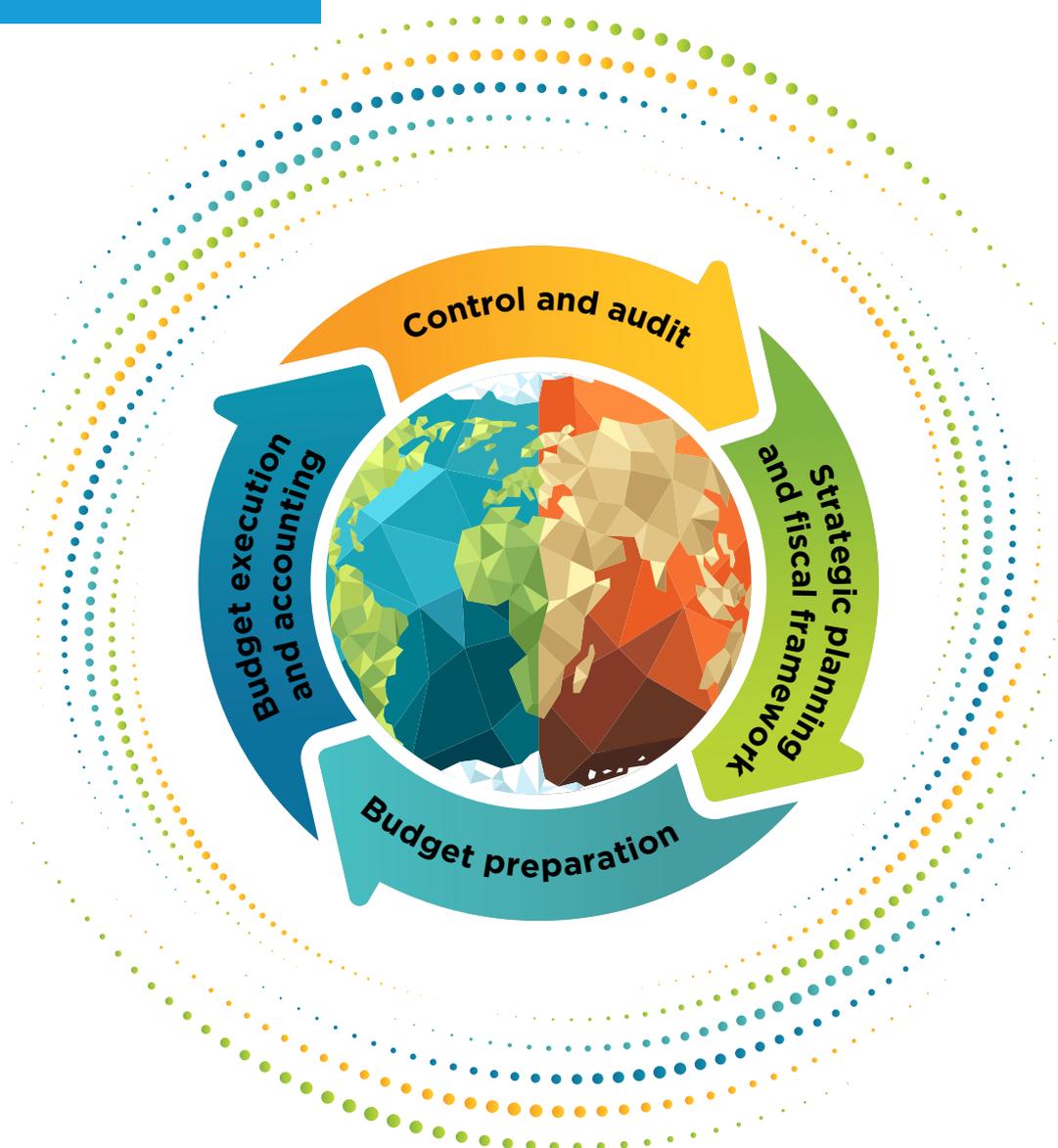


BUDGETING FOR CLIMATE CHANGE

A Guidance Note for Governments
to Integrate Climate Change into Budgeting

With a Focus on Medium-Term Budgets

TECHNICAL NOTE SERIES



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About the Governance of Climate Change Finance Team (UNDP)

The Governance of Climate Change Finance Team of the UNDP Bangkok Regional Hub comprises experts specializing in SDG Finance, Governance, Development Finance and Political Economy, Climate Change, Public Financial Management and Development Effectiveness.

About This Guidance Note

This guidance note is intended for government agencies responsible for climate finance within Ministries of Finance, Ministries of Planning, or climate change policy making bodies (e.g., Climate Change Commissions, Ministry of Climate Change, Ministry of Environment and Forests etc.) who wish to strengthen the integration of climate change in their medium-term budget frameworks. It follows on previous guidance notes such as, Climate Change Knowing What You Spend: A guidance note for Governments to track climate finance in their budgets (2019). Please see <https://climatefinancenetwork.org/publication/>. [Budgeting for the Sustainable Development Goals Aligning domestic budgets with the SDGs Guidebook](#) (2020) may also be of interest.

About UNDP

UNDP Partners with people at all levels of society to help build nations that can withstand crisis, and drive and sustain the kind of growth that improves the quality of life for everyone. On the ground in more than 170 countries and territories, we offer global perspective and local insight to help empower lives and build resilient nations.

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FOREWORD

The impacts of climate change are being felt worldwide, with the poorest and vulnerable bearing its brunt. The COVID-19 pandemic has exacerbated countries' social, economic and environmental challenges, which has set back the development gains made in recent years. This has led to the narrowing of fiscal space and rising debt levels, calling for enhanced policy attention and resource mobilization to meet challenges posed by climate change.

As countries recover from this shock, there are growing calls across societies to build forward better, more inclusively and greener, and accelerate the transition to net zero-carbon economies. National Determined Contributions (NDCs) point to commitments made by countries across the globe to address climate change in the context of the Paris Agreement. Governments understand that climate change impact needs to be assessed within the context of their countries and the flow of finance into priority sectors enabled to secure a more sustainable future.

Domestic sources of finance form the bedrock of these efforts. Therefore, it becomes critical to integrate climate change into countries' fiscal and monetary policies with due consideration to transition-related risks². Finance Ministries are taking the lead to integrate climate change into public budgets to reduce the countries' economic and social costs and risks. In fact, for the first time, the G20 Framework Working Group discussed the macroeconomic risks connected to climate change. The G20 Sustainable Finance Working Group is developing a roadmap to continuously and progressively address this agenda in the G20. Along these lines, more than 70 countries worldwide have embarked on designing SDG financing strategies through [Integrated National Financing Frameworks](#), which increasingly include a focus on mainstreaming climate change into planning and budgeting. As the technical lead, we collaborate with the International Monetary Fund (IMF) and other International Financial Institutions (IFIs), the European Union (EU), as well as 17 other UN agencies like UNICEF, UN Women, ILO and UNCTAD to provide the country level support.

An estimated \$5 trillion+ of annual public and private investment through 2030 is required to meet the Paris Agreement.³ We must accelerate efforts as the costs of climate change on people's lives and the economy is mounting. The intersection between the development, environmental, and climate agendas is the essence of the Sustainable Development Goals. The COVID-19 pandemic is the ultimate proof that we cannot divorce people's health

2. See e.g., World Bank (2020), table 1.

3. <https://www.greenbiz.com/article/net-zero-energy-transition-requires-52-trillion-investment>

from the well-being of our environment. As UNDP, [we](#) support countries, institutions and the private sector through various services and instruments to maximize the impact of public and private finance in combating climate change and its effects. This Guidance Note, which is part of a series of UNDP guidance notes on climate finance, draws on the experiences in climate budgeting that emerge from Asia-Pacific countries and captures emerging global trends with adopted principles and steps involved. It builds on the work of UNDP as a technical partner in the Coalition of Finance Ministers for Climate Action. This Guidance Note specifically supports Principle 4 of the 6 Principles that the Coalition of Finance Ministers for Climate Action, launched in 2019, has espoused⁴.

The Guidance Note provides a step-by-step approach to integrating climate change into the budget preparation and approval stage, in line with PFM principles. This includes the budget strategy setting or pre-budget documentation stage (macro-economic analysis, country outlooks, macro fiscal forecasts and budget strategy or equivalent paper), the budget preparation stage (budget circulars and guidelines, sectoral plans and allocations, and budget review by central budgetary authorities) and the budget approval and accountability stage (legislative approval and stakeholders' participation). Each stage is broken down into several sub-stages, with specific measures and tools to integrate climate

change elaborated. The Guidance Note also suggests possible interventions at each sub-stage for different sets of stakeholders, including Ministries of Finance, Climate Change Policy Bodies (CCPBs), relevant Ministries, Departments and Agencies, and those holding accountability (Central Planning agencies, Cabinet, Legislatures, Civil Society Organizations (CSOs), etc.). The note also provides supplementary information on relevant tools and case studies of various countries, thus rooting the recommendations in ground reality.

The Guidance Note also considers how gender and social inclusion aspects can be addressed in tandem to minimize adverse impacts of climate change on the poor. It recognizes that every country is unique and climate change integration within countries' public finance management (PFM) relies on the state of play regarding the broader PFM systems, processes, and reforms. It outlines principles that are responsive to the gradual strengthening of PFM reforms across the different stages of the budget cycle. The Guidance Note also recognizes that this approach can be adapted to mainstream the SDGs into the budgetary framework. By capturing these essential dimensions, the objective of this Note is to provide the necessary information with a systematic approach to policy makers and practitioners for integrating climate change into budgets and strengthening climate policy planning and budgeting, with a focus on Medium Term Budgeting.

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4. See Helsinki Principles Article 4: Take climate change into account in macroeconomic policy, fiscal planning, budgeting, public investment management, and procurement practices; and Article 6: Engage actively in the domestic preparation and implementation of Nationally Determined Contributions (NDCs) submitted under the Paris Agreement.

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ACRONYMS

BSP	Budget Strategy Paper
CBA	Cost-Benefit Analysis
CBT	Climate Budget Tagging
CC	Climate Change
CCBA	Climate Change Benefit Analysis
CCBII	Climate Change Budget Integration Index
CCFF	Climate Change Financing Framework
CCIA	Climate Change Impact Appraisal
CCPB	Climate Change Policy Body
CCSA	Climate Change Screening and Appraisal
CCSAP	Climate Change Strategies and Action Plan
CFN	Climate Finance Network
CoA	Chart of Accounts
CPEIR	Climate Public Expenditure and Institutional Review
CSO	Civil Society Organisation
DP	Development Partner
EBFs	Extra-budgetary Funds
EIA	Environmental Impact Appraisal/Assessment
EU	European Union
GCCF	Governance of Climate Change Finance
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEF	Global Environmental Facility
GHG	Greenhouse Gas
GRPFM	Gender Responsive Public Financial Management
IBP	International Budget Partnership
IFMIS	Integrated Financial Management Information System
IMF	International Monetary Fund
KPIs	Key Performance Indicators
LGBs	Local Government Bodies
LGs	Local Governments
M&E	Monitoring and Evaluation

MDAs	Ministries, Departments and Agencies
MHEWS	Multi-Hazard Early Warning System
MoE	Ministry of Environment
MoF	Ministry of Finance
MoP	Ministry of Planning
MTBF	Medium-term Budgetary Framework
MTEF	Medium-term Expenditure Framework
MTFF	Medium-term Fiscal Framework
MTPF	Medium-term Performance Framework
MTSF	Medium-term Strategic Framework
NDCs	Nationally Determined Contributions
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
PAC	Public Accounts Committee
PBB	Performance-based Budgeting
PCCC	Parliamentary Climate Change Committee
PEFA	Public Expenditure and Financial Accountability
PFM	Public Financial Management
PIM	Public Investment Management
PPP	Public-Private Partnership
QA	Quality Assurance
SAI	Supreme Audit Institution
SDGs	Sustainable Development Goals
SMART	Specific, Measurable, Achievable, Relevant, Time-bound
SNGs	Sub-national Governments
SoE	State-owned Enterprise
tCO ₂ e	Tonnes of Carbon Dioxide Equivalent
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States Dollar
WB	World Bank

EXECUTIVE SUMMARY

The earth's surface has become progressively warmer in the last two centuries, largely due to anthropogenic greenhouse gas (GHG) emissions. Because of climate change, weather patterns have changed, droughts have worsened, oceans have warmed, ice sheets have receded, and sea levels have risen. The average global sea level increased by 19 cm from 1901 to 2010 and is predicted to surge 40–63 cm by 2100⁵, creating an existential threat to low-lying areas. The International Labour Organization (ILO) warns that the impact of heat stress will cause losses in productivity, reducing 2.2% of the worldwide working hours every year; the agriculture sector will bear the brunt of the situation and is projected to account for 60% of this loss⁶.

There has been a rapid increase in the interest and capacity of Ministries of Finance to respond to climate change and take a more integrated approach to the social, environmental and economic objectives of the 2030 Agenda. While mobilization of finance remains an important consideration, spending prudently is attracting greater attention, particularly due to the need to balance competing urgent priorities in the fiscal policy responses of various governments, such as the COVID-19 crisis. Moreover, Ministries of Finance are also finding that it is important to address the macro-fiscal implications of climate change with proper consideration of risks, vulnerability, loss and damage assessment. Further, climate change mainstreaming is also critical because it affects the achievement of several Sustainable Development Goals (SDGs) and has a disproportionate impact on vulnerable populations like the poor, women, indigenous communities and those living in climate change hotspots.

The fiscal implications of meeting international climate commitments and transitioning to a net zero-carbon economy are enormous. They require a comprehensive response, including the reorientation of fiscal, financial and monetary policies and spending decisions, and consideration of transition-related risks, especially in fossil fuel-dependent countries⁷. Integrating climate change into planning and budgeting practices is one of a set of climate finance solutions available to governments. This Guidance Note will provide the necessary information to practitioners and policy makers wishing to integrate climate change into budgets and strengthen climate policy budgeting with a particular focus on Medium-Term Budgeting. It is also important that while considering climate change in planning and budgeting, the gender and social inclusion aspects must be addressed. The Guidance Note can also be adapted to be used for mainstreaming the SDGs into the budgetary framework.

Estimates of general government final consumption expenditure⁸ in the past decade averaged over 15% of the global GDP. In comparison, the net investment in non-financial assets even in least-developed countries averaged 7% of the GDP in 2019, compared to Net Official Development Assistance (ODA) received (% of GNI), which averaged 0.191%⁹. This illustrates that government spending remains the most potent source for financing policy commitments. Therefore, strengthening public planning and budgeting practices is imperative to combat climate change's impact on socioeconomic development. Like other policy priorities, integrating climate change considerations in macro-fiscal and budgeting frameworks will assist governments in making better use of resources. The resultant enhancement in absorption capacity will give credence to the systems, reducing the use of parallel systems by donors.

