



Tracking the money for climate adaptation and disaster risk reduction

Trends and experiences

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Produced by IIED's Shaping Sustainable Markets Group

The Shaping Sustainable Markets group works to make sure that local and global markets are fair and can help poor people and nature thrive. Our research focuses on the mechanisms, structures and policies that lead to sustainable and inclusive economies. Our strength is in finding locally appropriate solutions to complex global and national problems.

Acknowledgements

The authors would like to thank Helen Ng, Iria Touzon Calle, Mathieu Verougstraete, Sayel Cortes, Alper Aras and Roberto Schiano Lomoriello at UNDRR, members of the IIED project consultancy team and the members of the Technical Advisory Board on Budget Tagging and Tracking of DRR & CCA Expenditures for their invaluable comments on earlier drafts of this paper. We are also thankful to Paul Steele for his oversight and guidance, and to Cinzia Cimmino and Ranak Maher at IIED for managing the project and the production of this paper.

IIED and UNDRR wish to thank the following country and institutions representatives, who are part of the project's Technical Advisory Board, for their inputs and contributions: Anil Pokhrel (Nepal) Antwi-Boasiako Amoah (Ghana) Mónica Elizabeth Chávez Lemos (Ecuador) Nazira Dista (Mozambique) Sandee G. Recabar (Philippines) Yacine Biotchane (Niger) Zerihun Get (Ethiopia) Asad Maken (UNDP) Charlotte Benson (ADB) Claude Wendling (IMF) Giorgio Gualberti (OECD) Jennifer Philips (GIZ) Joseph Intsilful (GCF) Karlos Lee Moresi (Pacific Islands Forum Secretariat) Marcela Tarazona (Genesis Analytics) Matteo Bigoni (Climate Bond Initiative) Rajashree Padmanabhi (Climate Policy Initiative) Raul Delgado (IADB) Sandra Guzman (GFLAC) Sylke von Thadden-Kostopoulos (IMF) Tim Williamson (World Bank) Ujala Qadir (Climate Bond Initiatives)

Published by IIED, March 2023

Choi, S, Weingärtner, L, Gaile, B, Cardenas, D, Wickramasinghe, K, Nicholson, K, Broermann, S, Bio Tchané, Y and Steele, P (2023) Tracking the money for climate adaptation and disaster risk reduction. IIED, London.

iied.org/21261IIED

ISBN 978-1-83759-017-9

Cover photo: Submerged house in Pakistan © Zahoor Ahmed

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The costs of disasters and the negative impacts of climate change are rising globally. Record numbers of extreme weather events, exacerbated by climate change, are already costing the world billions of dollars each year. Other threats, including pandemics, geophysical hazards and cyber risks, are adding to this bill. This paper zooms in on public finance for climate change adaptation and disaster risk reduction and provides an overview of the latest international and country trends in tagging budgets and tracking public expenditures on climate and disaster resilience. The paper also suggests a way forward for coordinated climate change adaptation and disaster risk reduction budget tagging and public expenditure tracking for consideration by ministries of finance, planning, environment and climate change, national disaster management agencies and relevant sectors, as well as international development partners engaged in climate and disaster finance.

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Abbreviations

CBT	Climate budget tagging and tracking
CCA	Climate change adaptation
CCC	Climate Change Commission (Philippines)
CCET	Climate change expenditure tagging
CPEIR	Climate public expenditure and institutional review
COFOG	Classification of the Function of Government
CRS	Creditor Reporting System
DAC	Development Assistance Committee
DBM	Department of Budget and Management (Philippines)
DBT	Disaster budget tagging and tracking
DCBT	DRR and CCA budget tagging and tracking
DCPEIR	Disaster and climate change public expenditure and institutional review
DRR	Disaster risk reduction
DRM	Disaster risk management
GBT	Green budget tagging
GIFMIS	Ghana Integrated Financial Management Information System
IADB	Inter-American Development Bank
IFMIS	Integrated Financial Management System
iGOPP	Index of Governance and Public Policy in Disaster Risk Management
IWRM	Integrated water resource management
MDA	Ministries, departments and agencies
MMDA	Metropolitan, municipal and district assemblies
MRV	Monitoring, reporting and verification
NCCAP	National Climate Change Action Plan
NDC	Nationally Determined Contributions
OECD	Organisation for Economic Co-operation and Development
PCCFAF	Pacific Climate Change Finance Assessment Framework
PFM	Public financial management
SDGs	Sustainable Development Goals
SOE	State-owned enterprises
UNDP	United Nations Development Programme
UNDRR	United Nations Office for Disaster Risk Reduction
UNFCCC	United Nations Framework Convention on Climate Change

Summary

Economic losses from disasters and climate change have risen globally over the past decades. Despite some increases in global climate finance, both developed and developing economies face significant challenges with the limited quantity and quality of financing for climate and disaster resilience.

Disaster risk reduction (DRR) and climate change adaptation (CCA) have significant commonalities in terms of hazards and impacts they aim to tackle. Despite these commonalities, however, DRR and CCA risk assessment and management approaches, and institutions and financing mechanisms still remain mostly siloed from each other. In recent years, calls for an integrated approach to DRR and CCA to achieve the Sustainable Development Goals (SDGs), the Paris Agreement and the Sendai Framework for Disaster Risk Reduction have been growing louder. Increasing synergies and coherence between DRR and CCA policy and finance are also relevant to the loss and damage finance framework, to enable comprehensive climate and disaster risk management (DRM).

Given overlapping objectives across DRR and CCA policies and the multitude of institutions involved in delivering against both, understanding the quantity of, and the coherence between, CCA and DRR expenditure remains challenging.

This paper focuses on public finance. More specifically, it examines country practices in tagging budgets and tracking public expenditures related to DRR and CCA, with a particular focus on their interlinked aspects. The paper presents results from a review of experiences and practices from over 40 countries across Africa, Asia and the Pacific, Europe and Latin America and the Caribbean.

Current levels of coherence in climate adaptation and disaster budget tagging and public expenditure tracking

Overlaps and common objectives between DRR and CCA are recognised to varying extents in national policy frameworks. At least 13 countries have adopted a joint CCA and DRR strategy or plan. Other countries recognise overlaps between CCA and DRR, though in separate frameworks.

