

A METHODOLOGICAL GUIDEBOOK

CLIMATE PUBLIC EXPENDITURE AND INSTITUTIONAL REVIEW (CPEIR)

Methodological Guidebook: Climate Public Expenditure and Institutional Review (CPEIR)

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CLIMATE PUBLIC EXPENDITURE AND INSTITUTIONAL REVIEW (CPEIR)

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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 of experts specialised in Governance, Climate Change, Public Financial Management, Local Governance and Decentralisation, Development Effectiveness and Programme Management.

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Acronyms

ADB	Asian Development Bank
BCR	Benefit Cost Ratio
CCD	Climate Change Delivery
CCFF	Climate Change Financing Framework
CPEIR	Climate Public Expenditure & Institutional Review
CSO	Civil Society Organization
CSW	Commission on the Status of Women
GCF	Green Climate Fund
GDP	Gross Domestic Product
GHG	Greenhouse Gas
IIED	International Institute for Environment and Development
IPCC	Intergovernmental Panel on Climate Change
M&E	Monitoring & Evaluation
MDG	Millennium Development Goals
MRV	Measuring, Reporting, and Verification
MTEF	Medium Term Expenditure Framework
NAMA	Nationally Appropriate Mitigation Actions
NAPA	National Adaptation Programme of Action
NAP	National Adaptation Plan
ODI	Overseas Development Institute
PG	Policy & Governance
PEA	Political Economy Analysis
PEFA	Public Expenditure and Financial Accountability
PER	Public Expenditure Review
PFM	Public Finance Management
PPP	Public Private Partnership
PRSP	Poverty Reduction Strategy Paper
SAI	Supreme Audit Institution
SNG	Sub-National Government
SOE	State Owned Enterprise
ST	Scientific, Technological and Societal Capacity
TAMD	Tracking Adaptation and Measuring Development
TOR	Terms of Reference
UNFCCC	United Nations Framework Convention on Climate Change



1. Introduction

1.1. Objectives of the CPEIR Methodological Guidebook

This Climate Public Expenditure and Institutional Review (CPEIR) Methodological Guidebook seeks to equip relevant stakeholders (governments, donors, CPEIR practitioners) with information on a step-by-step process, methodologies and tools to conduct a CPEIR.

Climate change represents one of the most significant challenges facing humankind, especially in developing countries and cutting across different sectors of the economy, calling for actions from both public and private sectors. As such, effective responses cannot come from environmental agencies alone. It requires a whole-of-government approach where finance and planning agencies take a central role to ensure economic growth and poverty reduction goals to be achieved in a sustainable manner. The Climate Public Expenditure and Institutional Review is a tool providing a starting point to mainstream climate change into the budgeting and planning process. Since the first CPEIR implemented by Nepal in 2011, 18 other CPEIRs have been conducted worldwide. Based on this body of experience, UNDP has commissioned the preparation of a CPEIR Lessons Learned Paper, which highlights the key regional findings and challenges from the previous CPEIRs and this Methodological Guidebook. In particular, this Guidebook reviews the processes and methodologies used in the 19 CPEIRs done to date and proposes a common framework for future CPEIRs. As such, this CPEIR Methodological Guidebook provides readers with background on context, purpose, process and tools in implementing a CPEIR together with an overview of the key challenges typically faced during the CPEIR implementation.

This Guidebook recognizes that the scope, content and process for CPEIRs will differ between countries according to their needs and national circumstances. This guidebook, therefore, does not aim to be prescriptive in terms of the content of a CPEIR or the process in which it is developed. It does aim, however, to provide the basic components of a CPEIR, guidance on best practices and other practical advice for those who are faced with the task of implementing a CPEIR.

This Guidebook is developed based on experiences and lessons learned from existing CPEIRs implemented by UNDP, World Bank, Overseas Development Institute (ODI), and independent CPEIR practitioners. The Guidebook is also available in Spanish on UNDP's website.¹

1.2. Chapters at a Glance

Chapter 2 - Context for CPEIRs provides the context for a CPEIR, an overview of climate change and its implications.

Chapter 3 - Objectives of CPEIRs outlines a list of different objectives some or all of which a CPEIR typically aims to achieve.

Chapter 4 - What is CPEIR? describes the overall CPEIR analytical framework.

Chapter 5 - CPEIR Process maps out the six steps of a typical CPEIR process.

Chapter 6 - Undertaking CPEIR Analysis focuses on the three cornerstones of a CPEIR: Policy Analysis, Institutional Analysis and Climate Expenditure Analysis. In each component, it provides the tools and methodologies that can be used in the analysis, together with suggestions of data sources and an overview of typical challenges.

Chapter 7 - Further Resources recommends further reading and resources available on the topic.

¹ Link: <http://climatefinance-developmenteffectiveness.org/>



2. Context for CPEIRs

In 2013, the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report advised that *“Warming of the climate system is unequivocal. ... The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, sea level has risen, and the concentrations of greenhouse gases have increased.”* The Assessment provided evidence that all regions are more susceptible to droughts, floods, leading to economic losses and weather related deaths, with increasing intensity and frequency.

Southeast Asia, in particular, is vulnerable, with coast lines that are home to nearly 600 million people who are vulnerable to rising sea levels. Meanwhile, populations in the greater Himalayas region are heavily affected by diminishing water resources due to diminishing snow and ice. Such impacts will bring negative consequences to the poverty eradication and sustainable development efforts. In the 2009 Regional Review² of the Asian Development Bank (ADB), the four countries in Southeast Asia (Indonesia, Philippines, Thailand, and Viet Nam) could suffer a loss of more than 6% of GDP annually by 2100, more than double the global average loss. South Asia could lose around 1.8% of its annual GDP by 2050, which will progressively increase to 8.8% by 2100 on the average under the business-as-usual scenario.

In response to the climate change challenge, governments in both developed and developing countries have been increasingly planning and implementing adaptation and mitigation actions. International climate finance has also been available and is expected to significantly increase in the coming years now that the Green Climate Fund (GCF) is operationalized and committed to providing up to US\$100 billion per year by 2020. However, given that climate change is a cross-cutting issue affecting all sectors of the economy, effective responses to climate change require a whole-of-government approach, involving involvement from both the public and private sectors. Central to this approach is the significant engagement of the planning and finance ministries, together with other line ministries, in fully integrating climate change within an overall national development strategy. The first step to implementing such an approach is to integrate climate change into the national budgetary and planning process.

In that context, the CPEIR, analysing how climate finance, both domestically and internationally sourced, is taken up and delivered by national systems, is an important tool to implement that first step.

2 “Economics of Climate Change in Southeast Asia: a Regional Review”, ADB, 2009. Link: <http://www.adb.org/publications/economics-climate-change-southeast-asia-regional-review>



NASA

Prasenjit Kabi Chakma / UNDP Bangladesh

3. Objectives of CPEIRs

The objectives that a CPEIR seeks to achieve can vary between countries and stakeholders, but generally consist of the objectives below.

- i) Assesses the status of national response to climate change through climate change strategies, action plans and sectoral policies, and its linkages to expenditures.
- ii) Improves the understanding of the roles and responsibilities of institutions, and their coordination, in implementing climate actions.
- iii) Quantifies climate related expenditures through the budgetary system and extra-budgetary channels.
- iv) Provides a tool to track climate finance through national delivery channels.
- v) Identifies opportunities and constraints for integrating climate change within the national and sub-national budget allocation and expenditure process.
- vi) Informs decision makers and development partners in assessing how best to upscale access and delivery of climate finance for the country.
- vii) Serves as a starting point to strengthen cross-government coordination, especially ensuring the engagement of Finance and Planning Ministries, as well as involvement of the private sector, civil society and development partners
- viii) Assesses the transfer mechanism of climate finance from national to sub-national governments and identifies opportunities to strengthen such mechanism.
- ix) Maps the linkages between climate vulnerability areas (by geography, sector, and population groups) and climate responses. Through this, the CPEIR will be able to identify the gaps, if any, in climate policies to protect and benefit the vulnerability groups and opportunities to redirect policies and budget allocations accordingly.
- x) Strengthen stakeholders' capacity to formulate more informed policy proposals that respond to climate change while presenting economic, social and gender co-benefits.

4. What is CPEIR? – An Overall Framework

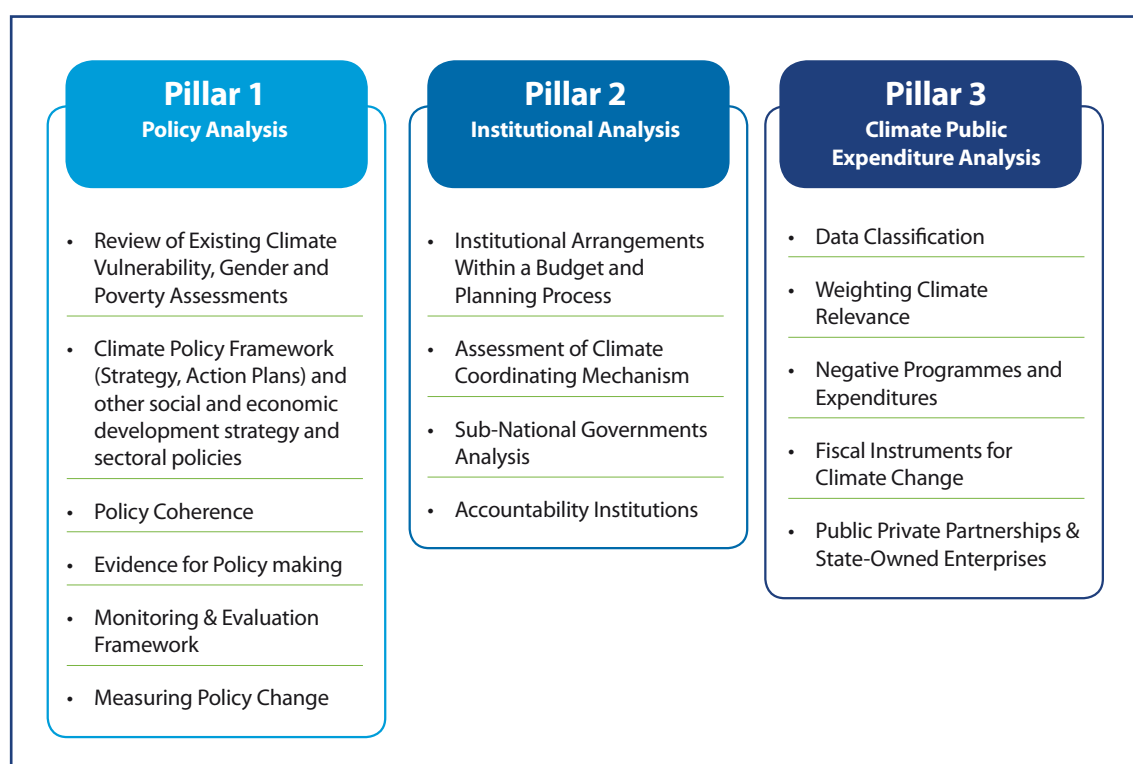
A CPEIR is a diagnostic tool to assess opportunities and constraints for integrating climate change concerns within the national and sub-national budget allocation and expenditure process. The CPEIR analytical framework has three key pillars: Policy Analysis, Institutional Analysis and Climate Public Expenditure Analysis (see Figure 1).

Policy Analysis: A review of the climate change policy framework and its monitoring framework as well as how the policy objectives translate into programmes and instruments.

Institutional Analysis: An analysis of the roles and responsibilities of institutions and their capacities in formulating, implementing and coordinating climate responses. This pillar also includes the review of the budgetary and planning process and its linkages to financing climate change policies and programmes (adaptation and mitigation), involving funds from government coffers and development partners. The institutions can include ministries, departments, State-owned enterprises (SOEs) and Public Private Partnerships (PPPs). The coordination extends to other stakeholders including civil society and Parliaments.

Climate Public Expenditure Analysis: This pillar quantifies the climate relevant expenditure out of the total national budget and measures fiscal policies, such as tax incentives and subsidies, as part of climate financing instruments.

Figure 1: CPEIR Analytical Framework





Kibee Park/ UN Photo

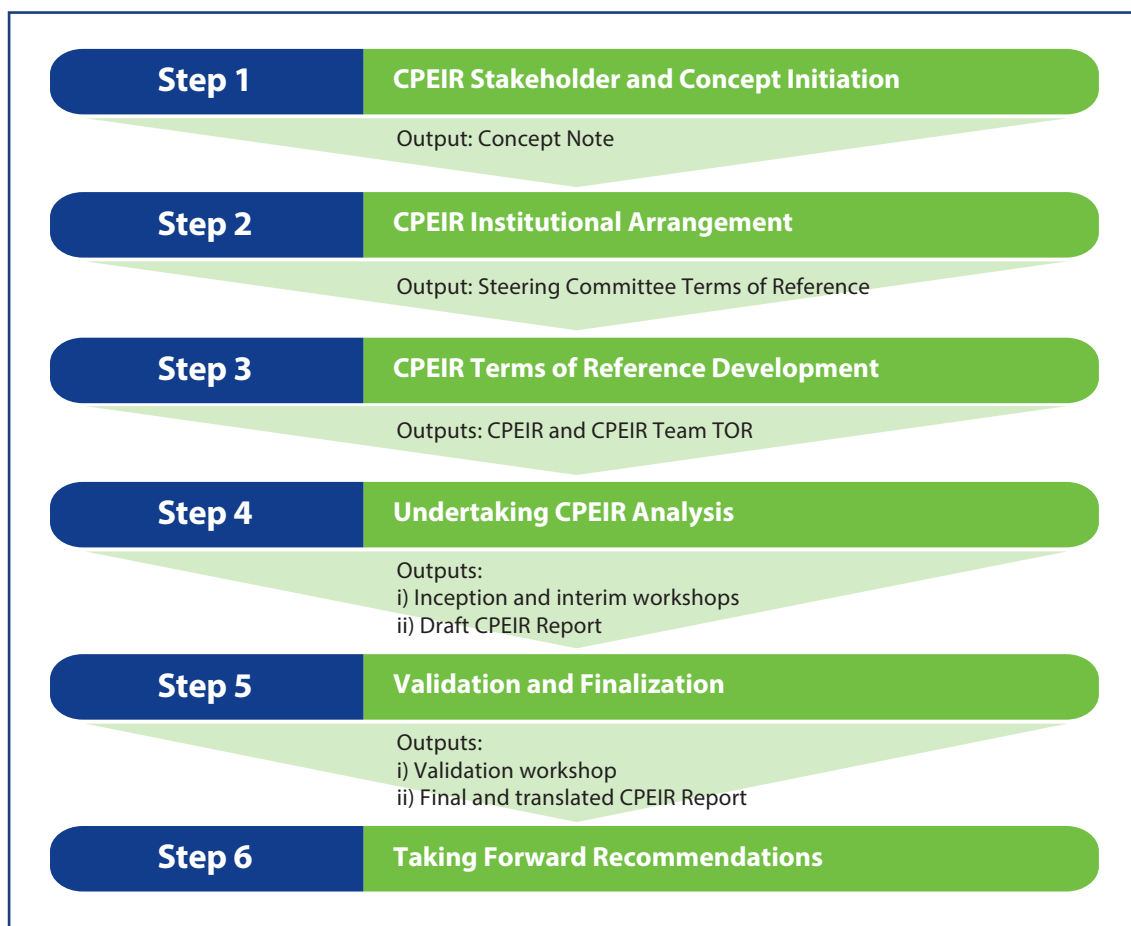


Eric Sales/ADB

5. CPEIR Process

This chapter is intended to provide an overview of a typical process in undertaking a CPEIR, from initiation to implementation. The process typically involves six steps as demonstrated in *Figure 2* below. However, as national circumstances vary, these steps should be considered as guidance only.

Figure 2: CPEIR Process



5.1. CPEIR Stakeholder and Concept Initiation

Government ownership of the CPEIR is essential. In order to achieve that, initial discussions with key government ministries are needed to identify the needs and the key issues to be addressed in the CPEIR. Typically, the key ministries for the CPEIR include finance, planning, environment (or climate change portfolio lead), and local government. Given the cross-cutting nature of climate change, the involvement of other line ministries, such as agriculture, rural development, forestry, energy, transport, women affairs, etc., is also important. These ministries are responsible for many of the climate relevant policies and programmes that target the poor and vulnerable. Involvement of more ministries can also facilitate the data collection process during the CPEIR implementation phase.

The scope of expenditures to be reviewed in the CPEIR is one of the important issues to be discussed and addressed at the beginning. The CPEIR typically reviews the expenditures for ministerial policies and programmes which are expected to contribute to the national climate change response. In addition, the CPEIR should review the following other types of expenditures and investments.

- Expenditures that contribute to increasing greenhouse gas (GHG) emissions (such as fossil fuel subsidies) and/or hindering adaptation efforts
- Tax incentives for climate actions (which is foregone revenue to the government)
- Dedicated extra-budgetary climate funds
- Investment sources from SOEs, PPPs and private sector.

Outputs: A concept note which aims to outline the scope of the CPEIR, the review period, the institutional arrangement for the CPEIR process, objectives and expected outcomes, the methodology and timetables of expected outputs, etc.. Examples of concept notes for the CPEIRs of Bhutan, Viet Nam and Pakistan are available online at <http://climatefinance-developmenteffectiveness.org/>.

5.2. CPEIR Institutional Arrangement

To ensure government ownership and oversight of the CPEIR process, institutional arrangements for CPEIR implementation should be established, including a Steering Committee involving relevant ministries, civil society organizations, and development partners.

Outputs: Terms of reference for the Steering Committee, objectives for the committee, expected outcomes, membership, roles and responsibilities, key tasks, frequencies of meetings and timeframe of operation (Example TOR for the Steering Committee is available on <http://climatefinance-developmenteffectiveness.org/>).

5.3. CPEIR Terms of Reference Development

Once the buy-in from key stakeholders and the necessary institutional arrangements have been established, the next task is to develop the TORs for the CPEIR and specialists who will undertake the CPEIR analysis. See Annex I for templates, which can be adjusted depending on national contexts and needs. Example TORs for the CPEIR and the CPEIR Specialists are also available online on UNDP's Climate Finance and Development Effectiveness website.

Outputs:

- Terms of Reference for the CPEIR: Describing the national context, objectives, scope, the expected outputs, methodology, the key issues to be addressed, CPEIR team composition, indicative work plan and budget.
- Terms of Reference for the CPEIR Specialists with key expertise in the following areas: climate change, public financial management, local government, gender, poverty and statistics.

