to Strengthen PIM – Guidelines and Specific Proposals

The approach to Capacity Development in Public Investment Management – Public Investment Capacity Development (PICD) – aims at strengthening the system of Public Investment Management (PIM) and its subsystems. Hence the approach is conceptualized as a complex and comprehensive program for systemically strengthening PIM. It is not meant as focussed on a single investment decision or project. A typical investment is managed by a Sector Ministry (e.g., in the sector climate and environment, or in the transport sector); the approach might also be applicable for public investments owned by subnational governments, where the national level is involved. It is based on the findings of the previous parts of the report, especially the findings from IMF PIMA review and the review of GIZ's experiences; furthermore, it is informed by the findings of the review of international discussions.

Capacity Development aims at strengthening the capacities of individuals, organisations, and the society. Therefore, the approach is based on the "stylized needs" of the stakeholders of the PIM processes. We use "stylized needs", because the approach is based on typical needs of stakeholders in their specific role. Therefore, it is not meant to be used as a blueprint. Rather, it can be used as a starting point for the design of a programme. However, the concrete specification depends on the results of a thorough project appraisal.

During appraisal, depending on the scope of the TC, the intervention can be designed as comprehensive program strengthening public investment Governance, or as targeted intervention or a module, strengthening elements of PIM. To design an approach adaptable for the different options, the approach will be presented in modules; each module will be based on a set of objectives, stakeholders, and activities. The intervention focuses on standard investments under responsibility of central government. This might include investments, for which subnational government is responsible, but which need general approval by central government or specific inter-governmental coordination – government guarantees, technical approval by local government oversight department or sectoral ministry.

7.1 Institutional Stakeholders

The main stakeholders of a public investment intervention include the government decision makers, other public institutions, the private service providers – financial institutions, construction companies and secondary industries – as well as the target population – possibly represented by civil society. As starting point for the design, we use the level of PIMA institutions to design the approach.

We use as main stakeholders the following:

- Ministry of Finance (MoF) and related Departments and Agencies – responsible for mobilising resources and for managing the budget process; subordinate departments and agencies may include the Public Investment Bank and Public Procurement Oversight Agency.
- Ministry for Economy and Planning (MoEP) and related Departments and Agencies – responsible for the economic planning framework. This can include the management of the capital budget. Dependent departments and agencies include the Statistical Office.
- Centre of Government (CoG) and related Departments and Agencies – tasked with coordinating and monitoring the government's policies and strategies towards a "whole-of-government" approach. This task is usually located at the office of the head of government – be it a president, a prime minister, or a chancellor – and can take various institutional forms. Examples are the Minister in the Presidency for Monitoring (e.g., South Africa), the Director General for Government or the cabinet minister for Government Coordination (Head of Chancellor's Office, Germany).
- Sector Ministries (SecMin) and related Departments and Agencies – in their role as owner / principal user of the results of the public investment.

- **Supreme Audit Institution** (SAI) – in the role as auditor of finances and projects; mostly ex-post audit, but in some cases also pre-approval function.
- **Regulatory Bodies** in their function of risk manager of government (environmental, health, social and governance risks) and of quality manager.
- **Civil Society** in their role of critically accompanying and critically commenting government decisions.
- **Parliament** in its role of holding government politically accountable.
- **Private Sector Institutions** as contractors and service providers.

The stakeholders perform different roles and functions in the system of public investment. While the CoG role is basically on the strategy level, it is usually not involved in the planning or realisation of individual investment projects. The function of operational stakeholders translates in tasks during a public investment project, during investment phases, their involvement changes. The following table provides for the involvement of the key stakeholders across the cycle of Public Investment. Please note that the cycle of stakeholder involvement is oriented towards PIMA, but the stages are organised according to decision making, partly not necessarily the same.

Table 21: Stakeholders of Public Investment Projects per Stage

Stage	Government Stakeholders: Ministries, Departments and Agencies					Citizens		Businesses
	MoF	MoEP	SecMin / Sub-Natio-nal Gov-ernment	SAI	RegBody (Health; Environment; Social Impact; Public Procurement)	Civil Society Organiza-tion CSO	Parliament	Banking and Finance Construction
Planning								
Early Project Identification								
Pre-appraisal								
Pre-feasibility								
Feasibility								
Project planning (technical, „physical”)								
Social and Environmental approval								
Allocation								
Budgeting								
Securing Project Funding								
Long-term funding								
Project Selection								
Implementation								
Procuring,								

Contracting								
Monitoring								
Inspection and oversight								
Review, ex-post audit								
Phase of using the investment object								

The table shows that the main stakeholders for public investment decisions are the MoF and the owner, be it a sectoral ministry of a subnational government entity. These two institutions (the MoF and the owner) are involved almost throughout the whole decision making. However, in different stages, internal responsibilities change. For example, in the planning stage, on the side of MoF, the unit in charge of financial planning is involved, whereas in the allocation stage, responsibility moves to the budget department, and in implementation, the accountant General's Department and the procurement units are involved. Therefore, the key stakeholders need to be equipped with the necessary capacities for decision making on the financial side of public investments (MoF) and the content/physical side of public investment (e.g., a sectoral ministry). In francophone countries with a MoEP, the latter is often involved in more stages than depicted above: Feasibility (through the funds provided), technical project planning (through engineers), social and environmental approval (at least final approval and setting the rules therefore), parts of the budgeting, and the monitoring of the implementation.

7.2 Public Investment Capacity Development: Stakeholders and Stages of Interventions

At each stage of the PIM cycle, a series of decisions and interventions are to be made by stakeholders. Not all processes are subject to TC. The following table provides for exemplary interventions – processes and deliveries – on each stage, with relevance for TC. Please note that the steps of the TC advisory cycle do not necessarily match the steps as defined by PIMA.

Table 22: Public Investment Policy Cycle

	Stage	Intervention	Main Stakeholder	Further Stakeholders
Planning				
I	Fiscal targets and Rules	Organic Budget Law	MoF	Parliament
II	National Planning	National Development Plan	CoG; MoEP	MoF (financial envelope)
III	Sectoral Planning	Sectoral Plan (National Energy Plan; National Water Plan; National Education Plan etc.)	Sector Ministry	Ministry for Economy and Planning (link to National Development Plan); MoF (financial envelope)
IV	Coordination between entities; this process is not regarded as stage under PIMA, although crucial for successful project planning	Coordination of sectoral MDAs with MoF; coordination across levels of government Reporting contingent liabilities (from multi-year commitment appropriations)	CoG; "Owner" of investment project: Sector Ministry, Department or Agency; subnational owner (second tier government – province, region etc.; municipality)	MoF
V	Pre-Feasibility	Draft concept of investment project	Owner of investment project	MoF
VI	Project Appraisal	Standard appraisal procedure	Sector Ministry as oversight body or as owner of the project	MoF: financing envelope
VII	Pre-Approval	Pre-investment inspection	Auditor General	Sector Ministry, MoF

VIII	Infrastructure Finance	Funding models for public investment	Ministry of Finance	Private Sector / Bank
Allocation				
IX	Multi-Year Budgeting	Managing Investment Budget	Ministry for Economy and Planning	MoF
X	Budget implementation	Commitment controls	Sector Ministry	MoF
XI	Budget comprehensiveness and unity	Management of investments implemented by extrabudgetary entities; budgetary disclosure	Sectoral MDAs, MoF and its DAs	
XII	Budgeting for investments	Priority rules for investment as opposed to recurrent spending	MoF	
XIII	Project Selection	Technical viability of the project	Sectoral MDAs	
		Financial viability of the project	MoF	
XIV	Maintenance management and funding	Guidelines for appropriations for maintenance	MoF; MDAs	
Implementation				
XV	Procurement	Procurement guidelines and Policies	Ministry of Finance; Sector Ministry	Ministry of Economy; Private Sector (providers of goods and services)
XVI	Availability of funding	Allocation of commitments	Ministry of Finance	
XVII	Portfolio oversight	Systematic physical oversight / inventory	SecMin	MoF
		Systematic financial oversight	MoF	Sector Ministry
XVIII	Project Management	Setting up PMU	Sector Ministry	
XIX	Project Monitoring	Physical monitoring	Sector Ministry, Technical Department	Government inspection (labour legislation, worker security oversight)
		Financial monitoring	Sector Ministry: internal (financial) control	MoF, internal control
XX	Asset Management	Recording and managing Financial Assets	Ministry of Finance	Parliament
		Managing Non-financial assets	Sector Ministry	
XXI	External Audit	Ex post audit	SAI (Financial; Compliance; Performance Audits)	
XXII	Citizens' Audit	Social Audit	NGO (social audit)	

Source: PIMA Cycle; own presentation

7.3 System of Objectives

The standard objective for the advisory approach is as follows: The Public Investment Management is improved regarding pro-poor orientation, efficiency, effectivity, transparency, accountability, and climate-friendly investments.