5. Facts and Figures from UN Sustainable Development Goals. 2020. <https://www.un.org/sustainable-development/climate-change/>

6. International Labour Organization. 2019. Working on a Warmer Planet. The Impact of Heat Stress on labour productivity and decent work. Geneva. https://www.ilo.org/global/publications/books/WCMS_711919/lang--en/index.htm

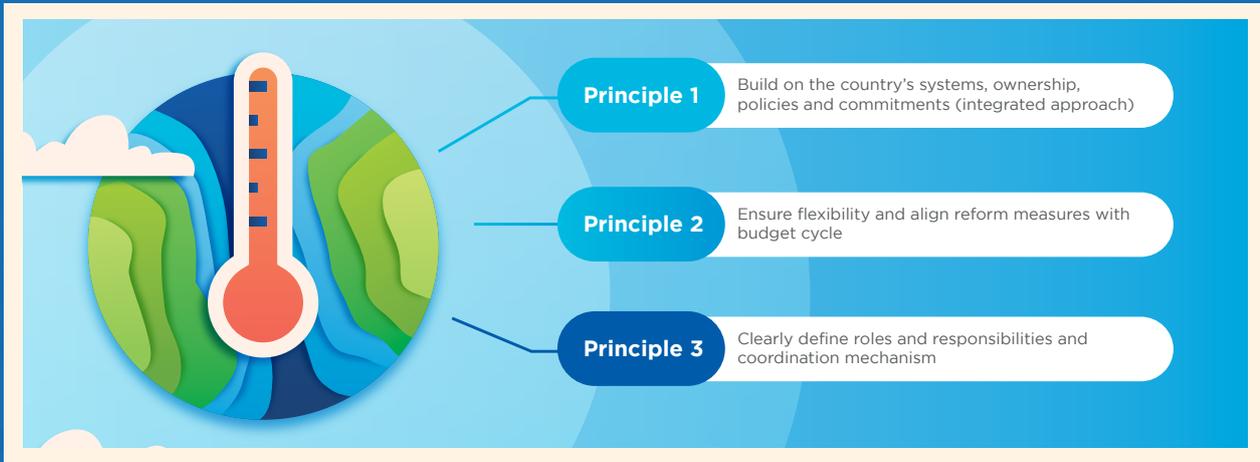
7. See e.g., World Bank (2020), table 1.

8. World Bank Data Portal (1). General Government Final Consumption Expenditure (formerly general government consumption) includes all government current expenditures for purchases of goods and services (including compensation of employees). <https://data.worldbank.org/indicator/NE.CON.GOV.TZ>

9. World Bank Data Portal (2). Public Financial Management and Accountability

APPROACH TO INTEGRATION (Section 2)

It is desirable to consider the following key principles while integrating climate change into budgeting:



The analytical frameworks for diagnosing gaps and opportunities comprise several tools¹⁰ that can inform the dialogue on mainstreaming climate change policies with the PFM. This Guidance Note consolidates learnings from these various frameworks and tools.

METHODOLOGY FOR INTEGRATION (Section 3)

The recommendations for the integration process and methodology are structured along with the budget planning and approval components of the PFM cycle. However, it is important to note that the integration process and the methodology will not be uniform for all countries across all stages. These recommendations may be viewed in the context of the PFM systems' sophistication, and the country's preparedness to implement the guidelines.



Stage 1 discusses how to integrate climate change aspects into the **strategy-setting and macro-fiscal framework**. There has been a steady focus on adopting fiscal rules,¹¹ a concept introduced to instill fiscal discipline by imposing numerical limits on budgetary aggregates to rein in fiscal policies. However, if macroeconomic assumptions do not consider the impact of climate change, short-term fiscal discipline and long-term growth will be compromised. It is essential to mainstream climate change aspects into the process of macro-fiscal planning, with proper assessment of risks, vulnerability, loss and damage.

The budget preparation process starts with the macroeconomic projections¹² that form the basis of strategic decisions in the fiscal policy, and the preparation of macro-fiscal forecasts. This includes capturing the macro-fiscal implications of climate change in the assumptions used for forecasting the resources envelope and potential impacts on expenditures. It is important that this process is institutionalized. Governments have already established forums providing support to their Cabinets or Ministries of Finance on fiscal policy-related decisions. Strengthening such forums through close collaboration among the key

10. These tools include: Climate Expenditure and Institutional Review (CPEIR), Climate Change Budget Integration Index (CCBII), PEFA Climate Module, Climate Change Performance Index (CCPI), Climate Change Screening and Appraisal (CCSA) tools, Climate Change Policy Assessment, etc.

11. Lledó V, Yoon, S, Fang, X, Mbaye, S, Kim, Y (2017). 'Fiscal Rules at a Glance' IMF working paper. Accessed on 15 December 2020. <https://www.imf.org/external/datamapper/fiscalrules/Fiscal%20Rules%20at%20a%20Glance%20-%20Background%20Paper.pdf>

12. IMF (1999) 'Guidelines for Public Expenditure Management' <https://www.imf.org/external/pubs/ft/expend/guide3.htm>

government agencies and non-government experts can provide a holistic view of the macroeconomic outlook, taking into consideration the impact of climate change.

The analytical input from Climate Change Policy Bodies (such as Climate Change Commission, Ministry of Climate Change, Ministry of Environment) might not be able to feed into the fiscal policy decisions. Creating this linkage can ensure the selection of the most relevant policies for climate mitigation and adaptation practices.

Meanwhile, the establishment of a forum led by the Ministry of Finance, with representation from the relevant technical MDAs, central bank and experts from outside the government, can contribute to the analytical work. Preparation of a risk register to account for various fiscal, economic and structural risks can be a good starting point for adopting a risk mitigation approach. It can be used to inform macro-fiscal forecasts and the creation and management of contingency reserves.

Reflection of climate change policies in strategic budget documents (such as medium-term strategic plans) at the very start of the budget process gives certainty and predictability to relevant MDAs regarding their climate expenditure planning in line with other priority spending. It also helps them achieve climate change integration into budget submissions.

Stage 2 discusses how to integrate climate change into the **budget preparation stage**. This stage aims to improve access to climate finance by identifying additional sources (such as private and external sources) to cover domestic resource gaps. Performance orientation and medium-term perspective in a budgetary framework provides an enabling environment for the integration process. Key measures for integration at this stage include revisions in the budget circular, the budget structure and the budget submission template. This will obligate the spending ministries to prepare budget submissions taking into account the climate perspective. Detailed guidelines from the climate change perspective must be provided to the concerned ministries in the circular on the budget preparation. Several countries practice dual budgeting, with the Ministry of Finance responsible for recurrent expenditure and a separate agency in charge of capital. While the integration of climate aspects into overall budget practices may be a long-term aspiration in the PFM reforms strategy, in the interim, guidelines and templates used specifically for capital spending can be

amended to incorporate the climate perspective.

Amending the budgetary framework to capture climate change-specific performance information is the next step. This will ensure that policies, measures and Key Performance Indicators (KPIs) on this aspect are accurately reflected in key budget documents. Revising the budget call circular and the budgetary framework will necessitate capacity and behavioral change among spending ministries. Given the broad scope and involvement of many stakeholders within the government, a gradual approach is recommended. Development partners can also be engaged to garner investment for technical assistance to ensure a broader and deeper outreach for system development and capacity support.

Stage 3 discusses how to integrate climate change considerations into the **budget approval process** and accountability. Inclusion of this topic in budget hearings and negotiations has enabled better-informed decisions from a climate change perspective. Including the subject in budget documents (Medium-term Expenditure Framework, Citizens Budget, Executive Budget proposal, Enacted Budget) will facilitate better transparency and accountability to legislature and citizens regarding climate adaptation and mitigation.

The budget approval process traditionally involves a review of priorities, fiscal policies and expenditure and revenue projections. To ensure a comprehensive review by the Parliament from a climate impact perspective, it is important to have supportive internal organizational arrangements¹⁴ regarding fiscal policies, medium-term fiscal forecasts, medium-term priorities and the details of expenditure and revenue estimates. Standing committees on climate change, ensuring technical support (either internal or budget availability for engaging experts), and negotiation procedures to support ex-ante (budget proposal) and ex-post (expenditure) scrutiny are some options. Meanwhile, independent fiscal institutions such as fiscal councils and parliamentary budget offices could increase the support and transparency of fiscal policy matters before the legislature.

Each of the three stages is further broken down into a total of 16 sub-stages. For each sub-stage, the Guidance Note suggests and lists:

- The **roles, responsibilities and coordination of key stakeholders** for MoF, Climate Change Policy Body (CCPB), MDAs, Cabinet, Legislature, and the relevant technical agencies

13. Examples include Ministry of Planning or a division in the office of the Prime Minister/President.

- **The tools to support integration processes** such as specific guidelines for the governments to develop a policy-based fiscal framework (Medium-term Fiscal Framework) reflecting climate change aspects.

The enabling factors across domains, such as legal and institutional capacities, are presented for consideration in climate change medium-term budgeting in **Section 3.7**. Further details on prioritization, getting the basics right first, and sequencing are provided in **Section 3.8**.

Climate proofing of infrastructure is achieved, among other things, by strengthening the public investment regime. In this regard, gatekeepers¹⁵ play an important role. An effective appraisal process can ensure that the key requirements of project selection are complied with. The two areas that offer entry points for the integration process are: preliminary screening by the spending agency and a detailed independent appraisal of project proposals. Higher functionality of the project appraisal also facilitates budget negotiations and informs budget allocation decisions.

This Guidance Note mainly relies on the experiences and lessons learnt by Asia Pacific countries in bringing about climate budget reforms, while largely incorporates experiences from OECD countries and others around the world with climate change integration into budgeting practices.

14. PEFA (2016). 'Framework for assessing public financial management' Second Edition. PEFA Secretariat. Washington, D.C. <https://www.pefa.org/resources/pefa-2016-framework>

15. Rajaram et al (2012) 'A Diagnostic Framework for Assessing Public Investment Management', Working Paper, World Bank. <https://elibrary.worldbank.org/doi/abs/10.1596/1813-9450-5397>



1 CONTEXT

1.1. Response to Climate Change

Climate change disrupts national economies and affects livelihoods, water availability, energy generation, transportation, agriculture, and ecosystems on an unprecedented scale. It is usually the poor and vulnerable who are most affected by climate change. There is growing recognition that affordable, scalable solutions are possible and that these solutions will enable countries to transform into cleaner, more resilient economies.

In 2015, world leaders agreed on the 2030 Agenda and Sustainable Development Goals (SDGs¹⁶). The 2030 Agenda has put renewed emphasis on the importance of integrating social, environmental, and economic sustainable development goals across national plans and budgets. The Paris Agreement¹⁷, ratified in 2016, has raised both political awareness and commitment to address climate change. Countries worldwide delineated action plans and roadmaps in their Nationally Determined Contributions (NDCs) to strive to keep global temperature rise below 2°C, and eventually, 1.5°C set in the Paris Agreement. While several governments have taken significant steps towards implementing their NDCs, the world is not on track to meet the Paris Agreement goals.

Over the past five years, there has been a rapid increase in the interest and capacity of Ministries of Finance to respond to climate change and take more integrated approaches to the social, environmental and economic objectives of the 2030 Agenda. In 2019, the Coalition of Finance Ministers for Climate Action was formed. The 'Helsinki Principles' that Finance ministers signed on to aim to promote national climate action, especially through fiscal policy and the use of public finance (see Box 1).

Recognizing the importance of integrating climate risks and their implications in the national budgeting process, some countries have started aligning their budgets to respond to climate and environmental goals differently. Several developing and transition economies in Asia, Africa and other regions have taken key steps towards climate change-sensitive budgeting. The OECD Paris Collaborative on Green Budgeting was formed in 2017 to develop budgetary tools to support countries in mainstreaming climate and environmental goals into their PFM processes¹⁸.

However, the recent COVID-19 pandemic has had a massive economic impact and will influence budget priorities and allocations over the medium term. This has underlined the need for taking cognizance of the risks in development planning and budgeting.

16. UN Sustainable Development Agenda <https://www.un.org/sustainable-development/development-agenda/>

17. UNFCCC (2015) The Paris Agreement <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>

18. See OECD. Paris Collaborative on Green Budgeting. Green budgeting addresses both climate and environmental objectives.

Box 1: Coalition of Finance Ministers for Climate Action

Recognizing the importance of climate change, Finance Ministers of several countries have come together to form a Coalition of Finance Ministers for Climate Action. The key objective of the Coalition is to accelerate climate action and unlock investments in climate action. The Coalition currently comprises members from 62 countries and is supported by 18 Institutional Partners. Membership of the Coalition is global, bringing together countries from all regions and levels of development¹⁹.

The six Helsinki Principles guide the Coalition - Principle 4 focuses on mainstreaming to take climate change into account in macroeconomic policy, fiscal planning, budgeting, public investment management, and procurement practices. This exhibits countries and development partners' realization of the importance of using country planning and budgeting systems to respond to climate change challenges.

Source: Coalition of Finance Ministers for Climate Action

Budgeting for climate change is an integral part of the broader SDG budgeting reform agenda. Countries intending to integrate climate change into the planning and budgeting system could link with SDG budgeting to maximize the impact of the public financial system on accelerating the attainment of climate goals and SDGs.

Box 2: Linking Climate Change Budgeting to Wider INFF and B4SDG Agenda

Countries worldwide have committed to objectives for sustainable development, including the Paris Agreement on climate change and Sustainable Development Goals (SDGs) – with the implication of advancing national policy responses. To support governments in this context, UNDP is engaging in new budget planning and preparation approaches and has published Budgeting for SDGs (B4SDG), presenting possible solutions and models for countries to consider while supporting mainstreaming accelerating governmental efforts to budget for SDGs. UNDP is also supporting governments in implementing Integrated National Financing Frameworks (INFFs) - a tool to finance national priorities and SDGs. Countries wishing to integrate climate change concerns into the planning and budgeting system could consider B4SDG and INFFs to maximize the impact of the public financial system in accelerating the attainment of climate goals and SDGs.

Source: UNDP INFF, B4SDG

1.2. Objectives

This Guidance Note is intended to assist governments that attempt to integrate climate change concerns in planning and budgeting, particularly medium-term budgeting. It will be useful for Ministries of Finance, Climate Change Policy Bodies with different nomenclature and mandates (e.g., Climate Change Commission, Ministry of Environment, Ministry of Climate Change), central planning ministries, and sector ministries to which climate is relevant.

This Guidance Note outlines the core elements – processes, workflows and outputs – of Climate Budgeting in line with PFM.

The objectives of this Guidance Note are four-fold:

- i. To provide a step-by-step approach to integrating climate

change into planning and budgeting, particularly medium-term budgeting, to help countries accelerate efforts to address climate emergencies and enhance NDCs, and use PFM as a tool for an effective climate response.

- ii. To take stock of countries that have undertaken integration of climate change policies into medium-term budgeting to share experiences with various stakeholders.
- iii. To introduce various tools and measures to integrate climate change into medium-term budgeting at different stages, and provide guidance on linking different pegs of climate finance reforms to medium-term policy-based budgeting.
- iv. To consider learning and sharing of integration experiences addressing SDGs, gender equality, distributional effects and others.

19. Coalition of Finance Ministers for Climate Action
<https://www.financeministersforclimate.org/member-countries>

1.3. Outline of Medium-term Frameworks

The use of the term ‘medium-term framework’ varies from country to country. In some cases the Medium-Term Expenditure Framework (MTEF) is a ‘virtual synonym’²⁰ of the Medium-term Budgetary Framework (MTBF) concept²¹. Countries around the world have made efforts to move from annual and incremental budgeting to medium-term and output-based budgeting, deriving the medium-term outlook and goals from the development plans, sector policies and the Medium-Term Fiscal Framework (MTFF).

Different variants or approaches to this include the MTEF, MTBF, Medium-Term Performance Framework (MTPF) and Performance-Based Budgeting (PBB). An MTEF translates macro-fiscal objectives and constraints into broad budget aggregates and detailed expenditure plans, guided by strategic expenditure priorities²². In this Guidance Note, the term ‘medium-term budgeting’ refers to different types of instruments: MTFF, MTBF, MTEF and MTPF. A 2013 World Bank study (covering 1990-2008) showed that almost two-thirds of the countries in the world have adopted an MTEF. It also showed a shift from basic MTFF to MTBF and MTPF among advanced countries²³.

Box 3: Examples of Medium-term Frameworks in Developing Countries

South Africa had a Medium-Term Strategic Framework (MTSF) for five years, supported by a Medium-Term Fiscal Framework (MTFF) for three years and a Medium-Term Expenditure Framework (MTEF) for three years. In other countries like **Bangladesh, Pakistan and Uganda**, the MTFF and MTBF have been adopted with a three-year perspective. While countries like **Afghanistan and Ethiopia** have commenced modernizing budget practices and have favoured a gradual approach by adopting the MTFF and transitioning from annual to medium-term budgets, in **India**, a Medium-Term Fiscal Policy (MTFP) projects fiscal variables like revenue deficit, fiscal deficit, tax revenue and outstanding liabilities relative to GDP as targets for three years in a rolling manner.