5.4. Undertaking CPEIR Analysis

The CPEIR analysis might take several months to complete. During this step, the CPEIR team will collect data, undertake the analysis following the main themes of the CPEIR (policy, institution, expenditure), report on progress and seek guidance from the Steering Committee. The tools and methodologies to undertake the CPEIR Analysis will be covered in more details in Chapter 6.

Outputs:

- An inception workshop: To introduce the CPEIR study to relevant stakeholders to get buy-in, facilitate data provision and comments later during the analysis.
- Interim meetings with Steering Committee: To seek strategic directions and feedbacks, especially when facing significant challenges such as scope changes etc.
- Interim workshops: To seek feedbacks from government ministries and other relevant stakeholders.
- CPEIR report: Policy analysis, institutional review, climate expenditure review as well as recommendations going forward.

5.5. Validation and Finalization

In this step, the CPEIR report is to be presented to the Steering Committee for validation and finalization. This way, there is more likely to be buy-in and implementation of the recommendations, potentially by members of the Steering Committee.

Outputs:

- Validation Workshop: CPEIR draft is presented to the Steering Committee for approval.
- Finalization of CPEIR Report: CPEIR Report is finalized following comments from the Steering Committee.
- Translation: CPEIR Report is ready for printing and translated to official local languages.
- Summary: Producing a summary of the CPEIR report for communication purposes.

5.6. Taking Forward Recommendations

The CPEIR analysis will provide the basis and evidence for recommendations to further strengthen the national systems in ways that can measure the potential for upscaling access to, and delivery of, climate finance at the national and local levels. The recommendations can range over different timeframes (short to medium and longer terms) and include a variety of actions, such as coding and tracking of climate finance within the budgetary system, integration of climate change cost benefit analysis as part of budget prioritization, as well as the implementation of climate fiscal frameworks. The exact recommendations will vary by country to accurately reflect the national context and the scope of the CPEIR.

5.7. Duration and frequency

The duration of a CPEIR is approximately six to nine months between the start of the review and the completion of the draft report. Another three months is usually required to validate and finalise the report. The duration includes the time for preparation, the CPEIR team's engagement with the administrations (central and sub-national) and other stakeholders (civil society organizations (CSOs), representatives of vulnerable groups, private sector, donors), and the time to make data available and analyse it.

For countries that implement a climate expenditure tracking tool (such as the Climate Expenditure Tracking Framework proposed in Bangladesh's Climate Fiscal Framework), climate expenditure can be measured in a systematic and regular manner. Given that institutions, country systems and administrations take time to change, the CPEIR might be repeated on a less regular basis.



6. Undertaking CPEIR Analysis

This chapter is intended to provide an overview of the types of analyses undertaken during a CPEIR, the tools and data sources used, as well as the issues that analysts might encounter during the process. The relevance and importance of each theme under these analyses as well as the availability of data will depend on specific country context.

6.1. Policy Analysis

The policy analysis starts with a review of the country's climate vulnerability assessments as well as existing gender and poverty related impact analyses. It will also look at national climate change policies in the context of national development plans and other sectoral policies. The review facilitates analyses of the overall policy environment for effective climate change expenditure such as policy coherence, effectiveness of monitoring framework, and ability to measure policy changes and impacts.

6.1.1. Review of Climate Vulnerability and Poverty/Gender Assessments

Description: This section aims to review national climate vulnerability assessments as well as existing poverty and gender related impact analyses. It provides an understanding of the country's vulnerable areas to climate change impacts and how the climate risks would impact on the poor and disadvantaged. This understanding would provide the basis and evidence to formulate climate change responses and to determine how to best integrate poverty alleviation and gender equality goals therein. They also have the potential to highlight the gaps, if any, in targeting climate change actions towards the vulnerability areas (by geography, vulnerable population groups or sectors).

Questions to be addressed

- Have there been any vulnerability assessments conducted? What are the priority areas?
- What are the key elements of climate resilience, poverty alleviation and gender equality policies?
- Does climate policy reflect the climate risk impact on gender and poverty?
- How does climate policy articulate poverty and gender related objectives more broadly?

- How do gender and poverty policy relate to the risk impact analysis and incorporate climate change related objectives?
- What synergies and contradictions can be identified in the three areas of policy?
- What sectoral linkages can be identified for effective implementation of pro-poor, gender responsive climate change policy framework?

Data Requirement

• National Assessments:

- Climate Change: Vulnerability Assessments (likely as part of a Nation Adaptation Programme of Action (NAPA), National Adaptation Plan (NAP), National Communications and specific studies) (see Annex II).
- Poverty: Poverty Assessments / Participatory Poverty Assessments; national sample surveys; Demographic and Health Surveys; National Development Plan documents; Donor country report; National Millennium Development Goal (MDG)/Poverty Reduction Strategy Papers (PRSP) Reports
- Gender – Ministry of Women's Affairs (if any), Country reports for the Commission on the Status of Women (CSW); donor gender assessment reports
- Data on the current and estimated potential impact of climate change on the poor and vulnerable groups (please see Annex III for more climate risk impact assessments on gender and poverty).

• International assessments:

- UNDP Climate Change Country Profile
<http://www.geog.ox.ac.uk/research/climate/projects/undp-cp/>
- World Bank Climate Risk and Adaptation Country Profile
http://sdwebx.worldbank.org/climateportalb/home.cfm?page=country_profile
- Maplecroft Corp. Global Climate Change and Vulnerability Atlas
<http://maplecroft.com/themes/cc/>
- National Communications Support Program
<http://ncsp.undp.org/>
- IPCC 5th Assessment Report 2014 – Impacts, Adaptation and Vulnerability
<http://www.ipcc.ch/report/ar5/wg2/> ; <http://ipcc-wg2.gov/AR5/>
- IPCC AR5 Working Group2, Chapter 13 (Livelihoods and Poverty)
http://ipcc-wg2.gov/AR5/images/uploads/WGIAR5-Chap13_FGDall.pdf
- World Bank Living Standards Measurement Survey
<http://go.worldbank.org/IFS9WG7EO0>
- UNDP MDG Goals Report
<http://www.undp.org/content/undp/en/home/mdgoverview.html>
- UN Women Gender Responsive Budget Portal
<http://www.gender-budgets.org/>

Potential Challenges

- Lack of existing data: Most countries have conducted climate change vulnerability, poverty and gender assessments. However, downscaled vulnerability assessments as well as poverty and gender related climate impact analyses might be limited.

6.1.2. Review of existing climate and relevant policies

Description: Following the understanding of climate vulnerabilities in the country, this section aims to review the existing climate change policies and the wider context of national socio-economic development strategies and sectoral policies. The review can be conducted through mapping, collecting and reviewing the relevant policy documentations as well as through a series of interviews with subject matter experts, covering the following areas:

- i) *Climate Change Policy Framework:* Map the existing national and sub-national (if available) strategies and action plans in responding to climate change. Further, the existence of climate change action plans at the sector level, for example energy, transport, building, agriculture, and health, amongst others, and at the sub-national level would be a basis for policy coherence analysis later. Going deeper, the review could assess whether climate change actions have been costed and had funding plans (e.g. from domestic and/or external sources). This would support the analysis of linkages between climate actions and expenditure.
- ii) *Other relevant policies:* Climate change policy cannot stand alone but needs to be considered in the context of other national development plans including socio-economic development strategies and other sectoral policies. This session would also need to map other relevant frameworks such as green growth and disaster risk management.

Questions to be addressed

- What does the GHG emission profile at the national, sub-national and sectoral levels look like?
- What are the documentation for climate change policies: strategy/action plan?
- Is there any climate change action plan at the sector level?
- Is climate change a policy theme at the sub-national level? Is there any policy documentation?
- Are there any other sustainable development, green growth and disaster risk management policy frameworks that might have relevance to climate change response?
- How climate change policy is related to national development plans?

Data Requirements

- National climate change strategy and action plans: national, local and sectoral level.
- Research on costing of climate actions (if not outlined in action plans).
- Other strategies and action plans for green growth and disaster risk management.
- Socio-economic development plans, sectoral strategies and policy statements.

Potential challenges

- Scattered or not available information.

6.1.3. Policy Coherence

Description: Overall policy framework coherence is reflected in the way climate change is integrated into the country's development agenda, including poverty alleviation, sustainable development and green growth. Climate policy coherence can be assessed through the linkages and/or gaps between climate actions and the vulnerability areas as well as the GHG emissions characteristics of the country. In addition, policy coherence is reflected through the consistency between high-level sectoral policy statements and climate change action plans in those sectors. Similarly, local government development plans need to reflect the climate change adaptation and mitigation actions relevant for the area. Further, climate policy coherence analysis would

also look into the consistence of the national response and the global agreements on climate change at United Nations Framework Convention on Climate Change (UNFCCC) level.

Questions to be addressed

- How much policy attention does climate change receive within national development planning?
- Are the national climate actions (adaptation and mitigation) responsive to the priority areas identified in the vulnerability assessments? If not, where are the gaps?
- Are the policies and programmes of the government helping the poor and vulnerable cope with climate change impact? Are there policies or programmes that the government includes in its climate change response that are not considered relevant by stakeholders? Why? How does it impact the figures on resources allocation and use?
- Are climate change goals, strategies and action plans consistent with green growth goals and disaster risk management strategies and action plans?
- Optional: Using an internationally established method, such as score card, work with stakeholders to rate a sample of, or all policies and programmes, in terms of relevance and present them and their expenditure in the levels as determined. The number of levels and the terms are open to country's definition.
- Does the national climate change response reflect the climate change commitments and decisions at the UNFCCC and global levels? What is the status of reporting through the National Communications?

Data Requirement

- Policy documentations as per the previous session 6.1.1.
- Interviews with subject matter experts.
- Relevant UNFCCC Conference of the Parties decisions regarding climate commitments.
- Information on the policy formulation process and stakeholders participation.

Potential challenges

- Vulnerability assessments might not have been conducted, at least to a meaningful level, in some countries.
- Conflicting views of the subject matter experts.

6.1.4. Evidence for Policy Making

Description: This section aims to assess whether policy making has been based on sufficient evidence such as research and analysis of climate science, vulnerability assessments of climate impacts and costing of climate actions. Such research and analysis may emanate from the public sector, civil society and private sector.

Questions to be addressed

- Are there scientific assessments of climate change impacts available to the policy-making process? How are these assessments being used during climate policy formulation, including the development of climate change strategies and action plans, at national, local and sectoral levels?
- Are there any gender and regulatory impact statements conducted for the formulation of climate policies?
- In the policy formulation process, was stakeholder participation ensured, and what role did stakeholders have with respect to the responsiveness of policies and programmes to:
 - the potential impact of climate change on vulnerable areas, poor people and vulnerable groups?

- the special needs for climate proofing and adaptation for vulnerable areas and women?
- the economic threats and needs expressed by the professional associations and private sector at large, and to the opportunities for green growth?
- Are any cost-benefit analyses (CBA) or multi-criteria analyses (MCA) conducted to support the policy recommendations?

Data Requirements

- Scientific climate impact and vulnerability assessments.
- Documentations of inputs from community levels on climate change impacts, using tools³ such as Community-Based Adaptation⁴ (IIED), Community Vulnerability & Capacity Analysis Framework⁵ (CARE International), CrisTAL⁶ (IISD), etc.
- Cost benefit analyses or multi-criteria analyses for climate actions (mitigation and adaptation).

Potential challenges

- Scattered data (especially inputs from community levels).
- Lack of information (for example cost benefit analyses).

6.1.5. Monitoring & Evaluation Framework

Description: The objective of this section is to review the monitoring and evaluation (M&E) framework for each climate change strategy, action plan and policy. The section would assess if there is any general monitoring framework for the national climate change strategy and action plan, and if it is up-to-date. It would also help to assess if the M&E framework is being used for the implementation and evaluation of the strategy and the action plan. For mitigation policies and Nationally Appropriate Mitigation Action (NAMAs)⁷, the assessment would cover the extent to which a domestic monitoring, reporting and verification (MRV) framework has been developed and/or whether any other MRV system has been adopted from donors or international organizations. For adaptation policies, the assessment would map if there is any overarching M&E framework for adaptation actions in general and/or whether there has been any attempt in developing an M&E framework for individual adaptation policies. The existence and usefulness of a monitoring framework for national climate finance funds should also be assessed if such funds are operated or being developed in the country.

In particular, a pro-poor and gender-sensitive CPEIR would be interested in an M&E framework that assesses climate actions and their implications to development goals. One of the tools in this field is the Tracking Adaptation and Measuring Development (TAMD) Framework developed by IIED (see Figure 3). The TAMD provides a useful tool to assess whether climate change policies and action plans enhance or compromise development overall. It measures how fairly the costs and benefits of climate change projects are distributed and helps to identify where to spend future investments. As such, this will bring better management and more accountability in how climate policies are implemented and how climate relevant investments are made.

3 More of these tools to assess vulnerability, impacts and adaptation can be found in UNEP's PROVIA Guidelines: <http://www.unep.org/provia/>

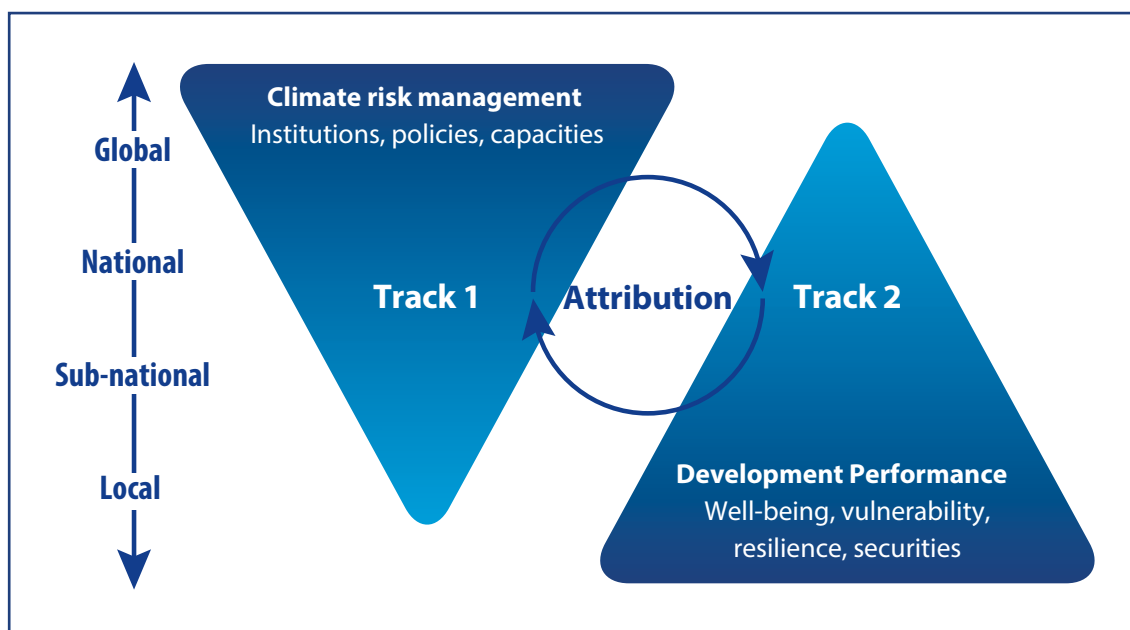
4 <http://www.iied.org/community-based-adaptation-climate-change>

5 http://www.careclimatechange.org/tk/integration/en/quick_links/tools/climate_vulnerability.html

6 Community-based Risk Screening Tool – Adaptation and Livelihoods (<https://www.iisd.org/cristaltool/>)

7 Nationally Appropriate Mitigation Action: NAMAs refer to any action that reduces emissions in developing countries and is prepared under the umbrella of a national governmental initiative. They can be policies directed at transformational change within an economic sector, or actions across sectors for a broader national focus (UNFCCC).

Figure 3: TAMD Framework (IIED)



Source: Brooks, N., Anderson, S., Burton, I., Fisher, S., Rai, N. and Tellam, I., 2013, An operational framework for Tracking Adaptation and Measuring Development (TAMD), IIED Climate Change Working Paper No.5, IIED.

Questions to be addressed

- Is there a monitoring framework for national climate change strategy and action plan? Is the framework coherent? Are there gaps in their coverage? Has there been a baseline established?
- Are the data inputs used for monitoring purposes up-to-date? How is data quality assessed?
- What is the MRV framework currently being used for mitigation policies and NAMAs, if any? What are the challenges in developing and implementing the MRV framework for mitigation?
- Is there any overarching M&E framework for adaptation? If so, what are the challenges and lessons learnt in adopting such M&E framework?
- If the country has national climate funds, what is the monitoring framework for such funds?

Data requirements

- Documentations in relation to a monitoring framework for national climate change strategy and action plan.
- MRV guidelines for mitigation actions.
- M&E framework for adaptation policies or projects.
- Monitoring framework for national climate funds (if applicable).

Potential Challenges

- Expertise: Monitoring/MRV/M&E frameworks are still being developed and evolving in the field of climate change response. It requires research and expertise to identify and evaluate such frameworks.

6.1.6. Measuring Policy Change

Description: The objective of this section is to measure policy change by assessing new climate actions formulations, which were enabled by the overarching climate change policy framework. The analysis can look into which policy instruments are adopted, their sectoral coverage and their targets. Table 1 provides a set of indicators to assess the changes in those three dimensions over time.

Table 1: Dimensions and Indicators of Policy Change

Dimensions and indicators of policy change ⁹	
Dimension	Indicators
Diversity of policy instruments	Change (increase/decrease) in types and number of policy instruments
Coverage of policies	Change in sectors covered by the policy; gap mapping
Existence and clarity of policy targets	Change in policy targets for the sector/industry included in the policy instruments

Questions to be addressed

- What are new climate policy actions enabled by the overarching climate change policy framework?
- What are the policy instruments adopted for those climate policy actions, and their coverage?
- What are the changes in terms of the diversity of policy instruments adopted, the sectors to be covered and the policy targets (if any)? How are the changes explained?
- Are there plans to address specific sectors or industries not currently covered by these policies?

Data Requirements

- Climate policy actions by sector and industry.
- National and sector policies, strategies and actions plans.
- Specific instruments on tax, subsidies, regulations regarding pollution abatement, emissions, activities on forestry, etc.

Potential Challenges

- Significant data scanning required at sectoral and industry levels.
- Policy targets might be available for some sectors only.