The relevance aspect of the public investment is overarching: Is the public investment system designed to serve the citizens' most pressing needs? This touches upon the selection and prioritization of investment projects, but also the realization of individual projects. Linked to the relevance is the criteria of pro-poor: does the PIM system prioritize the needs of the less advantaged parts of the population? Furthermore, the PIM System should be designed to provide long-term and sustainable development chances for large parts of the population.

The efficiency of the PIM System can be measured in terms of resources: does the PIM System use the resources wisely? Does it realize investments economically? Does is deliver results in time? In terms of funding, efficiency of the PIM System also addresses the mix of funding sources over the lifetime of the investment. Linked to the efficiency is the effectiveness: does the investment achieve its goals? To measure, these goals need to be defined in the planning stage and monitored throughout the investment cycle.

Given that public investments are capital intensive and given that funds are in the end collected from the public (be it through general taxation regarding public funding or regarding user fees for the completed infrastructure) – transparency is a key requirement. Transparency starts with adequate forms of participation during the planning process and includes the monitoring of project implementation. The other side of the same coin is accountability: funding decisions need to be taken wisely and understandable; and given the often-high financial volumes and often long lifespan of public investments, financing needs to be managed so that decisions are legal, legitimate, and documented. In addition, conscious decisions concerning complex public investment projects need to be based on an adequate assessment and management of risks (i.e., financial, technical, operational, political).

7.4 Specific Modules for Projects to Strengthen PIM Capacity

As indicated above, the following modules aim at addressing common PIM gaps in developing countries. They do not focus on individual countries. Each module is based on a set of objectives, stakeholders, and activities. The modules shall serve as a starting point for designing together with the respective partner country authorities a programme, component or specific intervention to strengthen the country's PIM. The modular approach recognizes that country needs differ significantly and shall provide a basis for a country-specific design. It is possible to focus on a certain module as well as to combine different modules with each other. To strengthen accountability, for example, modules 6 and 9 might be combined.

Compared to other actors advising developing countries on PIM, GIZ has various competitive advantages, most notably its large GFG portfolio, longstanding, trustful partnerships with partner countries, strong expertise in GFG areas related to PIM, and instruments for capacity development where other providers face constraints, such as long-term advisory via long-term experts seconded to the partner countries. These competitive advantages should be leveraged when designing based on the modules a country-specific programme, component, or intervention to strengthen PIM.

The following modules are not exhaustive. The scope of modules can be significantly broadened, for example by extending module 3 (Public Procurement for Investments) also to other institutions of the PIMA cycle's implementation stage, e.g., institution 14 (Management Project Implementation).

7.4.1 Module 1 – Investment Conducive Budget Framework

Module #	**1**
Political partner	Ministry of Finance
Implementing partner	Ministry of Finance
Module objective	Budget framework prepared for public investment

Approach. Module 1 addresses the budget framework – that is, budgetary rules and budget processes. Traditionally, the budget covers one fiscal year. In many countries, a balanced budget rule applies. Both principles – focusing on annual frameworks and aiming at budgetary balance – can be hampering when it comes to financing public investment. Secondly, budget processes need to be reviewed so that a rational and competent decision making is guaranteed.

The Module targets, therefore, the organic budget law and budget processes. The organic budget law provides the basis on which public investment decision can be taken; therefore, the module cannot be assigned to one phase of the public investment cycle but cuts across all phases. It starts with a review of the public-investment preparedness of the budget system. The review touches upon the principles of budgeting, and focuses on the fiscal rules, the appropriations, commitment controls, investment amortization rules, and investment prioritization rules.

Unity of Planning and Budgeting. While IMF's PIM cycle addresses the budget unity as matter of expenditure control (legal appropriation, control of virement and prioritization), the unity of planning and budgeting is related to the institutional set up of the policy processes.

Traditionally, government functions of Economic Planning and Budgeting, although closely related, are tasked to separate government departments. Therefore, this approach assumes that Ministry of Finance and Ministry for Economy and Planning are separate entities. However, government organisation in separate ministries is not a decisive factor, neither for government efficiency nor for adequacy of investment planning; there are cases in which the planning and the budgeting units in one organisation do not cooperate smoothly, and others, where processes across ministries run remarkably well. GIZ, in its Institutional Capacity Building project with the African Union Commission (AUC), has supported the AUC in designing efficient Planning and Budgeting processes as part of an institutional reform; this can serve as an example for an approach on bilateral level as well.

Capital and Recurrent Budget. In close relation to the previous point, in many countries, the Ministry tasked with Economic Development and Planning oversees the capital budget, while the recurrent budget is under responsibility of the Ministry of Finance. During appraisal of a PICD intervention of TC, this relationship is to be assessed. In principle, a unified budget management is of advantage, because of efficiency reasons. However, as a result of the assessment, parts of module 1 could be implemented with Ministry for Economy and Planning as implementing partner.

Cash vs. Accrual budgeting systems. Traditionally, government budgeting and accounting is based on cash: government can spend as soon as revenue has been generated. Cash management systems tend to discriminate against public investment in favour of recurrent expenditure, especially salaries of public sector staff. The module should foresee the development of an approach based on accrual budgeting where appropriate (IMF, 2009).

Fiscal Rules with relevance for public investment include the balanced budget rule. They cut across the stages of public investment because a specific rule can affect any stage of a multi-annual project. With a balanced budget rule, the decision to mobilize capital for a specific investment project is taken afresh in each fiscal year. This affects continuity of any multi-annual investment project. While balancing the budget is a requirement often regarded as fiscal prudence, this rule can be counterinvestment in nature. The following table shows the nature of balanced budget rules in selected partner countries of GDC.

It seems that some countries apply strict and enforceable balanced budget rules, while others do not. From the perspective of investment budgeting, a qualified balanced budget rule is supposed to be attainable for countries with rigid, investment-hampering rules. This implies that the budget must be balanced in principle, with the notable exception of investment-related deficits. This could be, for example, that investment related expenditure is exempted from the general balanced budget rule. Advisory regarding the budgeting framework has been provided over a long term to the MoF of Viet Nam. This example has shown lessons for the TC approach: through a long-term approach, the project team developed a trust-based work relationship with the counterpart institutions. A combination of long-term experts with an in-depth understanding of budget frameworks, and very specific short-term experts that provided practical insights into budget management was extremely successful in supporting reform processes over a long period. This long-term approach is necessary in situations where systemic changes are supported that are close to political decision making; the introduction of a new budgetary framework is certainly such a systemic change.

Table 23: Balanced Budget Rule (selected partner countries)

Country	Balanced budget rule	Level of Government	Nature	Formal enforcement
Benin	No			
Brazil	No			
Ecuador	Yes	Central Government	statutory	Yes
Georgia	Yes	Central Government	statutory	Yes
Ghana	n.a.			
India	Yes	Central Government	statutory	No
Indonesia	Yes	Central Government	Coalition agreement	No
Kenya	No			
Kosovo	Yes	Central Government	statutory	No
Mali	No			
Mexico	Yes	Central Government	statutory	Yes
Senegal	No			
Togo	No			
Uganda	No			

Source: IMF (2017); own summary

National Development Planning: costing. The project costing is at the core of the national development planning process – which is under PIMA categorization part of the Planning stage. A number of countries and institutions embark on a regular multi-annual development planning process. The National Development Plan (NDP) as result of national planning process can be indicative for government policy making or a binding basis for decision making. Viet Nam's 10-year plan, for example, is an example for a binding policy document. The NDP is usually under responsibility of the MoEP. However, government ministries, departments and agencies are part of the technical planning process, where MoF has the role of costing the plans. This is relevant for public investment, because it defines the fiscal envelope for investment over the planning period.

In this stage, advisory should concentrate on the interaction between planning and budgeting. The advisory has a process aspect, an institutional and legal aspect as well as an aspect of training. In terms of process, a process of rolling plan can be introduced that informs the budget, under joint responsibility of the planning and budgeting units. Typically, planning processes are based on formats and tools; the advisory can address the development of planning formats, and even strengthen capacities for e-planning. The institutional and legal aspect addresses the way of how the rules for national planning are designed. In Viet Nam, there is a strong legal framework – as is the case in South Africa. Changes to the planning process may require legal changes, and, hence, involve parliament. In other environments, the planning process might be designed as administrative regulation, which would require advisory with MoF and MoEP. The rules usually address the level of detail of planning, as well as the binding of a plan. In terms of individual training, both the officers in charge of planning, as well as the officers in sector ministries and the MoF would need to be made aware of the procedures and tools applied for planning purposes, to produce a meaningful plan.

Prioritization of Investment Projects. As part of the planning stage of PIM, each investment project is to be evaluated as basis for prioritizing and selecting investment projects. The process of investment prioritization should be based on transparent, pre-defined criteria. This is reflected in the PIMA in institution 10. This is often not the case – decision processes are political, not based on predefined standard criteria. [22] On the institutional side, the rating is somehow better – meaning that there are criteria for the decision regarding selection of an investment project, but if existent, they are often not transparently applied: the investment decision is often taken politically, balancing interests of groups or individuals involved in the process.