Depending on the approach taken for budget planning, several design issues can be considered in implementing MTEFs. Countries have options when it comes to determining the key features of their MTEF. The three stages for an MTEF as set out in the 2013 World Bank study are as follows:

- **Medium-Term Fiscal Framework (MTFF):** This encompasses the top-down view of the aggregate resource envelope and the allocation of resources across spending agencies.
- **Medium-Term Budgetary Framework (MTBF):** In addition to the features of an MTFF, an MTBF includes both the bottom-up determination of resource needs of spending agencies and the reconciliation of these with the resource envelope.
- **Medium-Term Performance Framework (MTPF):** Starting from an MTBF, an MTPF completes the shift in focus from inputs to outputs, emphasizing the measurement and evaluation of performance.

The study also summarizes such a set of MTEF good practices which could be useful for implementers.

Performance-Based Budgeting (PBB) ensures that, when formulating the government budget, key decision makers systematically consider the results to be achieved by expenditure. Programme budgeting was part of PBB as per an IMF note in 2009.²⁴ Most MTEF and MTBF have followed PBB, including elements like performance indicators and linking outputs with expenditure allocation. The note recommends that advanced features of PBB, such as budget-linked performance targets be treated with great caution. The note lists the following elements of a scaled-down performance-based budgeting model:

- A “strategic” priority setting phase early in the budget cycle
- An expenditure review process
- Systematic scrutiny of new spending proposals
- Information on efficiency and effectiveness to support budget submissions
- Introduction of a programme budget structure
- Increased managerial flexibility

20. IMF(2017). ‘Medium-Term Budget Frameworks in Sub-Saharan Africa’. Working paper No. WP/17/203. Washington, DC. (September, p.5).

21. On the other hand, some organizations/ public financial institutions want to make a distinction between MTBF and MTEF as the appropriation structure of the two varies.

22. IMF (2013). Beyond the Annual Budget. <https://www.imf.org/external/np/seminars/eng/2013/fiscalpolicy/pdf/brumby.pdf>

23. **BUDGETARY FRAMEWORKS - Objectives and lessons learned in using Medium-term Expenditure Frameworks**; Bernard Myers; ADBI and UNESCAP Conference, Bangkok, 25 April 2019

24. IMF (2009), Fiscal Affairs Department, A Basic Model of Performance-Based Budgeting, Marc Robinson and Duncan Last.

Medium-term Fiscal Framework

- Debt and deficit targets are established using model-based debt sustainability analysis, taking into account constraints imposed by policy rules.
- Revenue forecasts are based on revenue department or other tax and non-tax receipt models.
- Independent macroeconomic forecasts are used, and fiscal forecasts are subject to scrutiny by an audit office, fiscal council, or similar consultative body.
- Aid commitments are covered by debt sustainability analysis and revenue forecasts.
- The Ministry of Finance (MoF) issues a background paper on macro-fiscal objectives to inform budget decision making and form part of the budget documentation.

Medium-term Budgetary Framework

- The MoF issues a budget strategy paper describing the macro-fiscal framework and providing a broad indication of national development and budgetary priorities for the medium term.
- A budget circular is sent to spending agencies outlining the basis on which they should prepare their medium-term budget requests. This circular indicates the availability of budget resources, usually in the form of provisional agency or program expenditure ceilings, and aggregate cost assumptions to be used, including changes in inflation and public sector pay.
- The budget request of spending agencies reflects strategic objectives, the cost of current and new activities, expected cost recovery, and other relevant factors.
- Final expenditure ceilings are reflected in the annual budget submitted to the legislature of consideration.
- Spending agency budgets are finalized, and sector strategies are revised to reflect budget realities.
- Spending agency budgets and sector strategies are published.

Medium-term Performance Framework

- Sector strategies discuss program outputs, outcomes, and performance.
- Agency output, outcome, and performance indicators are used to establish budget targets.
- Spending agencies report on results relative to targets. Comprehensive spending reviews are conducted periodically.

APPROACH TO INTEGRATION OF CLIMATE CHANGE POLICY INTO THE BUDGETARY FRAMEWORK



This Guidance Note acknowledges that countries have different levels of maturity in PFM practices and therefore, the approach towards integration of climate change into PFM will vary as well. Countries with more advanced PFM systems might (but not necessarily) have a greater degree of flexibility in process automation to integrate climate change issues, or at a broader level, SDGs, with PFM. Integrating climate change with PFM depends on the country's systems and processes. Therefore, aligning integration measures with a country's PFM reforms will allow the practices to mature and ensure sustainability. This result can be accomplished through a gradual strengthening of established PFM in its different stages. The following key principles may be considered:

Principle 1:

Build on a country's systems and practices

The international frameworks and best practices offer a best-case scenario. However, the reality is fraught with system distortions, capacity deficits and misaligned priorities. Given the impact of climate consequences, delaying the adoption of climate policy budgeting reforms till systems are perfected may not be an option anymore. Instead, the design of climate change policy integration-related reforms needs to account for different PFM systems and practices. In line with the strengthened approach to PFM²⁵, it is useful to build on a country's PFM systems and practices to integrate climate change considerations.

Countries with a strong performance budgeting system might seek to integrate performance objectives related to national environmental and climate goals. Alternatively, countries with a well-founded expenditure reporting and review process may wish to focus on considering the impact of measures towards climate goals alongside considerations of effectiveness and efficiency. This approach could necessitate some modification of existing PFM systems, but fundamental changes to existing frameworks will not be required.

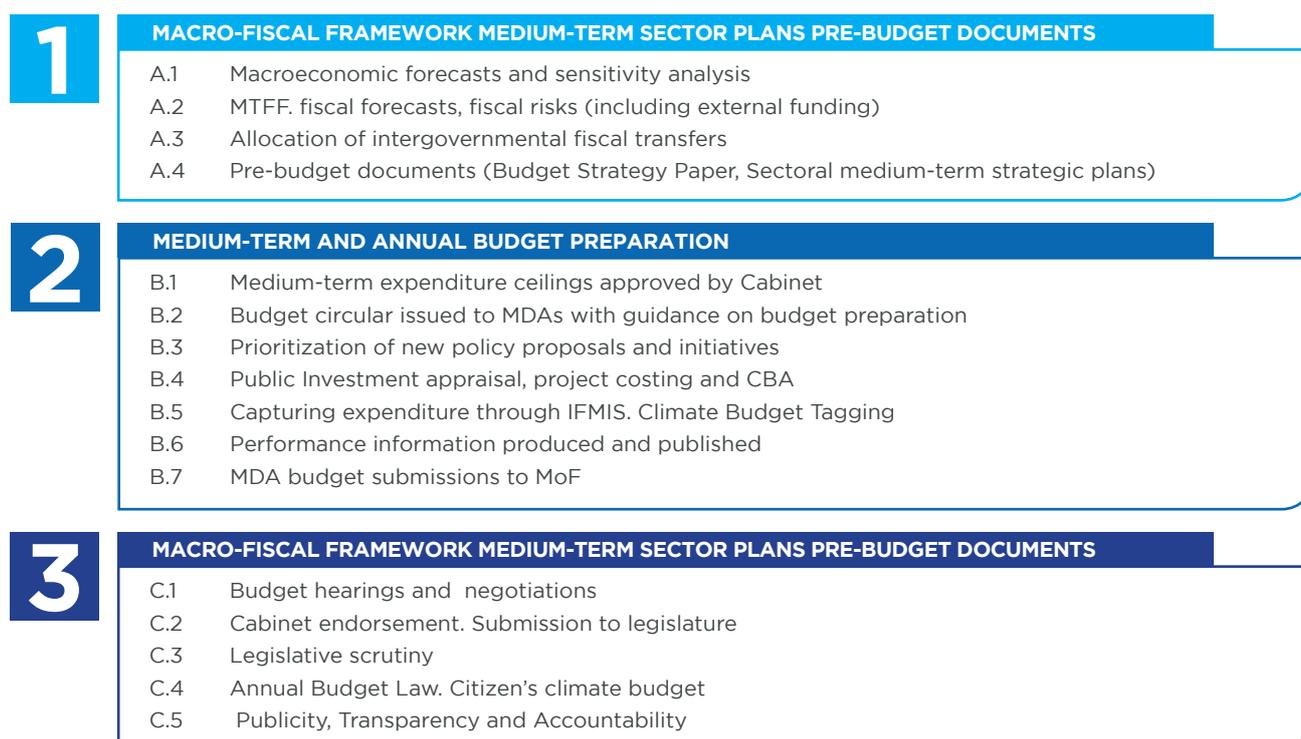
It is recommended that budgeting practices focus on the national climate change landscape, such as climate policy, strategies, action plans and NDCs and related international commitments. Similarly, establishing linkages between the SDGs and related policies can help establish coherence and consistency in the government approach.

25. The "Strengthened Approach to PFM" was put forward as a common technical agenda and made a strong case for coordination as part of the PEFA program (Joint World Bank/IMF/PEFA Public Expenditure Working Group, 2006). The principles of the Strengthened Approach to Supporting PFM Reform are embodied in three components: 1) a country-led agenda; 2) a donor coordinated program of support; 3) a shared information pool on PFM. These are closely aligned with the Paris Declaration on Aid Effectiveness; the Accra Agenda for Action; the Busan Partnership Agreement, and the Addis Ababa Action Agenda.

Principle 2: Ensure flexibility and align reform measures with the budget cycle

The Guidance Note focuses on budget planning components of the PFM cycle, including the three stages, which are further broken down into 16 sub-stages (see Figure 1). Section 3 provides further details on the integration process in the three stages and 16 sub-stages. Countries may prefer adopting a holistic approach to mainstreaming by targeting the relevant components of the budget cycle. However, countries that are in the preliminary stages of reforms may progressively target different stages. It is important to consider the local context and infuse flexibility in the reforms approach. For example, countries with more advanced expenditure reporting systems or more established budgeting systems can target integrating budget execution stages. It is also important to highlight that fiscal rules agreed on by governments under medium-term fiscal policies on debt and expenditure ceilings or related priorities will govern fiscal planning.

Figure 1: Three Stages of Budget Planning as Components of the PFM Cycle



Principle 3:

Clearly define roles and responsibilities and coordination mechanism

Climate change has a transversal nature, involving multiple stakeholders creating challenges for a concerted effort. Political willingness is critical. Accountability, political support and capacity have strong bearings on the approach taken to enhance stakeholder ownership. OECD²⁶ notes that the implementation of Green Budgeting is supported by strong political leadership, clearly defined roles and responsibilities within governments, a well-designed sequence of implementation, internal systems that are fit-for-purpose and capacity development and close engagement with Parliaments and civil society.

Identifying key stakeholders for the climate change integration reform process and articulating clear institutional roles and responsibilities is vital. Amongst the state actors, the key stakeholders include Ministries of Finance (Departments: Budget, Macroeconomic, Planning), Ministries of Planning, the Climate Change Policy Bodies (CCPBs), Ministries, Departments and Agencies (MDAs) (including State-Owned Enterprises²⁷) and Investment Agencies. Coordination mechanisms amongst the Executive will promote cohesiveness and facilitate the implementation of the climate change integration agenda.

26. OECD. <http://www.oecd.org/environment/green-budgeting/OECD-Green-Budgeting-Framework-Highlights.pdf>

27. State Owned Enterprises (SOEs), owing to the nature of its business function outside the government's budgeting system (or only include to the extent of fiscal transfers), thus follow a different budget and financial management system. In some countries even the Chart of Accounts is different, in others it has adopted accrual-based accounting while the governments follow cash basis of accounting. This guidance note is intended for the budget that is approved by the legislature and with SOEs outside the government budgeting system the guidance note may not be applicable to the functioning of such SOEs.

METHODOLOGY OF INTEGRATION OF CLIMATE CHANGE POLICY INTO THE BUDGETARY FRAMEWORK

This section presents the methodology (step-by-step approach) of integrating climate change policies into the budget planning cycle of PFM with the focus on medium-term budgeting and performance information. The methodology follows the approach detailed in Section 2 and is structured along the three stages of budget planning in the PFM cycle:

- **Stage I:** Macro-Fiscal Framework, Medium-term Sector Plans, Pre-Budget Documents
- **Stage II:** Medium-Term and Annual Budget Preparation
- **Stage III:** Budget Approvals and Accountability

Box 4: Overarching Principles

• **Effectiveness:** For mitigation, effectiveness is generally measured by the extent to which an action reduces GHG emissions at a set cost. In the case of adaptation, programmes can be evaluated based on their ability to reduce the projected economic value of expected losses. In some cases, similar projects or precursor pilots can be used as a benchmark. Climate change screening and appraisal (CCSA) is used in conjunction with these analyses, which guides climate expenditure classification and tracking.

• **Efficiency:** Is generally determined by dividing the effectiveness of an action by its costs. The efficiency of climate mitigation actions is expressed as a function of the cost of reducing a unit of GHG emissions (i.e., the marginal abatement cost or MAC); this is usually expressed in terms of a CO₂ equivalent unit cost ratio (\$/tCO₂e). For adaptation, efficiency can also be considered a ratio that measures how damage or loss expressed as economic 'units' could be reduced for a given amount of money or as a share of GDP.

• **Equity:** As climate change vulnerability tends to exacerbate existing inequality and social exclusion, decisions on allocating climate funds must reflect a need to reach communities that are already poor or gender-unequal. Quantifying these dimensions of risk and impacts in economic terms provides a basis for setting priorities and targets in each sector, further guiding the budget process. Climate Change Financing Framework (CCFF) tools can support budget and proposal prioritization among various options and response programmes based on where funding can simultaneously address climate and long-term development goals, such as reducing social inequality. In this way, an optimal and fairer allocation of expenditure can be made.

Source: Hard Choices- Integrated Approaches: A Guidance Note on Climate Change Financing Framework²⁸

28. https://www.asia-pacific.undp.org/content/rbap/en/home/library/democratic_governance/hard-choices-integrated-approaches.html

For each stage, two major aspects are covered: Building blocks and measures to strengthen the integration. These will help the countries understand the following:

- How to integrate climate change policy into *macro-fiscal framework and pre-budget documents* (See **Section 3.1**)
- How to integrate climate change policy into medium-term and annual *budget preparation* (See **Section 3.2**)
- How to integrate climate change policy considerations into the *budget approval process and accountability* (See **Section 3.3**)

These are followed by enabling factors, such as legal and institutional capacity (See **Section 3.7**)

Building blocks consider good PFM practices (in line with principles listed in Section 2 of Approach) and the benefits of addressing climate change and outline the processes for key PFM components. They consider medium-term budgeting principles and processes for development and why climate change policies need to be incorporated. These components are not universal and might differ from one country to another.

Measures to strengthen climate change integration into medium-term budgeting takes into consideration various requirements, actions and responsibilities. Measures are proposed for each PFM component in line with the principles of the Approach section. Proposed actions for integration and responsibilities of each key stakeholder are detailed.

Requirements for climate change integration are presented for each PFM component, with reference to a wide range of good practice principles and the ideal integration scenario.

The assessment recommended for each of the three stages are:

Whether the roles, responsibilities and coordination framework of key stakeholders, including MoF, CCPB, MDAs, Cabinet and Legislature, are clearly specified.

Whether there are tools to support the integration processes, including specific guidelines to help governments develop policy-based fiscal frameworks (MTFF) reflecting climate change aspects.

The methodology considers transparency and accountability requirements and covers the necessary

systems and process changes. Guidance is provided on how the different pegs of climate finance reforms can be linked to medium-term budgeting. For example, it shows how to utilize the evidence from climate budget tagging to inform medium-term budgeting, and connect the climate change component of sector plans/strategies into the MTEF.