6.2. Institutional Analysis

6.2.1. Institutional Arrangements within the Budget and Planning Process

Description: This section aims to provide an overview of the existing decision making process for translating climate policies into budget allocations and expenditures (i.e. integrating climate change into budgeting process). It also looks at which institutions have a role in this process, their existing capacity and opportunities to strengthen their capacity. The analysis starts with an overview of the budgeting and planning process of the country under review and the institutional arrangement for coordination of climate policy formulation and budget submissions.

The consistency between planned and actual spending as well as the link between costed plans, programmes, medium-term budget and annual budgets also need to be assessed in a CPEIR. It will also identify the roles of finance and planning ministries as well as climate change department and other sectoral ministries in that budgeting process. Such analyses help to identify potential weaknesses in the policy-budget linkages and areas of political economy dynamics around budget and budget execution. Data to be collected to assess the key stages in transmitting policy into expenditure includes:

8 Christoph Knill, Kai Schulze and Jale Tosun, "Measuring environmental policy", Institute for Advanced Studies, Vienna; October 2011 (Link: https://www.ihs.ac.at/publications/pol/pw_125.pdf)

- Costing of policies and programmes: agreed costed plans by Cabinet that serve as a basis for budgeting.
- Medium term expenditure allocations: If the country uses a medium term expenditure framework (MTEF)⁹, the allocations to the programmes should be compared to the costed plans.
- Annual budget allocations.
- Budget release: Corresponds to the authorization for commitment and payment issued to spending entities based on cash profile.
- Outturns: What was reported as spent.

The variation between these stages of the budgeting and expenditure cycle is the basis for analysing how policy intent is transmitted through the budget, and the enablers and disablers of policy transmission. This may include public finance management (PFM) system weaknesses such as over optimistic fiscal forecast, weak or absent commitment control, underperforming revenue collection, unreliable short-term domestic debt management, absence of procedures for investment appraisal and impact assessment (environmental, social, climate change), use of policies as political statement decoupled from fiscal feasibility, budget execution decoupled from approved budget (this is not always verifiable due to weak internal controls and inaccurate accounting and financial statements).

Questions to be addressed

- What is a typical budgeting and planning process of the country?
- Is there an institution which is in charge of reconciliation of climate change related policies with the fiscal framework and budget framework?
- Are there factors at budgeting and budget execution stages that might have put climate change programmes in lower priority? (Interviews and use of PEFA PI-11/ PI-16/PI-27¹⁰).
- Do the relevant ministries/institutions have the necessary capacity to do the costing for climate change programmes? Are there differences between costing, allocations and expenditures in the climate change programmes under review? (Use of PEFA PI-12).

Data requirements

- Cost estimates agreed by Minister/Cabinet, medium term budget allocations where available, annual allocations, cash releases and outturns (expenditure).
- Data source: Ministry of Finance or Line ministries, Annual Financial Statements audited or as submitted to the Ministry of Finance or Supreme Audit Institution (SAI).
- Analysis where PEFA reports exist and other PERs, of the distribution of budget cuts across ministries.

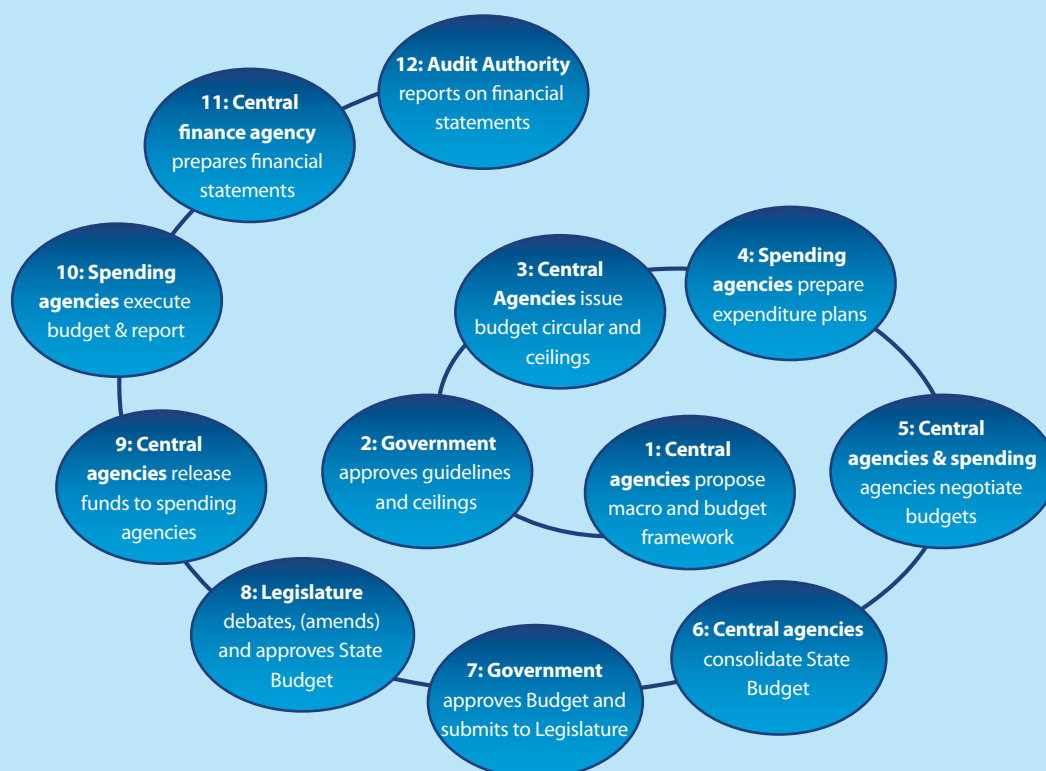
Potential Challenges

- Lack of data availability, especially outturns data for the time period under review.
- Data quality can vary.

⁹ MTEF can be one of the tools to improve coordination between planning and budgeting at all levels of government.

¹⁰ The PEFA framework indicator set is in Annex VII. The PEFA methodology and reports can be found on www.pefa.org

Box 1: A Stylised Budget Process



1. The central finance and planning agencies initiate the budget process 6-9 months before the start of the fiscal year by preparing a pre-budget policy document that lays out the macroeconomic framework and proposes the broad allocation of resources in line with government plans and policies.
2. This policy statement is generally approved by the government.
3. The central finance and planning agencies issue a budget circular which contains instructions and policy guidance based on this policy statement. This document will lay out the resource allocations that agencies should use for budget formulation; this is typically an agency budget ceiling broken down by major categories of expenditure (i.e., capital investment, payroll, and other recurrent expenditures). In some cases, central agencies may specify allocations related to major government policy objectives or for major programs, and to distinguish the expenditures for ongoing and new policy initiatives.
4. Agencies prepare budget proposals that allocate resources between departments, programs, and projects in line with sectoral policy and submit these to the central agencies.
5. The central finance and planning agencies assess whether each agency's proposal is within expenditure limits and aligned with the government's policy objectives. Since agency proposals often exceed budget ceilings or differ in their interpretation of the government's priorities, each agency's final budget is usually the product of negotiations between the central agency and the spending agency.
6. The central finance agency consolidates agency budgets into a state budget.
7. The state budget is approved by the government.
8. The state budget is submitted to the legislature appropriations committee for legal authorization to spend funds. In most parliamentary systems, the legislature has limited authority to alter the budget proposal submitted by the executive. In many congressional systems, the legislature may adjust agency and program allocations, usually within the overall expenditure limits set by government.

9. Once the budget is approved, the central finance agency releases funds to spending agencies according to the availability of funds in the central treasury account, rationing funds allocated to spending agencies as necessary.
10. Spending agencies execute the budget and implement plans, providing periodic reports on progress. These reports should include information on any expenditure that is not executed through the central treasury account. Some countries have institutionalized a formal mid-year budget review to adjust allocations across the whole of government. Others adjust agency allocations on an ad-hoc basis as needs arise. Adjustments to the legislature's appropriations require a legislative budget amendment.
11. Final accounts are usually prepared within 3-6 months of the end of the fiscal year.
12. Final accounts are subject to an independent audit within 6-12 months of the end of the year.

Source: CPEIR Sourcebook (World Bank, 2014)

6.2.2. Assessment of Climate Policy Coordinating Mechanism

Description: Following the understanding of the decision-making process in relation to translating climate change policies into budget allocations and expenditures, this section provides an overview of the climate change policy coordinating mechanism and an analysis of the effectiveness of such mechanism, for better pro-poor and gender-sensitive climate change response.

The overview will provide the basis to identify the gaps and challenges (if any) as well as opportunities in strengthening the national climate policy coordinating mechanism. It will determine if a lead agency exists, which has the formal mandate for coordinating climate policies as well as a cross-agency institutional set-up to ensure climate policy oversight and coordination across different sectors. The review would specifically identify the extent to which finance and planning ministries are engaged in the climate policy coordination process.

The analysis would then assess whether there is a formal coordinating mechanism and the challenges for the coordinating agency to fulfil their roles and responsibilities. In some countries, there is no formal coordinating mechanism which might mean that several institutions take up the role of climate change coordination. As such, there might be issues with conflicting or overlapping roles and responsibilities between different institutions. In some other countries, the Ministry of the Environment or a dedicated climate change agency has a formal mandate to coordinate climate change policy formulation and implementation. In some cases, in addition to a coordinating agency, there are also cross-agency committees, at ministerial and/or technical levels. However, even though a formal coordinating mechanism exists, there are still significant challenges in ensuring climate policy formulation and implementation to be well coordinated and receive meaningful engagement from relevant line ministries, including finance and planning ministries. The challenges could include lack of leadership and awareness of climate change issues at the line ministries to engage in climate change agenda, lack of allocated resources and capacity within the line ministries to take up "additional" responsibilities. Further, the cross-agency institutional arrangement might still be weak, for example, not being able to meet regularly, absence of key members at meetings due to busy schedules, not adequately informed to provide quality guidance.

Given that climate change responses would require engagement from many different actors, this Guidebook recommends that the various stages of the CPEIR include a further assessment of the climate policy coordinating mechanism by conducting a political economy analysis (PEA). Box 2 explains how PEAs assist in unpacking the institutional challenges in the country's climate change policy agenda and implementation. Many of the guiding questions that are included in this methodological assist in understanding the political economy of a given context.

Box 2: Political Economy Analysis and Climate Finance

What is Political Economy Analysis (PEA)?

According to the OECD-DAC, "political economy analysis is concerned with the interaction of political and economic processes in a society; including the distribution of power and wealth between groups and individuals, and the processes that create, sustain and transform these relationships over time".

Why is PEA relevant to climate finance?

Climate change finance is increasingly being seen as a political rather than just a technical issue, requiring governance structures and negotiations between institutions, varying interests, and different ideologies. Climate change is not an extension of Official Development Assistance (ODA), but a process that involves complex issues related to equity and shared responsibility.

Given that climate change response requires engagement from many different actors, a PEA can help understand the interests and incentives of different stakeholders that exist to make the delivery of climate change finance more effective. A PEA can also help establish a baseline of actors, formal institutions, understand what change is feasible, and what is not, and finally, help to match different possible finance options to national conditions. A PEA can also assist in identifying influential decision-makers and likely champions for change. Some of the key benefits of a PEA include:

- i) **PEA is useful not only to understand partner governments, as well as development partners** – Decisions taken by development partners are as much driven by their own political economy considerations, as are those taken by partner countries. Understanding the incentives driving the decisions of development partners in their interaction with partners is equally significant.
- ii) **Power relations are important to define incentives** – Relations between different stakeholders can be key determinants in affecting change, or blocking it. While formal mandates and responsibilities are assigned to every institution, it is often the informal dynamics that drive actions.
- iii) **Identifying who the most influential decision makers are, particularly likely champions for change** – Engagement with stakeholders that are likely to wield more influence over processes, and have more decision-making leverage is an important step in consolidating partnerships for change. Such champions for change can bring in the required political will and commitment required for reform and progress.
- iv) **Understand who benefits and who loses from specific interventions, and monetize the effects** – This is fundamental to understand and address, as those who are likely to gain less (or lose) may be important actors who hinder progress. Their legitimate fears and concerns about forthcoming change need to be understood, and options to alleviate the consequences should be identified.
- v) **Understand the importance of information and its influence on power relations** – Only well-informed decision makers can make their contribution to better and effective climate change delivery. This requires clear communication mechanisms between stakeholder groups to foster dialogue and enhances the ability to strengthen accountability structures within climate change finance governance structures

Potential challenges

There is reservation about PEA's feasibility, and what the most effective way would be to conduct such analyses given the sensitive topics that it tries to address in some cases.

Source: Summary Report of the UNDP-GIZ, "Governance Challenges in Climate Change Finance – Understanding the Political Economy," Workshop (Dec, 2013).

In addition, it is recommended that this section should also assess the capacity and responsiveness of the climate-relevant institutions to poverty alleviation and gender equity goals. The assessment will identify the relevant agencies/ministries and the institutional arrangements which are mandated to coordinate the poverty and gender agenda of the country (if any). It will then assess how these poverty and gender focused institutions and mechanisms have been engaged in the climate change policy dialogue and coordination. Finally, the assessment would also look at how poverty and gender policy objectives have been mainstreamed in climate change institutions and whether these institutions have sufficient capacity to integrate poverty and gender considerations into climate change policy formulations.

Questions to be addressed

- Climate Change Policy Coordinating Mechanism:
 - Is there a formal coordinating agency? If not, which agency is (informally) assuming that role at the moment? If yes, what is/was the reasoning for appointing such agency as the formal coordinating agency?
 - Is there clarity in the mandates and jurisdiction of the entities tasked with coordinating climate policy design? What is the capacity and level of resources allocated to the coordinating agency (if formally mandated) in order to take up their responsibilities?
 - Does the coordinating agency have the leverage to convene other key stakeholders?
 - Does the coordinating agency have a presence at the sub-national level?
 - Is there a formal cross-agency institutional arrangement? At which level, ministerial and/or technical working group level? How are finance and planning ministries involved in such institutional set-up?
 - Are there clear institutional arrangements between ministries and institutions to ensure cross-agency dialogue and coordination of climate policy design and implementation? Are such cross-agency institutional arrangements effective in providing climate policy coordination and oversight?
 - What is the level of engagement and oversight from the top leadership such as the President Office or Office of the Prime Minister?
 - What is the level of awareness of climate change issues at line ministries and relevant institutions? Similarly, do they have the capacity and resources allocated to respond to sectoral climate policies? Is there capacity building programme for line ministries to understand climate change issues and link climate change to their work?
- Poverty and Gender Sensitive Analysis:
 - Has the climate change coordinating agency appropriately mainstreamed poverty and gender? What are the existing gaps (powers, resources, capacity)?
 - Who are the key ministries and stakeholders (CSOs) mandated to deliver on poverty and gender policy objectives in the country? Are they involved in the climate change policy coordinating mechanism? Do they have the resources and capacity to do so?

Data requirements

- Documentations (e.g. national climate change strategy and action plans, sectoral climate response and policy statements etc.) which might prescribe a lead coordinating agency and institutional arrangements between ministries for coordination purposes.
- Organizational organograms of climate coordinating agencies and other relevant line ministries, including finance and planning ministries, as well as poverty and gender related agencies.
- Capacity assessments for relevant institutions,
- Interviews with subject matter experts.

Potential Challenges

- Lack of information, especially on capacity assessments.
- Views from subject matter experts might vary or not be candidly expressed.

6.2.3. Sub-National Governments Analysis

Description: In addition to the analysis of institutional coordination at central level described above, this section focuses on the administrative and political structures that enable policy coordination at the sub-national level as well as fiscal transfers to finance the policy implementation. The section should also assess the capacity of the local authorities to make plans in consultation with the communities and to deliver the services. It can cover their capacity to coordinate with central ministries and a capacity gap assessment for implementing climate change activities. It can include their capacity to manage large-scale projects.

Questions to be addressed

- What are the current administrative and political structures linking between sub-national governments (SNGs) and central government? What are the jurisdiction and responsibilities of SNGs in implementing national climate change response?
- What are the coordinating mechanisms between central government and SNGs for climate policy design and delivery? Is this a formally recognised arrangement, or is it an informal set up? Does the national climate change coordinating body have a presence at local level? If not, what is the vehicle through which they coordinate? In a federal set up, or in a highly decentralized setting, are there climate related regulations at the local level that contradict what exists at national level?
- Do SNGs have the control of the funds allocated to climate change activities? Is part of locally raised revenues used towards climate change activities?
- Are there clear and practical instructions from central government to SNGs on the policies developed and their financing through the national budget and local budgets?
- Is there any technical support to SNGs on developing plans and projects or proposals for special climate funds?
- What is the level of awareness of climate change issues in the local governments? Is there any capacity building programme to local government staff?
- Do SNGs have sufficient human resource capacity and capability in assessing their climate vulnerabilities and integrating climate change in the local development plans and policies?
- What is the current channel that SNGs use to provide economic and social support to the poor and vulnerable, especially women? Do SNGs have the capacity to deliver climate finance to the poor and address climate impacts on vulnerable groups, especially women?

Data Requirements

- Laws and regulations on decentralisation and sub-national authorities.
- Climate change policy documentations relating to the responsibilities of local governments in implementing climate change strategies and action plans (sometimes incorporated in the strategy and action plans themselves).
- Interviews with SNGs and communities.

Potential Challenges

- There might be variations from reality and documented roles and responsibilities of SNGs in relation to climate policy design and implementation.
- Lack of comprehensive or meaningful assessments of capacity and capability at SNGs in climate policy and climate finance delivery.

Box 3: Linking National and Local Adaptation Planning: Lessons from Nepal

Delivering national climate adaptation plans at the local level can deliver co-benefits if...

- Social exclusion is addressed. The poorest and most marginalised groups of people complain of being excluded from development planning and decision-making and not being able to access state resources.
- The process is used to refresh development efforts that focus on the most vulnerable and marginalised people. The narrative on climate change in Nepal emphasises inclusive governance and a commitment to using available funds for local level implementation.
- Mechanisms for improving chains of communication are developed. Effective communication can help to reduce the mismatch between autonomous and planned adaptation, facilitate the use of traditional knowledge in planning processes, and theoretically lead to more successful adaptation interventions because they have community support.
- Support for governance reform and capacity development is continued. This may well be one of the most effective ways in which donors can contribute to enhancing the prospects for the LAPA in Nepal.

Having an appropriate structure that matches with the organizational circumstances and context improves the effectiveness of the organization in meeting its strategic goals and objectives.