GIZ has provided advisory to AUC in prioritizing investment projects (resulting in AU's PIDA Priority Action Plan II). The objective of advisory in this regard should be to develop a decision-making process based on clear criteria. As one criterion in the responsibility of the MoF, the amortization period is critical.[23]

As to the process, potential partner for this intervention is the unit of MoF responsible for budget planning; alternatively, the planning unit of MoEP. The partner is to initiate a government process for the prioritization of investment projects. The decision could be taken by an investment panel, headed by MoF or MoEP, and comprised of line ministries represented by their budget departments. The main task of the panel would be to review and prioritize potential investment projects.

As part of the decision-making criteria, the amortization period of the projects could play a central role. The amortization is based on the assumed lifespan of the investment project (the resulting infrastructure). Based on this, the capital payments are calculated – which has a strong influence on project viability. The lifespan of an infrastructure project, in turn, can be critically influenced by maintenance.

In addition, the intervention could be concluded by a training for all technical staff involved; potential participants would include the staff of the budget unit of MoF, the MoEP's planning department, and the finance unit of the respective line ministries.

Inventory of projects in progress or project pipeline. As contribution to a rational project selection, the MoF is to be supported in keeping a pipeline of projects in different stages of preparation. The pipeline should differentiate according to preparatory stages; GIZ's PIDA project provides an excellent example, where projects are categorized in 3 stages, according to their progress in project preparation. This categorization serves the purpose to maintain an overview and maintain a "competition" among projects and the preparing "owning agencies". From MoF's perspective, this ensures that the capital budget is used for relevant investments.

The objective of the advisory is to equip the partner institution with an instrument that enhances transparency across investment projects. The pipeline is to be monitored either by the planning department in MoF or by the investment unit in MoEP. The partner is to develop first, an inventory process (e.g., taking stock of all projects in the pipeline once a year), and secondly a way of recording and reporting.

Effective and inclusive project appraisal. The appraisal of a complex investment project is often itself a complex process. In the planning stage of an investment project, the technical specifications need to be concretized, and compliance with environmental standards and social requirements needs to be certified. In charge of project appraisal is the sector ministry; however, the MoF accompanies the process and contributes the assessment of economic and financial viability.

The appraisal process needs to be based on all relevant information, both financial as well as operational. The project appraisal could be assigned to a board or panel, bringing together an adequate level of hierarchy and an adequate endowment of expertise. The panel could meet quarterly and decide on the projects presented.

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[22] E.g., IMF (2018): PIMA Georgia, p 9 ff.; IMF (2020): PIMA Benin, p. 11; IMF (2016): PIMA Kosovo, p. 10; World Bank (2020): PEFA Kyrgyz Republic, p. 14ff.

[23] Amortization for investment is calculated against a hypothetical loan. Amortization for loans refers to separating the payments for the loan principal and interest into periodic payments to where the loan is paid off at a specified time.

Commitment appropriation. To allow for secure financing of multi-year investment projects, budget law needs provisions for commitment appropriation ("Verpflichtungsermächtigung"). A commitment appropriation is a specification in the budget by which the Parliament authorises the administration to enter into obligations in the financial year that lead to expenditures in future financial years. Hence, once the legislature has authorized the project, funding can be guaranteed beyond the current fiscal year. The advice is usually embedded in a broader budget reform advisory; comparable processes have been performed in Viet Nam as well as in Zambia. The analysis of the legal basis of the commitment appropriation is part of the review of investment-conducive budgeting, and the advisory is a typical budget law advisory.

Expenditure control is an integral part of expenditure management and constitutes a key element of fiscal discipline. It ensures that spending happens for stated purposes, is within authorized allocations, and adheres to fiscal norms. Federal, sub-national, and local governments across the world have time and again run into serious fiscal problems by allowing large expenditure arrears to build up. In case of cash accounting systems, expenditure arrears often further discourage from public investment. Expenditure controls can be installed on various stages of the expenditure cycle, starting from appropriation, approval, contracting to payment. The advisory should start with an assessment of the status of commitment controls, both in terms of stage as well as in terms of responsibility. Based on the assessment, a rule needs to be drafted. Eventually, the obligation to establish and respect commitment controls is part of the organic budget law.

Commitment Controls – shift to semi-annual accounting. Among the expenditure controls, commitment controls are a crucial instrument for financial monitoring of public investment. A commitment, as an action or an intention to spend public money, manifests itself at each stage of the expenditure cycle. Cash controls, accounts payable controls, and appropriation controls operate at different stages of the expenditure cycle. They are, in effect, different manifestations of commitment controls. A well-structured commitment control system encompasses these three controls and extends to earlier stages of the expenditure cycle as well. The objective is to monitor and regulate expenditure by tracking spending well before payment obligations materialize. The monitoring of commitment controls also helps regulate the availability of cash amongst spending units. Thus, appropriation controls and cash controls are inbuilt in commitment controls (Rao, 2019). While the system of commitment controls is to be structured rationally, the reporting cycle should also be addressed. For the sake of financial monitoring of voluminous investments, it might be preferable to introduce semi-annual accounting.

Public Assets. As public investment results in public assets, asset management is part of the downstream process of public investment management. As basis for asset management, the register of public assets is usually updated at least once a year and part of the documentation of the annual budget. In addition, rules for acquiring and disposing of public assets are linked to the organic budget law. Physical management of public assets is usually under the „owning" MDA, while financial management of public assets are usually kept by the MoF as an Asset Management Unit or a specialized agency under MoF.

While GIZ does not have recent examples for asset management on central level, on the local level, GIZ GSP South Africa has experience with creating asset registers for selected municipalities. For example, Bombela Municipality was supported in creating an asset registry and reviewing the asset management policy in 2020. The past project "Asset management for water and sanitation sector in South-East Europe" which GIZ implemented with the Network of Associations of Local Authorities of South-East Europe (NALAS) produced a Municipal Asset Management Toolkit as guidelines for Local Decision Makers which appears applicable to other contexts of subnational development.

Regarding PICD, GIZ should support the MoF in developing an up-to-date system of asset management, possibly as digital process. The asset registry process should aim to provide a comprehensive and up-to-date status of government assets. In case, it should also prevent misuse of government assets, by informing about the legitimate use and the user of the assets.

Internal audit: strengthening internal audit in sectors. Public investment projects are subject to public financial management rules and regulations. While the project owner, for example the sector ministry, is responsible for complying with financial regulations, MoF needs to review the regulations and make sure they fit for the realization of public investment projects. At the same time, MoF needs to ensure that the internal auditors tasked with auditing investment projects are well equipped and competent in their role. For example, by rules or regulation, the position of internal auditor needs to be independent, and by organisation, the internal audit reports to the administrative head of the Ministry. Internal audit should be managed by workload, but also by success. Internal audit should be encouraged to detect and report inefficient or even unlawful spending decisions.

GIZ has ample experience in strengthening internal audit. Most countries in anglophone Africa, for example, have an institute that maintains the profession of internal auditors. GIZ is actively supporting the institute of internal auditors in Tanzania and in Ghana, as part of the respective GFG program. The institutes of internal auditors are usually tasked with training internal auditors, developing standards and guidelines for internal auditing, and providing quality assurance through regular inspections. Contributions of GIZ programs can lay in developing a training program for internal auditors or supporting this oversight body through legal advisory as well as organisational support.

Budgeting for maintenance cost. While public investment projects are to create long lasting results (e.g., infrastructure assets with a life span of often more than one decade), budgeting often does not consider the period of use of the investment. Necessary maintenance and regular repairs can extend the lifespan of an infrastructure significantly; however, financially, they are a cost factor and in terms of management, they need operational management. In many cases, maintenance costs are not budgeted for, but need a commitment in annual budget. Even worse, the procurement of maintenance in some countries is more cumbersome than procurement of a replacement. Therefore, the budgeting as well as procurement rules for maintenance of public assets need to be reviewed.

The financial sustainability of public investment is a standard issue since long, both in developed countries as well as in partner countries of German development. Under traditional, liquidity-based budgeting, long term costs of investment ("life-cycle cost") tend to be underestimated. Life-cycle cost include the running, as well as the cost of maintenance. Typical running cost are salaries for staff necessary for the use of the investment (e.g., doctors and nurses in case of a health facility, or teachers in case of a school). The cost of servicing includes repair and maintenance. Due to insufficient funds for servicing, the lifespan of public infrastructure is often drastically shortened.

While the budget usually contains a staffing plan as attachment and costing this staffing plan (and inclusion of salaries in the budget) is a standard procedure, budgeting for maintenance is a particular challenge. Maintenance cost can be estimated based on long term experience (e.g., as percentage of investment cost or based on unit cost). This is the first step for maintenance budgeting. However, maintenance costs need to be ringfenced in the budget, to mobilize funding in case of a maintenance or repair necessary.

Advisory regarding budgeting for maintenance is part of the advisory to organic budget law. Per law, rules for calculating long term cost of investment as well as for unused reserves need to be drafted, and regulations need to support the calculation.