It should be noted that the recommendations provided herein are based on a holistic approach towards the complete integration of climate change policies in the MTBF. **However, the application will largely depend on the preparedness of each country to implement the Guidance Note in a prioritized and sequential manner.**

3.1. Integrating Climate Change Policy into the Macro-fiscal Framework and Pre-budget Documents

3.1.1. Building Blocks: Key PFM Components

Good PFM practices: Robust and verifiable macroeconomic and fiscal projections are essential to support the development of a predictable and sustainable fiscal strategy/framework. Preparing economic forecasts and estimating future revenue flows should be a transparent and formalized process. A fiscal strategy should articulate a government's fiscal policy objectives, including specific quantitative and qualitative targets and constraints. It provides a framework against which the fiscal impact of revenue and expenditure policy proposals can be assessed during the annual budget preparation process.

Climate change consideration: To alleviate the probable impact of climate change on a country's fiscal environment and development agenda, it is essential to mainstream climate change aspects into the process of macro-fiscal planning. This may include a fiscal responsibility framework that duly acknowledges the country's susceptibility to climate change and disasters to continue supporting government's efforts towards stability and growth. This would entail considering climate risks, vulnerability, loss and damage assessments, and monetizing losses and damage linked to climate impact. Climate actions that will impact fiscal revenue (e.g. ODA, regulations, and tax incentives) will require close policy collaboration among key government stakeholders, including CCPB, relevant Ministries/MDAs and the MoF in the budget formulation process. Modelling could play an important role to inform decisions on climate change integration into macro-fiscal frameworks – countries such

29. OECD. Introductory note on integrating climate into macroeconomic modelling. https://fm.dk/media/18733/oecd_introductory-note-integrating-climate-into-macroeconomic-modelling.pdf

as Indonesia, Mexico and Vietnam have developed their energy catalogues building on the approach by the Danish Energy Agency (Introductory note on integrating climate into macroeconomic modelling²⁹).

The COVID-19 pandemic has already had a massive economic impact and will influence fiscal policies, budget priorities and allocations. This has underlined the need for taking cognizance of the risks in development planning and budgeting. To ensure a sustainable recovery, policymakers must act to promote a ‘green recovery.’ (See Box 5: Greening the Recovery³⁰).

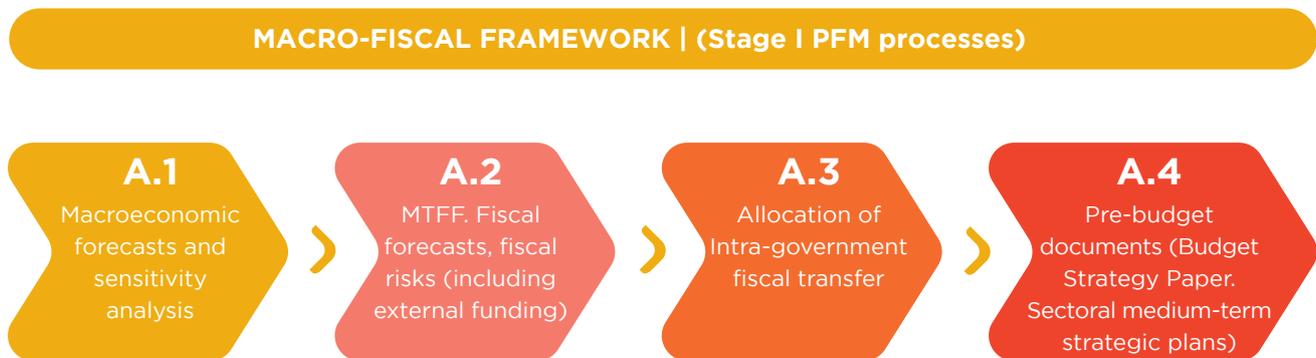
Box 5: Greening the Recovery

In the aftermath of COVID-19, governments worldwide have deployed extraordinary policy measures to save lives and protect people’s livelihoods. And given the gravity of this crisis, significant efforts will continue to be needed - especially during the recovery phase. To ensure a sustainable recovery, policymakers must act to promote a ‘green recovery.’ Proposed policy measures to green the recovery include: supporting green, rather than brown, activities; making support for brown activities conditional on making progress on climate initiatives; pricing carbon rights; assessing the climate impact of support measures; making financing green; developing a new, ambitious, medium-term climate plan and coordinating with and supporting others.

Source: IMF, Fiscal Policies to Respond to COVID-19

Key PFM Building Blocks within Stage I of the PFM processes to Integrate Climate Change Policies:

Figure 2: Macro-fiscal Framework (Stage I PFM processes)



3.1.2. Measures to Boost Climate Change Policy Integration

Fiscal policy affects macroeconomic stability, growth and income distribution. Fiscal policies include the government’s response in the form of tax (increases or cuts), spending proposals, or a combination of the

two. Climate change carries major implications for a country’s macroeconomic performance and fiscal policy. Therefore, integrating climate change considerations into the macro-fiscal framework are crucial for a country’s growth, ensuring effective contribution towards achieving objectives articulated in the Paris Agreement.

30. Greening the Recovery; Fiscal Policies to Respond to COVID-19; European Commission makes fighting climate change central to Europe’s economic recovery from the coronavirus pandemic; Barcelona city’s ‘green recovery’ from the Covid-19 crisis; IMF Policy Tracker: Economic responses to COVID-19 by 193 countries, Fiscal Monitor Database of Country Fiscal Measures in Response to COVID-19.

Box 6: How Fiscal Policy Targets are Influenced by Climate Change

Sub-Saharan Africa (SSA) has been deeply affected by climate change, threatening its survival in some regions. In contrast, in others it has had a profound impact on the already encumbered economy, resulting in fiscal pressures for the governments. On the one hand, it has created challenges in securing resources and has enhanced the cost of resource mobilization due to higher risk premiums. On the other hand, it is estimated that a further increase in the temperature by 0.5°C will shrink economic activity by 1% (IMF, Regional Economic Outlook, 2020).

A fiscal policy not considering climate-related assumptions, will have an optimism bias in its revenue projections. The corresponding expenditure commitments in the budget will create two adverse scenarios for a government. It will either compel governments to opt for budget cuts, undermine its development aspirations, or resort to debt creation due to electoral pressure, forcing governments to renege on their fiscal responsibilities, leading to possible debt sustainability issues.³¹

Source: IMF

Institutional Framework: Typically, the MoF leads the analytical work, which goes into preparing the budget strategy, and coordinates its approval from the Cabinet. Different institutional frameworks exist to support policymaking. Fundamentally, however, the key agencies involved in providing analytical support for framing fiscal policies include the central budgetary offices (Ministries of Finance and Planning), revenue agencies, statistical bureaus, trade and commerce authorities, central banks and other related agencies.

Governments also have technical directorates/agencies dedicated to fiscal policy research and development. Some countries have independent climate policy bodies like the Ministry of Environment and Climate Change, which comprises different subordinate agencies that provide support in conducting research for policy formulation. However, such agencies have no link with the forums mandated for fiscal policy. Creating a link for

input from such agencies for fiscal policy formulation will make macroeconomic projections and fiscal policy targets realistic and reflect the climate implications. The failure to integrate climate change policies can alter the macroeconomic outlook and create fiscal pressures, which in turn will influence debt levels.

Measures to support the process: Reflection of climate change policies in strategic (pre-) budget documents (such as Budget Strategy Paper and medium-term strategic plans) at the very start of the budget process gives certainty and predictability to MDAs regarding their climate expenditure planning, and helps them to streamline climate change policy integration into their budget submissions. Inclusion of climate change as a criterion for intra-governmental fiscal transfers is also possible. Box 7 lists resources and tools that can be used to integrate climate change considerations into the macro fiscal outlook.

Box 7: IMF Resources that can be Used to Factor Climate Change into the Macro-fiscal Outlook

Regional Economic Outlook Sub-Saharan Africa (April 2020), specifically Chapter 2: 'Adapting to Climate Change in Sub-Saharan Africa', provides an overview of the economic impact of climate change in sub-Saharan Africa and makes a case for more inclusive climate financing. It also includes adaptation strategies and ways and means to finance adaptation.

Global Financial Stability Report (May 2020), specifically Chapter 5, looks at the impact of climate change on global equity valuations to assess this threat. It also looks beyond climate change mitigation and adaptation to the sovereign financial strength and higher insurance penetration to build resilience in financial stability and promote stress testing and climate risk disclosures to better assess physical risks to a country's finances. An example drawn from The Bahamas examined the effects of hurricanes on tourism, employment, financial sector assets. It showed how more frequent and severe hurricanes amplify risks to economic growth. It also provides an example of how climate risks coupled with broader macro-economic risks could amplify macro-financial losses.

Source: IMF

31. IMF defines fiscal responsibility 'as an agreed set of policies, process or arrangements to improve fiscal outcomes'. The fiscal responsibility framework includes numerical or procedural rules that govern a fiscal policy, transparency standards, communication strategy, and a surveillance and enforcement mechanism.

Fiscal Monitor (October 2019): This edition focuses on the design of fiscal policies for climate mitigation, specifically focusing on carbon taxation as a viable means of revenue generation, use of carbon taxes for targeted interventions among vulnerable populations and increasing the accessibility of such taxes. A comparative example of Sweden and France establishes the importance of more inclusivity in tax designs for more acceptability. Sweden successfully implemented a tax on carbon emissions starting at \$28 a tonne in 1991, progressively rising to \$127 a tonne in 2019. The tax was introduced as part of a broader reform, including reducing taxes on energy, labour and capital. Higher social transfers and reductions in the basic rate of income taxes helped offset burdens for low- and middle-income households, while competitiveness concerns were addressed through a lower initial rate for industries (progressively phased out by 2018). Businesses and other stakeholders were involved in the decision-making process through public consultations. In France, on the other hand, the rapid ramping up of a similar carbon tax was suspended in 2018 at \$50 a tonne, following a public backlash against the perceived unfairness of the tax, which was introduced at the same time as broader tax reductions seen as benefiting the wealthy.

Global Financial Stability Report (October 2019) has a chapter that discusses the link between sustainable finance and financial stability.

Climate Change and Long-term fiscal sustainability illustrate mitigation taxes and subsidies and their interaction with the general budget in relation to fiscal sustainability.

The Economics of Climate (December 2019). This issue of Finance & Development looks at the economic and financial impact of climate policy choices. It points to concrete solutions that offer growth opportunities, driven by technological innovation, sustainable investment, and a dynamic private sector.

Macroeconomic Resilience: Economic prospects will be substantially threatened without effective adaptation to climate change for many developing countries. The publications under climate change policy assessment are intended to help countries build coherent macro-frameworks to improve prospects for attracting external finance and put future revisions to NDCs on a sound footing.

A1. Macroeconomic Forecasts and Sensitivity Analysis

Requirements for climate change policy integration: It is recommended that macroeconomic forecasts, sustainability, vulnerability analysis and macro-fiscal scenarios reflect the impact of climate change and the costs of adaptation and mitigation. Climate change risks should be incorporated into macro-fiscal forecasts, policies and sensitivity analysis.

Countries could consider the following for climate change policy integration into this step of the PFM process:

- Assessing and documenting climate change impact on economic activity and growth, including macroeconomic forecasts considering climate change scenarios, sustainability/vulnerability analysis, and

macro-fiscal scenarios. Such macroeconomic forecasts should also consider a climate change sensitivity analysis, considering climate vulnerability projections specific to the country. In Cambodia in 2017 conducted a study on the impact of climate change on economic growth³². Such analyses inform governments of the value and opportunity costs of climate investments.

- Including social and environmental dimensions related to Green GDP in climate valuation analyses.
- Considering a country's past and recent performance related to climate protection in macroeconomic and fiscal projections. For this, governments can refer to the Climate Change Performance Index (CCPI), which assesses performance under four categories: GHG Emissions, Renewable Energy, Energy Use and Climate Policy.

32. Ministry of Economy and Finance and General Secretariat of the National Council for Sustainable Development (2019) <https://www.kh.undp.org/content/cambodia/en/home/library/2019/addressing-climate-change-impacts-on-economic-growth-in-cambodia.html>

Box 8: Country Experiences: Climate Change Integration into Macroeconomic Forecasts and Sensitivity Analysis

Integration of climate change with the macro-fiscal framework involves multiple stakeholders and has polycentric dimensions, necessitating a phased approach, taking local capacities into account. The countries are at different levels of integration, mostly basic. In Bangladesh, the Medium-Term Macroeconomic Policy Statement and Bangladesh Economic Review provide qualitative information, and the MoF has developed a Climate-Inclusive Macroeconomic Framework. In India, Nepal and Pakistan, dedicated chapters on climate change have been included in the national documents (Annual Economic Surveys).

In Jamaica, the Ministry of Finance and the Public Service has placed a special emphasis on maintaining macroeconomic and debt sustainability, and is introducing a shift in the disaster management paradigm to include ex-post and ex-ante responses. Jamaica has developed a comprehensive national Disaster Risk Financing Strategy to improve the capacity of the government to access immediate financial resources in the event of a national disaster. This strategy creates more flexibility, allows for a proportional response based on the magnitude of the loss to better align with fiscal responsibility and sustainability objectives. There is an opportunity to link this type of macro-planning and disaster risk financing to safeguard investments in the NDC process. This strategy follows a multi-layered approach in acquiring a menu of financial instruments - based on an assessment of budgetary framework for disaster response and the supporting legislation and policies - to manage the financing of disaster and climate risk. The MoF was supported by the IMF, World Bank, and bilateral partners to incorporate disaster risk management and response into the macroeconomic framework.

The computable general equilibrium model of complying with the Paris Agreement shows considerable global economic gains³³ - approximately USD 18 Trillion per annum in the long run (year 2100). On the other hand, the climate-related damage in Sub-Saharan Africa, South and South-East Asia is severe. The recommended integration measures include building capacities to develop general equilibrium models to estimate economic growth and fiscal forecasts, and create linkages between the technical agencies and MoF to include the findings in the macro-fiscal framework.

Source: Jamaica example from Ministries of Finance and Nationally Determined Contributions - Stepping Up for Climate Action

A2. Fiscal Forecasts and Fiscal Risks. Medium-term Fiscal Framework (MTFF) Requirements for Climate Change Policy Integration:

Governments can deploy various types of fiscal tools: (i) price policies (e.g., carbon taxation, subsidies for mitigation action and low carbon investment); (ii) climate risk-informed and responsive spending and investment, wherein these may sometimes involve higher upfront costs, but considerable savings are realized over the medium term³⁴ and (iii) public guarantees to secure private sector participation, and mechanisms to ensure risk-mitigation and crowding in of private sector investments.

Countries could consider the following for climate change policy integration into this step of the PFM process:

- The reflection of climate change policies and commitments on the MTFF in the context of establishing the resource envelope can provide a lead to governments on prioritizing actions.
- Carbon pricing is an instrument for managing carbon emissions and resource mobilization that provides policy makers with a base for making decisions. This hinges on the availability of data and requires modelling and projection of scenarios and consideration of distributional impact.
- Extra-Budgetary Funds/Entities or external financing sources for climate change activities from international multilateral, bilateral and private funding, e.g., climate funds (UNFCCC, GCF, GEF, WB funds, EU Budget Support, private funds, etc.) are also considered in macroeconomic and fiscal forecasts.
- Capturing climate change expenditure on donor-

33. IMF Kompas, T. Pham, V.H & Che, T.N. 2018. The effects of climate change on GDP by country and the global economic gains by complying with the Paris Climate Accord. Research Article. Earth's Future 6, 1153-73

34. See UNDP Pacific Risk Resilience Program (2019) - e.g., see example of "Enhanced income security through a risk informed farm road, Nasolo Village, Fiji which is likely to save considerable money in the future. I.e., If a landslide were to affect the farm road this would disrupt access to farmland and significantly reduce the community's income and would also cost the Fiji Government significant amounts of money to repair the road. EconADAPT (2015) notes that arriving at the most effective (or optimal) level of adaptation will involve a balance between the costs of adaptation, the benefits of adaptation and the residual impacts.

funded programmes in the PFM systems and recording any off-budget expenditure that can be used for climate activities³⁵ is useful.