However, a structurally sound organization is only part of the successful approach for managing climate change adaptation. Successful uptake of LAPA as a national framework also depends on how effectively the framework links local planning units responsible for implementing LAPAs on ground with national and regional units responsible for planning, coordinating and allocating resource. The implementation design strategy of LAPAs is thus critical for facilitating climate change adaptation action.

Source: GoN, 2011. National Framework on Local Adaptation Plans for Action. Government of Nepal, Ministry of Environment, Climate Change Management Division. Singha Durbar, Kathmandu.

6.2.4. Accountability Institutions

Description: This section aims to provide an overview of the institutions whose role are to ensure accountability of those formulating and implementing climate policies,¹¹ as well as an assessment of their capacity to do so.

The accountability institutions include the following, but are not limited to:

- The institution tasked with the policy coordination and monitoring of climate change issues and impact
- The Supreme Audit institution
- The institutions to whom the government answers to in terms of its climate change policies or lack thereof, its implementation and associated spending. For example, in parliamentary system, Parliament and specialised Parliamentary Committees (such as Investment, Poverty, Environment, and Finance) are key accountability institutions. The role of Parliament and its committees is essential as they would have impacts during different budgetary stages: budget speech, budget hearings, budget debate, and questioning the executives on budget execution.

Other non-state actors such as CSOs, private sector, media etc. would also be important stakeholders in providing cross-checking by way of monitoring, reviewing and challenging budgetary and policy implementation reporting. In some cases, donors might establish their own accountability mechanisms, especially in relation to projects and programmes they fund, including climate change projects.

¹¹ In this Guidebook, we call these institutions “accountability institutions.”

This section would first map out the relevant accountability institutions currently working in the national context and assess the extent to which they are involved in climate change issues. The assessment would need to also consider the level of awareness of climate change issues and recognition of its importance to/ the national development agenda. Further, the institutional capacity and capability to fulfil their role as accountability institutions also need to be assessed. This section could also identify donors' accountability mechanism on climate change projects and assess whether it is aligned with and complementing national accountability system. Media as an institution should also be included in this section. The frequency, quality of information and scope of opinions could be assessed. This may need online reviews. The UN Global Pulse initiative provide a tool for providing analysis on climate change related issues that are posted online. It is important to note that the list of accountability institutions mentioned here is only to provide guidance and by no means is prescriptive. The importance and effectiveness of each of these accountability institutions depend on the national context such as their administrative and political structures which the analysis should make sure to reflect.

This section would also assess the availability of climate change monitoring information relating to climate policy implementation and spending. Information availability is important in enabling accountability institutions to monitor and scrutinize climate policy implementation and climate finance delivery. Two key sets of information relating to accountability are: financial and policy results. Financial accountability information is what a government regularly publishes on its budget and its execution. Policy results information would be public reports from the central and local governments' monitoring system and evaluations conducted for climate programmes and policies.

Questions to be addressed

- What institutions are currently ensuring accountability of policy implementation and government spending? Do they include climate change as part policy issues under their mandates? What is the level of awareness and capacity of these institutions in including climate change in their work programmes?
- Do donors establish any accountability mechanisms for climate change related projects and programmes funded by them in the country? Are these mechanisms effective in complimenting and strengthening the domestic accountability institutions?
- Does the media cover climate change issues? What is the level of awareness and understanding of media institutions on climate change issues?
- Are monitoring reports and evaluations of climate change strategies, programmes and action plans publicly available and current?
- Has the Supreme Audit Institution published any report on "environmental and/or climate change policy performance"?
- Are budget execution reports on climate change programmes made available (if any) and variation between plans and execution explained?
- How useful is such information for CSOs and other accountability institutions?

Data Requirements

- Existing accountability analysis reports:
 - Analysis of PEFA on indicators PI-6 and 10 (covering the available budgetary documentation to the Parliament and to the Public), PI-25 (on annual financial reporting), PIs 26, 27 and 28 (on External Control and Oversight).
 - The Open Budget Index, developed by the Open Budget Partnership, using 100 tests.
 - The Supreme Audit Institution (SAI) Annual Report, SAI Performance Management Framework reports.
 - Parliament Hansards, Parliamentary Committee Reports (if applicable).

- Climate strategy and policy/project progress reports and evaluations.
- Budgetary execution data on climate change programmes.
- Interviews with CSOs and think tanks.
- Media reports, Global Pulse analysis.

Potential challenges

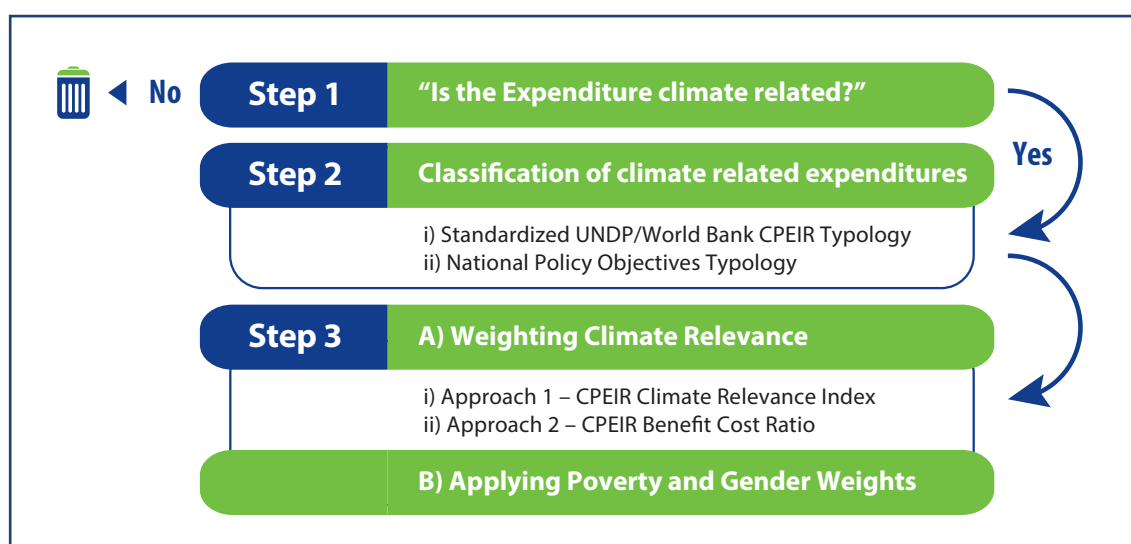
- Lack of information publicly available

6.3. Climate Public Expenditure Analysis

This section outlines some of the required steps in order to identify and estimate how much the government is spending on climate change related activities. It starts with the data collection and deciding whether the expenditure items are climate relevant (answering the question “Is the expenditure climate change related?”). After excluding the non-climate change related expenditures from the analysis, the next step is to classify the climate related expenditures. There are two approaches that this Guidebook recommends, namely: i) Standardised UNDP/World Bank CPEIR Typology and ii) National Policy Objectives Typology. The data can, in addition, be grouped in accordance with key climate change topics such as mitigation and adaptation. Once climate related expenditures are classified, the proportion of the expenditures that is related to climate change can be assessed by applying the weight of climate relevance to these expenditures.

This Guidebook outlines two approaches in applying the weight: i) Approach 1 – CPEIR Climate Relevance Index and ii) Approach 2 – CPEIR Benefit Cost Ratio. These two approaches are not mutually exclusive and the decision of which one to use would depend on the level of data available for the analysis. Following the application of climate relevance weighting, a pro-poor and gender sensitive CPEIR would also apply the poverty and gender weightings to these expenditures. Figure 4 provides a schematic overview of these steps.

Figure 4: Schematic Overview of Climate Public Expenditure Analysis



We also recommend that the CPEIR identify and analyse other types of expenditures and investments that might have climate change implications and are not yet included in the climate public expenditure analysis above, including: “negative” expenditures, fiscal instruments (tax, tax breaks, subsidies), SOE and PPP investments.

6.3.1. Data Classification for Climate Public Expenditure Analysis

The first step in analysing and quantifying climate relevant expenditures is to identify which government policies and programmes are relevant to climate change. Currently there is no agreed international functional classification of climate change related expenditure. This creates significant challenges for data collection and classification for CPEIR analysis. At the country level, there is usually no marker for climate change in the budget, although some countries like Indonesia, Nepal, and the Philippines have started to develop such mechanisms. However, many developing countries are currently implementing fundamental public finance management reforms, strengthening the financial administration system. Modifying budget classifications and Chart of Accounts to incorporate climate change can be a risk to these reform efforts. Further, in the absence of a common classification, comparisons across time and/or between countries are limited, which may pose difficulties to assess trends and limit opportunities to learn from other countries' experiences. To address these issues, this Guidebook proposes tools to guide data collection and classifications of expenditure data, enabling trends analysis and cross-country comparisons, using either a standardised UNDP/World Bank CPEIR Typology and/or a National CPEIR Typology.

Data Collection Guide

The first challenge relates to identifying climate change expenditures within the national budget so that the most important aspects of public spending can be analysed. This requires that information about planned and actual spending on climate change related activities (at a sufficiently disaggregated level) can be identified. The CPEIR team has to work closely with colleagues in ministries of finance and environment to identify and validate these expenditures.

The national budget expenditure codes (in both the developmental and non-development budgets if compiled separately) – as well as externally funded programmes – need to be identified using expert judgement and all available budget and programme documentation, including MTEF descriptions.¹² The whole-of-government Chart of Accounts should be reviewed to ensure that the administrative structure of government does not prevent integrating significant elements of spending in parts of government beyond a prescriptive list of candidate ministries. It is important that budget line activities are identified in addition to administrative structures.

However, if time and resources do not permit such comprehensive reviews, some pointers that may be considered to reduce the workload include: (i) identifying key sectors/ministries/administrative responsibilities; (ii) identifying non-budgetary funds from key sectors ; (iii) identifying climate related codes from the administrative and/or the functional classification of the budget.

CPEIR Typology for Data Classification

Standardised UNDP/WB Typology

One of the tools for climate expenditure data classification is a standard typology, derived from the jointly UNDP/World Bank supported CPEIR in Viet Nam. As described in the table below, the typology has three pillars classifying all policy actions and allocated resources: Policy & Governance (PG); Scientific, Technological and Societal Capacity (ST), and Climate Change Delivery (CCD). It also has three levels of classifications, capable of analysing enabling activities (such as capacity building) as well as delivery of specific sectoral programmes. Also, the typology

12 The MTEF Description is intended to explain the level of development and use of MTEF as part of the budget cycle.

provides a sufficiently detailed framework for classifying all types of expenditures (recurrent/capital, taxes/subsidies or mitigation/adaptation) and by sources (domestic and foreign). Through this detailed framework, the typology allows comparability over time and across countries. If a country's policy objectives change overtime, it should be reflected in shifting allocations. If a country's institutional setup changes but not its policies, the impact on the trends of resource allocation can be monitored.

Table 2: Proposed CPEIR Typology

Typology as used in the joint UNDP/World Bank supported CPEIR in Viet Nam		
Policy and Governance	PG1: A national framework for adaptation and risk reduction	PG1.1 Develop climate change adaptation guidelines and technical regulations
		PG1.2 Develop/adjust policy, planning and mechanism for climate change response and implementation across government, enterprises and communities
		PG1.3 Manage and monitor implementation of adaptation policies
	PG2: A comprehensive consistent national mitigation policy framework	PG2.1 Establish policy, tax and incentive structure for new and clean energy, energy efficiency and low GHG emission
		PG2.2 Develop/ adjust sectoral plan and coordinate implementation among departments, enterprises, and provinces
		PG2.3 Manage and monitor implementation of Mitigation policies
	PG3: Action Plan Impact Assessment at national, provincial, and sector level to translate policy and governance into activity and delivery	PG3.1 Action and Sector Plans
		PG3.2 Climate change Impact assessments
		PG3.3 Climate change Capacity building
	PG4: Legal framework to implement climate change policy (all elements of climate change/green growth policies)	PG4.1 Mitigation instruments
		PG4.2 Adaptation instruments
		PG4.3. Mitigation and Adaptation Instruments
	PG5: International cooperation, integration and diversification and strengthening of climate change investment effectiveness	PG5.1 Strengthen cooperation and partnership with international community on climate change issues
		PG5.2 Effective management and coordination of foreign and domestic investment

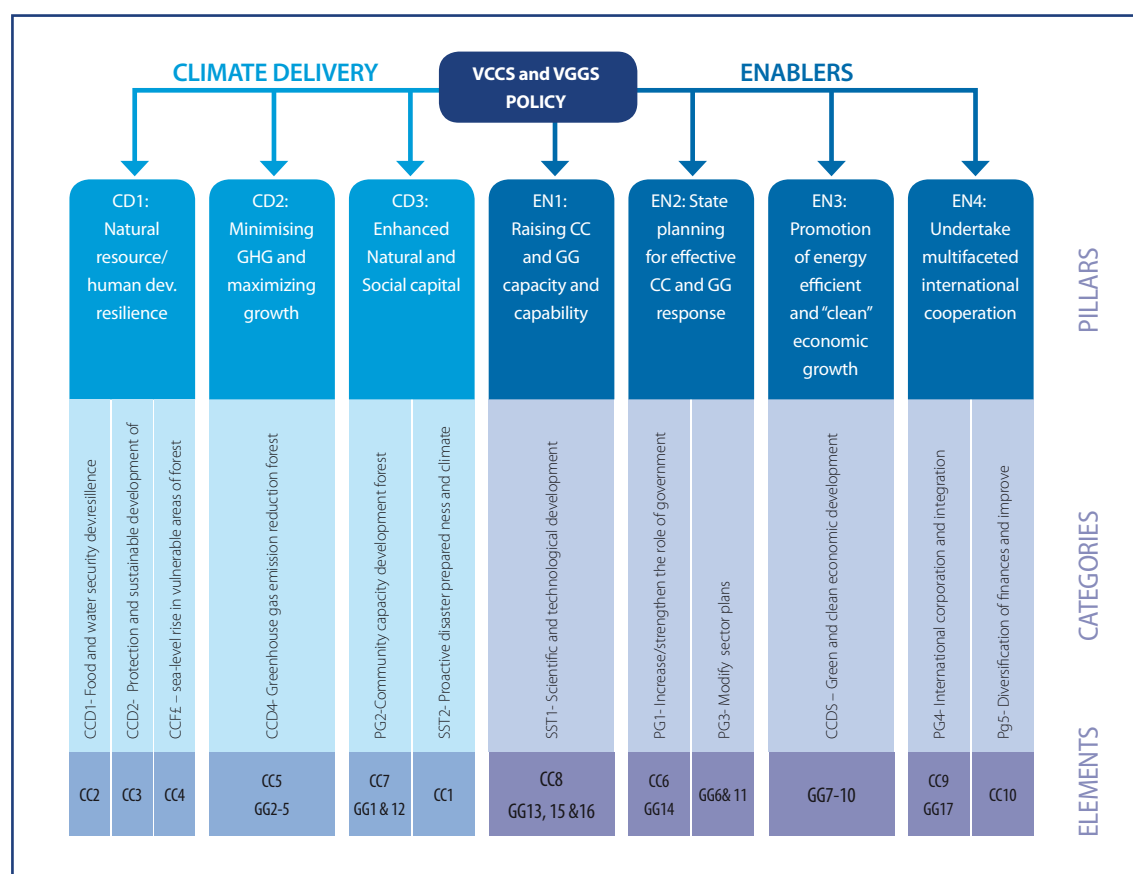
Typology as used in the joint UNDP/World Bank supported CPEIR in Viet Nam		
Scientific, Technical and Societal Capacity (ST)	ST1: Develop science & technology as a foundation for formulating policies, assessing impacts and identifying measure on climate change adaptation and mitigation	ST1.1 Information and database development
		ST1.2 Hydrometeorology and early warning system and climate change projection
		ST1.3 Biological & genetic resource strengthening
		ST1.4. Survey and assessment on climate change impacts
		ST1.5 Technology for energy efficiency and low GHG emission
	ST2: Improve awareness of climate change	ST2.1 Climate change awareness building in curriculums of primary to higher education establishments
		ST2.2 Awareness of climate change in diverse education and training initiatives for post-school aged earners
	ST3: Develop community capacity for responding to climate change	ST3.1 Support livelihood building for communities in the context of climate change
		ST3.2 Capacity across whole community in climate change response
Climate Change Delivery (CCD)	CCD1: Natural resources	CCD1.1 Coastal protection and coastal dykes
		CCD1.2 Saline intrusion
		CCD1.3 Irrigation
		CCD1.4 River dyke and embankments
		CCD1.5 Water quality and supply
		CCD1.6 Rural development and food security
		CCD1.7 Forest development
		CCD1.8 Fisheries & aquaculture
		CCD1.9 Biodiversity & conservation
	CCD2: Resilient society	CCD2.1 Public health & social service
		CCD2.2 Education and Social Protection
		CCD2.3 Residential and city area resilience
		CCD2.4 Transport
		CCD2.5 Waste management and treatment
		CCD2.6 Disaster specific infrastructure
		CCD2.7 Strengthening disaster risk reduction
	CCD3: Enterprise and production	CCD3.1 Energy generation
		CCD3.2 Energy efficiency
		CCD3.3 Infrastructure and construction
		CCD3.4 Industry & trade
		CCD3.5 Tourism

It is important to note that the proposed CPEIR typology is not intended to establish any model for policy and institutional framework but rather is an analytical tool to allow comparisons.

When a new typology is applied, it is standard practice to develop practice notes or field guide notes as done in the case of the PEFA framework. This can encourage a consistent application using feedback from practitioners on how they applied the typology in specific cases. Application

notes would cover specific sectors where Climate Change Delivery happens, type of expenditures and programmes, taxes and subsidies, helping build a database for a consistent application. This would ensure comparability overtime and across countries, within reasonable margins of errors; i.e. trends are sufficiently clear to allow for making analysis and taking decisions (for example, how to report water projects implemented by local governments or the construction of an embankment by the ministry of environment).

As in the case of Viet Nam's CPEIR, another approach was used to classify climate relevant expenditures which is to assess national climate change policy priorities against the state budget. The national policy priorities are most likely based on the strategic areas and themes for actions from government's climate change strategies and action plans. For example, in Viet Nam's CPEIR, the main references to the government's key strategic priority programmes are included in the National Climate Change Strategy, National Climate Change Action Plan and Viet Nam Green Growth Strategy (see Figure 5). Meanwhile, in Bangladesh, the key six themes of the Bangladesh Climate Change Strategy and Action Plan (BCCSAP 2009) were used to define the national policy priorities for addressing climate change.