Expenditure tracking can be applied to identify the flow of funds in regard to a specific budgetary item or project. GIZ has developed, for example, significant expertise in tracking pro-poor budgetary expenditure. The instrument can be applied on occasion and with a specific purpose; this might be an option for complex, multi-sector investment projects.

Oversight of State-owned enterprises. For delivery of public services, it is common among partner countries of German Development Cooperation to task state owned enterprises with service delivery. In terms of public investment management, this is the stage of project implementation.

SOEs themselves can be owner of the investment project; this arrangement limits fiscal oversight as implemented by MoF as well as political oversight by parliament. However, a strong oversight is necessary to manage fiscal risks (e.g., the South African State Electricity Company has reached a debt level of close to 5% of GDP). Developing the risk management function could be a role for Technical Cooperation; as single experience, GFG in Ghana (the predecessor of GID) has contributed to establishing a Fiscal Risk Unit in the Ministry of Finance.

The first step of establishing a risk management is to analyse, map and prioritize risks. Regarding public investment projects, the main categories of risks are financial, operational, and political risks. It is likely that the same risk categories apply for SOE management in general, and in most cases, risks are known and managed, even if there is no specialised unit tasked with risk management or no process established to make risks transparent and measurable – the precondition for risk management.

Management of Government Guarantees. As part of the oversight of SOEs, government often issues guarantees to SOEs. This is particularly relevant for financing public investments. Under PIM, a strict management of government guarantees is a core means for risk management in project implementation. As part of the PICD programme, the management of government guarantees would strengthen the transparency and accountability for public investment finance.

7.4.2 Module 2 – Intra-Government Coordination: A whole-of government approach to PIM

Module #	**2**
Political partner	Centre of Government – Presidency, Prime Minister's Office, Chancellery
Implementing partner	Government Coordination Unit – Ministry for Government Coordination, MDA tasked with Government Monitoring
Module objective	Whole of Government Strategy to public investment

Approach. Module 2 addresses the government coordination. The function is imminently important: public investment is a political and economic priority task across government and involves several stakeholders, both within government as well as non-government and private sector. Given the scarcity of financial resources, and given the investment needs as analysed in chapter 3, partner countries need a strategic approach to progress. Elements of the strategic approach are government priorities for public investment, timeframe, resources, and intra-governmental coordination of the implementation of the government's approach to public investment.

Government priorities for public investment. The priorities for public investment can be manifold, depending on the economic and political situation of the country. They can focus on specific sectors (e.g., investment in adaptation or mitigation of climate change, overhaul of a country's energy system for stabilising energy access rehabilitation of major transport infrastructure to foster trade and economic development), on balancing the needs for specific political targets (e.g., economic growth versus delivery of public services to citizens), on target groups (e.g. access to health, sanitation, water, energy for vulnerable groups) or other principles. The definition of government strategies has direct consequences on public investment planning, as they affect budgetary decisions and prioritization of investment projects. The formulation of government priorities is, therefore, one important cornerstone for a public investment strategy.

Timeframe. Strategies to improve public investment must be designed for the long term. Intuitively, this is due to the project cycle of investment projects, which often takes several years. However, even more important for the government's strategic decision on public investments is the useful life of the results, mostly public infrastructure: a useful life of 25 to 30 years is not uncommon for public infrastructure.

Individual investment objects, e.g., dams or public buildings, can be designed for a useful life of 50 years or more.

Resource Strategy. The implementation of a strategy to improve public investment involves a significant financial effort. This requires a long-term financing strategy. Although the financing of individual projects is the responsibility of the Ministry of Economy and Finance, strategic decisions must be made at the government level; this concerns the prioritisation of benefits (e.g., between economic and social infrastructure), the distribution of financial burdens over generations or risk assessments that arise with the involvement of private or alternative sources of financing.

For example, the decision to mobilise appropriate loans through public development banks such as the World Bank, regional or bilateral development banks, to use private banks or to seek participation in the Chinese Belt and Road Initiative is a decision of the centre of government that has a significant impact on the level of investment activity and on the financial risk of the whole strategy as well as of individual investment projects. Therefore, the decision regarding resource mobilisation implies a long-term budgetary strategy.

"Whole-of-government" approach to public investment – Intra-governmental coordination of the implementation. The design of decision-making processes lays out the responsibilities among government MDAs and, therefore, provides for guidance during the planning and allocation stage of public investment planning. While the WoG approach is to be developed and owned by the Centre of Government, during the implementation, the CoG is responsible for facilitating and monitoring, while the operational responsibilities rest with Ministry for Finance and Economy, Sector Ministries, and institutions as laid out in chapter 6.1.1.

The main deliverable of this module consists in a long-term strategic plan for public investment, and in capacitating the centre of government as well as the main strategic stakeholders in using the strategy for decision making (e.g., National Development Plan, Republic of South Africa). The investment plan can be integrated with operational economic development that are drafted on the level of government ministries; in this regard, the module is closely linked with module 4 – economic planning.

7.4.3 Module 3 – Public Procurement for Investments

Module #	3
Political partner	Ministry of Finance
Implementing partner	Public Procurement Oversight Body; Procuring MDAs
Module objective	Public Procurement conducive for public investment

Module 3 addresses the procurement system. An effective Public Procurement is a key factor for realising public investment. Because of the often-complex nature of the public investment, the system needs to balance interaction with markets for goods and services with timely and quality-conscious supply for government use.

Principles of Public Procurement. The literature usually refers to 4 basic principles for public procurement systems. These are:

(a) Competition: competitive tendering shall support the likeliness that the goods and services are acquired in high quality at adequate prices

(b) Transparency: broad and clear competition encourages competition

(c) Openness: all participants in a tender shall bet treated equally, and access to the competition shall be without barriers

(d) Adequacy: the process shall be legitimate, oriented towards the goal and necessary.

Some countries add specific additional principles; these can refer to preferential treatment of certain categories of businesses (e.g., SMEs) or individuals (e.g., South Africa: previously disadvantaged groups of society). Procurement criteria can also serve to promote gender balance. South Africa's merit point system for affirmative action includes, in addition to disadvantaged groups, also merit points for women-owned businesses.

Under PIMA, procurement is included as institution 11 – at the beginning of the implementation stage. This reflects the crucial role that procurement plays for the realization of public investment projects. GIZ has ample experiences both, in strengthening national procurement systems (i.e., support to Kenya's Public Procurement Oversight Authority PPOA, or Support to the Office of the Chief Procurement Officer in South Africa) as well as sectoral procurement (i.e., Procurement in Health in Kenya).

Regarding tendering for public investments, the specific challenge lies in the fact that some criteria need to be interpreted by the procuring agency. This applies to the principle of adequacy above. Under South African procurement legislation, the principle is formulated as value for money: "this means that not necessarily the tender with the lowest price is going to win. If the lowest price means inferior product, then the Evaluation Committee will seek for an alternative product" (Van Rooyen, kein Datum). With a view to recover forward, aspects of green procurement (or the green footprint of either the product or the producer could be included.

Beyond the principles, public procurement is comprised of different methods of procuring goods and services. The most commonly used methods include, but are not restricted to direct award, Open tendering, Restricted Tendering, Request for Proposals and two stage tendering.

The MoF as political partner bears overall responsibility for the system of public procurement, as this is part of MoF's budgetary responsibility. For the individual procurement processes, however, responsibility rests with the procuring MDA. Therefore, this module has a two-stage approach: (1) ensuring overall quality of the system and (2) managing a high-quality implementation.

Definition and dissemination of procurement standards: Procurement Oversight. Policy and strategy of public procurement are usually defined by the MoF in its capacity as budget institution. In recent years, a growing number of partner countries has tasked a special authority, usually under MoF, with defining and enforcing standards for public procurement; examples are the Kenya Public Procurement Oversight Authority (project partner for GTZ's Support to Budget reform in Kenya, 2009-2011) or the Office of the Chief Procurement Officer in South Africa (supported under GIZ GSP).

The intervention includes a needs assessment (review of public procurement legislation, structure of procurement agencies, training needs assessment for staff). Results under this subcomponent include a modern, market-based procurement legislation, a thorough definition of the mandate of the oversight authority and skilled staff.

Dissemination: increasing transparency, openness, and fairness in public procurement. This work stream under module 2 targets the system of procurement offices under the government MDAs. The main challenge in developing public procurement systems lies in defining the best level of regulation. The principles of fairness and adequacy, for example, can have a direct impact on each procurement process. On one hand, you want to ensure a transparent process, on the other hand, you want to manage cost for procurement processes.

On the level of practical processes, the procurement agency needs to guarantee the quality of tender documents, the communication related to tendering processes, the participation of the procuring entity, e.g., in tender boards or evaluation committees, and a proper documentation.

Major steps include developing one or more process models for procuring agencies, training procurement staff on both, principles, and practical guidelines, and – if necessary – accompany an organisational development process. A good example stems from GSP South Africa, which has managed to support organizational reforms of public procurement offices on the level of provincial governments.