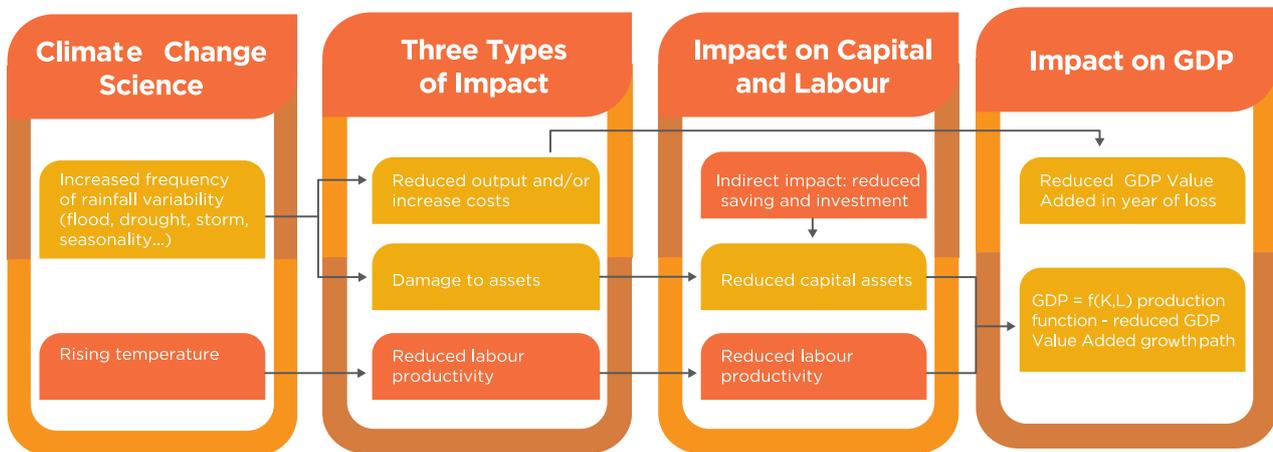
- The PFM system considers fiscal risks of parastatals, public corporations (also known as state-owned enterprises) and any other semi-autonomous agencies involved in climate change-related activities.

Cambodia’s CEGIM is an example of an adapted simple “Integrated Assessment Model” (IAM) used to answer central questions about climate change, to estimate the potential economic losses due to climate change, as well as the impact of mitigation measures on GDP.³⁶ As pointed out by the World Bank (2020) note, there is growing recognition that existing IAMs tend to significantly underestimate the

economic impact of climate change and overestimate the cost of mitigation measures. In addition, a particular shortcoming of IAMs is that they typically do not address distributional impacts and, very importantly, do not include the financial sector. Interactions between climate risks and macro-financial risks are increasingly recognized as critical.³⁷

Yet, climate damages may undermine the sovereign ratings of the most vulnerable countries, particularly small island developing states (SIDS), with knock-on implications for their macroeconomic and fiscal imbalances; fossil-fuel dependent economies may face deteriorating terms of trade and “stranded assets” if the dynamics of the global market, global mitigation, and the integration of climate risks in global asset managers portfolios significantly shift demand, relative prices and financing away from carbon-intensive fuels.³⁸

Figure 3: Overview of Cambodia’s Climate Economic Growth Impact Model (CEGIM)



A3. Allocation of Inter-government Fiscal Transfers

Embedding an ecological parameter within fiscal transfer mechanisms between governmental bodies enables central governments to financially incentivize subnational governments in pro-climate activities. India is promoting the preservation and increase in forest cover by adjusting tax-related revenue distribution among its constituent States. If managed carefully, this can potentially contribute to environmental and climate mitigation goals in the medium to long term. The practice includes the weighting

of grants from one governmental body to another, for considerations of relevance to climate change policy.

Fiscal transfers between governmental bodies, grant systems and rules for subnational borrowing can include climate change as a criterion. Intra-governmental fiscal transfers consider targets and KPIs of national climate change policy or NDCs. Climate change expenditure at subnational levels is tracked by the central/federal governments, including at the programmatic level. Information is available on the approach used to determine climate change-relevant and sensitive expenditure at sub-national levels.

35. This information is related to budgetary and extra-budgetary sources (both on-budget and off-budget). This information is also linked to CCBII D1. Donors: Integration of CC activities of Development Partners in the national PFM systems.

36. See Carbon Brief Explainer (2018) and World Bank (2020). As pointed out by the former, there are a group of “simple” IAMs that can compare the costs and benefits of avoiding different levels of warming. These are typically run in a spreadsheet using highly simplified equations. They do not model the detailed processes and relationships of the economy, energy and Earth systems. Simple IAMs include “DICE”, “FUND” and “PAGE” and nationally adapted models such as Cambodia’s CEGIM. More complex IAMs look at the energy technologies, energy use choices, land-use changes and societal trends that cause – or prevent – greenhouse gas emissions by using linked “modules” representing the global economy, as well as its energy, land and climate systems.

37. In particular, see World Bank (2020) Table 1. Interactions between macro financial and climate related risks. Also see OECD (2020) for examples of OECD countries. E.g., For the first time in 2019, UK’s Office for Budget Responsibility (OBR) included a discussion of climate-related risks to the economy and the nature of climate-related fiscal risks in their fiscal risk report.

38. See, for example, ADB (2021) World Bank (2014) IDB (2016).

Box 9: Climate Change Consideration in Inter-governmental Fiscal Transfer Architecture

India's revenue-sharing mechanism is governed by a formula laid out by the Finance Commission, constituted for a quinquennial term. The 14th Finance Commission introduced forest cover as one of the criteria in the formula for horizontal distribution, with 7.5% weightage to balance out fiscal disability in those States that forego economic opportunities due to a relatively huge forest cover. In the 15th Finance Commission, the indicator's weightage was increased to 10%.

Source: [PRS Legislative Research](#)

A4. Budget Strategy Paper, Sectoral Medium-term Strategic Plans

Requirements for climate change policy integration: Including a chapter on significance/impact of climate change, climate change factors, budget implications and fiscal/financial impact in the Budget Strategy Paper (BSP) or other pre-budget documents could be considered as a starting point which later can graduate to a more advanced level with the inclusion of analytical details and assumptions. Subsequently, the budget strategy paper or equivalent may also indicate climate change allocations over a medium-term period.

Meanwhile, it has been found useful for sectoral medium-term strategic plans prepared by the government to explicitly reflect climate change policy priorities (and their costs). Sectoral medium-term strategic plans could include climate-related projects and initiatives with cost estimates. Clear policy targets with indicators and cost estimates should be available for climate change (mitigation and adaptation) commitments. For best results, these should be in line with the national climate change policies, strategies, Action Plans and international agreements/frameworks (e.g., SDGs, NDC.) They should ideally reflect climate protection performance as per Climate Change Performance Index (CCPI). (See also B6 in Section 3.2). Information could be published annually on the quantity of output and outcome achieved by the concerned ministries/MDAs.

Box 10: Green Budgeting: Strong Strategic Framework

It is important that governments' strategic priorities and objectives relating to environment and climate are clearly set out to inform fiscal planning. For example, national climate change or environmental strategies need to spell out relevant priorities and goals. These strategies and plans help guide tax and spending decisions, in support of national objectives.

Source: [OECD Green Budgeting Framework](#)

Countries could consider the following for climate change-policy integration into this step of the PFM process:

- Setting clear policy targets for climate change-relevant initiatives, including indicators and cost estimates by year, and individual programmes (areas of expenditures)³⁹
- Explicit reflection of climate change policies in strategic budget documents (BSP, Sectoral medium-term strategic plans etc.), With a section on the importance/impact of climate change⁴⁰

The IMF-World Bank have carried out climate change policy assessments in several countries, such as Tonga, Grenada, Seychelles, etc., To help countries build coherent macro-frameworks to respond to climate change, which could improve prospects for attracting external finance and put future revisions to NDCs on a sound footing. The role of the Ministries of Finance is critical for the translation of development strategies into plans through integrating climate actions into long-term budget planning⁴¹.

Most countries have climate change action plans or policies in place. However, climate plans' costing and

39. This is linked to CCBII P1: Policy and Strategic Planning Context for climate change and PEFA P1 16.3 Alignment of strategic plans and medium-term budgets. CCBII P1 covers the following subcategories: P1.a. Existence of a specific high-level policy on climate change; P1.b. Level of endorsement of the climate change policy/ policies; P1.c. Existence of specific policy targets and costing that can be linked with budgets; and P1.d. Reflection of climate change policies in strategic budget documents.

40. This is linked to CCBII P1.d: Reflection of climate change policies in strategic budget documents.

41. Moving Toward Climate Budgeting- Policy Note, World Bank 2014

financing arrangements, NDCs and policy interventions are not uniform across countries. Also, in most cases, the integration of climate change policies and action plans in budgets is still in its infancy. The case studies from Bangladesh, Ghana, India, and Nepal below show that while some progress has been made, it has mostly

been fragmented efforts. There is scope for integrating climate change policies in the budget strategy documents. In addition, formal inclusion of NDC/ SDG targets in budget strategies is yet to be taken up in any of these countries, although budgetary allocations are made for relevant sectors.

Box 11: Country Experiences: Budget Strategy Paper, Sectoral Medium-term Strategic Plans

Bangladesh: Climate change sector policies and plans are in place, such as Bangladesh Climate Change Strategy and Action Plan and Bangladesh Country Investment Plan for Environment, Forestry and Climate Change (CIP-EFCC). CIP-EFCC shows the finance requirements for climate adaptation and mitigation measures. However, the financing strategies of these policies need more rigour and cost drivers.

Ghana: The Medium-Term Development Framework (2018-2021) highlights the Government's flagship programmes that seek to initiate concrete development actions to deliver tangible climate benefits.

India: Climate change sector policies (National Action Plan for Climate Change and State Action Plans on Climate Change - SAPCCs) and costs are reflected in sectoral allocations. There are policy targets for SDGs and SAPCCs, which are broadly aligned with NDC. There are long-term roadmaps at the Sub-national Government (SNG) level, such as the Odisha Vision 2030, Haryana Vision 2030 and the Chattisgarh SDG Roadmap. The state of Harayana has aligned its budget with SDGs.

Nepal: Sectoral periodic plans include programmes to address climate-related issues or those considered climate-relevant from the budgeting perspective. The Government has endorsed the Sustainable Development Goals Roadmap (2016-2030) and the Need Assessment, Costing and Financing Strategy for SDGs (2018). In addition to the 15th Five-Year Plan (2019/20-2023/24), there are sectoral policies, strategies, development programmes, and plans considered in MTEF and annual budget planning.

3.2. Integrating Climate Change Policy into Medium-term and Annual Budget Preparation

3.2.1. Building Blocks: Key PFM Components

Good PFM practice: The MoF is usually responsible for the budget preparation process. Meanwhile, effective participation by other ministries and budgetary units (MDAs) and the Cabinet is essential. This affects the extent to which the budget reflects macroeconomic, fiscal, revenue and expenditure policy priorities. Effective participation requires an integrated top-down and bottom-up budgeting process, involving engagement from every party in an orderly and timely manner, in accordance with a predetermined budget preparation calendar. A comprehensive and clear budget circular or circulars issued to budgetary units will be useful to cover total budget expenditure for the full fiscal year.

Expenditure policy decisions have multi-year implications and should be aligned with the availability of resources in the medium-term perspective. The resulting expenditure estimates must be consistent with the fiscal aggregates determined through a fiscal strategy. Expenditure policy proposals submitted to the government should be aligned with the policy objectives set out in approved and costed strategic plans.

The inclusion of performance information within budgetary documentation enables results-based budget management.

Box 12: France: Green Budget

The French government published its first Green Budget as an annex to the 2021 Finance Bill. The Green Budget has four defining characteristics, making it one of the most comprehensive in the world to date. It provides an assessment of the 'green' impact of all State budget expenditures, covers tax expenditure, reflects not only concerns related to climate change, but also other environmental issues such as biodiversity and the fight against pollution, as well as rates not only expenditure favourable to the environment but also those with a negative impact.

The Green Budget was prepared by a working group comprising representatives from the Ministry of Finance (Budget Directorate, Treasury and Economic Analysis Directorate, Tax Policy Directorate) and the Ministry of Ecological and Inclusive Transition. The working group applied the methodology outlined in the Green Budgeting report conducted by the General Council for the Environment and Sustainable Development and Inspectorate General of Finances in 2019⁴⁹ to the whole budget. An annex on green budgeting was added to the performance budget circular for 2021, explaining to line ministries and agencies the approach described above.

This policy tool will make green expenditure more effective through informed and better decision-making, leading to green fiscal reforms. An example of the impact of this methodology on decision-making was provided in the preparation of France's post-COVID-19 recovery plan (published in the 2021 Budget Bill), where green expenditure was aimed at maximizing environment-friendly actions and avoiding 'brown' expenditure, i.e., expenditure with a negative impact on the environment, to the extent possible.

Source: Ministry of Economy, France

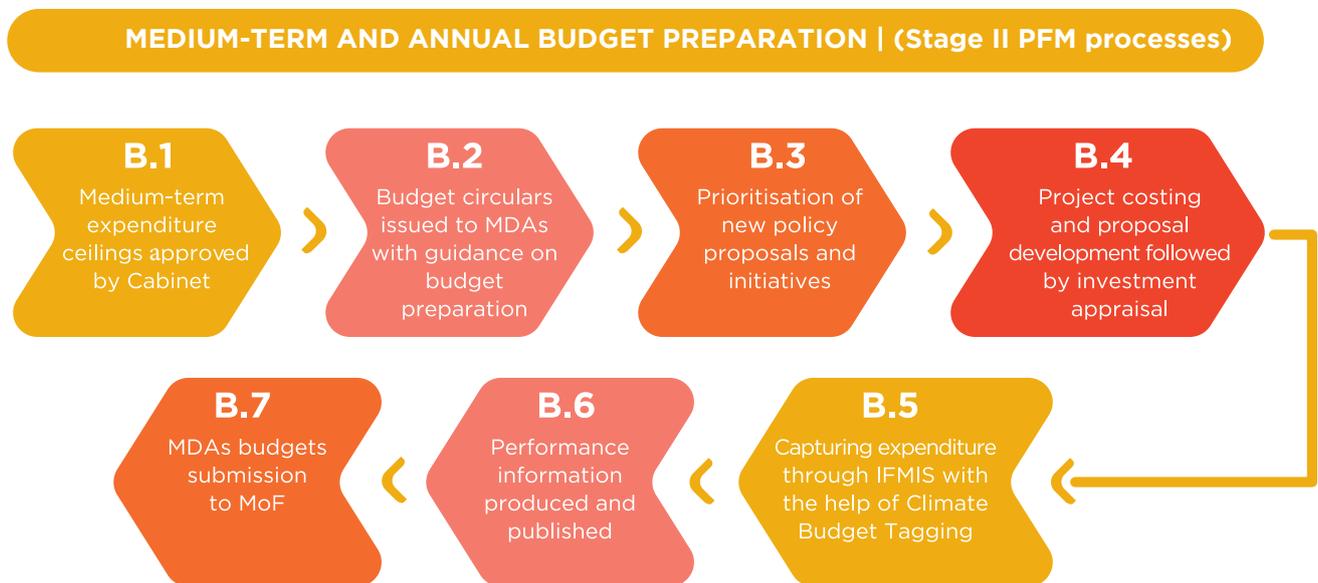
Benefits of climate change consideration: Climate change policy integration into (medium-term and annual) budgeting gives certainty and predictability to MDAs regarding their climate expenditure planning in line with other priority spending. This further leads to improved access to climate finance as additional sources (private and external sources) are identified to cover domestic resource gaps. It is recommended that the government's budget circular encourages incorporating climate change aspects into the medium-term budget planning cycle,

requiring MDAs to integrate climate adaptation and mitigation activities into their programmes.