6.3.2. Weighting Climate, Poverty and Gender Relevance

Following data classification, in order to quantify climate relevant expenditures, the next step of climate relevant expenditure analysis is to identify and applying the weighting of relevance to climate change of these policies and programmes. The relevance to climate change of policies and programmes depends on the responsiveness to the estimated current and potential impacts of climate change on different population groups (the poor, vulnerable and disadvantaged groups, women and children), different geographic areas and different institutional capabilities to deliver services.

Some programmes are wholly relevant, such as those developing climate change adaptation and mitigation policies or researching the impact of climate change. However, some programmes that address the development gap and already existing climate challenges may only provide additional benefits under climate change circumstances. To appreciate how resources are dedicated to policies and programmes responsive to the impact of climate change, it is thus useful to weight the allocation and expenditure data collected.

The CPEIR lessons learnt paper¹³ and the Climate Responsive Budgeting Workshop¹⁴ have highlighted the need to define relevance in terms of responsiveness of policies and their programmes to the vulnerability of people and areas to climate change. This is however a challenging task that requires a significant analysis of vulnerability that may not always exists.

Vulnerability should be defined in the national context. To do so, CPEIRs should use existing vulnerability assessments developed. Those may include the national reports on climate change impacts, vulnerability and adaptation submitted to the UNFCCC; the information on the impact of vulnerability and adaptation to climate change synthesized by the Intergovernmental Panel on Climate Change¹⁵; country-level climate profiles by international organisations such as UNDP or the World Bank; or more focused assessments prepared on an ad-hoc basis, on specific communities, thematic sectors (e.g. agriculture, water, health, infrastructure) or focusing on specific locations (e.g. coastlines, cities, regions), using set methodologies and tools.¹⁶ In defining vulnerability, particular attention should be given to the poor, and vulnerable groups, women and children. It is suggested to review available information on vulnerability to climate change and where possible use information or undertake an analysis of poverty and gender of climate change.¹⁷

13 *Draft Lessons Learnt Paper, Climate Public Expenditure and Institutional Reviews (CPEIRs)*. ADELANTE Knowledge and Development, 2014

14 Climate Responsive Budgeting CRB Workshop held in Bangkok, Thailand, 5 to 7th November 2014,

15 "Contribution of the Working Group II to the Fourth Assessment Report (AR4) of the IPCC" (updated 2013, IPCC). Also: "Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation" Special Report of the Intergovernmental Panel on Climate Change, 2012" provides maps with estimates of increase return period of climate extreme events (dry days, temperatures, 24h precipitations)

16 There is a rapidly growing body of literature addressing terms such as vulnerability, resilience, and adaptive capacity, particularly for natural systems. Methodologies include: 1- UNDP Adaptation Policy Framework (APF); 2- UNEP "Vulnerability and Climate Change Impact Assessments for Adaptation", with a specific version for cities; 3- UNFPA and WEDO: "Climate Change Connections: Gender, Population and Climate Change"; 4- WHO "Protecting health from climate change, vulnerability and adaptation assessments; and for assessments at grassroots level; 5- "Understanding Vulnerability to Climate Change, Insights from Application of CARE's Climate Vulnerability and Capacity Analysis" (CVCA) Methodology"; 6- ELDIS: "Community-based adaptation tools and practices on Community-based adaptation Exchange" (CBA-x) . See Annex II for more information on how to use vulnerability assessments.

17 "Incorporating Gender and Poverty Analysis in the Climate Public Expenditure and Institutional Review: A Methodological Note" Anit N. Mukherjee, Consultant, Climate Change, Gender and Poverty, UNDP Asia Pacific Regional Centre, Bangkok, October 21, 2014

For the purpose of providing a weighting for allocations and expenditures, a clear decision needs to be made with regard to such questions as: Can addressing the development gap be distinguished from climate change impact adaptation? What is the additional benefit of the expenditure should climate change impact realise itself? Is the additional benefit of providing adaptation for vulnerable areas and groups the same in all regions and over time? Answering those questions requires detailed information and analysis that may not always be possible.

This Guidebook proposes two weighting tools that reflect the different levels of data availability to the CPEIR team, namely: i) CPEIR Climate Relevance Index (if data is limited – Tier 1) and ii) Benefit Costs Ratio (if necessary data is available – Tier 2). These tools are not mutually exclusive but rather should be seen as a complementary: option 1 allows for a first rapid assessment, while option 2 requires more information and provides an economic assessment of the benefits associated with a specific programme. In both cases, as the CPEIR is a process that supports national stakeholders' capacity to formulate their needs and design their policy response, it is important to engage with the beneficiaries and stakeholders to validate the analysis.

Approach 1 – CPEIR Climate Relevance Index

The weighting method has been implemented in a number of previous CPEIRs, taking the form of a relevance index, from low to very high.¹⁸ In such cases, the CPEIR team, working with national counterparts in the administration and other stakeholders, mapped the declared objectives of the programmes and expenditures against the Rio Markers Methodology developed by the OECD and assessed the relevance on a scale of 0 – 100%. All activities were then grouped into the four categories listed in the Table 3, with the corresponding weights then applied to the programme/policy expenditures in order to quantify the climate-relevant expenditures.

Table 3: CPEIR Climate Relevance Index

High relevance	Rationale	Clear primary objective of delivering specific outcomes that improve climate resilience or contribute to mitigation
Weighting more than 75%	Examples	<ul style="list-style-type: none"> • Energy mitigation (e.g. renewables, energy efficiency) • Disaster risk reduction and disaster management capacity • The additional costs of changing the design of a programme to improve climate resilience (e.g. extra costs of climate proofing infrastructure, beyond routine maintenance or rehabilitation) • Anything that responds to recent drought, cyclone or flooding, because it will have added benefits for future extreme events • Relocating villages to give protection against cyclones/sea-level • Healthcare for climate sensitive diseases • Building institutional capacity to plan and manage climate change, including early warning and monitoring • Raising awareness about climate change • Anything meeting the criteria of climate change funds (e.g. GEF,PPCR)

18 Some had three or four categories, and others broke down the index by intervals of 5%.

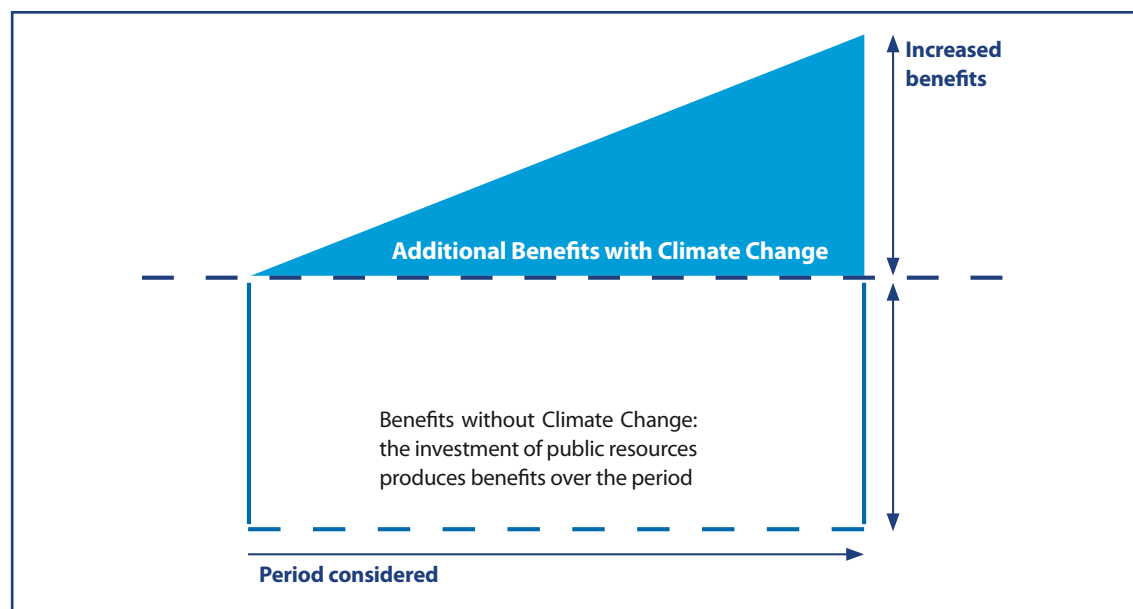
Medium relevance	Rationale	Either (i) secondary objectives related to building climate resilience or contributing to mitigation, or (ii) mixed programmes with a range of activities that are not easily separated but include at least some that promote climate resilience or mitigation
Weighting between 50% to 74%	Examples	<ul style="list-style-type: none"> • Forestry and agroforestry that is motivated primarily by economic or conservation objectives, because this will have some mitigation effect • Water storage, water efficiency and irrigation that is motivated primarily by improved livelihoods because this will also provide protection against drought • Bio-diversity and conservation, unless explicitly aimed at increasing resilience of ecosystems to climate change (or mitigation) • Eco-tourism, because it encourages communities to put a value of ecosystems and raises awareness of the impact of climate change • Livelihood and social protection programmes, motivated by poverty reduction, but building household reserves and assets and reducing vulnerability. This will include programmes to promote economic growth, including vocational training, financial services and the maintenance and improvement of economic infrastructure, such as roads and railways
Low relevance	Rationale	Activities that display attributes where indirect adaptation and mitigation benefits may arise
Weighting between 25% – 49%	Examples	<ul style="list-style-type: none"> • Water quality, unless the improvements in water quality aim to reduce problems from extreme rainfall events, in which case the relevance would be high • General livelihoods, motivated by poverty reduction, but building household reserves and assets and reducing vulnerability in areas of low climate change vulnerability • General planning capacity, either at national or local level, unless it is explicitly linked to climate change, in which case it would be high • Livelihood and social protection programmes, motivated by poverty reduction, but building household reserves and assets and reducing vulnerability. This will include programmes to promote economic growth, including vocational training, financial services and the maintenance and improvement of economic infrastructure, such as roads and railways
Marginal relevance	Rationale	Activities that have only very indirect and theoretical links to climate resilience
Weighting less than 25%	Examples	<ul style="list-style-type: none"> • Short term programmes (including humanitarian relief) • The replacement element of any reconstruction investment (splitting off the additional climate element as high relevance) • Education and health that do not have an explicit climate change element

Approach 2 – CPEIR Benefit Costs Ratio Approach

This methodology allows allocating a weighting defined by how sensitive a programme is to climate change, linking intrinsically to the expected benefit of the action to the impact of climate change. It reconciles the climate impact analysis and the climate relevance analysis by analysing the benefits when climate change impacts materialise compared to the situation without climate change. It provides a rational approach that will help to avoid “green washing” programmes whose objectives are climate related without delivering climate benefits. In that sense, it is capable of identifying the “additional” climate change component of a programme on more objective grounds (compared to subjective judgement by CPEIR analysts in the CPEIR Climate Relevance Index method).

Figure 6 visualises the analysis of benefits in situations “with” and “without” climate change impacts. The transparent and green areas represent the benefits of investing¹⁹ public resources. Further explanation of the methodology is provided in Annex IV.

Figure 6: Benefit Cost Ratio Approach



Three countries (Cambodia, Thailand and Indonesia) have undertaken this methodology. In all of these countries, the analysis used national evidence, wherever possible, supplemented by international studies. For all the countries, the benefits analysis supported public finance reform initiatives that aim to improve the evidence base of policy formulation and introduce results based management (see Box 4 for more information).

This approach might not always be feasible however. Limited availability and reliability of data, the complexity of the analysis and national capacity might constrain a rigorous benefit cost ratio analysis. To address this issue, a less quantitative approach has been experimented. This method relies on experts' estimation of climate benefits (compared with economic, social and environmental benefits) of activities under “with” and “without climate change” scenarios instead of vigorous cost benefit analyses. Experts can be government officers from central and line ministries and other agencies. Once the climate and other benefits are estimated under these two scenarios, the climate change relevance formula can be similarly applied as above. This approach benefits from the participation and contribution of key stakeholders, is less time consuming and encourages government officers to consider climate impacts and climate risks into policy and activity formulation. This approach, unlike the BCR approach however, does not entirely eliminate the risks of inflating climate relevance given that the benefits are subjectively estimated. Therefore, clear guidance on how to score relative benefits is required to avoid overestimation of climate change benefits, compared with economic, social and environmental co-benefits. Expert opinions should also be complemented by other international and technical studies such as the IPCC and other regional/national assessments. The use of climate change relevance yardsticks would also help guide the estimation of climate benefits. More information on the recommended yardsticks and default values is available in Annexes IV and V.

¹⁹ Investing public resources can be done in any type of programme or tax incentives and subsidies, it is not tied to capital expenditures.

Box 4: Experience with using Benefit Cost Ratio approach

In Cambodia, the analysis was undertaken mainly by a Cambodian expert with experience in financial and economic appraisal. The working groups in line ministries were aware of the analysis and were consulted, but it was not possible to build much capacity. The primary role of the work was: a) to promote understanding of how climate change affects public expenditure; b) to illustrate how such analysis might be done; c) to show how it could be used to help refine the design of the programmes; and d) to draw attention to the potential benefits of wider public expenditure.

In Indonesia, benefits were estimated both as part of the Mitigation Fiscal Framework (MFF) and the Green Planning and Budgeting Strategy (GPB). In the MFF, the work was done mainly by consultants and relied on conventional CBA. In the GPB Strategy, the analysis used a structured qualitative approach, in which the magnitude of each of the 5 green benefits (i.e. mitigation, adaptation, long term economic, social equity and environment) was estimated by an inter-ministerial group of experts using the following guidelines: 0.2 = marginal benefit; 0.5=significant benefit that affects whether the intervention should be accepted; 1.0=main benefit, but still relying on other benefits for acceptance; 1.5=large enough benefit to justify the expenditure without other benefits. In the MFF, the analysis of benefits resulted in an estimate of the Marginal Abatement Cost, which made it possible to estimate the extent to which existing expenditure allowed government to meet emission targets. In the GPB Strategy, the main role of the analysis was to assess the extent to which expenditure scenarios would reduce the damage expected from climate change and natural resource degradation.

In Thailand, the work was undertaken in partnership with departments of the Ministry of Agriculture and Cooperatives (MOAC). Five case studies were analysed using conventional CBA. The work aimed to encourage greater clarity on the nature and extent of the climate change impact on MOAC activities, in order to help with the refinement of design. It also aimed to build confidence in the Bureau of Budget that MOAC were responding to climate change and were able to demonstrate how it increases the returns from MOAC expenditure.

The experience in the three countries demonstrated that, even in relatively sophisticated middle income countries, the ability to undertake benefits is limited to a relatively small cadre of planning officials. None of the countries have guidelines for policy appraisal and there are no existing procedures that can be adapted to incorporate the implications of climate change. The central economic ministries (i.e. of finance and planning) in Cambodia and Thailand are cautious about the value of this work, but have become more interested as the potential is illustrated. Nevertheless, it is likely to take five to ten years before policy appraisal guidelines are introduced to require the precise definition of benefits and the estimation of these benefits and of the ways in which climate change affects the benefits.

Comparisons of Two Weighting Methods

Table 4: Comparisons between Two Climate Relevance Weighting Methods

Weighting Method	Link to Vulnerability	Robustness to change	Comparability over time	Strength
CPEIR Relevant Climate Index	Indirect	Integrate change in perception by the teams and the national administration	No, team and resource person specific	Simplicity / Contextualised
Benefit Cost Ratio	The assessment of climate impacts and vulnerability to these impacts that was made during the design of the intervention are accounted for. For instance 'irrigation' is probably a good development but only if its sustainability and specific technical specifications have been designed to take into account future rainfall patterns.	Based on analytical tools and available data, ensuring possibility to update, can be applied to any new programme.	Ensured	1. Identify a "rational" proportion of climate change expenditure in a programme 2. Will be increasingly documented with new CPEIRs

Poverty and Gender Weightings on Climate Relevant Expenditures

A pro-poor and gender-sensitive CPEIR would also apply poverty and gender weightings to the climate relevant expenditures. The triple weightings (poverty, gender and climate) will be a powerful tool in identifying the type of spending which targets the poor and vulnerable in tackling climate change impacts. In some cases, the governments might have already applied poverty and gender weightings to their expenditures. In some other cases where government's gender and poverty weightings are not yet available, the CPEIR team is recommended to apply those weightings in tandem with the climate relevance weightings. An example of the triple weightings in Bangladesh can be found in Annex VI.

6.3.3. Key Aspects of Climate Expenditure Data Analysis

Following the quantification of climate relevant expenditures by applying the weightings to climate relevant expenditures, the CPEIR will be able to produce detailed data analyses, including the following (but not limited to):

1. Total Government Budget Allocations and Outturns:
 - a. By Types of Expenditures: Recurrent vs. Capital
 - b. By Source: Domestic vs. External
2. Total Climate Relevant Expenditures:
 - a. By Types of Expenditures: Recurrent vs. Capital
 - b. By Source: Domestic vs. External
 - c. By CPEIR Typology: Policy & Governance (PG); Scientific, Technological and Societal Capacity (ST), and Climate Change Delivery (CCD)
 - d. By Levels of Relevance (depending on which weighting methods used)
 - e. By Ministries: ministries with most allocations
3. Proportional Analysis:
 - a. Climate relevant expenditures as a proportion to total government budgets/expenditures
 - b. Climate relevant expenditures as a proportion to GDP

These key data analyses would constitute the minimum aspects of a CPEIR's climate expenditure analysis, enabling cross-country comparisons. As such, UNDP's CPEIR Database currently captures these data analyses across different countries that have implemented CPEIRs. UNDP invites all future CPEIRs to contribute their data to the Database for richer cross-country comparisons and more learning between countries. Link to the CPEIR Database can be found here: <http://climatefinance-developmenteffectiveness.org/>.

6.3.4. "Negative" programmes and expenditures

Description: The climate relevant expenditures analysis described above captures the programmes and policies that have climate benefits to the poor and vulnerable, contributing positively to the national climate change response, both in mitigation and adaptation. Depending on the scope of the CPEIR agreed with the host government, the CPEIR should also identify and highlight expenditures that have negative consequences to climate change mitigation and adaptation efforts (referred to as "negative expenditures" in this Guidebook). "Negative" expenditures²⁰ could include fossil fuels subsidies or development programmes that involve deforestation, or carbon lock-in such as building a coal power plant.