This Module might be accompanied by a civil society component: a body engaged in enhancing transparency in public decision making can be strengthened in supporting transparency in public procurement. Furthermore, a complementary private sector module would focus on strengthening private sector participation in public procurement.

7.4.4 Module 4 – The Role of Public Investment in Development Planning

Module #	**4**
Political partner	Ministry For Economic Planning
Implementing partner	Ministry For Economic Planning
Module objective	Transparent and efficient Public Investment Planning

Module 4 addresses the system of national planning; more specifically, the aim is to **link economic planning with public investment strategy**. Governments usually embark on a medium-term planning process. This process is led by the ministry in charge of economy and planning and leads to a national development plan (e.g., National Development Plan 2021-2030, Republic of Ireland).

National Planning. Investment planning is part and parcel of the national development plan. The Development Plan should define objectives for economic development, mark the relevant sectors and highlight or exemplify relevant activities. As part of the planning process, areas – or even major projects of relevance for the economic development process – will be identified. This is part of the prioritization process.

The contribution of the technical cooperation can consist in supporting the planning ministry in defining the framework for the planning process, supporting the planning process itself as a multi-stakeholder process or supporting the summary, which is captured as the national development plan.

Regarding investment governance, the investment process needs to take the whole population affected into account, depending on the size and reach of the investment project. However, investment decisions that would affect the total population of a country are the exception. More likely are investment decisions that affect one or more regions.

GIZ has plenty of experiences in working with national MoEP with regard to national planning processes. The advisory is built on organisational development; in the end, the product of the advisory is an inclusive planning process across central government ministries.

Linking planning and budgeting: MTFF. As final stage of the planning process, the outcomes of the planning inform the budgeting process. In partner countries, this is usually realised only in part, in the form of a Medium-Term Expenditure Framework – where government estimates concentrate on the expenditures over a 3–5-year period, leaving revenue aside. The responsibility for the MTFF can vary – it is that either the MoEP or the MoF is in charge.

Linking national and sectoral planning. While the National Development Plan defines an economic framework, Sector Ministries are responsible for identifying potential public investments within the framework. The project proposals are subject to a government-internal review process, which includes the Sector Ministry, the MoEP and MoF. This review process prepares the way for prioritization.

The advisory approach in this regard complements the advisory approach in module budget planning.

Revision of the process for **investment budgeting**. As investment budgeting has a forward perspective, the ministry in charge of economic planning is usually involved in investment budgeting. In some countries, there are two budget institutions: the MoF in charge of regular, annual, recurrent budget while MoEP in charge of capital budgeting. The revision of the investment budgeting processes shall establish the exact responsibilities between the two entities and provide process and institutional advisory.

Project appraisal. Once line ministries have prepared (or, more often, updated and amended) the list of potential investment projects, MoEP is corresponding partner for a first economic assessment. This assessment includes a coherence check with the National Development Plan, as well as a risk assessment as standard procedures. It is in this stage that MoEP needs to apply economic criteria to the investment decision to guarantee rational decision making.

Cost Benefit Analysis. The balance between public benefits and cost for the fiscus should be one part of the decision making. The MoEP oversees this process. Once the Sectoral ministry has identified potential public investment projects in the early project preparation process, the ministry in charge of economy and planning is about to evaluate costs and benefits of the investment project.

Pre-feasibility. As result of project appraisal, project concepts arise that are possible, but relatively vague in terms of technical viability and financial fundability. The more complex a project, the more critical the pre-feasibility stage. This is because at this stage, the preparation is not advanced far enough to secure private sector funding for the project or even for the next stage in project preparation. This means that MoEP and Sector Ministry need to prepare a case so that MoF releases additional funds for pre-feasibility. Although a regional project, the GIZ project Support to AU PIDA has supported the Development Agency of the African Union – the New Economic Partnership for Africa's Development (AUDA-NEPAD) in designing a process that would mobilize resources (funds and capacities) to further prepare project documents for the feasibility stage.

Feasibility. In its capacity as Ministry tasked with economic planning and policy formulation, it is usually the MoEP that is in charge of leading the feasibility process. The feasibility stage establishes the economic, financial, environmental, and social viability of the public investment project. In this stage, potential private sector funders can enter the process and evaluate the possibility of participating in the public investment. The MoEP as natural partner for private sector economic participation leads the process, supported by MoF and SecMin.

7.4.5 Module 5 –PIM in Clusters and Sectors

Module #	**5**
Political partner	Sector Ministry (Investment Owner)
Implementing partner	Sector MDA
Module objective	Transparent and efficient Public Investment planning and budgeting

Module 5 focuses on strengthening the owning entity in their responsibility for public investment. The owning entity could be any Ministry, Department or Agency in a sector relevant for public investment; most probably, the program would focus on infrastructure heavy sectors – be it health, education, water, energy, or transport. Hence, it is likely that Module 4 be implemented in more than one sector in parallel. Because the aim of the study is to shed light on public investment from a systemic point of view, the chapter will not address the details of the owning entities (OE). The project owner usually focuses on the non-financial side of investment – physical planning, needs assessment, technical specification etc. However, public investment requires a close interaction between financial and non-financial aspects. In this perspective, this paragraph focusses on the cross-cutting processes of planning and budgeting from the perspective of an OE.

The project owner has the main responsibility for early project identification. From then on, the OE is the core actor, leading the technical processes and accompanying the public investment in collaboration with other MDAs and in the framework of investment budgeting.

Early project identification. As part of the OE's policy domain, it is the knowledge bearer of reform and development needs in the sector. Through interactions with the stakeholders of the sector, the OE identifies investment needs in the sector and outlines potential investment projects, based on its technical expertise in the sector. The project outlines inform the sector planning, which in turn is to be coordinated with the national development planning process.

The development of a sector plan is a crucial precondition for the identification of early project proposals: the sector plan lays out, for example, the technical environment (e.g., grid-based electricity provision), embeds the project (e.g., connection points to existing grids; quality of the service) and the time horizon (especially relevant for complex, multi-annual projects).

Prioritization. The prioritization of investment projects has more than one facets: one aspect regards the prioritization within the sector (intra-sectoral prioritization), the other one priority "across sectors" (inter-sectoral prioritization) (Misch & Wolff, 2008). The latter means that, although the sector ministry might conclude that a particular investment in the sector is necessary and priority, from a whole-of-government perspective, the sector might not be of highest priority. This prioritization across sectors is usually the result of the budgeting process, where public means are allocated among sectors.

As the budget process implicitly contributes to prioritization and this process is under responsibility of MoF or MoEP, the responsibility of the Sector Ministry is to formulate sectoral priorities and develop a pipeline of projects in the respective sector.

Inclusive Investment Planning: Beneficiary Participation. As part of the planning process, the project owner is to engage with final beneficiaries and stakeholders. An inclusive Investment Planning Process should be mandatory; however, the details of stakeholders' participation vary, according to the nature of the project (i.e., road, power plant, water dam, hospital). Each type of project produces direct and indirect benefits, and the distribution of cost and benefits among the population varies strongly. As minimum standard, direct beneficiaries and the population directly affected (e.g., through resettlement due to road construction) should have the opportunity to participate directly (as group or as individual). Groups of stakeholders which are indirectly impacted might be represented in the hearings. Participation methods include individual representation, multi-stakeholder consultation processes, public hearings, necessary permits (environmental permits, water permits, etc.).

Selection of projects: Criteria based process. A transparent selection of public investment opportunities requires that alternatives are compared, based on technical criteria (e.g., user experience). In contrast, PIMA and other relevant international analyses conclude that project selection is often done exclusively based on political considerations. Hence, the PICD support would entail developing a process of criteria-based prioritization – formulation of a criteria catalogue, identifying crucial stakeholders and agree on a decision process. This catalogue of technical criteria is to complement the catalogue of financial requirements as defined by the MoEP or MoF.

Implementation: Project Management Unit. Once a project is approved and has received funding, the OE needs to set up structures for project management. A PMU is usually tasked with implementing complex investment projects. While the core task of PMU consists in technical management, the contribution of PICD to PMU is in financial monitoring and reporting to MoF. Among PMU tasks is reporting on progress; from a public investment point of view, the use of funds is critical. Hence, part of the support granted to sector ministries is the capacity to account for actual and forecast future financial flows as part of the PMU. This is where GIZ has a long-lasting experience: setting up PMUs and ensuring a high reporting standard. A very good example in both, complexity as well as financial volume, is GIZ's experience in managing the implementation of voluminous and complex investments in tertiary education – establishing a university infrastructure and setting up an education system (curricula, courses, qualifications etc.). Examples include Ethiopia and Rwanda.

Budgeting for long-term recurrent cost. Decisions concerning public investment projects proposed (and realized) by sector ministries or subnational departments tend to focus on the investment cost. However, although investment cost can be substantial, the decision should also focus on the cost that arise from the investment project. The long-term cost can exceed the investment cost by far, depending on the type of investment. For example, the cost of nuclear power plants includes "eternity cost" – because currently, there is no procedure to treat nuclear waste from nuclear power stations, thus the owner needs to provide storage capacities that protect against radiation - for a potentially unlimited time span.