Climate budget tagging and tracking (CBT) is fully operational and part of budget processes in 20 of the reviewed countries. Most reforms in other countries

are still in the design or piloting phase. An increasing number of countries are undertaking CBT, but disaster budget tagging and tracking (DBT) remains less common. We were able to identify few countries that are operating or working towards systems that allow regular and coordinated DRR and CCA budget tagging and tracking (DCBT); and there is currently no standard taxonomy or commonly used methodology to support this.

Through CBT and DBT initiatives, countries aim to raise awareness around public finance for CCA and DRR, track and monitor expenditures, and increase budget transparency and accountability. Several countries have used budget tagging exercises to identify financing gaps and available resources and to support mainstreaming of CCA and DRR issues into different sectors. However, evidence on the actual impact of CBT and DBT remains limited.

Challenges, lessons learned and good practices

This paper identifies the following key challenges countries faced in undertaking CBT and DBT:

- **Lack of clarity in leadership, institutional arrangement and coordination:** CBT and DBT exercises were hampered in many countries by a lack of involvement and leadership by relevant authorities — particularly ministries of finance. Common challenges also include the limited level of awareness and understanding of roles and responsibilities and unclear policy and institutional coordination between agencies.
- **Limited coherence between CCA and DRR:** There is demand for a more integrated approach to CBT and DBT, but progress is hindered by constraints related to the cross-sectoral nature of DRR and CCA, including issues of overlap, separate governance arrangements and different funding mechanisms.
- **Resource and capacity constraints:** Many developing and small countries face a lack of qualified professionals and resources for the effective implementation of CBT, DBT or combined DCBT initiatives. Stakeholders noted concerns about the additional organisational and technical burden that could be imposed on already constrained government agencies due to the complexity of DCBT.

- **Methodological difficulties:** Countries face technical challenges in capturing embedded DRR and CCA investments and in implementing DCBT. Establishing appropriate timing and frequency of tagging and tracking was also identified as a challenge, as there are trade-offs between identifying executed expenditure ex-post compared to doing so in the budget formulation phase. Consistent and coherent application of CBT and DBT is also difficult due to the varying levels of detail and accuracy of climate and disaster budget information.
- **Gain broad political and public support:** Multi-stakeholder engagement, including by civil society groups, can help raise public awareness and gain broader political and public support.
- **Provide capacity development support and avoid overburdening through a phased approach:** Where capacities are constrained, DCBT can be introduced in a phased approach. In addition, tailored capacity-building support to the respective roles and responsibilities of central and local agencies is an important strategy.

Recommendations

Based on the review of good practices and lessons learned, this paper makes the following recommendations to address the identified challenges. It is important to note that budget tagging and tracking is just one of many tools for achieving climate and disaster resilience objectives. Going forward, these recommendations could help achieve the intended objectives of coordinated DCBT initiatives and improve their effectiveness and sustainability:

- **Ensure political commitment for DCBT:** Securing high-level political support and commitment is a key factor for budget tagging initiatives to achieve expected benefits, such as informing budget allocations and improving transparency and accountability.
- **Strengthen foundations for DCBT in legislative and policy frameworks:** Such frameworks can help establish clarity about the underlying purposes of DCBT and ensure they contribute to national policy objectives.
- **Establish clear institutional and accountability frameworks for vertical and horizontal coordination:** The roles, mandates and responsibilities of stakeholders should be clarified and agreed through cross-sectoral and multi-stakeholder consultation mechanisms. An initial policy and institutional review can identify gaps and overlaps, engage stakeholders, and allow countries to phase reforms in alignment with their capacities. Leadership by finance and planning ministries is essential for consistency with national policies and finance strategies.
- **Develop common methodologies and technical guidance for DCBT:** The technical challenges and complexity in pursuing DCBT require robust and consistent global definitions and methodological guidelines to help better identify and track CCA and DRR expenditures. These would need to be flexible so that they can be adapted to country contexts.
- **Explore options for considering negative expenditures in DCBT:** Most countries reviewed for this study have very limited experience and capacity in defining, identifying and tracking negative expenditure associated with DRR and CCA. Establishing common standards and approaches for tagging and tracking negative expenditure could help shift overall finance towards positive contributions to climate and disaster-resilient development.
- **Contribute to a better understanding of the CCA and DRR financing gap:** Existing CBT and DBT practices have limited focus on identifying CCA and DRR financing gaps. To address this, DCBT initiatives could put a greater emphasis on identifying financing gaps and potential financial resources for climate and disaster resilience.
- **Capitalise on emerging CBT and DBT initiatives:** Existing CBT initiatives can be a strategic opportunity to increase the visibility of DRR-related budget allocations and overlaps with CCA. In turn, emerging risk-focused expenditure reviews and DCBT initiatives can inform CBT and help increase integration and coherence between DRR and CCA finance.