To ensure that climate change adaptation- and mitigation-related policies, measures and KPIs are accurately reflected in key budget documents, it is essential to integrate climate change considerations into the top-down and bottom-up budgeting process. This includes capturing climate change-specific performance information within budgetary documentation.

Key PFM Building Blocks within Stage II of the PFM Processes that Climate Change Can Be Integrated with Are the Following:

Figure 4: Medium-term and Annual Budget Preparation (Stage II PFM processes)



Sequencing of reforms is important, but given the country’s situation, some of Stage II steps can start earlier than others. This is largely due to the maturity or lack of it in the PFM systems, necessitating flexibility in reform design. Ideally, B3 (prioritization of new policy initiatives) should happen prior to B4 (project preparation) because B3 sets the direction for Line Ministries (LM) to prepare project proposals based on the overall approach (provided by MoF or Planning, as the case may be). Subsequently, B4 (appraisal) should occur, preferably by an entity other than the LM preparing the project proposal. Similarly, B5 (IFMIS data punching) precedes B6 to produce performance-related information based on the climate budget tagging measures. Similarly, performance information can follow spending review and start with strategic planning (See 3.1.1., A4) by building on performance evaluations. This includes considering performance results from the earliest stages, considering the results of monitoring and reporting and the performance audit undertaken by SAIs. Prioritization of new policy proposals and initiatives can start at Stage I in parallel with Sectoral medium-term strategic plans.

3.2.2. Measures to Strengthen Climate Change Policy Integration

To achieve climate change integration into the Stage II PFM processes, the following requirements, actions and responsibilities for each key stakeholder are recommended (Proposed measures are grouped under each PFM component):

Tools to support the process: Specific guidelines help governments to follow policy-based medium-term and annual budgeting reflecting climate change policy aspects and impact. These guidelines pertain to details and steps of the process chain for Stage II PFM processes and can be shared with MDAs as part of the budget circular.

Tools should support the guidelines for Climate Change Screening and Appraisal (depending upon which tool a particular government is using.) For this purpose, other technical notes can be used, for example, ‘Guidelines to Climate Change Screening and Appraisal (CCSA).’ The guidelines can also cover how to tag and track climate finance in the budgets. The UNDP’s technical note - ‘[Knowing What You Spend: A guidance note for governments to track climate finance in their budgets](#)’ - can be of help. Several developed as well as developing countries have started tracking their climate expenditure through budget tagging, as is highlighted later in this document. The guidelines can also discuss the preparation of climate change-related performance information and plans that cover policy or programme objectives and budgets, key performance indicators, outputs to be produced, and the outcomes planned.

42. Inspectorate General of Finances (2019). Green Budgeting: Proposed Method for Environmental Budgeting. https://www.igf.finances.gouv.fr/files/live/sites/igf/files/contributed/IGF%20internet/2.RapportsPublics/2019/2019-M-015-03_Green%20Budgeting.pdf

Box 13: Green Budgeting: Tools for Evidence Generation and Policy Coherence

Green budgeting tools help gather evidence on how budget measures impact environmental and climate objectives. The tools used by each country should build on the existing PFM framework but may include:

- Green budget tagging: Classifying budget measures according to their environmental and/or climate impact.
- Environmental impact assessments: Requiring that environmental impact assessments accompany new budget measures.
- Ecosystem services, including carbon pricing: Putting a price on environmental externalities, such as greenhouse gas emissions, often through taxes and emissions trading systems, to facilitate achievement of national environmental and climate goals.
- Green perspective in spending review: Incorporating consideration of the impact of measures on national environmental and climate goals alongside considerations of efficiency.
- Green perspective in performance setting: Integrating performance objectives related to national environmental and climate goals.

Source: [OECD Green Budgeting Framework](#)

B1. Medium-term Expenditure Ceilings Approved by the Cabinet

Requirements for climate change integration: The medium-term expenditure ceilings approved by Cabinet for a budget year and the two following fiscal years which indicate climate change scenarios at the aggregate or sectoral levels demonstrate that the government acknowledges the importance of climate change and will help MDAs identify more relevant programmes to budget and implement. MDAs will thus be in a better position to consider these priorities in their budget submissions. While the LMs may be allowed flexibility to invest within the overall ceilings, the MoF (or relevant entity responsible for capital expenditure) should ensure that the LMs incorporate the CC perspective in budget submissions.

While medium-term expenditure ceilings are provided in Bangladesh, India, Nepal and Pakistan, none offer any indication of climate change expenditure ceilings. There is implicit funding towards more natural resource-based sectors (forestry, agriculture, water resources), which are adaptation-oriented in both India and Nepal. This is, however, not pre-allocated from a climate change perspective. Introducing the climate change angle in the pre-allocations would bring more focus and a result-oriented approach to the funding.

B2. Budget Circular Issued to MDAs with Guidance on Budget Preparation (Budget Submission Forms)

Requirements for climate change integration: It will be beneficial if more in-depth and specific guidance is made available to MDAs to help them integrate climate change into their planning and budgeting processes.

Countries could consider the following for climate change integration into this step of the PFM process:

- Requesting information regarding off-budget climate change interventions, covering all funding sources (budgetary, extrabudgetary, private, or foreign/external).
- Including more climate budget information in budget circulars and budget guidance documents as awareness and institutional capacity enhances, and providing specific guidance on cost savings or 'climate change smartening' of existing expenditure.

Different countries are at various stages of integrating climate change in budget circulars, with Bangladesh and Nepal at the most advanced stage. Pakistan identifies climate change projects 'where possible' and has recently taken measures to integrate climate change risks and solutions in project development guidelines that are yet to be formally adopted.

Box 14: Country Experiences: Budget Circular Issued to MDAs with Guidance on Budget Preparation (Budget Submission Forms)

In the **Philippines**, a Joint Memorandum Circular issued by the Department of Budget and Management and the Climate Change Commission guides spending ministries on identifying projects/activities/programmes (P/A/Ps) and classifying climate-related adaptation and mitigation expenditures. The guidance also includes disaggregation of expenditure items by codes adopted for object-wise recurrent and capital outlays.

Bangladesh has integrated climate change into the Budget Circular issued by the MoF. This was complemented by the Planning Manual Guidelines of the Planning Commissions. Further efforts are directed to amend the project proposal template for the ex-ante extraction of climate finance data.

In Pakistan, the MoF has amended the Budget Call Circular (BCC), requiring the spending ministries to prepare budget estimates with a climate perspective. The Ministry of Planning has revised the project manual (2019) that includes guidelines for identifying and screening projects with weightage for climate-relevant expenditure.

The central budgetary offices in several countries (**Ghana, Nepal, Philippines** and others) have amended the budgetary frameworks to prepare budget estimates and project proposals from a climate perspective. The next step entails capacity building to enable spending agencies to comply with the new requirements.

Source: Authors' compilation

B3. Prioritization of New Policy Proposals and Initiatives

Requirements for climate change integration: Formal prioritization has been found necessary for climate adaptation and mitigation-related new policy proposals or initiatives, with costs and justifications as well as links to National Climate Change Policies, Action Plans and international commitments (such as NDC). Prioritization factors for climate change-related allocations should be linked to project screening and appraisals (CCSA). (Further details in B4). Such new policy proposals and initiatives should also be documented.

Investment screening and appraisal tools do better when including climate change policy and considerations (in line with Principle 2 outlined in the Approach section). These considerations can be incorporated into a variety of appraisal techniques, from simple checklists to more robust cost-benefit analyses (CBA), to factor risks, costs and benefits associated with climate change into the decision-making process alongside routine assessments such as socio-economic and environmental costs benefit analysis and environmental impact appraisals/assessments. This is referred to as Climate Change Impact Appraisals (CCIA), Climate Change Screening and Appraisals (CCSA), or Climate Change Benefit Analysis (CCBA).

B4. Public Investment Appraisal, Project Costing and Cost-benefit Analyses

Requirements for climate change integration: The inclusion of a climate change dimension in processes and systems for appraisal of public investment programmes and projects during budget formulation stages has been found to be useful. Features of effective public investment management systems have benefitted climate change-related investment projects. These include Strategic investment guidance, project concept development, pre-appraisal screening, formal project appraisal, independent appraisal review, project selection, and budgeting using a well-managed budget process.

The budget documents should ideally include projections of the total life-cycle cost of major climate change mitigation and adaptation projects, including capital and recurrent costs, together with a year-by-year breakdown of the costs for at least the next three years.

CCBA can promote more informed decision-making by considering how climate change affects activities and sectors differently. It also supports the identification of conditions that need to be met for the expected impact of response measures to be sustained into the mid- and long term. Separate guidelines, for example, UNDP Guidelines to Climate Change Screening and Appraisal, provide further details.

Box 15: Country Experiences: Public Investment Appraisal, Project Costing and CCBA

Cambodia, Fiji and Thailand have embarked upon conducting the CCBA for select projects. In Cambodia, CCBA has been done for projects for the Ministry of Public Works and Transport and the Ministry of Rural Development.

In **Fiji**, the government has started risk informing all development projects implemented by the Ministry of Rural and Maritime Development and Disaster Management. Risk screening toolkits and risk-informed monitoring and evaluation checklists have been prepared by the Government of Fiji with support from UNDP.

In **Thailand**, Climate Change Benefit Guidelines were developed in 2015 as a new feature in the existing process for justifying budget requests, which is to be used alongside the other techniques required for impact assessment, such as Environmental Impact Analysis (EIA) and Cost-Benefit Analysis (CBA).⁴³

The Government of **Tonga** adopted the risk screening toolkit in 2020, making it an integral part of the selection and preparation process of major infrastructure projects. The project proposal application is a mandatory submission for the project proposal. It consists of the risk screening toolkit that, alongside assessing the key risks to and from the projects, also takes climate change-related risks into account. The application of the risk assessment tool integrates climate change in the budget formulation stage. For the 2021 budget, the National Planning Division (Office of the Prime Minister) used the risk assessment toolkit in the project selection process. A sustained application would facilitate the government in climate-proofing infrastructure development.

B5. Capturing Expenditure Through IFMIS. Expenditure Tracking (Climate Budget Tagging)

Requirements for climate change policy integration:

Climate change typology, tagging and coding should ideally be available to track relevant and sensitive expenditure. The Chart of Accounts (CoA) used by governments can serve this purpose and include climate change tagging. A functional Integrated Financial Management Information System (IFMIS) to capture climate change relevant data is desirable. Information can then be extracted from IFMIS for real-time data review. This step should be in line with principles outlined in the Approach section.

Countries could consider the following for climate change policy integration into this step of the PFM process⁴⁴

- Defining climate change typology, coding, tagging, and tracking for relevant and sensitive expenditure
- Applying climate change budget tagging (marking, coding) during budget formulation processes

- Including in the Chart of Accounts (CoA) a climate change classification segment or tagging, either a programmatic/activity field or a field that can be used for overlapping policy themes. Alternatively, a parallel module could be created for tagging the programmes automatically without changing the CoA structure
- A functional Integrated Financial Management Information System (IFMIS) is put in place to capture and track climate change-relevant data (with distinct climate change coding/tagging as part of the budget database). This information should be readily extractable from IFMIS for reporting and monitoring purposes
- Developing a manual approach to tagging in case there is no IFMIS, or it is not able to capture the climate change data

Climate budget tagging is one area where many countries have taken substantial action. This is due partly to countries needing to identify their own actions and partly to the requirement for reporting climate expenditure in line with the Paris Agreement. Different countries have taken different approaches towards budget tagging with

43. See Office of natural resources and environmental planning (2015). For all but the largest and most sensitive projects, it is deemed sufficient to undertake a form of rapid CCBA that relies heavily on expert opinion, using whatever objective evidence is easily available.

44. These questions are also linked to CCBII S2, and specifically to S2.a. Application of climate change coding on budget allocations

different objectives. Also, there are differences in the scope of the tagging exercise - National (e.g., Nepal) vs. sub-national (e.g., India), policy level (e.g., Ghana) vs. sectoral level (e.g., India) etc. A few examples are provided in the table below. The binary tagging method means the data can take one of the two possible states. In this case, either the full value of a budget item is tagged as climate-relevant, or none. On the contrary, a more advanced approach is the use of scales to allow proportion of budget tagged as climate-relevant.

Table 1: Climate Change Expenditure Tracking

Country	Definition and method of calculation adopted	Ex-ante (budget allocation stage) or Ex-post (expenditure stage) tagging	Tagging method	Coverage: National / Subnational Governments
Bangladesh	Climate Public Finance Tracking Methodology (CPFTM) adopted by MoF	Ex-ante and Ex-post. A 4-digit segment in the CoA tracks the climate-relevant cost centres.	Scaled	National Government (30 of 45 ministries covered)
France	The methodology is drawn from the EU Classification System for Environmentally Sustainable Activities	Ex-ante and Ex-post.	Scaled	National and local authorities
Ghana	The methodology, climate finance tracking, was revised in 2018.	Ex-ante and Ex-post. Climate-relevant budget codes introduced.	Scaled	National and Municipal expenditure
Indonesia	Focuses on mitigation and adaptation. MoF provides guidelines/manual books on climate budget tagging. The guidelines are being updated in 2021.	Ex-ante and Ex-post. At the output level in programme-based budgeting, tagging takes place, which is reconciled in the budget negotiation process.	Binary	National Government - only to six ministries that are relevant to the National Action Plan for Greenhouse Gas Emissions Reduction. Since 2018, CC adaptation tagging has also been implemented by eight ministries. Climate budget tagging expanded to the sub-national level. The piloting process was conducted at 11 provinces (in 2020) and followed by six provinces, city & districts in 2021.
Ireland	The government adopted International Capital Markets Association ICMA standards for classifying climate-related expenditures. Focuses mainly on large-scale investments for mitigation	Ex-ante and Ex-post.	Binary	

Country	Definition and method of calculation adopted	Ex-ante (budget allocation stage) or Ex-post (expenditure stage) tagging	Tagging method	Coverage: National / Subnational Governments
Kenya	Methodology is defined in the climate tracking methodology handbook and aligns with the National CC Policy	Ex-post. Code 56 in CoA tags climate-relevant expenditure	Scaled	National and Subnational
Nepal	Climate change calculation methodology adopted	Ex-Ante (Budget templates include CC-relevant columns for identification and for CC-relevant budget allocations. Ex-post.	Scaled	National
Pakistan	Climate change typology was developed by the Ministry of Climate Change grounded in the National CC Policy.	Ex-post. Cost centres approved for budget execution are tagged for climate relevance.	Scaled	National, and Subnational in the pilot stage
Philippines	Objective-based definition adopted, and 247 activities aligned with strategic priorities identified in the National Climate Change Action Plan (NCCAP) that are used to list positive climate-relevant items for expenditure classification	Ex-ante and Ex-post. 6-digit code introduced to tag line items for climate relevance.	Binary	National and subnational

Source: OECD, UNDP and World Bank

B6. Performance Information Produced and Published

Requirements for climate change integration: Experience shows the advantages of linking climate change performance information to budget activities and programmes. This needs to be done in line with MoF budget instructions on performance information. Ministry/MDA functions or programmes should provide climate change-related policy or programme objectives, key performance indicators, outputs to be produced, and planned outcomes. Performance information on relevant budget allocations should be available in budget documents (medium-term and annual budgets, budget speeches, citizens’ budgets etc.) and should be published. It is recommended that this requirement be specified in budget circulars and guidelines.