Internal audit: implementation of guidelines. As users of budgetary funds, project owners need to guarantee application of the relevant financial regulations. The OE's internal audit (and inspection, in case) are in charge of monitoring financial compliance. Frequent audits ensure that complex and voluminous investment projects are implemented according to the rules.

7.4.6 Module 6 - Accountability in PIM

Module #	**6**
Political partner	Supreme Audit Institution; Parliament
Implementing partner	SAI
Module objective	Accountability in Public Investment

Module 6 is designed to strengthen accountability. This has two dimensions: on the political level, investment decisions of government are to be scrutinized by parliament (political accountability). On the level of implementation, supreme audit institution (SAI) should hold government to account (accountability).

Political accountability. Parliamentary oversight plays a crucial role in regard to developing and defending the political rationale for public investment projects. In parliament, investment decisions are challenged with a view on stakeholders. The PICD could support this process by strengthening parliaments' research and accountability capacities – the Parliamentary Budget Office as impartial provider of information to members of parliament.

An advisory approach could include elements of institutional development advisory – developing processes and structures with the partner – or a specific legal or economic approach.

Supreme Audit Institutions in the public investment process. SAIs can have four major tasks in public investment. They can comment on the planning process, both the sector investment plan as well as the medium-term fiscal planning; they can be tasked with pre-approval of complex and expensive investment projects; they can provide ex-post accountability of the investment project; and they can support government and parliament in oversight over SOEs.

Critical assessment of national development planning. The planning stage is about to outline the basis for public investments. In the sectoral plans, the technical plans are confronted with initial budgetary estimates. As soon as major investment projects enter the MTFF process, budgetary planning and relevance become more concrete. The SAI, through commenting on sectoral plans and medium-term fiscal planning, can highlight the need to revise and / or concretize project planning.

This function is enhanced in a setting where the SAI has a mandate. In Germany, for example, the president of the SAI is ex officio government advisor on government effectiveness.

Pre-appraisal. In francophone systems, the SAI is often tasked with pre-approval of major expenditures. This includes pre-approval of public investment projects. GIZ has experience in strengthening the pre-approval function of SAI as part of the Good Financial Governance program Mozambique. This intervention basically involves training of auditors in economics and financial management.

Accountability in Public Investment. The core function of SAIs lies in ex-post audit of budgetary items. As standard instruments, SAIs perform compliance audits and financial audits. In most partner countries, public entities are required to undergo a financial audit performed by the SAI every year. For investment projects, compliance with financial regulations, procurement rules and planning requirements is worthwhile. In addition, SAIs are increasingly applying value for money audit. This type of audit assesses whether investments realized their goals in the most economical way. Could have other solutions provided the same service at less cost? Could have been achieved a better service level at the same cost? Value for money audits are complex and require an informed judgement; this is why not all SAIs in partner countries perform value for money audits currently.

As part of the value for money audit, SAI needs to establish whether the investment complied with the specifications. This requires assessing beyond financial indicators and reviewing the technical project implementation. For example, GIZ in cooperation with the Court of Audit of Hesse supported the Auditor General's Office of Armenia in value for money audit of road construction works. This implied involving engineers in on-site audits of newly constructed roads, assessing the thickness and density of tarmac.

Oversight of SOE. State owned enterprises in partner countries are often tasked with substantial public investments. As case in the point, South Africa's energy provider is fully government owned, and in turn owns power plants as well as transmission lines. Its debt levels, however, are macro-economically critical (close to 5% of GDP).

SOEs are subject to External Audit. However, SOEs are government business entities. As such, they account and report using International Financial Reporting Standards (IFRS), as opposed to public sector accounting standards. Thus, under PICD, enhancing accountability in public investment includes frequent audits of SOEs. This, in turn, requires SAIs to audit along IFRS. The PICD, therefore, could support SAI in establishing SAI's capacity for auditing SOEs.

7.4.7 Module 7 – PIM in the climate change and environment cluster

Module #	**7**
Political partner	Ministry for Environmental Affairs and all sectors
Implementing partner	Environmental Agency
Module objective	Environmentally viable public investment

Module 7 addresses the sectoral investments in climate change mitigation and adaptation, as well as the quality of public investment, namely the compliance of the investment project with environmental standards. In this respect, the task at hand is often performed by an agency under the Ministry for Environment and Climate.

Environmental Compliance Certificate. As part of the project appraisal, environmental viability is an important factor and merits to be standard for project appraisal. The Ministry for Environmental Affairs is in charge of issuing environmental guidelines for public investment. The guidelines can specify the way of how environmental impact is assessed, as well as the form of the certificate.

As per investment project, the owning agency needs to produce a certificate. The contribution of PICD could consist in advisory to MoEA regarding environmental standards for public investments, and to the environmental agency in regard to qualifying staff for environmental assessments.

7.4.8 Module 8 – Subnational Public Investment

Module #	**8**
Political partner	Ministry for Local Government and MOF

Implementing partner	Subnational Government as project owner
Module objective	Accountability and viability of subnational public investment

Module 8 focuses on the intergovernmental relations relevant for public investment. Despite long efforts for decentralization, decision making in most partner countries remains quite centralized, with only limited responsibility, competence, and financial resources for local public investment. This means that subnational governments depend on government transfers or on state guarantees to mobilize investment funds.

Regarding planning public investment, on subnational level, given the structure of government, projects are often less complex, and procedures allow for more variance. This applies to project selection, as well as project implementation.

An additional challenge for local public investment lies in the fact that spill overs to neighbouring communities are quite often. This is the case when the target population of a public investment project includes citizens of different municipalities or regions. Hence, the issue of inter-governmental cooperation has a string weight when it comes to subnational investment.

Chapter 6 of this study has provided relevant insights into subnational investment. However, the scope of subnational investment is very broad and disperse. Therefore, it is recommended to task a separate study with analysing subnational investment in depth and developing an advisory approach.

7.4.9 Module 9 – Citizens' Participation in PIM

Module #	**9**
Political partner	Ministry of Justice and Ministry of Finance
Implementing partner	Civil Society Organisations (CSOs)
Module objective	CSOs are increasingly and visibly holding government to account over public investment

Module 9 provides for a complement to government processes of deciding on and implementing public investment. The objective of the module is that CSOs are increasingly and visibly holding government to account over public investment.

Civil society has a strong point in demanding accountability in public investment. This has several reasons. First, it is not uncommon that public investment projects directly affect the livelihood of their neighbourhoods. Voluminous projects of transport infrastructure, for example, require neighbourhoods to relocate. Relocation comes with economic uncertainty for the relocated population. Secondly, the funding of complex and long-lasting investment projects is often complex and opaque. Although taxpayers' money is spent, accountability levels can be low. Thirdly, public investment projects are often marketed based on their positive social impact. It is worthwhile, therefore, to support tracking of the envisaged social impact.

As chapter 5 has shown, GIZ provides for a growing set of experiences in supporting CSOs in supporting civil accountability. The approach to supporting CSOs is different from working with administrations; CSO cooperation is based on trust, rather than on government agreements, and interventions require therefore a more individual and careful approach.

Regarding relevant content, experiences include budget transparency (e.g., supporting national chapters of Transparency International), transparency in extractive industries (e.g., strengthening national EITI processes) or social audit. As Module 8, PICD would offer support to CSOs; this support could include systemic change as well as supporting networks of CSOs that back similar topics. A set of standardized fields of cooperation could be applied across topics.

Organisational Development. CSOs often are comprised of a group of committed citizens. Organisational skills, leadership or strategy formulation are not necessarily qualities that come natural for CSO members. With basic support to management (i.e., tax, accounting, and HR) and organisation, GIZ PICD can strengthen the impact of partner CSOs.

Strategy development and networking. While CSO staff usually maintains a high motivation due to the cause of their engagement, each CSO does not work in isolation. In contrast, CSO often compete for funding and attention. Thus, support to strategy development can have considerable implications for the legal status, e.g., through legal consultancy.

Communication. The public perception is a CSO's working capital. Therefore, CSOs need to assess their communication channels as well as the means and content of their communication.

7.4.10 Module 10 – Private Sector Participation in Public Investment

Module #	**10**
Political partner	Ministry of Economy
Implementing partner	Private Sector Actors – Business Associations and Training Colleges
Module objective	Increased participation in Public Sector Investment Projects

Module 10 addresses the participation of private sector in public investment. First of all, the private sector is, together with private citizens, as user of public infrastructure a beneficiary of public investment. However, as the study concentrates on the public investment process, four aspects will be treated. These are a) mobilising private funds for public investment, b) providing goods and services economically in public tendering processes, c) realising construction works and d) private provision of public services.

Private sector financing for public investment projects. Most public investment projects are funded from private and public funds. For private sector institutions, funding public investment ensures a safe return – the state is usually among the better, higher rated debtors than private sector – over a long period of time. This is, because the financing cycle allows for time to generate returns from the investment result, the infrastructure. Whether the returns are generated through user fees, or from the government's budget is usually not very relevant from the perspective of the financial institution; decisive, though, is a government guarantee.