1 Background and international context

DRR and CCA definitions

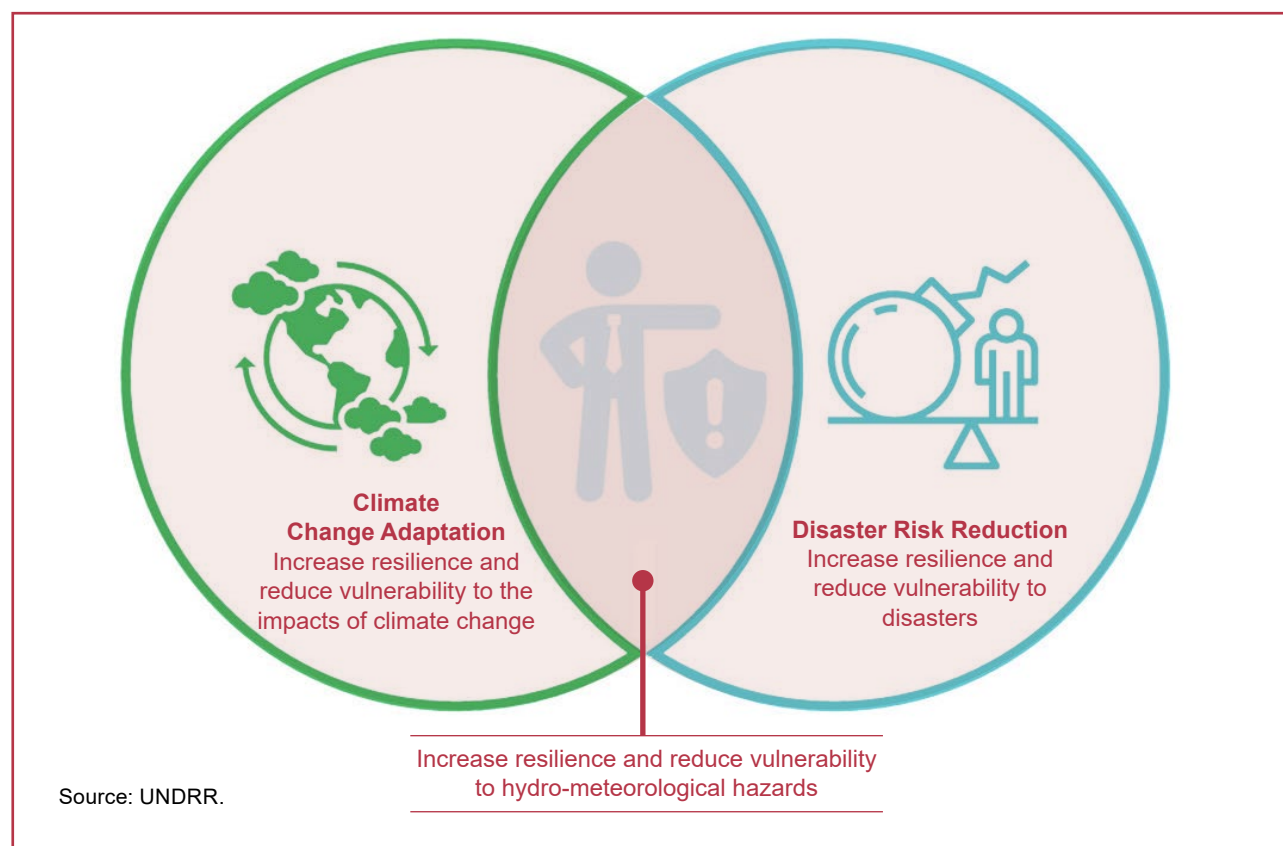
Disaster risk reduction (DRR) is aimed at preventing new and reducing existing disaster risk and managing residual risk (UNDRR, n.d.a). Climate change adaptation (CCA) is the process of adjustment to the actual or expected climate and its effects so as to moderate harm or exploit beneficial opportunities. CCA also includes the adjustment of natural systems to current and future climate and its effects, and the role of human intervention to facilitate it (IPCC, 2022a).

DRR and CCA have significant commonalities in terms of hazards and impacts they aim to tackle (Figure 1). Climate-related disasters account for the majority of disaster types by occurrence, the number of people affected and economic losses recorded in the international disaster database EM-DAT. Climate-related disasters accounted for over 90% of all recorded disasters and almost 80% of direct economic losses in the period 1998–2017 (Wallemacq and House, 2018). There are, however, differences between DRR and CCA. DRR includes

geophysical hazards such as earthquakes and volcanic eruptions as well as technological, biological and environmental hazards, while CCA focuses only on climate-related ones, including slow-onset events such as mean temperature increase, sea-level rise and ocean acidification. CCA concepts and practices have continued to evolve, including an emerging focus on ‘transformational adaptation’ measures such as migration, as compared to ‘incremental adaptation’ such as water use efficiency. Despite many commonalities, DRR and CCA communities have developed different risk assessment and management methodologies, approaches, institutions and financing mechanisms, mostly separately from each other.

There is limited evidence of achieving coherence between DRR and CCA on the ground (Mysiak et al. 2018). However, over recent years, there has been a growing recognition of the value of and calls for pursuing an integrated approach to DRR and CCA to achieve the SDGs, Paris Agreement and the Sendai Framework (OECD, 2020a). In the context of increasing economic and non-economic impacts and risks associated with climate change,

Figure 1. Overlap and differences between climate change adaptation and disaster risk reduction



the concept of loss and damage has also gained importance in global climate policy (IPCC, 2022b). While different regions and actors interpret loss and damage differently, addressing loss and damage associated with the impacts of climate change would require an integrated risk management approach connecting DRR, CCA and humanitarian actions and an understanding of the limits to adaptation and unavoidable loss and damage. In line with the global trend for a coherent approach to climate and disaster resilience, comprehensive disaster and climate risk management has been promoted by the Warsaw International Mechanism on Loss and Damage under the UN Framework Convention on Climate Change (UNFCCC), the Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report, the Organisation for Economic Co-operation and Development (OECD, 2020a) and the UN Office for Disaster Risk Reduction (UNDRR, n.d.b).

The COP27 ‘breakthrough’ agreement on a loss and damage finance facility has further increased the interest in better understanding current levels of finance, and future finance needs, for loss and damage (UNFCCC, 2022a). Finance relevant to loss and damage includes, but is not limited to, DRR and CCA finance. In relation to loss and damage from climate change, DRR and CCA finance cannot address the residual unavowed losses and damages that result from adaptation failure (Gallagher and Addison, 2022), or unavoidable losses and damages, for which other types of loss and damage finance are needed (Wilkinson et al., forthcoming; Mustapha, 2022). CCA finance — and DRR finance where it is used to address climate change-related disaster risk — can, however, help reduce avoidable losses and damages, and relieve financial constraints to tackling unavowed losses and damages (see Table 1 below; Mechler et al., 2019). Credible and consistent tagging and tracking of DRR and CCA budget allocations and public expenditures will thus be a critical contributor towards transparency and accountability in loss and damage finance going forward.

DRR and CCA finance: global frameworks and flows

Adequate, predictable and coordinated DRR and CCA finance is a critical enabler for comprehensive climate and DRM that is urgently needed at a greater speed and scale than current levels, as disaster and climate risks are rapidly increasing, with some impacts now unprecedented and irreversible in many parts of the world (IPCC, 2022b). It is alarming to observe the ever-widening finance gap for climate and disaster resilience. The Adaptation Gap report (UNEP, 2022) estimated that annual adaptation costs will be in the range of US\$160–340 billion by 2030 and US\$315–565 billion by 2050. The level of adaptation finance is largely insufficient to meet the increasing adaptation needs of developing countries, whose estimated adaptation costs are five to ten times greater than international adaptation finance flows. Agriculture, infrastructure, water and disaster risk management account for over 76% of adaptation finance needs of the developing countries that were studied in the Adaptation Gap report (UNEP, 2021). The Global Shield against Climate Risks launched at the UNFCCC 27th Conference of Parties by the Vulnerable 20 (V20) Group of Finance Ministers, and the Group of Seven (G7) estimates that V20 countries have lost a total of US\$525 billion to climate impacts since 2000. It calls for rapidly increasing financial support to vulnerable countries and populations affected by climate-related disasters (Federal Ministry for Economic Cooperation and Development, 2022).