Climate change performance measurements, including impact appraisals and outcomes, are best linked to budget planning. Frameworks to undertake independent reviews of climate change-related programmes in terms of outputs, outcomes and impacts and covering project impact, effectiveness, efficiency and economy, will be useful. Reviews can include comprehensive annual monitoring and evaluations, as well as in-year (or ad-hoc) programme evaluations or spending reviews. Findings can be used for redesigning programmes, activities and KPIs and linked to budget planning.

Countries could also consider sharing information and learnings from integrating sectors like SDGs, gender, poverty, and nutrition by focusing on their performance benchmarks, KPIs, outputs, outcomes, and impact.

Box 16: Sustainable Development Goal Indicator 5c1

The indicator states: “Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels”. It links the policy and legal requirements for gender equality with resource allocations for their implementation. By tracking resource allocations, governments introduce deliberate measures into the planning and budgeting cycle to meet their gender policy objectives such as eliminating gender-based violence or increasing women’s employment. By making these allocations public, governments commit to higher levels of transparency and accountability in budget decision making.

The indicator methodology was developed by UN-Women, together with UNDP and the OECD. It measures three important components of a gender-responsive public finance system: (1) intent of a government to address gender equality by identifying whether policies, programmes and resources are in place; (2) existence of mechanisms to track resource allocations towards these policy goals; and (3) existence of mechanisms to make resource allocations publicly available to increase accountability to women.

Source: [UN Women](#)

Performance-based monitoring and reporting have been implemented in some countries. Pakistan has started PBB for select ministries and provincial governments. Similar efforts are being made in India at the sub-national government level. Bangladesh has templates for performance monitoring, though not necessarily on climate change parameters. However, these are hardly used. Nepal has piloted performance linkage with activities in one Ministry and is planning to roll it out further. In most cases, while financial expenditure performance is properly monitored, actual impact monitoring is still at the nascent stage.

Box 17: Country Experiences: Performance Orientation of Budgets

Pakistan has adopted performance-based budgeting and submits it as part of the Executive Budget Proposal to Parliament. For climate change, on a pilot basis, the relevant information on the outcomes and outputs is provided in the medium-term budgets of the pilot ministries (Water and Food Security) and in comparable sectors at the subnational level (Agriculture and Irrigation). The recent enactment of a PFM Law (2019) has made performance evaluation mandatory, stipulating the submission of a mid-year budget performance review to Parliament.

India: The State of Odisha has started linking performance information to budget activities. It has integrated the Climate Change Relevance Share and Climate Change Sensitivity Share in the budget process, now part of regular budgeting. This will inform relevant stakeholders regarding the increase or decrease of the relevance of climate change in the budget. Climate change performance information, covering outputs and objectives, including primary and secondary objectives, are available for all budgetary schemes for Odisha. The recent adoption of outcome-based budgeting is a step towards policy-based budgeting.

Nepal has started linking climate-related performance information to budget activities. The Government has begun to specify performance indicators for climate projects, starting with the Ministry of Agriculture and Livestock Development (MoALD). The MoF plans to extend the method developed by the Ministry of Agriculture to other ministries.

B7. MDAs Submission of Budgets to MoF

Requirements for climate change policy integration: MDAs should follow the guidance available on raising the profile of climate in budget submissions. MDAs budget submissions (annual and medium-term) to MoF should include climate expenditure programme and performance information (KPIs). This step consolidates previous (B3-B6) steps of integrating climate change aspects into budget submission to MoF.

Countries could consider the following for climate change integration into this step of the PFM process:

- MDAs follow the guidance available on raising the profile of climate in budget submissions
- MDA budget submissions to MoF explicitly include climate change expenditure and performance information

Box 18: Country Experiences: MDAs Submission of Budgets to MoF

Nepal: Nepal's MTEF has a section to systematically respond to climate change through a public programme. It shows the need for climate change and indicates why climate change has been considered in the framework. Nepal has taken a whole of government approach in mainstreaming climate change in budgeting. All ministries/MDAs submit their budgets indicating climate change budget.

Pakistan: The Government of Pakistan prepares and publishes medium-term budget estimates by outputs for each Ministry / Principal Accounting Officer. The Government of Khyber Pakhtunkhwa has prepared and published Medium Term Budget Estimates For Service Delivery for the Financial Year 2020-23⁴⁵. Budget submissions to MoF includes climate change expenditure and performance information.

3.3. Integrating Climate Change Policy Considerations in the Budget Approval Process and Accountability

3.3.1. Building Blocks: Key PFM Components

Good PFM practice: In addition to the MoF's responsibilities for the annual budget preparation process, effective participation of government agencies and the executive leadership, such as the cabinet, affects the extent to which the budget reflects macroeconomic, fiscal and expenditure and revenue policy priorities.

A wider scope for participation of the legislature (as representatives of the citizenry) and citizens in the budgeting process is called for. Authority to spend is vested in the government by the legislature, by passing the annual budget law. If the legislature does not rigorously examine and debate the law, it is not effectively exercising its power, and as a result, the government's accountability to the electorate could be undermined.

Box 19: Green Budgeting: Reporting to Facilitate Accountability and Transparency

Adequate reporting to relevant stakeholders (e.g., Parliament and civil society) facilitates scrutiny of the quality and the impact of green budgeting. For example, a Green Budgeting Statement accompanying the budget is a key reporting tool. This helps provide an overall view of how the budget aligns with green objectives. Such statements can be used by stakeholders, such as Parliament and citizens, to help them provide inputs at budget deliberations.

Source: [OECD Green Budgeting Framework](#)

45. Government of Khyber Pakhtunkhwa. Medium Term Budget Estimates For Service Delivery for the Financial Year 2020-23. <https://www.pakp.gov.pk/wp-content/uploads/output-based-budget-document.pdf>

Benefits of considering climate change: Integrating climate change into budget hearings and negotiations enables better informed decisions from the climate change perspective. Integrating this aspect into budget documents (MTEF, Citizens Budget, Executives Budget Proposal, Enacted Budget) will facilitate better transparency and accountability to legislature and citizens regarding climate adaptation and mitigation.

Key PFM Building Blocks Within Stage III of the PFM Processes that Climate Change can be Integrated with are the Following:

Figure 5: Budget Approvals and Accountability (Stage III PFM Process)



3.3.2 Proposed Measures to Strengthen Climate Change Policy Integration

To achieve climate change policy integration into Stage III of the PFM processes, the following actions and responsibilities for each key stakeholder are proposed (The measures are grouped under each PFM component).

Tools to support the process: Specific guidelines can be developed for the government and legislature to use in budget approvals and discussions, reflecting climate change policy aspects and impact. For example, budget hearing templates can include questions regarding climate change expenditure and performance information, or specific tools for parliamentary scrutiny. The guidelines can cover details and steps of the process chain for Stage III of the PFM processes.

C.1 Budget Hearings and Negotiations

Requirements for climate change policy integration:

Emphasizing climate change-related budget negotiations and specifying allocations will better direct climate spending. Budget hearing templates can include questions regarding

climate change expenditure and performance information. Adaptation and mitigation can be on the agenda in budget hearings conducted by the MoF. The official budget appraisal criteria can include climate change aspects. Those stakeholders engaged in negotiations should be adequately sensitized regarding climate change-related aspects.

There is not enough evidence to establish that countries use climate change as a determining factor in budget hearings, negotiations or Cabinet endorsements. However, there has been increasing mention of climate change in budget speeches recently. In Bangladesh, a climate budget report is presented annually to Parliament and budget documents to inform Parliamentarians about climate change allocation. In India, climate change has been discussed during budget speeches in the States of Haryana, Maharashtra, Gujarat and Odisha, though not as a determining factor for allocations. In Pakistan, climate change is not considered a determining factor in budget approvals. However, budget hearings and negotiations consider climate change-related expenditure and performance information, as the Ministry of Climate Change is a member of the Appraisal Committee (Development Working Party) that assesses projects for environment impact assessments. These are all initial steps towards slowly building in climate considerations during budget approvals.

C.2 Cabinet Endorsement and Submissions to Legislature

Requirements for climate change integration: Budget submissions to Cabinets and Legislatures can explicitly specify climate change-related expenditure and performance details. Budget statements and speeches made by the Ministers of Finance can include aspects of climate mitigation and adaptation, presenting the resource allocation priorities of the government together with their overall rationale and political context.

The budget submissions to the legislature in Nepal include climate change budgets. In Pakistan, climate relevance is identified in the MTBF and budget submissions for pilot ministries (at the central level) and provincial service delivery departments. In Philippines CC expenditures in the National Expenditure Programme (NEP) informs congressional budget hearings. Further, NEP level climate expenditures are used to communicate the President's commitment to addressing climate change⁴⁶.

Box 20: Country Experiences: Budget Submissions

Nepal: The Budget speech published by the MoF includes an annex that shows details of the climate-relevant budget, specifying the level of relevance for all ministries⁴⁷. Budget submissions to the legislature include the proposed climate change budget.

Pakistan: The Standing committee on Climate Change in Parliament reviews the public sector development portfolio during a fiscal year and with support from the Ministry of Climate Change, provides feedback on the major investment projects. At the subnational level, UNDP supported the Provincial Assembly of Khyber Pakhtunkhwa to develop a guidebook detailing measures and processes for legislators while reviewing budget proposals with a climate lens⁴⁸.

C.3 Legislative Scrutiny

Requirements for climate change integration: Parliaments hold the Executive to account with effective oversight. It is effected in the legislative scrutiny of the Executive Budget proposal (Ex-ante role) to ensure citizen's preferences are reflected. Subsequently, the Parliament scrutinizes the fiscal operations (ex-post role) to ensure the budget was spent as approved. An effective budget scrutiny process can ensure that the weaknesses in the budget allocation process are addressed.

Parliamentary budget debates could be strengthened - firstly, by ensuring the submission of all relevant budget

documents and not just the budget allocations for revenue and expenditure. This includes submission of fiscal policies, medium-term priorities and fiscal forecasts to ensure that the scrutiny process is facilitated by providing the necessary information and providing a comprehensive picture of public finances to Parliament. Parliamentarians are not expected to be experts - therefore, it is vital to provide for public consultation platforms, research and analysis support, alongside dedicated and autonomous committees and related system-based support. In the context of climate change, the budget package submitted for Parliamentary review should have a climate change perspective and Parliament should have the aforementioned support to enable budget scrutiny with a climate lens.

46. National Climate Budgeting- A reference guide to climate change budgeting at the national level in Philippines- Climate Change Commission and Department of Budget Management (<https://niccdies.climate.gov.ph/files/documents/National%20CCET%20Reference%20Guide.pdf>)

47. Ministry of Finance of Nepal (2020). Budget Speech of Fiscal Year 2020/2021. https://www.mof.gov.np/uploads/document/file/Budget%20Speech%202020_2020118033431.pdf

48. UNDP (2018). Climate Budget Review Guide Khyber Pakhtunkhwa Assembly. https://www.pk.undp.org/content/pakistan/en/home/library/environment_energy/climate-budget-review-guide-khyber-pakhtunkhwa-assembly.html

Box 21: Country Experiences: Legislative Scrutiny

Nepal: The Parliamentary Committee for Environmental Protection has legislative and oversight functions, including work on climate change. Other key committees are the Finance Committee and the Public Accounts Committee, which have budget approval and public accounts oversight mandate. Parliament, with the technical support of UNDP, has developed a practical guide for members of Parliament and the staff for scrutinizing funds identified in the annual government budget and during the various stages of budgeting, including development, approval, implementation and monitoring.

Pakistan: Legislative scrutiny of the Public Investment Programme is conducted with a climate change perspective by the Parliamentary Standing Committee on Climate Change. The current focus of the review is major public investments. The records of Parliamentary debates are not made public; however, documents are available with the Secretariat with regard to questions tabled by the Parliamentarians and the response by the Executive.

C.4 Public Disclosures, Transparency, Citizen's Climate Budget

Requirements for climate change integration: Ensuring public access to budgetary data is essential to foster accountability. Governments could publicize key budget documents, and ensure that climate change aspects are reflected in Citizens Budgets, Executive Budget Proposals and Enacted Budgets. Performance information on climate change-related budget allocations should be available in budget documents (budget law, budget speeches, MTEF). Executive Budget Proposals should have details of proposed climate change-related expenditure and expected

results. Citizen's Climate Budgets can be prepared and published, explaining climate expenditure and performance information. CSOs and civil society can engage and participate in the process to help the public understand climate change aspects of the government's budgets⁴⁹.

Most countries have now slowly started reporting on climate-relevant expenditure in their budgets, either at the federal or state levels. Both Nepal and Bangladesh publish a Citizen's Climate Budget. In India, Odisha has started publishing climate budgets for 11 key sectors aligned with the State's climate change action plan.

Box 22: Country Experiences with Transparency and Disclosures

Bangladesh: The Climate Budget Report is prepared based on climate data and information in the budgets of relevant Ministries/Divisions to inform Parliamentarians and other stakeholders of the pattern of resource allocation to address the adverse fallouts of climate change. The Citizens Climate Budget Report is an annual publication presented in simple language and published for a wider audience using infographics. The Government invites CSOs to participate in pre-budget consultations.

India: Odisha publishes its Climate Budget and engages civil society to comment on pre-budget documents. In its Climate Budget, Odisha has identified Climate Change Relevance Share and Climate Change Sensitivity Share for 11 key sectors. This is published as part of its regular budget process. However, the extent to which the citizens' engagement influences budget decisions is not clear.

Nepal: To raise public awareness of Government actions, a Citizens' Climate Budget was prepared in partnership with a CSO. Several CSOs in Nepal are active on climate change issues. The CSOs undertake research and lobby for and support the Government in the development of climate change policies and responses. The Citizens' Budget visualizes climate-related budget figures and trends in a set of simplified infographics in both Nepali and English languages.

49. These questions are linked to CCBII A1.a Availability of climate change performance information and CCBII A3: CSO participation in climate change finances.

3.4. Responsibility Matrix

Table 2: Recommendations for Responsibilities for MoFs, CCPBs & MDAs at Each Substep⁵⁰

Stage	Sub-stage	The Ministry of Finance (MoF)	The Central Planning Agency (if separate from MoF)	The Climate Change Policy Body	Ministries, Agencies and Central Bank
Stage I: Macro-Fiscal Framework, Medium-term Sector Plans, Pre-Budget Documents	A.1 Macroeconomic forecasts and sensitivity analysis	Leads the analytical work for integrating climate change into macroeconomic planning and forecasting to make the right policy choices. The systematic computational analysis of data is carried out with support from technical agencies.		Assesses overall level of climate risk, vulnerabilities, losses and damage to the country to support MoF in scenario modelling.	Macroeconomic forecasts by central bank independently from the MoF.
	A.2 MTFF, Fiscal forecasts, fiscal risks (including external funding).	Prepare medium-term fiscal forecasts with inputs from technical agencies. The analytical work provides scenario analysis based on the projected impact of CC on the fiscal position. Identify revenues generated from climate regulations/ tax, cost of climate activities, and inflows and outflows of climate fund.	Ascertain fiscal liability for climate proofing infrastructure development to facilitate determination of funding gap.	Support MoF in shoring up its resources envelope with resource mobilization from climate-related funds and identify climate relevant regulations/taxes that will have an impact on fiscal revenue.	Ministries coordinate with CCPB to identify CC risks and issues with direct or indirect effect on the respective sectors. Revenue Agencies support revenue forecasting, duly considering the impact of climate change, and identify incentives to revenue sources. Central banks start integrating climate-related risks into supervision and financial stability monitoring. Central Banks provide analytical input for supporting domestic resource mobilization efforts and financial deepening. Options include introducing financial protection mechanisms through, among other things, catastrophe bonds to alleviate fiscal stress on MoF from climate-related adversities.