The PICD approach could extend to collaborating with projects supporting financial sector development (FSE) projects to engage in support to the development of financing models, and the management of fiscal risks for MoF. Financial institutions, in turn, could be trained in financing public investments in compliance with Economic, Environmental, Social and Governance risks.

Private sector as public investment supply chain. In the implementation stage, goods and services are procured by the OE. Mirroring the support to MoF in strengthening tender procedures, private sector can be strengthened in participating in tenders, possibly concentrated to SME (e.g., tender preparation, costing etc – training). As first result, this would open a business development perspective for SME. In the medium term, this could contribute to increasing competition.

Construction: Realizing investment projects. Another private sector component in PICD can consist in working with construction companies that work with public sector. This can include strengthening business associations or developing skills in the constructions sector(s). While "food for work" projects provide experiences on a very small scale, the Ethiopia University Building project is good example of how to combine major infrastructure investment with developing skills and professionalising construction.

Private service providers for public service delivery. With a view across the investment cycle – and having the shifts in service provision in the health, water and electricity sectors in mind, an intervention of PICD with private sector, complementing the support to public institutions, can imply developing business models based on service delivery in sectors that are reliant on infrastructure. This can include SMEs involved in energy markets, water provision or similar sectors.

Public Investment – Infrastructure Projects as training sites. Public investment projects that have a long duration and implicate specific trades can serve as nucleus for developing a training cluster. This has been the case, for example, in the project of university development in Ethiopia, which was implemented by GIZ on behalf of the Ethiopian Government. Specific trades included stone masons and roofers – trades that were important during the establishment of the universities in Ethiopia. The project was implemented in a way that local craftsmen played the central role – and were trained by technical and vocational trainers. This can serve as an example of investment projects with similar duration and scope.

Annex 1: The PIMA for Mexico – A Case Study

This section presents a detailed analysis of Mexico's PIM assessment as example of the valuation process and results assessed by the IMF team in the three principal scores, namely high, medium, and low. The choice of Mexico is based on the following criteria: The country is categorized as

- an emerging market or U-MIC state that is closer to using advanced economy approaches to project management and public policy than those of L-MICs;
- an OECD and a Group of twenty country that is influenced by advanced country systems and processes, including leadership in economic management rules;
- influential in Latin America, with proximity to the United States of America (with which it shares a pact with Canada), hence an affluent enclave with known capital markets for investments;
- a key player in technical assistance, within context of the IMF, World Bank, Inter-American Bank—which is the regional bank; and
- an important German Development "global partner," as defined and used in this Report and capable of delivering support and advisory to other countries.

Besides these common elements, Mexico is also a Federal State, which makes its report important in a PIMA analysis of sub-national governments (SNGs) and parastatal economic activity. Table 10 summarizes the scores and associated narratives in the earlier Tables.

The IMF notes (PIMA Mexico, p7) that the "assessment found that most of Mexico's institutions scored as medium strength in terms of institutional design and effectiveness." It continued to explain that, as in most countries, there is a difference between what is on paper, in terms of design features and legal frameworks, and actual practices.

Table A1: Mexico: Summary of PIMA Assessment

Phase/Institution		Institutional Strength	Effectiveness	Reform Priority
A. Planning				
1	Fiscal targets and rules	**Medium:** Fiscal rules targeting the deficit and expenditures are in place. They **do not cover general government** and there is no debt target or limit	**Medium:** Only limited medium-term focus, the Public Sector Borrowing Requirement focusses on an annual target. The escape clause has been used several times over the last decade	**High**
2	National and sectoral planning	**Medium:** A clear **national and sectoral planning framework is in place** but does **not really guide** ministries' investment planning	**Low:** Strategies are not based on likely resource availability, costing information is limited, and investment budget allocations are made project by project	**High**
3	Coordination among entities	**Low:** There are **no co-ordination mechanisms to ensure Federal & SNG plans** are shared & used to guide planning decisions at each level	**Low:** Information on the value of **transfers from Federal government to individual SNG levels comes late** for efficient sub-national planning	**High**
4	Project appraisal	**High:** A standard methodology for project appraisal is in place and proposed projects are legally required to be registered in the portfolio and must undergo financial and socio-economic analysis, including risks	**High:** The socio-economic analyses for projects registered in the portfolio are published and they show a proficient level of detail and in some cases include risk mitigation plans	**Low**

5	Alternative infrastructure financing	**Medium:** Competition in some **infrastructure markets** is required, regulators were recently established, and a **PPP framework** was established. Some performing criteria and trust funds are legally allowed to plan and implement projects with minimum oversight by the Ministry of Finance and Public Credit (Secretaría de Hacienda y Crédito Público - SHCP)	**Medium:** Reforms have improved access to infrastructure markets & promoted competition but need further implementation. The PPP Unit faces a conflict of interest, operating as both PPP promoter & filter. Investment plans of some PCs & trust funds are not systematically monitored	High
B. Allocation				
6	Multi-year budgeting	**Medium:** Projections over the life of projects are set out but there are **no multi-year budgets or ceilings** for capital expenditure by ministry or program	**Low:** Project details are broken down by year, but the **multi-year nature of capital projects** is not recognized in budget decisions	High
7	Budget comprehensive ness and unity	**Medium:** The information on capital investment is **comprehensive** but current and capital spending decisions are not integrated	**Medium:** The budget **does not present comprehensive tables** showing capital spending from all sources of funding	Low
8	Budget for investment	**Medium**: Funding requirements for some **on-going capital projects are given priority** and transfers from capital to current spending is limited	**Medium: Multi-year capital projects are subject to annual appropriations** but future funding requirements for on-going programs are prioritized in budget formulation	Low
9	Maintenance funding	**Low:** There are no standardized requirements for maintenance, but some agencies establish and monitor maintenance requirements	**Medium:** Some agencies budget routine maintenance and capital improvement but improvements compete with new projects for funding	High
10	Project selection	**High:** Procedures for project selection are set out in legislation and in guidelines; and projects using budget funds are subject to these procedures, including those added by Congress.	**Medium:** While a pipeline of good quality-assessed projects is in place & active projects in the pipeline are eligible for funding for 3 years, the funding focus is on the coming budget year, not a forward focus for project planning. **Coverage is limited to Federally funded projects**	Low
C) Implementation				
11	Procurement	**High:** The **law requires all projects to be tendered competitively** and relevant information is required to be provided to the public through CompraNet. Complaints follow an independent and transparent review process.	**Medium:** Major projects are tendered competitively. Those subject to public tender face some restrictions to effective competition. Most non-major projects are not competitively procured due to the **frequent use of exemption clauses**.	Medium
12	Availability of funding	**Medium:** monthly **cashflow forecasts** are prepared and **donor funding is integrated into the TSA,** but annual commitments ceilings are not provided	Medium: **Ongoing projects are not protected from unscheduled cutbacks** and although the Treasury strives to pay invoices within 48 hours, there is no systematic monitoring of payment delays	Medium
13	Portfolio management & oversight	**Medium**: Financial and physical **projects implementation monitoring is centralized**, reallocation procedures within projects are well-defined, and ex-post review of some major projects are conducted	**Medium:** Data on cost over/under-runs as well as on implementation delays, is not readily available nor used for decision-making or learning purposes	Medium
14	Management of project implementation	**Medium**: Detailed financial plans are prepared prior to budget approval but implementation plans are prepared only after budget approval	**Medium:** Preparation of **implementation plans after budget approval by Congress can lead to delays** in project implementation	Medium

15	Monitoring of public assets	**Medium:** Non-financial assets reported in the government financial statements exclude large assets such as airports and highways	**Low:** The mechanisms to value and revalue government assets are not integrated with government accounting, which only uses historical cost, with no depreciation	**Medium**

Criteria or item 3 shows the difficulty in coordinating the central (or federal) government's budget and project management activities with those of SNGs. On the other hand, ***Mexico scores high in basic budget processes*** but with some shortcomings in resource allocation, where the "lowest" scores are found. The overall goal is to implement sound systems and processes to achieve comprehensive "general" government reporting framework. This relates to the low scores for budget comprehensiveness and project selection.

Against this background, the following three related Table 11 to Table 13 reproduce the IMF's recommendations, with annual timelines, for improving the specific areas—which is also a translation of the reform priorities shown in the preceding Table. It is important to take note of the three-year horizon for implementing the recommendation, which in the case of Mexico (2019 to 2021) ***falls within the disruption caused by COVID-19***.

The first segment covers the recommendations that the IMF deemed to be of high priority, and which could support a rapid technical assistance (TA) intervention—not because these aspects of PIMA are weak but because they could improve the framework more quickly and effectively. They cover fiscal rules as well as the annual budget and medium-term fiscal framework.