While CCA finance has gained increasing importance in international climate policy discussion, as evidenced by the Global Goal on Adaptation (UNFCCC, 2021a) and the New Collective Quantified Goal on Climate Finance (UNFCCC, 2022b), DRR finance has no clearly defined and quantified global targets for national governments or the international community. The Sendai Framework is not legally binding and reporting against the framework’s targets is voluntary, so how

Table 1. Classifying losses and damages

AVOIDED	UNAVOIDED	UNAVOIDABLE
Avoidable losses and damages that can and will be avoided by climate change mitigation and/or adaptation measures.	Avoidable losses and damages that are and will not be addressed by further mitigation and/or adaptation measures, even though avoidance would be possible. Financial, technical and political constraints, as well as case-specific risk preferences narrow the adaptation space.	Losses and damages that cannot be avoided and adapted to through further mitigation and/or adaptation measures, for instance impacts from slow-onset processes that have kicked-off already, such as sea-level rise and melting glaciers.

Source: Mechler et al. (2019), who developed this classification further based on Verheyen and Roderick (2008).

much is spent on DRR is generally not transparent and difficult to track (Wilkinson et al., forthcoming). OECD Development Assistance Committee (DAC) data shows that in 2020, over US\$8 billion of bilateral official development assistance went to DRR-related projects, with over 50% of these funds going towards allocations with the DRR objective classified as 'principal' under the OECD DAC Creditor Reporting System (CRS) marker for DRR. This data may be a vast underestimate, however. While the DRR marker is mandatory, it was only introduced as recently as 2018, and so far, only a few donors report on it (OECD, 2020b). Hence, data on financing for DRR is still poor, and quantifying the total amount disbursed on DRR is difficult.

Globally, the vast majority of funding towards DRR comes from domestic public expenditure rather than through international development finance (Kellett and Caravani, 2013; ADB, 2020a), though there are significant differences in this split between countries. This includes budgets allocated towards DRR and for recurrent operational purposes through national disaster management agencies. In addition, as with official development assistance, much of the domestic DRR spending is integrated within sectoral programmes and investments, for example, in the economic, infrastructure, transport and construction, agriculture, social services or

public safety and administration sectors (UNDRR, 2020a; Abbott, 2018). The UNDRR assessment of DRR investments in national budgets in 16 African countries (UNDRR, 2020a) finds that DRR investments constitute, on average, 4% of national budgets (though with variation between countries, ranging from 0.3% in São Tomé and Príncipe to 8.8% in Eswatini). Three-quarters of these investments are indirect investments; in other words, they are related to DRR but do not necessarily see DRR as their primary objective. In the countries assessed, official development assistance was particularly important in supporting direct DRR investments, that is, those that have DRR as their primary objective. In those countries where budget documents allowed for a distinction between internal and external sources of funding (Guinea-Bissau, Rwanda, Tanzania, Zambia), official development assistance on average accounted for over two-thirds of direct DRR investments.

There has been progress in defining, classifying, measuring and reporting DRR- and CCA-related finance and actions in recent years at global and regional levels, as shown in Box 1. These diverse frameworks and tools provide useful guidance and information for enhancing finance for climate- and disaster-resilient development, including public financial management for CCA and DRR.

BOX 1. GLOBAL AND REGIONAL FRAMEWORKS AND TOOLS RELEVANT TO DRR AND CCA FINANCE AND BUDGETING

The SDGs include cross-cutting targets and indicators relevant for CCA and DRR finance across the goals related to poverty, cities, climate action and others. Targets and indicators that promote holistic and integrated climate and disaster resilience include Target 13.1: 'Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries' and Target 11.b: 'By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards...adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015–2030, holistic disaster risk management at all levels'. Quantified finance goals are however limited to climate finance, as indicated in Target 13.a: 'Implement the commitment undertaken by developed-country parties to the UNFCCC to a goal of mobilizing jointly \$100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and

fully operationalize the Green Climate Fund through capitalization as soon as possible'.

The Sendai Framework for Disaster Risk Reduction 2015–2030 sets targets and defines priority actions for international cooperation and investment in DRR, but without quantification of targets. Global target f: 'Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of the present Framework by 2030'; Priority for action 3: 'Investing in disaster risk reduction for resilience'.

The Paris Agreement aims to strengthen the global response to the threat of climate change by making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development (Article 2) and stipulates that developed country Parties should continue to take the lead in mobilising climate finance, noting the significant role of public funds through supporting country-driven strategies, and considering the needs

and priorities of developing country Parties (Article 9). While DRR finance is not explicitly mentioned in the adopted text of the Agreement, there are provisions in the Agreement that are clearly relevant to DRR and CCA budgeting issues, including the stipulations on making finance flows for climate-resilient development and taking into account the needs of developing country Parties.

The UNFCCC Standing Committee on Finance, a constituted body under the UNFCCC, is currently working on definitions of climate finance and provides an overview of climate finance flows. The Committee has noted challenges related to data uncertainties on domestic public investments, differences in tracking climate finance and data gaps in adaptation finance and estimating climate-resilient investments. The Committee's work on the operational definitions of climate finance as well as on collecting, aggregating and analysing climate finance information would be particularly relevant to DRR and CCA budgeting and finance issues.

OECD DAC Rio markers and DRR policy marker are used by DAC members and other donors who report development assistance through the CRS. They focus on climate finance and DRR finance respectively and recognise large overlaps across the markers. In 2017, the DAC Working Party on Development Finance Statistics put forward a proposal to include a DRR policy marker within the OECD DAC CRS (which already includes the OECD DAC Rio marker methodology) to enable better tracking of DRR mainstreaming in official development assistance and other official flows. Implemented since 2018, the DRR marker intends to contribute towards greater coherence in how DRR investments are defined and reported in international development finance (OECD, 2017).

Classification of the Function of Government (COFOG) is used by governments to tag and track government expenditure within specific categories

defined according to different socioeconomic objectives. COFOG does not include explicit categories for CCA or DRR but can incorporate both to some extent across other expenditure categories.

The EU Taxonomy Climate Delegated Act establishes a common language and creates a classification system for environmentally sustainable economic activities. The Act's adaptation taxonomy highlights the importance of context- and location-specific aspects of adaptation and establishes a set of guiding principles and qualitative screening criteria to assess the potential contribution of an economic activity to climate resilience. While DRR is not explicitly referred to, climate-related disaster issues are covered in the taxonomy, as indicated by the inclusion of acute climate-related hazards and associated economic activities contributing to climate and disaster resilience.