²⁰ For a detailed list of positive and negative fiscal and regulatory instruments that impact climate change related behaviour, please refer to the Climate Change Public Expenditure and Institutional Review Sourcebook published by the World Bank (pp.35–36).

Questions to be addressed

- Which programmes and policies might contribute to increasing GHG emissions or reducing carbon sinks, for example by way of incentivising more use of fossil fuels or not creating a levelled-playing field for renewable energy and energy efficiency technologies?
- Which programmes and policies might hinder adaptation efforts or have adverse impacts on climate resilience of communities (such as infrastructure projects, deforestation activities)?

Data Requirements

- Policies/Programmes approved for budget allocations (in budget speech, annual reports).
- Fiscal instruments: subsidies/tax incentives/tax.
- Reports from advocacy CSOs and feedbacks from communities (if available) on certain policies that have negative impacts.
- Interviews with CSOs, private sector, academia, communities.

Potential Challenges

- Scattered information and not exhaustive.
- Subject to expert judgements by CPEIR analysts whether the programmes are negative expenditures in some cases.
- Time consuming.
- Politically unpalatable in some cases.

6.3.5. Fiscal Instruments for Climate Change

Description: There are two types of fiscal instruments in the context of supporting climate actions:

1. Revenue-generating instruments: Include taxes, green bonds or fees to generate revenues to address climate change impacts.
2. Behaviour-changing instruments: Include special allocation grants, earmarked sub-national fiscal transfers, national climate funds, taxes, tax breaks, and subsidies to incentivise investments in climate-benefiting projects (e.g. business income tax and VAT exemptions/reductions for energy efficiency and renewable energy projects) or to deter investments in projects contributing to climate change (e.g. carbon tax).

Whilst some of the expenditures of subsidy programmes might have been already captured in the climate expenditure analysis above, tax incentives as foregone revenues for the government have not been captured. The CPEIR should identify these fiscal instruments and analyse their uptakes, impacts and trends if possible.

Questions to be addressed

- List the main tax incentives, environmental taxes and subsidies.
- Provide data on each and discuss their impact on the budget and the response by economic agents.
- Are the trends telling a story of their uptake? How do they compare to other revenue trends using IMF reports and PEFA PI-3?
- Are the tax incentives and subsidies known to the private sector? Is the legal and regulatory framework with regards to those taxes and subsidies considered clear and stable? (Draw on PEFA PI-13 + interviews with professional/industry associations & tax lawyers).

Data Requirements

- Tax expenditures and revenues (“environmental” taxes) and subsidies covering all sectors as described in the typology, budgeted and outturns.
- Source: Ministry of Finance, ministries in charge of energy, mining, industry, transport, water, agriculture, forestry and fisheries national revenue agency, local government (where applicable), industry associations, IMF reports.
- Interviews with private sector, CSOs for the feedbacks of these instruments.

Potential Challenges

- Lack of data for the entire review period.
- Time consuming.
- The experience shared on Bangladesh Climate Fiscal Framework indicate that working on both tax expenditures and incentives requires significant time and human resources and an intrinsic knowledge of the tax system and the budget, adding significant cost to undertaking a CPEIR.

6.3.6. State Owned Enterprises (SOEs) & Public Private Partnerships (PPPs)

Description: PPPs are large investments involving private sector financing and management. They are becoming an increasingly significant way to finance large-scale infrastructure. It may be useful to ensure that appraisal guidelines and scoring system do include climate relevant mitigation and adaptation (or co-benefits), as it can become a source of learning in addition to being beneficial investment. SOEs may represent a large share of the public sector, whose investments are mostly in sectors highly relevant to climate change (such as energy, mining, water resource management, forestry etc.). Therefore, the CPEIR should also include a review of SOEs and PPPs climate-relevant investments, especially in the main sectors of interest in terms of climate change issues: energy, water, transport and waste.

Questions to be addressed

- Does the oversight exercised by the State on PPPs and SOEs include an oversight of the impact on climate change (mitigation) and of programmes to address climate change (adaptation)?
- Are there specific policies and guidelines with regards to integrating climate change mitigation and adaptation principles into the PPPs and SOEs investments?
- Do the investment programmes have a climate change impact assessment?²¹
- Is the procurement system applicable for PPPs and to SOEs climate sensitive?

Data Requirements

- Type: information on the state grants to SOEs and the State’s degree of involvement in the PPPs; State’s assistance has to be quantified and the length of time involved has to be taken into account for predictability reasons.
- Source: Budget, National Accounts, dedicated agencies in charge of PPPs & SOEs fiscal oversight, PPPs and SOEs balance sheets.

Potential Challenges

- Challenges in classifying climate relevant investments.

21 See <http://www.greengrowthknowledge.org/theme/government-procurement> and <http://www.iisd.org/pgg/> for further reference

6.4. Summary Assessments and Recommendations

Summary Assessment: The CPEIR should integrate the three pillars of the analytical framework into a summary assessment, addressing key questions on the credibility of the overall climate change policy framework design and its outputs programmes, budgetary allocations and expenditures. It also seeks to integrate the role of stakeholders impacted by climate change and those engaging in economic opportunities in green growth.

The questions below are indicative to help structure a summary assessment that weaves together the key findings as well as the patterns and trends analyses in the CPEIR:

- i) Is the data and qualitative information on predicted impact of climate change, particularly on the poor and vulnerable, informing the articulation of climate change policy within and across sectors?
- ii) Are these policies and their instruments costed?
- iii) Has the costing been reconciled through an iterative process with the fiscal framework and potential climate finance (based on current commitments, pledges and scenarios)?
- iv) Are the policies and their implementing instruments leading to resources allocation in the budget as per costing? (Pillar 1)
- v) Is there a clear set of objectives and targets that can be translated into a monitoring framework?
- vi) Have policies and their instruments been developed with due consultation with stakeholders, and are there patterns or trends emerging in their uptake by economic agents?
- vii) Does the administration have the necessary capacity to implement its programmes and enforce its regulations?
- viii) Is the monitoring information published, submitted to Parliament, and made available to the Public?
- ix) Is there evidence or are trends linking the availability of information for policy making and policy change?
- x) Are the Accountability Institutions playing a role with regards to climate change and do they have the necessary information to do so?

The summary assessment should provide a summary of the key findings, referring the reader to the details in the review and to the annex aggregating all findings. The summary assessment should present a synopsis of the main recommendations.

A section should be dedicated to explain the process for initiating and carrying out the CPEIR, referring in annex to the list of documents, data and website consulted and obtained and persons met. One annex should provide an explanation of how relevance and how weighting were performed on budget allocations and expenditure data. The process should include a description of the oversight or steering mechanism instituted. If recommendations are provided, the section explains how they were discussed with the stakeholders, and if necessary an annex should highlight the different views and perspectives on them.

Recommendations: In some cases, as in a Public Expenditure and Financial Accountability (PEFA) report, the CPEIR is intended to facilitate a capacity development process whereby national authorities and stakeholders engage in domestic policy dialogue and policy-budget decisions over how to use the CPEIR findings and to address possible weaknesses. In such cases, the CPEIR might not provide recommendations and remain a basis for common references to support broad stakeholders' engagement in the policy cycle and resources allocation.

In other cases, the CPEIR is expected to provide recommendations. The recommendations should be specific to the CPEIR findings based on the country context. Based on previous CPEIRs, the recommendations coming from the CPEIR analysis generally fall into the following broad options:

- i) Enabling coding or tagging of climate change items in the national budget systems: Tagging is a budget tool, consisting of adding a marker to a budget code (allocations). It can thus be used to identify climate change related financing in a country's budget. This, however, does not apply to the chart of account (expenditure). Tags can also be helpful in monitoring trends in allocations.
- ii) Implementing a climate fiscal framework or climate financing framework: A framework to ensure effective use of domestic and international climate finance within the national budget process. It identifies the demand (costed plan and projection of expenditures) and supply (funds, fiscal policies/green banking) of national climate finance as well as forecasts future climate financing needs for the country. For example, Bangladesh adopted a Climate Fiscal Framework following the CPEIR.
- iii) Strengthening capacity for institutions where gaps are identified.

7. Further Resources

The Guidebook aims to provide basic information for countries and CPEIR practitioners to undertake a CPEIR analysis based on previous experience and by no means is intended to cover all methodologies and analytical tools available. As such, this Guidebook will continue to be updated as a living document.

Below are further reading materials on topics related to and useful for CPEIR analysis.

CPEIR-Related Materials

- A video entitled “Climate Finance: Better use of Climate Finance”
- CPEIR Methodological Note (UNDP, CDDE and ODI, 2012)
- CPEIR Lessons Learnt Paper (UNDP, Adelante, 2014) – to be published
- Making Sense of Climate Finance (UNDP & CDDE, 2013)
- Financing Local Response to Climate Change (UNDP & UNCDF, 2013)
- Tracking Private Climate Finance Flows at the National Level – Proposed Country-Level Methodology (UNDP, 2015) – to be published
- Climate Public Expenditure and Institutional Reviews (CPEIRs) in the Asia-Pacific Region – What Have We Learnt? (UNDP & CDDE, 2012)
- Proceedings from Climate Responsive Budgeting Workshop (Bangkok, 5–7 Nov, 2014)
- Implemented CPEIRs and other materials on UNDP’s Governance of Climate Finance website at <http://climatefinance-developmenteffectiveness.org/>
- World Bank CPEIR Source Book
- ODI’s CPEIR Materials: <http://www.odi.org/publications>

Further CPEIR Materials

Gender and Climate Change

- UN Gender and Climate Change Fact Sheets
- Gender and UNFCCC Negotiations

- UNDP's Gender and Climate Change Resources
- Global Gender and Climate Alliance (GGCA): <http://gender-climate.org/>

Vulnerability Assessments

- UNEP's PROVIA Guidance on Assessing Vulnerability, Impacts and Adaptation (VIA) to Climate Change provides a framework for considering the full range of approaches to VIA assessment. It aims to help professionals such as researchers, policymakers, sectoral planners and consultants to select the appropriate methods and tools for their particular context and adaptation situation.

Private Investment Flows and Innovative Tools for Green Private Investment

- The UNDP Low Emission Capacity Building (LECB) Programme is currently conducting a study to take stock of private investment flows relevant to climate change and climate finance, and intends to develop guidelines on how to monitor them.

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Annex I – Template Terms of Reference for the CPEIR

Introduction to Climate Public Expenditure and Institutional Review

Description of CPEIR

In 2012, following five pilot studies in Asia and the Pacific, the UNDP Governance of Climate Change Finance cross-practice team (UNDP Asia-Pacific Regional Centre, APRC), developed a first Lessons Learnt paper and a Methodological Note for conducting CPEIRs. These pilot studies served as a first adaptation of the public expenditure review methodology to the cross-cutting theme of climate change. The first CPEIRs and related knowledge products demonstrated the usefulness of the approach, increased demand for CPEIRs in other countries, and provided methodological guidance for countries and teams in undertaking such reviews. In 2014, with nineteen (19) CPEIRs or similar studies executed, a second CPEIR Lessons Learnt paper was developed and led to an Updated Methodology for CPEIR. It aims at proposing a common frame for ensuring that all CPEIRs take a similar methodological approach in defining their scope and how to carry out the data collection and analysis.

CPEIRs are based upon a public expenditure review principle. As such they should allow verifying how climate change policies and their programmes are implemented through the budget process.

CPEIRs seek to assess opportunities and constraints for integrating climate change concerns within the national (and sub-national) budget allocation and expenditure process, eliciting better responses to its estimated impact. A CPEIR is undertaken through a process engaging with national stakeholders and is supportive of domestic policy dialogue.

CPEIRs are intended to build a common understanding between ministries of finance, planning and environment of how to move forward in integrating climate change within the budget process, transmitting it in effect to the national and sector policies. It does also provide a common reference/baseline for decision makers and development partners to assess how best to provide climate finance in support of national programmes and local programmes if requested.

CPEIRs also aim at clarifying how responsive policies and their programmes are for reducing poverty related to climate change vulnerability (in terms of people, institutions and areas), and providing new economic opportunities.

CPEIRs are effective tools and processes in support of policymaking and transmission. It is important to underline that undertaking a CPEIR exercise requires the participation of a broad variety of stakeholders, including officials in the ministries, local authorities, CSOs and private sector organisations. Leading a CPEIR therefore implies anticipating and allowing sufficient time for each institution to prepare itself, collect information, review the reports and effectively participate to the validation.

Objectives

<This section must describe what the primary objective of the CPEIR is. This will depend on a country's current climate change related policies development. A CPEIR may contribute to help a government understand the scope of its climate change related expenditures and how they impact adaptation and mitigation.>

<In other settings, where policies are well defined, a CPEIR will seek to review the responsiveness of policies to the climate change impact and how well are they translated into the budget and other policy instruments as laws and regulations. It is important that objective define how a CPEIR is intended to be used by development partners and how it will be used for capacity development purposes.>

Scope

<The Updated Methodology for CPEIR defines a number of options with regards to the scope of a CPEIR and to the data available to perform the analysis. This needs to be carefully analysed and discussed. Ideally, decisions on the objectives and the scope will have been agreed at a concept stage between the government and its partners.>

<Please indicate if the CPEIR should be focusing on the central level only or is also carried out at decentralised level.>

Key Activities

<In this section the TORs should describe the key activities that are requires for the CPEIR to be a process in support on policy dialogue and developing a common understanding.>

The scope of the CPEIR defined above will be the basis for defining the activities. The details of this activity planning, organisation and sequencing should be left to the CPEIR team and planned in the inception report.

Inception report: Containing the team's understanding of the CPEIR, detailed activity planning, data and documentary request (exception of data and documentation made available with TORs, and web available)

Capacity building workshop: A one to two day capacity building workshop will be organised by the assessment team for officials, at least two weeks before the field mission. The main purpose of the workshop is to enable the government officials to fully understand the methodology, data and documentation requirement. The workshop will also allow the assessment team to obtain reference documents, information and knowledge regarding current climate change policies, budgetary processes and establish a list of interviewees.

Preparation for data collection/field phase: In addition to the capacity building workshop, the team will coordinate with relevant stakeholders to make available all basic documentation necessary and start with securing the initial meetings for the field phase. The CPEIR team will have begun with the initial desktop analysis of information publically available. The experts should inform the Steering Committee of any need for additional information. It will submit to the Steering Committee a finalised work plan describing the main steps of the field mission, notably specifying the list of interlocutors to meet and the tentatively scheduled meetings and the list or required information not yet collected and to be provided on the spot. The work plan has to be approved by the Steering Committee.

Data collection and field missions: Based on the agreed work plan, the CPEIR team will collect and analyse the information and documentation as required and conduct the interviews with the officials and all the main stakeholders. The assessment team will signal to the Steering Committee at an early stage if they encounter significant problems.

Draft report(s): After the field missions the CPEIR Team will draft a report for the central level and for sub-national entity (if applicable) based on the evidence gained during the field missions. It will develop data tables in accordance with the typology and weighting options indicated in the Updated Methodology for CPEIR. It will submit the data tables in excel format.

The draft reports will be consulted with the Steering Committee and all stakeholders for comments and resolution of any errors or differences of view on the content. The report will consist of a high level synthesis and the detailed analysis. The outline of the report should be agreed with the Steering Committee by the end of the field mission.

Dissemination workshop: The CPEIR team will organise and conduct a dissemination workshop under the auspice of the Steering Committee. The primary objective of this final workshop is the discussion of findings (and recommendations if applicable) of the CPEIR report, and their validation. The dissemination workshop should allow a broad discussion with all stakeholders, including sub-national governments, civil society and private sector. It may require a double workshop first allowing a government/team interaction and then a broader workshop. The final will reflect comments and how these were integrated (specific annex to the report).

Country Background

Current Development Context

<This section should describe the current macro-economic situation and the development objectives of the country. References to national development strategy should be made and if it does integrate a climate perspective. Information on the poverty situation should be included. The donors' response should be presented with a broad set of data on aid dependence and largest sector of focus for donors.>

Climate Change Vulnerability and Response

<This section should describe succinctly the vulnerability of the country and the sub-national entities in the scope of the study, and the populations. It should indicate if Vulnerability Assessments are available and if a policy response exists (web links in foot notes are useful). >

State Structure, Decentralisation and Fiscal relations

<This section should provide a short description of how the State is organized and what is the level of decentralisation. It should draw on existing studies (list them in annex) such as the Public Expenditure and Financial Accountabilities that describe the fiscal relationships between the central and sub-national government levels.

If the CPEIR intends to review both central and sub-national levels the description should be more detailed. If that is not possible, then the scope and tasks should include an analysis of the structure of the State and the fiscal relations. The suggestion is to compile a profile as described in the PEFA guidelines for sub-national government assessments:

- *the overall sub-national government structure*
- *the main functional responsibilities of the sub-national government*
- *key sub-national budgetary systems*
- *key sub-national fiscal systems*
- *the main sub-national institutional (political, administrative, and fiscal) structures.*

This should include information on relevant fiscal decentralization issues, including transfer mechanisms and formulae, and if available on transfers or formulae related to climate change or vulnerability. >

Institutional organisation and response to Climate Change

<This section should describe the existing institutional setup of the government and its administration and how climate change analysis and response have been integrated in it. If this information is not available, the CPEIR should be tasked with this analysis.>

Current Public Financial Management (PFM) and Public Investment Management (PIM) Situations

<This section should succinctly describe the main features (budget classification, calendar, fiscal year, accounting standards, internal audit and external controls) for public finance and if available for public investment. IT should reference the existing studies (listed in annex with web links).>

Deliverables

<This section should specify the processes steps and outputs that are required as part of the CPEIR. It is essential that CPEIR be viewed as much as possible as a process for engaging stakeholders in the central government, in sub-national government as well as in the civil society and private sector.

The deliverables specifies at least:

- i) *Inception report and data /Interview request*
- ii) *Introductory workshop for stakeholders*
- iii) *Draft reports*
- iv) *Responses to comments and final report*
- v) *Validation workshop of key results with national and sub-national administrations*
- vi) *Final seminar for disseminating findings and recommendations (if applicable)>*

Programme Management Arrangements

Steering Committee

To ensure that the CPEIR exercise directly contributes to the country's needs, and is guided under the direction of the Government (and/ or sub-national governments), the CPEIR team will report to a Steering Committee. The Steering Committee will provide technical and policy related advice and guidance.