Table A2: IMF's High Priority PIMA Recommendations for Mexico

Indicative Action Plan				
#	Action	2019	2020	2021
A	High Priority Reforms			
	Recommendation 1: Strengthen fiscal discipline by improving the M**edium-Term Fiscal Framework** (MTFF), the application of Fiscal Rules (FRs) and establishing independent oversight of fiscal planning			
1	Strengthen application of fiscal rules	Amend the FRs to restrict the use of the escape clause to exceptional circumstances: case of significant output shocks and significant disruptions in the oil price		
		Establish a provision requiring the specification of a clear path back to the fiscal rule after the exceptional circumstance clause is invoked		
2	Strengthen MTFF		In the pre-criteria report, include more information on fiscal strategy and analyses of fiscal policy and medium-term fiscal parameters	Develop a medium-term debt limit for general government (federal plus SNG levels), initially for internal purposes, then externally
			Provide more medium-term disaggregated expenditure projections	
			Require performing criteria and entities with PPP contracts to provide annual reports on their fiscal risks to SHCP	

3	Strengthen independent oversight	Introduce independent body to review macro-fiscal projections and compliance with FRs and a debt sustainability path		
B	**Recommendation 2:** Improve the effectiveness of national and sector strategies to guide investment project planning			
4	Improve the effectiveness of national and sector strategies to guide investment planning	Prepare the national development plan and sector program within a realistic medium-term resource framework	Make arrangements to review the national and sector plans at the mid-point (after 3 years) to reflect changes in economic or policy circumstances	
		Concentrate in the national and sector plans on a limited number of high priority strategic objectives that can realistically be achieved within available resources	Train SHCP and ministries staff on the development of the results framework for investment projects and its linkages to the sector/institutional program	
		Provide realistic outcomes and targets for key strategic objectives over the medium-term, based on available resources		
		Link the strategic objectives in the national/sector plans to the investment allocation in the rolling medium-term budget framework		
C	**Recommendation 3:** Strengthen medium-term budget planning			
5	Introduce a rolling medium-term budget framework (MTBF) for both capital and current expenditures	Develop the methodology for preparing a rolling MTBF process to cover both current and capital expenditures	In conjunction with the strengthened MTBF, develop top-down medium-term ceilings by ministry, earlier in the process (at the beginning of budget preparation	Develop baseline estimates of existing project spending and identify available fiscal space for new projects
		Draft Guidelines for the preparation of the rolling MTBF	Develop a methodology and simple model for ministries to prepare expenditure baseline projections for their programs, for both current and capital expenditures	Establish a rolling investment costing exercise linked to the MTBF and consistent with expected results and investment goals for overall federal investment
		Train staff in SHCP and ministries in the new methodology	Train SHCP and ministry staff in the preparation of baseline projections.	

Among others, the second (continuous) Table A3 is unique for PIMA in covering recommendations for strengthening the ***Federal and SNG*** fiscal structures in Mexico. It also provides the point made about Mexico and Brazil's peer membership of the ***OECD and G20***, with superior structures and, therefore, higher expectations for PIMA than would be required for L-MICs and LICs.

Table A3: IMF's High Priority PIMA Recommendations (Mexico)—continued

Indicative Action Plan				
#	Action	2019	2020	2021
	High Priority Reforms (continued)			
D	**Recommendation 4:** Improve the coordination between federal and sub-national governments			

6	Improve the mechanism for coordination of public investment plans of federal and SNGs	Consider establishing a ***joint federal and state*** investment coordination committee(s)	Review the Convenios structure and the operating rules for Ramo 23	Include in the Registry all sub-national investment projects under Ramo 33
		Require ***SNGs accessing Federal funds*** to provide annual reports on their fiscal risks, including explicit and implicit contingent liabilities		Ensure that SHCP investment systems (SEFIR, RFT, Modulo Cartera) ***interact and allow for a comprehensive overview of federal resources transferred to States*** as well as systematic follow up
E	Recommendation 5: Develop a standard methodology for determining maintenance funding requirements for all types of infrastructure and budget for them			
7	Increase the comprehensiveness of public investment project information in the *cartera*	Require agencies to establish, submit program-appropriate maintenance standards to SHCP and regularly survey their capital stock to determine maintenance needs and funding requirements	SHCP to review maintenance (operations, needs and expenditures) to determine whether appropriate resources are being allocated to maintain public capital stock	
		SHCP to provide summary presentation on maintenance, highlighting expenditures by agency and program	Expand register for infrastructure assets and ensure that they are updated on a regular basis to support determination of appropriate maintenance levels	
F	Recommendation 6: Promote more competitive tendering and pro-competition culture among public procurement officials			
8	Reform public procurement	Review and compile the concrete recommendations on public procurement presented by ***COFECE, OECD and other entities***, identifying the ones that can be implemented without changes in law	Review public procurement practices and results, identifying opportunities for improvement within the current legal framework	Consolidate federal public procurement legislation into a single Public Procurement Law
		Disseminate those recommendations among procurement officials		Promote the harmonization of the legal framework across the ***levels of government***
9	Train procurement officials	Structure a training program for procurement officials, aiming to promote pro-competitive innovations in public procurement	Extend training to ***SNG procurement officials***	
10	Develop standard tender documentation	Establish deadlines for each main govt. procuring entity to produce standardized tender documents and submit them to the Federal Economic Competition Commission for review	Make the use of standard procurement documents mandatory	
11	Monitor public procurement	Define performance indicators for public procurement and use electronic procurement	Publish periodic analytical reports on the performance of public procurement	

		platforms to monitor them		

The Tables in this Annex show the OECD, COFECE, LAC and Emerging Market (EM) peer context for Mexico's evaluation, with the first two being relatively "rich-country" organizations (IMF, PIMA Mexico, p. 40). The report notes that "Mexico has stronger PIM institutional design scores at the federal level than the averages for EME and LAC countries, but they are much weaker than the OECD average." It also notes that the improvements reflect recent reforms.

The ***medium-term PIMA*** improvement recommendations also cover the same period of 2019-2020 but appear to cover areas where the focus is on building sound, fundamental structures. They cover project specific, capital budgeting and sustenance of pipeline projects that need to be integrated in the annual budget and (rolling) medium-term framework.

Table A4: IMF's Medium-Term Priority PIMA Recommendations for Mexico

Indicative Action Plan

#	Action	2019	2020	2021
Medium-term Priority Plan				
G	Recommendation 7: Improve the comprehensiveness and quality of public investment planning			
12	Require extra-budgetary entities (non-organic funds) & all public corporations to provide the IU with information on their planned investment projects	Require extra-budgetary entities (non-organic funds) and all public corporations to provide the Investment Unit with information on their planned public investment projects	Standardize the formulation and evaluation requirements for projects funded through Ramo 23.	Introduce a process of external reviews of cost-benefit analyses for key investment projects
			Create a registry of PCs and extra-budgetary units' investment projects funded under Ramo 33	
H	Recommendation 8: Improve predictability of funding for major capital projects			
13	Manage capital projects within commitment ceilings	Update treasury to provide commitment ceiling to ministries to allow them to manage capital projects within the ceilings		
14	Prepare procurement plans earlier	Prepare a provisional procurement plan and a commitment plan, 2-to-3 months prior to the beginning of the fiscal year to speed up project implementation as soon as the budget is passed		
15	Develop multi-year appropriations for capital budget		Introduce carry-forward of budget authority for multi-year capital projects within clear and transparent guidelines and limits	
I	Recommendation 9: Strengthen the monitoring of cost overruns and project delays			

16	Track and report on cost over/under-runs and delays	Prepare quarterly summary tables on cost over/under-runs and implementation delays for policy makers, pulling data from information provided by ministries in the current database	Use this information to identify areas of risk and to improve implementation	
17	Move the focus of ex-post reviews of major projects from compliance towards efficiency	Systematically conduct ex-post reviews for most major projects, identify areas of risk and use the results in the budget process	Improve the scope of ex-post reviews for major projects to cover not only costs and deliverables but also output, impact and alternative modes for project delivery	
J	**Recommendation 10: Enhance capital projects management and control during the execution stage**			
18	Prepare project implementation plans for major projects, prior to budget approval	Prepare & submit project implementation plans for major projects at the same time as the project's financial plan		
		Communicate project implementation plans to the Supreme Audit Institution for inclusion in its ex-post projects audit plan		
K	**Recommendation 11: Improve accounting and valuation of assets**			
19	Review the current accounting practice to improve comprehensiveness & valuation of non-financial assets	Recognize airports, highways, and other large assets as non-financial assets in the government's balance sheet	Integrate the work of the Valuation Institute within the SHCP with the Government Accounting Unit capturing the value of government assets based on actual valuation and/or revaluations	Review the accounting standards for non-financial assets valuation and revaluation
		Introduce asset-specific assumptions to guide the depreciation of fixed assets		

The example provides some concrete findings. First, the level of findings is fact-based (rather than process-oriented) and sometimes very abstract and high-level, sometimes very detail-specific – but not on the level of the PIM system. Secondly, the recommendations address often very concrete situations, rather than providing an end-status of the system. In the perspective of TC, the PIMA reports provide interesting insights, but do rarely inform the process-oriented and stakeholder-centered approach of Technical Cooperation.

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