The Multilateral Development Bank Working Group on Climate Finance Tracking applies a common tracking methodology on adaptation finance to identify specific adaptation activities within the development operations of multilateral development banks and provides an estimation of total project finance that contributes to climate resilience. Climate-related disaster risk reduction is tracked across different sectors. For instance, capacity building for local governments for the design of climate- and disaster-resilient infrastructure is tracked as a project activity linked to reducing climate vulnerability within the urban infrastructure project.

Initiative on Climate Action Transparency methodology aims to track climate finance at the national level and to help identify finance needs to implement Nationally Determined Contributions (NDCs), and to allow countries to track climate finance in a way that satisfies requirements of the Paris Agreement's Enhanced Transparency Framework.

DRR and CCA budget tagging and tracking: definitions and practices

Given overlapping objectives across DRR and CCA policies, and the multitude of institutions involved in delivering against both, understanding the overall volume of — and coherence between — climate and disaster expenditure remains challenging. A number of expenditure reviews and case studies have been conducted to address this gap at the country level. This includes reviews

of policy coherence (looking at policy, planning and institutional arrangements as well as finance and budgeting) between DRR and CCA in Benin, Malawi, Niger and Uganda (UNDRR, 2022a,b,c,d). Some countries are making efforts to integrate DRR into their climate policy and expenditure reviews or climate finance assessment frameworks (for example, Eswatini, and the Pacific island countries of Kiribati, Marshall Islands, Micronesia, Nauru, Palau, Papua New Guinea, Solomon Islands, Tonga and Vanuatu).

There are global definitions of green budget tagging and climate budget tagging (CBT) (Box 2). However, to date, there is no commonly accepted global framework or methodology for comprehensive disaster and climate budget tagging and tracking (DCBT). We refer to DCBT in this paper to describe the tagging of budgets and tracking of public expenditure for DRR and CCA together, in a way that considers common policy objectives and overlaps, rather than viewing them separately and siloed through CBT and disaster budget tagging and tracking (DBT).

In this report, tagging and tracking are defined as follows: tagging is the process of defining and applying a tag, while tracking is the process of using the tag to quantify and monitor expenditure. Tracking can be undertaken and reviewed occasionally, for example, as and when needed to inform new policy, or regularly, for example, as a standard process in the budget execution, accounting and reporting stages of the annual budget cycle. Tagging and tracking at the national level should be anchored within budget and public investment planning cycles, as well as integrated into financial management information systems, to enable effective classification and analysis of expenditure (Abbott, 2018; Gonguet et al., 2021). Integrating DRR and CCA issues into the budget process needs to be undertaken in the wider context of ‘green public financial management (PFM)’, which aims to make public financial management (PFM) practices environment- and climate-sensitive (Eltokhy et al., 2021).

While a lot of progress has been made in recent years in advancing and implementing approaches for climate or ‘green’ budget tagging and tracking, there is currently no standard definition or widely used methodology for CCA and DRR

budget tagging and tracking. CCA is included, with a greater emphasis than climate mitigation, in most of the existing climate budget tagging initiatives in developing countries, indicating their urgent need for CCA finance in the context of devastating climate-related disasters and worsening climate and disaster risks (World Bank, 2021a). Several country case studies and public expenditure reviews have been undertaken to assess DRR finance at the national level, for instance, disaster risk management (DRM) public expenditure and institutional reviews in Laos, Thailand and Vietnam (Abbott, 2018), and the 17 risk-sensitive budget reviews undertaken in Angola, Botswana, Cameroon, Côte d’Ivoire, Equatorial Guinea, Eswatini, Ethiopia, Gabon, Gambia, Ghana, Guinea-Bissau, Kenya, Namibia, Rwanda, São Tomé and Príncipe, Tanzania and Zambia (UNDRR, 2020a, 2022e). There are a few country examples where DRR budget tagging has been successfully institutionalised through wider PFM and performance budgeting reforms. However, “most countries in Asia-Pacific and sub-Saharan Africa do not track disaster-related investments and expenditures” (Amach, 2021). Those national PFM systems that tag and track DRR expenditure do so to varying degrees, and mechanisms for tagging and tracking differ across countries.

Major challenges related to budget tagging and tracking for both CCA and DRR include methodological issues and those related to the cross-cutting nature of CCA and DRR.

Many CCA- and DRR-relevant budget lines do not have CCA or DRR as their primary objective, so assessing the weight or share of CCA or DRR remains challenging and often depends on subjective analysis and judgement without a standardised and robust methodology. As a result, countries tend to be inconsistent in whether and how they capture DRR and/or CCA expenditure shares that

BOX 2. DEFINITIONS OF GREEN AND CLIMATE BUDGET TAGGING

Green budget tagging (GBT) is a public financial management tool to identify, classify, weigh and mark environment- or climate-related expenditures and/or revenues of governments, by attaching budget tags or codes to budget lines. GBT classifications vary in different countries, some classifying fiscal measures by mitigation or adaptation and others categorising by their climate policies (OECD, 2021; Eltokhy et al., 2021). Green budget tagging “assesses each individual component of the budget based on its climate (and/or environmental) impact (positive, neutral, negative) and gives it a ‘tag’ according to whether it is helpful or harmful to green objectives. Tracking of green

expenditure should ideally be factored in from the outset when putting a tagging system in place” (Gonguet et al., 2021). GBT can provide information that can help increase coherence between budget measures and climate and environmental goals and improve transparency and accountability of the government’s budget (OECD, 2021).

“Climate budget tagging has a narrower scope than green budget tagging, only focusing on climate-relevant budget measures, and it is a government-led process of identification, measurement, and monitoring of climate-relevant public expenditures” (World Bank, 2021a).

are mainstreamed as part of larger programmes or budget lines (CPI, 2018 and CPI, 2019, referenced in Alcayna, 2020). Both CCA and DRR cut across several sectors and mainstreaming is common in both policy arenas; this constitutes a key challenge. Many budgetary systems lack a specific DRR classification for investments in risk reduction. Instead, these investments tend to be dispersed and integrated within sectoral budgets, requiring detailed — and thus time-consuming and costly — ex-post sectoral analysis to quantify DRR allocations and expenditures (Gordon, 2013). Moreover, there are complications as some disaster-related expenditures — especially post-disaster — involve reallocations from operations and maintenance, human resources or other budgets, and these are not captured.