50. Some sub-steps are not included in the table because they don't necessarily require particular attention of governmental agencies to integrate climate change aspects

Stage	Sub-stage	The Ministry of Finance (MoF)	The Central Planning Agency (if separate from MoF)	The Climate Change Policy Body	Ministries, Agencies and Central Bank
Stage II: Medium-Term and Annual Budget Preparation	A.3 Allocation of intergovernmental fiscal transfers	Include climate policies/NDCs into intergovernmental fiscal transfer policies			
	A.4 Pre-budget documents (Budget Strategy Paper, Sectoral medium-term strategic plans).	Include in a pre-budget document a chapter on budget implications and the fiscal impact of climate change. This chapter will be about the information related to climate-relevant projects and include analytical information (quantitative and qualitative) supporting the fiscal forecasts.		Support MDAs to screen policies, evaluate climate change impact, and reflect policy priorities (and their costs) in climate change sectoral medium-term strategic plans.	Ministries reflect climate policy priorities and their cost in sectoral medium-term strategic plans.
	B.1 Medium-term expenditure ceilings approved by Cabinet.	Estimate total resources available for climate change, with consideration of spending at aggregate, sectoral or MDA level: also reflect climate policy priorities in baseline and higher scenarios.		Coordinate with relevant agencies to provide off-budget CC expenditure and extrabudgetary climate funds for ceiling consideration.	
	B.2 Budget circular issued to MDAs with guidance on budget preparation	Integrate climate change into all steps of budget preparation, such as classification, tagging and performance metrics.		Support MoF to develop guidelines on climate expenditure, and provide examples.	
	B.3 Prioritization of new policy proposals and initiatives	Introduce budget codes for climate-relevant public expenditure.	Amend public investment proposal template to promote climate perspective in project preparation.	Introduce climate risk screening criteria to prioritize climate policies/initiatives for budget planning process.	Prioritize adaptation and mitigation policies, and others in line with CCPB's guidelines.

Stage	Sub-stage	The Ministry of Finance (MoF)	The Central Planning Agency (if separate from MoF)	The Climate Change Policy Body	Ministries, Agencies and Central Bank
	B.4 Public Investment appraisal, project costing and CBA		Adopt climate risk criteria developed by CCPB for project appraisal.	Support development of project proposal template for integrating climate change into project preparation and appraisal. Conduct capacity building of apex and spending ministries Collaborate with MoF and Planning to participate in the project appraisal process.	Undertake climate change screening and appraisals of relevant projects.
	B.5. Performance information produced and published	Revise budget reporting structure to capture climate-relevant performance information.		Provide technical support to apex ministries in requirement setting for the amendments in the budget reporting structure.	Include climate change policy performance information in the MDA's output, outcome, performance indicators, among others, in key budget documents. Review CC performance info and report CC results. Link CC performance info to SDGs, NDCs and sector targets.
Stage III: Budget Accountability Support actions	C.1 Budget hearings and negotiations	To inform the budget allocation decisions, ensure climate change instructions have been properly followed, with climate expenditure, performance information, costs and benefits in budget hearing templates.	For public investments, ensure that climate change instructions have been properly followed, with climate expenditure, performance information, costs and benefits in budget hearing templates.	Provide technical support to the Parliament (Standing Committees) to inform Parliamentary budget debates. Develop guidelines for budget scrutiny with a climate perspective.	Provide necessary explanation about climate expenditure.
	C.2 Intergovernmental Citizens' Climate Budget	Produce the Citizens' climate budget and ensure timely publication.		Provide advice to MoF on the development of templates for the Citizens' Climate Budget.	

3.5. Strengthening Gender Responsiveness of the Climate-sensitive Planning and Budgeting

Improvement in gender equality is considered an integral part of the development objectives of many countries. It requires a strong PFM system to ensure budget allocation and implementation in a gender-responsive way. The OECD notes, “Gender budgeting involves using the tools, techniques and procedures of the budget cycle in a systematic way to promote equality” (Downes, von Trapp, and Nicol 2017). The Council of Europe defines gender budgeting as “an application of gender mainstreaming in the budgetary process. It entails a gender-based assessment of budgets, incorporating a gender perspective at all levels of the budgetary process and restructuring revenues and expenditures to promote gender equality” (Council of Europe 2009).

Gender-responsive budgeting (GRB) has been gaining traction in PFM. Globally, over 80 countries have started to implement GRB to a certain degree. Some countries

have limited their GRB activities to awareness-raising and capacity-building events, or advocacy for allocating additional resources for a specific purpose such as maternal health. Other countries have started to pilot GRB in selected ministries, starting mostly with the social sector (education and health) and some economic sectors (mainly agriculture). Only a few countries, such as Austria, Canada and the Republic of Korea, have made GRB an integral part of the relevant legal frameworks (Austria in the Constitution, Canada in the Gender Budgeting Act and the Republic of Korea in the PFM laws).

Strengthening the gender-responsiveness of climate-sensitive planning and budgeting could largely contribute to gender equality in climate actions. The Public Expenditure and Financial Accountability (PEFA) supplementary framework for assessing gender-responsive public financial management (GRPFM) is a set of nine indicators that measure the degree to which a country’s PFM systems address the government’s goals regarding acknowledging different needs of men and women, and different subgroups of these categories, and promoting gender equality (See Table 3). These indicators could be considered in climate-sensitive planning and budgeting.

Table 3: GRPFM indicators

Indicators	Sub-indicators
Gender impact analysis of budget policy proposals	Gender impact analysis of expenditure policy proposals
	Gender impact analysis of revenue policy proposals
Gender-responsive public investment management	Gender-responsive public investment management
Gender-responsive budget circular	Gender-responsive budget circular
Gender-responsive budget proposal documentation	Gender-responsive budget proposal documentation
Sex-disaggregated performance information of service delivery	Sex-disaggregated performance plans for service delivery
	Sex-disaggregated performance achieved for service delivery
Tracking budget expenditure for gender equality	Tracking budget expenditure for gender equality
Gender Responsive Reporting	Gender Responsive Reporting
Evaluation of Gender Impacts of Service Delivery	Evaluation of Gender Impacts of Service Delivery
Legislative Scrutiny of Gender Impacts of the Budget	Gender-responsive legislative scrutiny of budgets
	Gender-responsive legislative scrutiny of audit reports

Box 23: Country Experiences: Assessment of Indonesia's GRB and Gender-responsive Climate Budgeting

In **Indonesia**, the Ministry of Finance, Ministry of Women Empowerment and Child Protection, and Ministry of National Development jointly issued the National Strategy on the Acceleration of Gender Mainstreaming through Implementation of Gender Responsive Budgeting in 2012. To understand the impact of the GRB efforts, in 2019, the Indonesian Government, in cooperation with the World Bank, undertook an assessment using the draft PEFA supplementary framework for assessing GRB and plans to use findings to strengthen gender mainstreaming further.

The assessment found that Indonesia has a strong legal framework for GRB and uses several tools to mainstream gender in the budget process: gender-responsive budget circular and budget documentation, ex-gender impact assessments, and tracking budget expenditure for gender equality. However, despite these being in place, there is a need for clear top-down direction from both the Ministry of Finance and Ministry of Women Empowerment to ensure compliance with instructions and provide more guidance on how to design gender equality-focused policies. The assessment also revealed the need to strengthen the capacities of ministries to carry out gender analyses of budget policies and monitor their impact on gender equality and the need to collect more sex-disaggregated data and use them as a basis to inform budget decisions.

UNDP Indonesia conducted a study on gender-responsive climate budgeting in the country in 2019. The study found that Indonesia's existing regulation and the potential for tagging a gender-responsive climate change budget show that the country already has a commitment to mainstream the gender aspect in the climate change budget. However, it could not implement this commitment optimally due to several challenges in implementing such combined theme budget tagging (climate change and gender). The study pointed out that the Climate Gender Budget Statement is an innovation with the potential to integrate the gender aspect into the climate change budget.

Source: PEFA Indonesia pilots the Draft PEFA Supplementary Framework and UNDP Study on Gender Responsive Climate Budgeting.

3.6. Addressing the Distributional Effects of Climate-responsive Planning and Budgeting

Climate policies play a crucial role in addressing climate change and contribute to decarbonization. Climate policies need to be intrusive to address climate-relevant issues. Still, these could have substantial side effects, including distributional effects - policies making low-income households better off relative to high-income households are called progressive, policies having the opposite effect are called regressive, and policies that equally affect high- and low-income households are called proportionate. As a study shows, individual climate policy measures can have different distributional effects depending on policy tools, the sector addressed, the design of the policy and the initial socio-economic conditions in the country. The study further found that climate policy tools such as carbon taxes for different fuels, certain mandatory standards, subsidies and regulatory tools can be regressive. At the same time, the effects are less clear regarding climate angles in trade policies, public investment and agriculture policies. Fuel taxes on aviation demonstrate that climate policies

can also be progressive. In any case, the distributional effects strongly depend on the detailed policy design. If distributional effects are not addressed appropriately, the climate policies will likely face a political backlash.

To address the possible distributional effect in climate-responsive planning and budgeting, tools such as Climate Public Expenditure and Institutional Review (CPEIRs), vulnerability, loss and damage assessments, and fiscal incidence analysis could be deployed. The vulnerability, loss and damage assessments could help improve the budget proposals. During planning, vulnerability tools should be utilized to prioritize the climate-related programmes and target the vulnerable groups and hotspots. Fiscal incidence analysis can be used to assess the distributional impact of a fiscal system as a whole, or changes of specific fiscal instruments - this could inform and improve climate-responsive planning and budgeting. While doing the analysis of cost-benefit analysis for climate investments, a key element to consider is also the distributional effect on the vulnerable i.e. poor and women.

3.7. Intersecting Factors in Integration: Legal and Institutional Capacity, Reform Priorities

Intersecting enabling factors in climate change policy integration into medium-term budgeting, such as legal and institutional capacity, as well as reform priorities, deserve proper consideration. Climate change-focused/integrated budgeting does not involve radical changes in the roles and responsibilities of government stakeholders, and the policy should ideally be built on country systems, institutions, and processes (in line with Principles 1 and 2 mentioned in the Approach section). For example, in most countries, the Cabinet approves the Budget, which is then debated in Parliament. However, the power of Parliament to change the Budget in relation to the PFM process varies from one country to another.

Countries could consider the following for strengthening legal and institutional capacity in climate change-related medium-term budgeting and for setting reform priorities:

Legal framework:

- Defining and making operational-specific legislative or procedural requirements for climate change-related budget formulation, such as relevant legal acts or documents
- Defining and making operational-specific requirements on climate change-related budget formulation in the budget guidelines

Institutional framework:

- Clearly defining roles and responsibilities of key institutions most typically involved in climate change integration into medium-term budgeting for each stage of the PFM cycle – This has been shown to benefit processes and workflows most relevant to the country and their institutions. This relates to key institutions like MoF, CCPB and MDAs (see Table 1: Roles and responsibilities of government and non-government key stakeholders involved in CCFF, in Section 2).
- Establishing leadership and ownership is required to institutionalize climate change policy integration into medium-term budgeting processes.
- Integrating climate change policies into planning and PFM processes across sectors and levels of government (e.g., federal, central, subnational). This will eventually lead to climate change-focused budget formulation processes in all central and subnational governments.
- Considering and incorporating climate change-related activities of other non-key stakeholders in the process. This includes climate change activities/expenditure of donor-funded programmes, entities that have off-budget expenditure, parastatals, public corporations (also known as state-owned enterprises), Extra Budgetary Funds/Entities, and any other semi-autonomous agencies.

Box 24: Green Budgeting: An enabling budgetary governance framework

A modern budgetary framework provides a strong enabling environment for green budgeting. This includes a framework with links between strategic planning and budgeting, multi-annual budget envelopes and outcome- and evidence-based budget processes, and close engagement with Parliaments and civil society. The implementation of green budgeting is also supported by strong political leadership, clearly defined roles and responsibilities within governments, a well-designed sequence of implementation, internal systems that are fit-for-purpose and the development of capacity and expertise among civil servants. It should also be coherent with other budget initiatives, such as gender budgeting.

Source: [OECD Green Budgeting Framework](#)

Capacity, covering human resources and ICT⁵¹ systems:

- Providing key institutions with sufficient human resource capacity (both quantity and quality)
- Enabling ICT systems and Integrated Financial Management Information Systems (IFMIS) facilitating climate change policy integration into medium-term budgeting

Sequencing reforms (Basics-first approach and prioritization): Depending on their preparedness to integrate climate change into the MTBF, countries could consider the following:

- What the priorities are for PFM reforms in the country, and what the pace and direction of medium-term budgeting and performance-based budgeting reforms are
- What implications do PFM reforms and phasing of climate change integration into medium-term budgeting might have for development? (This question covers all stages of the PFM planning cycle.)
- How to apply the ‘getting the basics right⁵² first’ concept for climate change policy integration, and what can be reasonably done.

The answer to these questions will be unique to each country, and therefore, the path selected by each country to introduce climate integration in the MTBF will also vary. This difference in trajectory is quite acceptable.

The above guidelines are meant only to serve as a tool for complete integration of climate change policies in the budgeting process. All countries are not expected to necessarily follow all the steps provided in the guidelines.

3.8. Sequencing Climate Change Policy Integration

Countries could consider sequencing climate change policy integration into medium-term budgeting reforms by following the ‘basics-first’ approach and proper prioritization. The sequencing approach detailed in the CCFF framework is important and so is the sequencing approach to PFM reforms.

The climate change policy integration can follow the steps given below:

Step 1: Consider PFM reform priorities and their implication

PFM reform priorities and the pace, achievements, and direction of medium-term budgeting and performance-based budgeting reforms are worth considering. So are the implications of PFM reforms for development and of phasing of climate change policy integration into medium-term budgeting.

Step 2: Consider using diagnostic tools such as CPEIR and CCFF

Diagnostics are the first step for countries to take for designing an optimal reform path for mainstreaming climate change policy integration into medium-term budgets. Diagnostic tools can inform the roadmap of future areas for reform. The most common diagnostic tools are CPEIR and CCFF.

Step 3: Choose a reform path to reflect priorities

While there are some common elements in climate change integration in MTBF, each country will choose a different path to reflect its priorities and practices. Many countries have started with an overview of a comprehensive CCFF, and then moved on to more detailed work encompassing a stronger overall framework and more detailed sector analyses with pilot Line Ministries. The most appropriate sequencing will often depend on the status of work on Climate Change Strategies and Action Plans (CCSAPs) and specific ways that CCFFs can improve financing plans.

51. Information and Communication Technology

52. Alan Schick in Basics-first approach refers to improving cash accounting before implementing accrual accounting, controlling inputs before introducing performance budgeting, and improving annual budget credibility before starting off with medium term budgetary framework.

53. Kit Nicholson, Thomas Beloe (UNDP), Glenn Hodes (UNDP), Hard Choices, Integrated approaches – a Guidance Note on Climate Change Financing Frameworks, 2018: <https://www.climatefinance-developmenteffectiveness.org/sites/default/files/publication/attach/Hard%20Choices%20-%20Integrated%20Approaches.pdf>

Step 4: Sequence activities

Every country will follow a different sequence of activities, starting with those that are most important and least well-developed, and gradually bringing all activities to the same level of completion. The sequencing includes: Initial activities; Piloting; Consolidation and Formalization.

Countries can embark on climate change integration into medium-term budget planning gradually, with a ‘basics-first’ and sequencing approach, by building on established PFM blocks. Governments may adopt some of the climate change policy integration measures on a demand- (need) basis, and might consider issues from a climate change perspective rather than the PFM angle. This might also help countries to realize the path to good practice principles in a long-term horizon.

For example, a country might not have PBB, but can integrate climate change performance into budgeting because such information can still be captured during budgeting and expenditure reporting phases. And if there is no programmatic data, countries can use other classifications (e.g., functional, project) as a proxy for climate change programmatic classification.

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