<Given the equal focus of the CPEIR on climate change adaptation and public expenditure review, it is suggested that the Steering Committee be co-chaired by Senior Representatives of the Government and Sub-national Government whose mandate related to Climate Change and policy coordination, to Finance, planning. It is recommended that the Steering Committee includes representatives from the civil society and private sector.>

The Steering Committee members will include:

<List and describe succinctly the institutions of the advisory members.>

The Steering Committee will:

- i) *Provide technical guidance to the CPEIR process*
- ii) *Share relevant findings and recommendations emerging from this review with existing high level forums to influence policy and decision making*
- iii) *Review the draft CPEIR report and provide comments;*
- iv) *Agree the final CPEIR report recommendations*
- v) *Provide advice on how the recommendations can be followed up*

Consulting Team Composition

<List and describe succinctly the profile of the team members to adjust to the specific requirements of the TORs. Below is a template that draws on previous experience.>

- i) The CPEIR consultancy team will be composed of national and international expertise: It is important to ensure that the team has knowledge of the institutional setup and budget processes of the country, and of the vulnerability of populations and geographic areas to climate change.
- ii) The team should be composed of complementary skills to cover the requirements of the CPEIR methodology. These are:
 - a. Specialists on climate change, vulnerability and policy response: one international and one national experts
 - b. Specialist in decentralisation: one international and one national experts
 - c. Public finance management specialists with experience in policy analysis: one international and one national expert
 - d. Specialist in statistics
- iii) The firm should designate a team leader who will be responsible for the relationships with the Steering Committee and for the deliverables
- iv) In addition to the team carrying out the CPEIR, the firm will make provision for hiring academics to contribute on specific topics that may cover institutional analysis, equity, gender, and decentralisation

<It is recommended that the team includes both national and international expertise. Please note that international expertise can be provided by national experts. If possible, time and budget should be allocated to academics to contribute to specific analysis on vulnerability, on institutions and their set-up in the country and on governance.>

Estimated budget

<Based on previous experiences that also included a mix of national and international expertise, the estimated cost for the CPEIR study at central level will be approximately USD 150,000.

Additional work at sub-national level will require additional resources. In this case, the team may be composed of a core team working on the national level and support teams for sub-national analysis.>

Duration and Location

<A significant amount of time will be dedicated to the preparation of the mission and the analysis of the information. These stages may be time consuming. In addition, the team should only be fielded once an inception report with a documentary request has been developed and approved and the documentation prepared. The team should not be fielded before the requested interviews have been confirmed and a clear schedule prepared for the first week. Total duration may exceed 6 months for central level CPEIR and 9 to 12 months for central and sub-national levels.>

Appendix 1 – Indicative work-plan

Activity	Responsibility	Timeline
Develop a Concept Note for the CPEIR		
Set up the Steering Committee		
Prepare and share TORs		
Procurement of professional services		
Initial high level forum with key stakeholders in Country to introduce the CPEIR tool, agree on the scope and deliverables of the CPEIR		
Desk review of key documents and legislation		
Initial round of consultations and review at national level		
Initial round of consultations and review at provincial (in location)		
Analysis Phase		
Draft report		
Presentations of main findings, discussions, and clarification among key stakeholders (national and provincial)		
Consultations and vetting of report		
Presentation of findings and identification/validation of next steps with key stakeholders		

Appendix 2 – CPEIR Methodology

Appendix 3 – Budget

Appendix 4 – Key documentation and web links

Appendix 5 – CPEIR Database Website

Annex II – Vulnerability Assessments

Using available information on vulnerability to draw relevance criteria policy analysis

By contributing to the understanding of how systems can better adapt to climate change, Vulnerability Assessments have a role to play in supporting decision making on adaptation to climate change. CPEIR may verify to which extent policies do take into account the vulnerability analysis and the recommendations for action made, as a basis for determining the share of expenditure that are indeed climate change responsive.

Vulnerability assessments are not always available, often addressing specific objectives and following different methodologies. Nonetheless, they provide a useful basis of vulnerability information that can be complemented using IPCC publications and engaging with the national stakeholders, as the beneficiaries of the programmes, CSOs, private sector associations (farmers, unions, industries) and local authorities.

This approach is new and has not been tested. As such the steps suggested should be tested and the present note updated with additional guidance and experience. Making the link to vulnerability assessments should allow for integrating poverty and gender imbalances concerns into CPEIRs, providing a practical methodology to analyse policies and programmes responsiveness to these vulnerabilities, and initiate a dialogue.

Indeed, the analysis of vulnerability assessments will underline the relevance of climate action, based on the context and the beneficiaries/stakeholders perception in the following terms:

- The responsiveness of policies and programmes to the estimated current and potential impact of climate change on vulnerable areas, poor people and vulnerable groups
- The responsiveness of policies and programmes to the special needs for climate proofing and adaptation for vulnerable areas
- The responsiveness of policies and programmes to the vulnerable groups; either as exposed to the impact of climate change either as groups already vulnerable and whose inclusion in a growing and prosperous society through development is at risk due to the impact of climate change
- The responsiveness of policies and programmes to the economic threats and needs expressed by the professional associations and private sector at large, and to the opportunities for green growth.

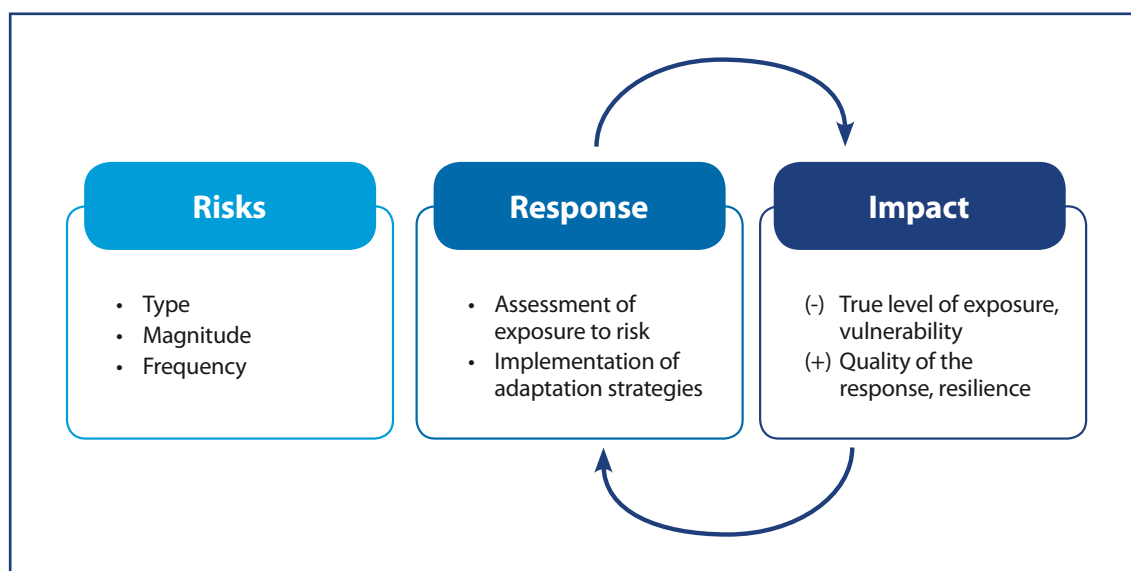
In this context, CPEIR should use Vulnerability Assessments to:

1. Clarify the contribution of public action to resilience, through:
 - a. The screening of policies and plans with a specific focus on climate change response.
 - b. The screening of climate relevant action in a developmental approach.
2. Identify policy gaps where the recommendations from the Vulnerability Assessment were not yet taken into account by plans and programmes.
3. Undertake a cost gap analysis, to inform on needs for funds to address vulnerability to climate change.
4. Identify the benefits of responses to vulnerability.

What are Vulnerability Assessments?

Vulnerability to climate change is a function of the character, magnitude, and rate of climate variation to which a system is exposed, its sensitivity, and its adaptive *capacity* (McCarthy et al., 2001, IPCC). Vulnerability is therefore dynamic and depends on the response that is given to exposure to risk.

Figure 7: Risk, Response, Impact Framework of Vulnerability Assessment



Vulnerability Assessments (VA) are commissioned to understand the degree to which a system is subject to, or unable to cope with, adverse effects of climate change, including climate variability and extremes.

Such a study usually includes the socio-economic and ecologic context, the potential hazards and the current level of preparation to these hazards (i.e. a capacity analysis). These lead to a categorization of areas by type of vulnerability, the identification of causes and effects of vulnerability, and the establishment of levels of priority among these types and areas. Due to the dynamics of vulnerability, the assessment focuses on a temporal reference, which usually includes its current vulnerability and the foreseeable future.

From these elements, Vulnerability Assessments provide a basis for formulating measures or projects that will minimize or avoid climate risks.²²

Other initiatives such as the Tracking Adaptation and Measuring Development (TAMD) framework assess whether climate change adaptation leads to effective development and also how development interventions can boost communities' capacity to adapt to climate change.²³ This underlines the need to consider adaptation success as a combination of: 1) how widely and how well countries or institutions manage climate risks, but also 2) how successful adaptation interventions are in reducing climate change vulnerability and in keeping development on course.

²² Comparative analysis of climate change vulnerability assessments, March 2013, GIZ

²³ "Tracking Adaptation and Measuring Development: a framework for assessing climate adaptation and development effects", International Institute for Environment and Development IIED, 2012.

How can Vulnerability Assessments be used in CPEIR?

CPEIR may verify to which extent policies do take into account the vulnerability analysis and the recommendations for action, and thus test their responsiveness.

This can be done for policies with a climate change focus or a development focus, and lead to the following results.

- 1. Underline the contribution of public action to resilience.** This can be done by contrasting the information given by the Vulnerability Assessments with the policy and programme response to climate change, at two levels:
 - a. Screening of policies and plans with a specific focus on climate change response:** Assessing to which extent specific climate change adaptation policies and plans have integrated recommendations from Vulnerability Assessments. These may include: climate change action plans, dedicated climate change programmes within sector programmes (e.g. agriculture, forestry, fisheries, water management), disaster risk reduction plans, projects originating from NAPAs, other climate change related projects. In this approach, the analysis seeks to determine responsiveness and which component is responsiveness to use this data for weighting allocations and expenditures.
 - b. Screening of climate relevant action in a developmental approach:** There is also a need to verify if the issues raised in the Vulnerability Analysis are covered by policies and programmes that have a developmental focus, as they also may contribute to increasing resilience to climate change. This verification should also include the general development strategies and plans that were designed at sub-national level. In that case, the analysis seeks to identify the additional benefit of those programmes when climate change happens, and should be considered under the Benefit Cost Ratio approached.
- 2. Identify policy gaps.** CPEIR may identify gaps where the recommendations from the Vulnerability Assessment were not yet taken into account by plans and programmes. It is important to clarify why such gaps remain, so as to identify potential recommendations at institutional level.
- 3. Identify the benefits of responses to vulnerability:** Should the costs of a specific vulnerability be identified based on past events, and there has been a response to this vulnerability in the programme, the estimated reduced damages should be counted as future benefits.

Annex III – Climate Risk Impact Assessments on Gender and Poverty

Table 5: Climate Risk Impact Assessment on Gender and Poverty²⁴

Category of Risk	Description of Risk	Gender Impact	Poverty Impact
Supply Risk	Supply interruption; decreased access (food, water, public goods)	Exacerbates existing gender disparity in basic needs	Reduces access to basic needs in the absence of social protection
Market Risk	Demand and price increase; food and livelihood insecurity	Increases gender inequity in basic needs	Reduces purchasing power, requires coping mechanisms
Operating Risk	Loss of assets including shelter and livestock	Widens gender-based asset ownership gap	Pushes marginal households below poverty, deepens existing disparities
Recovery Risk	Impaired ability to recover asset losses after climate change related shocks	Skews asset ownership towards men; time cost of rebuilding asset base higher for women	Reduces chances of moving out of poverty; change in occupation with lower skill and reduced wages
Socio-political Risk	Adverse health and human development outcomes; Migration; Resource-related conflict; social disruption	Disproportionate impact of vector borne diseases on women and children; increase in female-headed households; bears the brunt of physical and social violence	Impoverishment due to increased healthcare cost; loss of livelihood; low skilled migration leads to deepening of poverty; loss of productive years due to conflict
Domestic/Time Burden Risk	Increased burden of unpaid work and time use for natural resource based livelihoods	Burden of unpaid and care work falls exclusively on women; reduced years of schooling for girl child; lower human development outcomes for girls	Less opportunity for productive work, especially for women; low returns to human development implies entrenched cycle of poverty
Participant Risk	Lack of financial stability; reduced credit worthiness; inadequate administrative and technical capacity	Increased gender bias in economic opportunity; institutions do not address gender inequities	Increased economic inequality; inadequate social protection mechanisms leads to socio-economic exclusion

Source: UNDP (2011), *Ensuring Gender Equity in Climate Change Financing*; Methodology adapted from Hart, C. (2013), *Climate Change and the Private Sector*, New York: Routledge.

²⁴ "Incorporating Gender and Poverty Analysis in the Climate Public Expenditure and Institutional Review: A Methodological Note", Anit N. Mukherjee, Consultant, Climate Change, Gender and Poverty, UNDP Asia Pacific Regional Centre Bangkok, October 21, 2014.

Annex IV – Benefit Cost Ratio Approach to Weighting Climate Relevance

Basing climate change weights on benefits has the advantage to be more robust and rationale. The estimates in Approach 1 (Climate Relevance Index) are subjective²⁵ and programme managers and line ministries are becoming skilful at ‘green washing’ programmes (i.e. manipulating the intended motivation) to attract climate finance. This may be convenient for climate finance managers, but it undermines the confidence of the central economic ministries in the integrity of the programme. This may apply, in particular, to MoFs who are often sceptical of climate change and see it as yet another cross-sectoral concern that confuses their tasks. Eventually, the inability to define climate finance objectively will be picked up by independent evaluation and will undermine climate finance more generally.

The CCFFs in Cambodia and Indonesia, and the work in Thailand, have based the definition of climate change percentage (CC%) on the extent to which the benefits from the action are affected by climate change. This is done by estimating the benefits of an action both with and without climate change and comparing these benefits, as follows²⁶ ...

(Note: Climate Change percentage is CC%)

$$CC\% = (B - A) / B$$

Where A = the benefits that would be generated by the action, if there was no CC

B = the benefits that would be generated with CC

The benefits from an action are those conventionally recognised in national planning and include: economic benefits (e.g. incomes, assets ...), social benefits (e.g. education, health, welfare, gender ...) and environmental benefits (e.g. biodiversity, reduced pollution ...). For major investments, the benefits may be estimated as part of an economic analysis (e.g. rates of return for irrigation, roads, new crop varieties, energy investments ...). For other actions, they may be defined as outcomes²⁷ in logical frameworks, with associated indicators (e.g. people protected from floods, hectares of forest planted, number of households...).

For mitigation, the benefits without climate change should exclude the value of carbon emissions, since there is no value in reducing emission if they do not lead to climate change. For adaptation, the most common way in which climate change affects benefits is to increase the value of any protection from extreme events and variable rainfall. There are also other important impacts, notably of temperature on agriculture and health. But the evidence on trends in total rainfall is less clear and is not easy to use for adaptation planning.

25 In Approach 2, they may include elements of subjectivity due to criteria definition, the sampling of regions and beneficiary groups and their perceptions.

26 It would equally be possible to define CC% as (B-A)/A, in which case it would give the % increase in benefits. This is intuitively simpler in some cases, but will give a value of infinity for those actions that are dedicated to climate change and for which A=0.

27 In logframe terminology, outcomes refer to the results that provide benefits and are clearly affected by the action. They are a level above outputs (which are largely within the control of the activity but which do not have any value unless they lead to outcomes) and a level below impact (which refer to the wider benefits and which are influenced by a wide range of factors).

Where possible, the benefits with and without climate change should be estimated quantitatively.²⁸ In some cases, reliable evidence on the absolute value of A will not be available. However, it may still be possible to estimate the proportional increase from A to B. For example, if climate change has an impact on biodiversity, it may be impossible to give an estimate of the market value of this change, but case studies may provide evidence on proportional changes in indices of species diversity.

Yardsticks and Default Values. The BCR approach might not always be feasible. Some general yardsticks and default values can be helpful in this process. These include the following.

- *SREX²⁹ Rule.* Benefits from avoiding or reducing the impact of dry spells, droughts or floods will become twice as valuable by 2050.
- *Temperature.* This has variable impact for agriculture and health.
- *Rainfall trend.* Rainfall trends are often difficult to project and it may not be possible to define any yardsticks in many countries.

The analysis of benefits should lead to a more robust table of default CC%s for different types of expenditure. These should be subject to revision wherever more detailed evidence is available and, especially, for larger investment spending. The tables used in the Cambodia CCFF is presented below.

Table 6: Default Values for CC% for Actions

Agriculture (mixed)	<ul style="list-style-type: none"> • Mostly affected by rainfall variability. Support for drought/flood resistant varieties has CC% of 50%, because of SREX rule. • Rural finance might have modest additional benefits, as drought/flood coping strategy. No clear default value.
Irrigation (25%)	<ul style="list-style-type: none"> • Assume 2/3 of benefits are dry season and not affected by CC. Dry spells in the wet season will double, based on SREX, so $CC\% = (1.33 - 1.00)/1.33$.
Forestry (10%)	<ul style="list-style-type: none"> • Projects that improve the management of forestry resources will generate economic benefits and mitigation benefits will increase these by 10%.
Fisheries	<ul style="list-style-type: none"> • Depends on ecological processes. Difficult to generalise.
Livestock	<ul style="list-style-type: none"> • Depends on farming systems, but will be linked with rainfall variability.
Energy saving (10% power) (2% fuel)	<ul style="list-style-type: none"> • 10% of the benefits from electricity efficiency come from mitigation, based on the carbon content of coal fired power, using the social cost of carbon. • 2% of the benefits from fuel efficiency come from mitigation, based on the carbon content of fuel, using the social cost of carbon.
Renewables (10%)	<ul style="list-style-type: none"> • Similar to electricity saving, with mitigation adding 10% to the economic benefits.
Public transport (<2%)	<ul style="list-style-type: none"> • Fuel savings are a small part of the benefits of public transport (most are related to time and pollution) and mitigation increases the fuel saving benefits by 2%, based on carbon content of fuel and social cost of carbon.

28 The indicators of benefit used in the CCFFs was the BCR, which allows benefits associated with reduced costs to be included, without making special provision. However, if it is difficult to measure the value of benefits, it may be more appropriate to use indicators for physical benefits.