Given the local and context-specific nature of CCA and DRR, sub-national governments account for an important part of CCA and DRR expenditures. However, due to governance and capacity issues, budget tagging is not often systematically applied to sub-national government expenditures.

Other issues include the absence of an agreed approach for how private finance is accounted for in DRR and CCA, for instance, whether private finance that is leveraged through public investments counts towards international commitments for CCA (Alcayna, 2020).

Another challenge observed in existing climate budget tagging practices is whether and how to account for ‘negative expenditures’. The term ‘negative expenditure’ refers to risk-blind or harmful initiatives that may lead to maladaptation and increase climate and disaster vulnerability, exposure and risks across different time and spatial scales (Amach, 2021).

Lastly, the many overlaps between DRR and CCA often lead to CCA budgets including DRR as well as broader elements of DRM, and vice versa. This can result in double counting. For example, 49 of 213 DRR investments reviewed by UNDRR across 16 African countries also qualified as CCA programmes (UNDRR, 2020a). Some countries tag DRR and loss and damage separately from adaptation. A number of countries already have experience with budget tagging and tracking in cross-cutting policy areas other than climate change and DRR, for example, those related to gender, nutrition or poverty. DRR and CCA budget tagging will need to be introduced and implemented in a complementary manner in line with existing budget tagging arrangements (where these are already in place), as well as with the wider PFM context and systems (Abbott, 2018).

Achieving a coherent global approach

DRR and CCA budget tagging, when complemented with other policy and finance measures, may help enhance climate and disaster financing by increasing the availability and quality of data on domestic and international public finance for CCA and DRR. As most adaptation finance is from public sources and grants, while in 2018 only 1% of tracked adaptation finance was from the private sector (IPCC, 2022b), it will be important to continue to improve the data on the availability, quality and comparability of domestic public finance on DRR and CCA as part of the global effort to enhance climate and disaster financing. However, as indicated by the Standing Committee on Climate Finance (UNFCCC, 2021b), the lack of a multilaterally agreed definition of climate finance is currently hampering the ability to track and assess climate finance, particularly adaptation financing. Similar challenges apply to DRR finance (Wilkinson et al., forthcoming). In addition, the lack of availability, certainty and comparability of data makes tracking CCA and DRR finance at the global level challenging.

Given these data limitations and the significant commonalities and overlaps between DRR and CCA policies, institutions and financing, there is room for a globally coherent and harmonised approach towards DCBT. In addition to supporting the mobilisation of finance, this could support greater efficiency of CCA and DRR finance and help avoid duplication at global, national and local levels, especially for types of programmes and activities that support both policy objectives.

This paper aims to identify challenges, best practices, potential benefits, and ways forward towards a more coherent global approach to DCBT. For this purpose, the remainder of the paper analyses country experiences with CBT and DBT, as well as efforts to pursue integrated approaches to budget tagging and expenditure tracking.

2 Country experiences in CBT and DBT

This section provides an overview of country experiences in tagging budgets and tracking public expenditures related to DRR and CCA across over 40 countries in Africa (Ethiopia, Ghana, Kenya, Mauritius, Nigeria, Seychelles, South Africa, Uganda), Asia-Pacific (Bangladesh, Fiji, India, Indonesia, Laos, Marshall Islands, Nauru, Nepal, Pakistan, Philippines, Samoa, Thailand, Timor-Leste, Vanuatu, Vietnam), Europe and Central Asia (Armenia, EU, France, Ireland, Luxemburg, Netherlands, Norway, Moldova, Serbia and Spain), and Latin America and the Caribbean (Chile, Colombia, Dominican Republic, Ecuador, Honduras, Mexico, Nicaragua, Peru).

The report is based on desk-based reviews of publicly available information as well as findings from face-to-face and virtual stakeholder consultations. Country experiences included in this review include both routine budget tagging practices and periodical, one-time experiences such as the Climate Public Expenditure Institutional Reviews and risk-sensitive budget reviews. It should be noted that the majority of country experiences discussed in this paper are from CBT, as fewer countries have established systems for DBT. Where relevant, lessons learned from other cross-cutting tagging and tracking initiatives, such as initiatives focusing on gender, nutrition and the SDGs, are also included.

Leadership and coordination

In most countries, the decision to undertake a budget tagging exercise related to CCA and DRR was influenced both by domestic and international policy contexts and factors. The Paris Agreement and international calls for increasing transparency of climate finance flows influenced countries' decisions to track climate and DRR-related expenditures. In some countries, a climate budget tagging initiative was driven by domestic policy frameworks such as the National Climate Change Plan in Ecuador and the Climate Change Act in Nigeria. There is, however, limited evidence on whether and how agencies responsible for coordinating climate policies and those responsible for DRM jointly discussed and decided to undertake CBT, DBT or integrated DCBT initiatives.

In most countries, responsibilities for designing and implementing climate budget tagging initiatives were shared between the ministries of finance and ministries of environment. This includes joint development of the methodology

on budget tagging related to CCA, as well as associated guidelines, manuals and procedures for implementation by line ministries and relevant agencies. In the Philippines, climate budget tagging and expenditure tracking was jointly developed by the Department of Budget and Management (DBM) and the Climate Change Commission (CCC) and piloted by local government units. In Spain, methodology development is being led by the Ministry of Environment in collaboration with the Ministry of Finance. In Colombia, a climate budget tagging initiative was led by the National Planning Agency without a central role of the Ministry of Finance. However, according to one of the authors' consultations, the Finance Department, the National Unit for Disaster Risk and the Comptroller General's Department take part in a technical board for the climate finance monitoring, reporting and verification (MRV). Across all the countries examined for this study, there was a lack of clarity on the exact role and level of involvement of DRM agencies in designing climate budget tagging initiatives, although climate budget tagging included climate-related DRR actions as part of CCA-related expenditures.

For DRR expenditure tracking, experiences from India, Indonesia and the Philippines suggest the need for mobilising ministries of finance and those responsible for infrastructure, as the majority of embedded DRR investment is made by ministries responsible for managing infrastructure and natural capital (Gordon, 2013).

Once the methodology was developed, in most countries line ministries usually carried out climate and disaster-related budget tagging, identifying and tagging climate-related expenditures. Some countries, such as Chile and Ecuador, focused on the implementation of tagging systems in several sectors with the biggest climate expenditures, namely energy, agriculture and environment policies. Several countries in Asia and Europe engaged a comprehensive set of line ministries, as in the case of Indonesia, which engaged 16 line ministries in tagging climate and DRR-related budgeting. In Ireland, the Department of Public Expenditure and Reform conducted the initial tagging, which was then verified by line ministries.

Across different regions, there was limited evidence of formal quality assurance and verification mechanisms. Ex-post validations and evaluations are hardly practiced in Europe (EC, 2021a). In Latin America and the Caribbean, no country was found to have specific quality

assurance measures beyond validation by ministries of finance. In Asia, the Philippines identifies quality assurance as a key part of the budget review process, examines tagging decisions of line ministries and provides an assessment of the evidence to support these decisions.

Definition and scope

Country definitions and scope of DRR and CCA-relevant expenditures varied within and across different regions, but the majority of countries reviewed for this study follow objective- or policy-based definitions and capture both recurrent and investment expenditure. Most countries capture multiple sectors, given the cross-sectoral nature of CCA and DRR, and include sub-national-level expenditures. Transfers to public-private entities, mainly state-owned enterprises (SOEs), were identified in a number of countries (South Africa, France, Honduras, Nicaragua, Ecuador, Philippines).

Negative expenditure is not included in the countries reviewed, with the exception of France, which captures negative expenditure along with positive and neutral ones.

DRR and CCA overlaps

Overlaps and common objectives between DRR and CCA are recognised to varying extents in national policy frameworks. At least 13 countries globally (mostly from the Pacific) have adopted a joint climate change and DRR or DRM strategy or plan, as summarised in Table 2 below (UNDP, 2022a); while other countries recognise overlaps in separate policies, strategies and plans.

The EU is making noticeable efforts to define DRR and CCA overlaps at the level of broader policies and strategies and investment planning. Most EU countries are implementing measures to ensure that investments are resilient to future disaster and climate risk through environmental impact

Table 2. Joint climate change and DRR/DRM strategies and plans

COUNTRY	STRATEGY OR PLAN
Cambodia	Climate Change Strategic Plan for Disaster Management Sector 2014–2018
Cook Islands	Joint National Action Plan for Disaster Risk Management Climate Change Adaptation (2016–2020); Climate and Disaster Compatible Development Policy 2013–2016 (Kaveinga Tapapa)
Egypt	Egypt’s National Strategy for Adaptation to Climate Change and Disaster Risk Management
Kiribati	Kiribati Joint Implementation Plans for Climate Change and Disaster Risk Management 2014–2023 and 2019–2028
Maldives	Strategic National Action Plan for Disaster Risk Reduction and Climate Change Adaptation 2010–2020
Marshall Islands	Joint National Action Plan for Climate Change Adaptation and Disaster Risk Management 2014–2018
Micronesia	Nationwide Integrated Disaster Risk Management and Climate Change Policy
Nauru	Framework for Climate Change Adaptation and Disaster Risk Reduction
Nepal	Priority Framework for Action: Climate Change Adaptation and Disaster Risk Management in Agriculture 2011–2020
Niue	Joint National Action Plan for Disaster Risk Management and Climate Change
Tonga	Joint National Action Plan on Climate Change Adaptation and Disaster Risk Management 2010–2015
Tuvalu	National Strategic Action Plan for Climate Change Adaptation and Disaster Risk Management 2012–2016
Vanuatu	The Vanuatu Climate Change and Disaster Risk Reduction Policy 2016–2030; National Policy on Climate Change and Disaster-Induced Displacement

Source: UNDP (2022a)

assessments. Furthermore, national risk assessments in all EU countries now include climate change considerations (Poljansek et al., 2021). Reporting guidelines on disaster risk management ask Member States to take into consideration national and sub-national climate change adaptation strategies and/or action plans and to describe if and how these are integrated with the planning of national disaster risk prevention and preparedness measures or vice versa (EC, 2019). Revisions of the Union Civil Protection Mechanism legislation include a greater emphasis on the importance of addressing the impacts of climate change on disaster risk and highlight greater synergies between DRR and CCA measures, with a strong emphasis on nature-based solutions at national or sub-national-level (European Parliament, 2021). However, there are varying degrees of CCA integration into DRM across Europe, as shown in Table 3 below. Countries still report that the degree of integration of CCA into DRM is to be improved. Some experts note that while there are noticeable improvements at the level of strategies and policies, the actual implementation of DRR and CCA measures still takes place in silos.

Beyond strategic and policy-level integration of DRR and CCA, a number of countries are pursuing various integrated approaches to DRR and CCA in disaster- and climate-related public expenditure reviews and budget tagging reforms. In Africa, a number of disaster and climate policy review tools have been used over different time periods, as shown in Table 4. Burkina Faso and Niger, supported by the UN Development Programme (UNDP), have conducted a combined disaster and climate change public expenditure and institutional review (DCPEIR). The reports are currently being finalised, and the experience will provide important insights into the benefits, challenges and opportunities for a more integrated approach to DRR and CCA. Ethiopia is in the process of piloting a combined DCBT system. Kenya's climate-relevant expenditure reporting for non-state actors includes disaster risk management under the adaptation sector expenditures, while the disaster-related expenditure reporting template for ministries, departments and agencies does not have explicit reference to climate change but includes climate adaptation-related activities under the mitigation and preparedness categories (The National Treasury and Planning Circulars, 2020).

In Asia and the Pacific region, Vanuatu's climate public expenditure and institutional review (CPEIR) classified DRR as activities that are not considered under climate resilience and that reduce the impact of natural hazards (Government of Vanuatu 2014). Nine countries (Kiribati, Marshall Islands, Micronesia, Nauru, Palau, Papua New Guinea, Solomon Islands, Tonga and Vanuatu) have implemented the Pacific Climate Change Finance Assessment Framework (PCCFAF). The PCCFAF builds on the CPEIR and Public Expenditure and Financial Accounting (PEFA) methodology to integrate disaster risk management. It was initially developed in 2013 (Pacific Islands Forum Secretariat, 2013). The framework was later extended to include gender and social inclusion, so that gender-responsive planning and budgeting can be linked to the tagging and tracking of climate change and disaster management finance flows rather than implementing them in isolation. The PCCFAF has been recognised as a 'good practice' tool to support finance and transparency principles of the Paris Agreement by the UNFCCC Standing Committee on Finance's 2018 Biennial Report (Pacific Community, 2019).