29 The IPCC Special Report on Extreme Events (2012) projected that rainfall variability would roughly double in most parts of the world by 2050.

Roads (2–5%)	<ul style="list-style-type: none"> Rehabilitation uses 2–5% of investment per year and is linked to floods, so will double. The CC% of the flood proofing element alone is 50%. Some benefits from improved fuel efficiency, which have a CC% of 2%.
Coastal works (100%)	<ul style="list-style-type: none"> Assuming the action is focused on added protection for sea level rise, above existing levels of protection.
WASH (mixed)	<ul style="list-style-type: none"> Securing water supply during droughts will have a CC% of 50%, from the SREX rule. For other elements of water projects, the CC% will be less. Time savings related to SREX. Health to SREX and temperature.
Health (10%)	<ul style="list-style-type: none"> Support for climate sensitive diseases. Based on WHO international studies suggesting climate sensitive disease threat will increase by 10% by 2050.
Targeted livelihoods (50%)	<ul style="list-style-type: none"> There are ignored unless they are exclusively targeted on improving resilience of climate vulnerable groups, in which case the CC% is 50%, because they will also have benefits without CC.
DRM (50%)	<ul style="list-style-type: none"> Disaster response, reduction and management. Based on the SREX conclusion that extreme events will become twice as likely by 2050.
Planning	<ul style="list-style-type: none"> In general, if more than 40% of total CC spending is devoted to planning, then this is too much, and this maximum level should decline as programmes mature

Notes: The default values above use the social cost of carbon (e.g. 50\$/tCO₂e), but a sensitivity analysis is needed, to look at the implications of using current prices (if any) and past carbon market prices (e.g. 30 \$/tCO₂e). The relative values of timber, electricity and fuel use unsubsidized values.

Annex V – Calculated Ratios

The objective is to weight allocations and expenditures in a rational manner and to count only climate change responsive resources. Following on the work done in Cambodia and Indonesia, the consultant developed a table of ratios³⁰ that can be applied to the activities listed in the typology referred to in section IV-1. Those ratios, or ranges, are derived from experience and can be adjusted to context. As work on new CPEIRs and CCFF can benefit others, please kindly share those values and cases with the UNDP Governance of Climate Change Finance cross-practice team. It can be inserted in the database developed.

Table 7: Calculated Ratios for Climate Change Benefits

Typology	Ref.	Standard Type of Activity	Weight (CC%)	Comments
Policy and Governance	PG1: Adaptation Planning	PG1.1 CC adaptation guidelines and technical regulations	100%	
		PG1.2 Policy/planning for CC response at all levels	100%	
		PG1.3 Manage/monitor implementation of adaptation policies	100%	
	PG2: Mitigation Planning	PG2.1 Policy, tax and incentive structure for mitigation	5-10%	Type B
		PG2.2 Sectoral mitigation plans and coordination between bodies	5-10%	Type B
		PG2.3 Manage and monitor implementation of mitigation policies	5-10%	Type B
	PG3: Sector Plans	PG3.1 Action and Sector Plans	100%	
		PG3.2 Impact assessments	100%	
		PG3.3 CC Capacity building	100%	
	PG4: Instruments	PG4.1 Mitigation instruments		Depends on CCD sector
		PG4.2 Adaptation instruments		Depends on CCD sector
		PG4.3 Mitigation and Adaptation Instruments		Depends on CCD sector
	PG5: International	PG5.1 International cooperation	100%	
		PG5.2 Coordinating foreign and domestic investment	100%	
Scientific, Technical and Societal Capacity	ST1: Science & Technology	ST1.1 Information and database development		
		ST1.2 Hydrometeorology, early warning & CC projection	33%	Type A
		ST1.3 Biological & genetic resource strengthening	100%	
		ST1.4 Survey and assessment on CC impacts	100%	
		ST1.5 Technology for energy efficiency and low GHG emission	5-10%	Type B
	ST2: Awareness	ST2.1 CC awareness in education	100%	
		ST2.2 CC awareness for postschool aged learners	100%	
	ST3: Community capacity	ST3.1 Livelihoods for communities in the context of CC	10-33%	Type D
		ST3.2 Capacity across whole community in CC response	100%	
	CCD1: Natural resources	CCD1.1 Coastal protection and coastal dykes	100%	
		CCD1.2 Saline intrusion	50-75%	Depends on existing saline intrusion
		CCD1.3 Irrigation	10-33%	Type C
		CCD1.4 River dyke and embankments	33%	Type A
		CCD1.5 Water quality and supply	10-33%	Type C
		CCD1.6 Rural development and food security	10-33%	Type D
		CCD1.7 Forest development	10-45%	Type E
		CCD1.8 Fisheries & aquaculture	?	Depends on ecosystems
		CCD1.9 Biodiversity & conservation	?	Limited research on impact of CC
Climate Change Delivery	CCD2: Resilient society	CCD2.1 Public health & social service	10%	Impact of CC on CC sensitive disease (WHO)
		CCD2.2 Residential and city area resilience	33%	Type A
		CCD2.3 Transport	1-5%	Depends on exposure to flood risk
		CCD2.4 Waste management and treatment	13%	Sanitation proofing (ref. CCFF Cambodia)
		CCD2.5 Disaster specific infrastructure	33%	Type A (for climate related disasters)
		CCD2.6 Strengthening disaster risk reduction	33%	Type A (for climate related disasters)
	CCD3: Enterprise and production	CCD3.1 Energy generation	5-10%	Type F
		CCD3.2 Energy efficiency	5-10%	Type F
		CCD3.3 Infrastructure and construction	1-5%	Depends on exposure to flood risk
		CCD3.4 Industry & trade	5-10%	If related to energy efficiency
		CCD3.5 Tourism	5-10%	If related to energy efficiency

30 Methodological Note, November 2014, Kit Nicholson

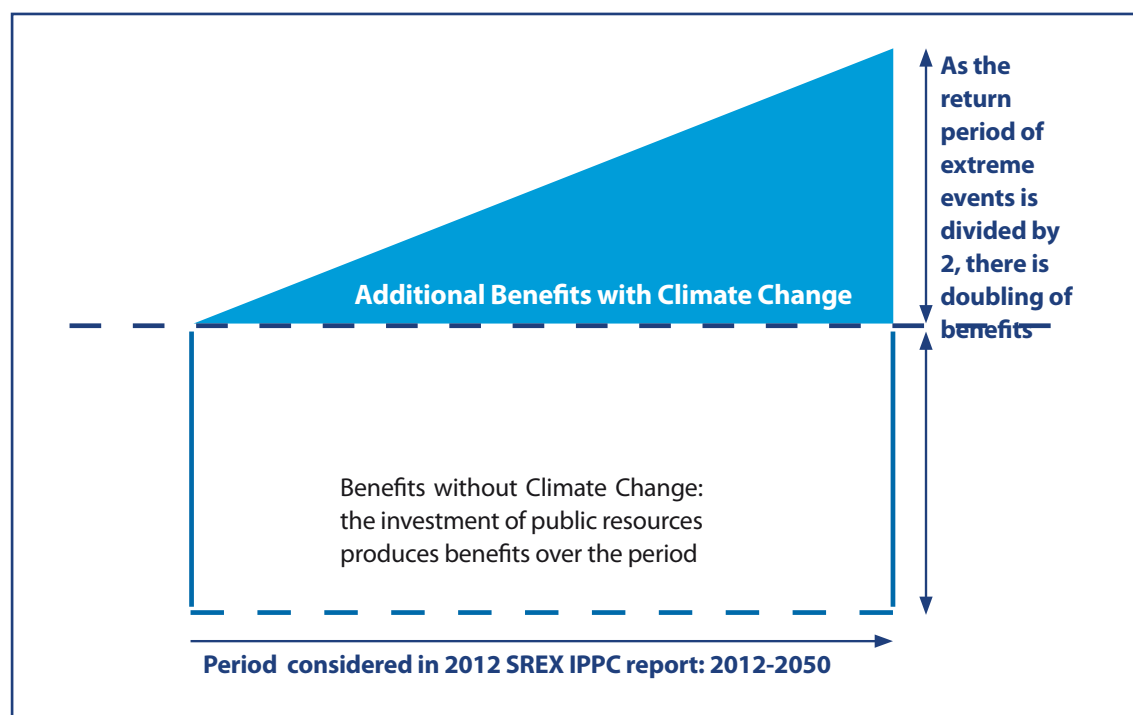
Notes on types and ranges provided.

The ratios are organised by type to simplify the use of the table. For some activity, 100% of the allocation and expenditures are dedicated to climate change (programme wholly dedicated to climate change whose benefits will occur with climate change; e.g. policy making, international climate finance). For the other activities a type is defined. Below are simple explanations on the calculation made by type.

1. Type A: Additional benefits of the allocation are wholly associated with climate variability. It is assumed to double by 2050, increasing in a straight line from now.
2. Type C: Some benefits are affected by climate variability (x), while some are not. If x is 100% of benefits, CC% = 33%; if x is 25% of benefits, CC% is 11%

The transparent rectangle represents the benefits over the period considered if there was no climate change. The green triangle represents the additional benefits over that period (considering as IPPC does that the return period of extreme events will be divided by 2 at horizon 2050 and this change is linear), which double. As such the additional benefits are equal to the area covered by the green triangle, which is half of the area of the transparent rectangle. Additional benefits with CC is equal thus equal to 33% of total benefits and 33% is the weight to be used. Should climate proofing be added, it can be argued that the costs of rehabilitation/ livelihood relief avoided is another additional benefit.

Figure 8: Illustration of additional benefits with climate change for type A and C



3. Type B: Concerns mitigation. In this case the value of reduced GHG emissions is taken as 5–10% of the value of energy generated/saved. This is based on the value of the carbon dioxide content in fuel or electricity, compared with the economic value of fuel or electricity. As shown in the yardstick guidance of annex IV, table 6, 10% of the benefits from electricity efficiency come from mitigation, based on the carbon content of coal fired power, using the social cost of carbon while 2% of the benefits from fuel efficiency come from mitigation, based on the carbon content of fuel, using the social cost of carbon.

4. Type D: It is considered from experience that livelihood benefits for climate change to vulnerable households are twice the value of non-vulnerable households, allowing using the same reasoning for calculation as for type A and C (see Figure 5). For the ratio, 33% applies if the programme fully targets vulnerable households.
5. Type E: Depends on value of timber, income from agriculture on land, value of carbon emissions and non-economic forest benefits. The ratio range is derived from the consultant's experience. Other calculations are welcomed.
6. Type F: Value of reduced GHG emissions relative to economic value of reduced energy use/generation. The consultant applied the same reasoning as for type B.
7. CCD 3.4 and CCD 3.5 assume that most of the focus is on energy efficiency. Natural Resources efficiency may have to be explored in relation to industry and tourism. For example regulations on the exploitation and use of timber, regulations on the use of coasts and reefs, reserves, etc.

Annex VI – Bangladesh’s Example: Climate, Gender, and Poverty Relevance Weights

Ministry	Total Budget 2011–12 Lakh Tk)	% Climate (A)	% Gender (B)	% Poverty (C)	% CC Expenditure Share
Ministry of Environment and Forest	123,100	66.58	41.01	79.16	9.0%
Ministry of Water Resources	222,800	33.73	49.24	69.60	8.2%
Women and Children Affairs Ministry	123,600	33.61	85.37	87.37	4.6%
Defense Ministry	11,574	32.31	3.92	33.01	0.4%
Prime Minister's Office	50,600	28.09	24.30	56.82	1.6%
Rural Development and Cooperative Division, Local Government Ministry	80,200	26.61	70.02	84.38	2.3%
Ministry of Home Affairs	7,720	25.27	9.57	50.19	0.2%
Ministry of Expatriates Welfare and Overseas Employment	23,100	24.00	28.33	52.33	0.6%
Ministry of Food, Disaster Management and Relief	708,600	20.79	69.84	96.91	16.2%
Planning Division, Ministry of Planning	116,400	19.22	48.82	97.60	2.5%
Local Government Division, Local Government Ministry	1,090,900	18.68	47.41	88.86	22.4%
Ministry of Agriculture	740,600	18.66	38.40	84.64	15.2%
Ministry of Chittagong Hill Tracks Affairs	56,000	16.25	80.75	98.66	1.0%
Ministry of Shipping	65,300	14.30	15.72	45.77	1.0%
Ministry of Fisheries and Livestock	97,700	11.86	33.61	71.65	1.3%
Ministry of Power, Energy and Mineral Resources	115,100	10.33	30.16	65.59	1.3%
Social Welfare Ministry	203,900	8.85	42.58	44.97	2.0%
Roads and Railway Division, Ministry of Communication	745,000	6.43	26.11	52.32	5.3%
Housing and Public Works Ministry	150,800	5.76	12.46	40.86	1.0%
Health and Family Welfare Ministry	8,869	4.89	45.37	63.01	0.0%
Ministry of Land	67,400	3.87	10.91	59.21	0.3%
Primary and Mass Education Ministry	895,600	2.50	44.25	74.74	2.5%
Public Administration Ministry	97,800	2.31	9.58	43.38	0.2%
Ministry of Civil Aviation and Tourism	29,600	2.30	10.06	48.85	0.1%
Commerce Ministry	16,400	1.49	31.28	42.05	0.0%
Textile and Jute Ministry	19,800	0.89	24.16	52.56	0.0%
Education Ministry	1,085,000	0.65	29.88	71.90	0.8%
Bank and Financial Institute Division, Ministry of Finance	23,800	0.45	15.44	79.48	0.0%
Science, Information and communication Technology Ministry	51,000	0.44	31.88	51.50	0.0%
Cultural Ministry	23,600	0.35	12.95	31.60	0.0%
Industry Ministry	62,600	0.31	32.45	63.05	0.0%
Power Division, Ministry of Power, Energy and Mineral Resources	716,000	0.18	38.30	77.37	0.1%
Youth and Sports Ministry	68,800	0.01	13.39	27.51	0.0%
Total/ Average Weights	7,899,263	0.12	0.41	0.74	100.0%

Source: Unit level Climate Project database; Budget Brief, Poverty and Gender budgets, Government of Bangladesh, 2013–14

Annex VII – PEFA Indicators

Pillar I. PFM-OUT-TURNS: Credibility of fiscal strategy and budget	
PI-1	Aggregate expenditure out-turn compared to original approved budget
PI-2	Composition of expenditure out-turn compared to original approved budget
PI-3	Aggregate revenue out-turn compared to original approved budget
Pillar II-III. KEY CROSS-CUTTING ISSUES:	
II. Comprehensiveness and Transparency	
PI-4	Classification of the budget
PI-5	Comprehensiveness of information included in budget documentation
PI-6	Extent of reporting on extra-budgetary operations
PI-7	Transparency of inter-governmental fiscal relations
PI-8	Performance information for achieving efficiency in service delivery
PI-9	Public access to key fiscal information
III. Asset and Liability Management	
PI-10	Fiscal risk management.
PI-11	Public Investment Management
PI-12	Public Asset Management
PI-13	Management and reporting of debt and expenditure arrears
Pillars IV-VII. BUDGET CYCLE	
IV. Policy-Based Planning and Budgeting	
PI-14	Credible Fiscal Strategy
PI-15	Revenue Budgeting
PI-16	Medium-term perspective in expenditure budgeting
PI-17	Orderliness and participation in the annual budget process
PI-18	Legislative scrutiny of the annual budget law
V. Predictability and Control in Budget Execution	
PI-19	Revenue administration compliance
PI-20	Accounting for revenues
PI-21	Predictability in the availability of funds to support service delivery
PI-22	Effectiveness of payroll controls
PI-23	Transparency, competition and complaints mechanisms in procurement
PI-24	Effectiveness of internal controls for non-salary expenditure
PI-25	Effectiveness of internal audit
VI. Accounting, Recording and Reporting	
PI-26	Accounts reconciliation and financial data integrity
PI-27	Quality and timeliness of in-year budget reports
PI-28	Quality and timeliness of annual financial reports
VII. External Scrutiny and Audit	
PI-29	SAI Independence and external audit of the government's annual financial reports
PI-30	Legislative scrutiny of external audit reports

Annex VIII – Advisory Group and Contributors to this Guidebook

Function

In producing these two knowledge products, the Governance of Climate Change Finance cross-practice team, UNDP Bangkok Regional Hub decided to establish an informal advisory group to seek the expert advice and inputs from colleagues who have been substantively engaged in this area of work in recent years.

The role of the advisory group was defined as:

1. Introductory discussion with the review team: Preliminary discussion to seek inputs on the scope/analytical framework/key areas of inquiry for this work.
2. Review and feedback on the first draft of the CPEIR Lessons Learned paper.
3. Review and feedback on the first draft of the CPEIR Methodological Note. The review period would be approximately early/mid- November coinciding with the Climate Responsive Budgeting Workshop to be held in Bangkok 5–7 November 2014.

Tasks	Status
Preliminary discussion	Done
Review and feedback on the first draft of the CPEIR Lessons Learned paper	Done
Review and feedback on the first draft of the CPEIR Methodological Note	Done

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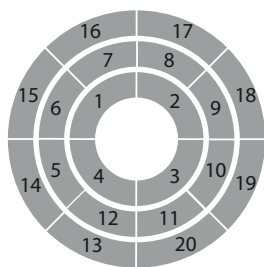
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- Neil Bird, CPEIR Team Leader, Overseas Development Institute, UK (online interview)
- Kit Nicholson, CPEIR Team Leader (electronic mail)

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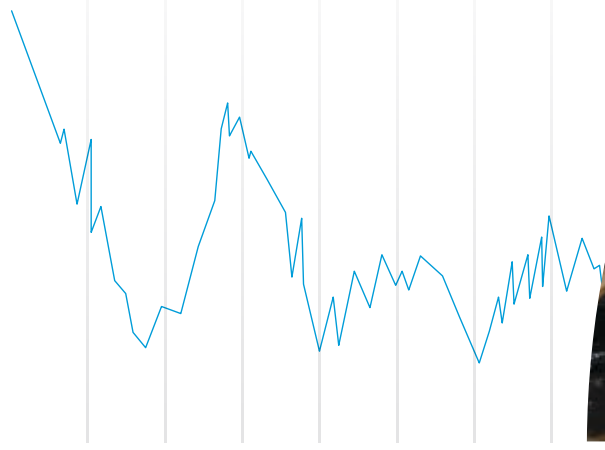
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