In Latin America and the Caribbean, Colombia's methodology reviews the correlation between climate change categories related to disaster risk to identify which ones are generated by meteorological risks (source: authors' consultations). In Ecuador, DRR is framed within climate policies, and disaster management policies acknowledge that climate change contributes to disasters. The Ecuadorian Financial Strategy for Disaster Risk frames hazards like El Niño and La Niña as exacerbated by the effects of climate change, but non-climate-related risks like pandemics and earthquakes are given wider space in the strategy (Gobierno de la República del Ecuador and Banco Mundial, 2020). Peru considers climate effects as risks to its National System on Multiannual Programming and Investment Management (INVIERTE.PE), implemented in 2017. In this system, investment projects include climate risk management (GIZ, 2019).

Table 3. DDR and CCA integration at strategy and policy level in the European region

COUNTRY	INTEGRATION OF CCA INTO DISASTER RISK MANAGEMENT
Austria	DRM is well reflected in the National Adaptation Strategy and National Adaptation Plan ²
Belgium	DRM plans do not refer to climate change ¹ . Some reference to DRM in adaptation plans ²
Bulgaria	DRM strategies do not integrate climate risks ¹
Croatia	High — through National Disaster Risk Assessment ^{1,2}
Cyprus	Some — through sector climate change risk assessment reports ²
Czech Republic	Yes (coordination mechanisms and strategies) ¹
Denmark	Partly ¹
Estonia	Partly ¹
Finland	Strong ¹
France	Strong ¹
Germany	In progress, no evidence how DRM takes account of future climate projections ²
Greece	Institutional mechanism in place; legislation requires integration at the level of regional adaptation plans (in development) ¹
Hungary	In progress ¹
Ireland	In progress, no evidence how DRM takes account of future climate projections ¹
Italy	In progress ¹
Latvia	In progress ¹
Lithuania	Limited ²
Luxemburg	In progress ²
Malta	In progress ²
Netherlands	Yes ¹
Poland	Yes, the updated National Disaster Management Plan (2000) takes into account climate factors and includes preventive actions for climate-related disasters ²
Portugal	The National Risk Assessment takes into account, among others, the impacts of climate change. The National Strategy for Preventive Civil Protection integrates climate adaptation into disaster risk reduction ²
Slovakia	In progress ²
Slovenia	National Disaster risk assessments include climate change impacts ¹
Spain	National Civil Protection Strategy integrates climate change considerations ²
Sweden	Yes, through territorial risk and vulnerability analysis ²
UK	The current risk register (Cabinet Office, 2015) factors in climate change projections and climate-related impacts; a number of other disaster risk frameworks integrate climate ¹

Note: the information in the table has been compiled by the authors based on the information available from the following sources:

¹ EC (2018) Adaptation preparedness scoreboard Country fiches, accompanying the document 'Report from the Commission to the European Parliament and Council on the implementation of the EU Strategy on adaptation to climate change'. Commission staff working document, SWD (2018) 461 final. <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018SC0461&rid=1>

² ClimateAdapt country profiles available at <https://climate-adapt.eea.europa.eu/countries-regions/countries>, Section 2.2.e 'Integrating climate change impacts and adaptation planning into disaster risk management frameworks and vice versa'. Information in these profiles is based on reports by each country submitted in 2021, as requested under the national adaptation actions of the 2018 Regulation on the Governance of the Energy Union and Climate Action (Governance Regulation). Additional details of the reporting are requested in Article 4 and specified in Annex I of Commission Implementing Regulation (EU) 2020/1208 of 7 August 2020 on structure, format, submission processes and review of information reported by Member States pursuant to Regulation (EU) 2018/1999 of the European Parliament and of the Council and repealing Commission Implementing Regulation (EU) No 749/2014. As those are self-assessments, the level of detail is not uniform.

Table 4. Disaster and Climate policy and expenditure review tools used in Africa

	CPEIR	R-SBR	IPFSDRR	DRFD	DCPEIR	PEFA-C	CFLA	OTHER
Angola		2020						
Benin	2017							
Botswana		2020						
Burkina Faso					2022 ^d			
Cameroon		2020						
Comoros			2015					
Côte d'Ivoire		2020						
Eswatini	2021	2020		2022				
Ethiopia	2014 ^a	2020				2021		
Gabon		2020						
Gambia		2020						
Ghana	2015; 2021	2020						
Guinea-Bissau		2020						
Kenya	2016	2020					2021	
Lesotho				2019				
Madagascar			2015					
Mauritius			2015					PEER 2016; TPSEE 2018
Morocco	2012							
Mozambique	2016 ^b							PEER 2012
Namibia		2020						
Nigeria							2022	
Niger			2016		2022 ^d			
Rwanda	2013	2020						
São Tomé and Príncipe		2020						
Seychelles	2018 ^c		2015					BPER 2019
Sierra Leone				2022				
South Africa				2022			2021	
Tanzania	2013	2020	2015 ^e					
Togo			2016					
Uganda	2013							
Zambia		2020						

Note: CPEIR is climate public expenditure and institutional review, R-SBER is risk-sensitive budget review, IPFSDRR is Investment Planning and Financing Strategies for Disaster Risk Reduction, DRFD is Disaster Risk Financing Diagnostic, DCPEIR is a joint disaster and climate public expenditure and institutional review, PEFA-C is Public Expenditure and Financial Accountability Climate, CFLA is the Climate Policy Initiative climate finance landscape assessments, PEER is public environment expenditure review, TPSEE is tracking of public sector environment expenditure, BPER is biodiversity public expenditure review.

^a partial CPEIR carried out in Ethiopia, ^b the Mozambique CPEIR is pending validation by the government, ^c the CPEIR that was undertaken in 2018/19 in Seychelles under the Global Climate Change Alliance+ project was unsuccessful due to problems with the consultants, ^d report is yet to be finalised, ^e done for Zanzibar

Source: (UNDP, 2022a; UNDRR, 2015a–d, 2016a,b, 2020a–d,g–r, 2022)

Climate and disaster funds in climate and disaster budget tagging

As climate- and disaster-related funds are often outside the budget process, it is not clear whether climate and disaster budget tagging systems cover these funds and to what extent some of these funds support risk reduction, especially in cases where they are primarily or partially aimed at covering the costs of disasters ex-post. Below is a list of some examples of disaster and environment funds in the countries examined that could be considered in the context of DRR and CCA budget tagging and public expenditure tracking.

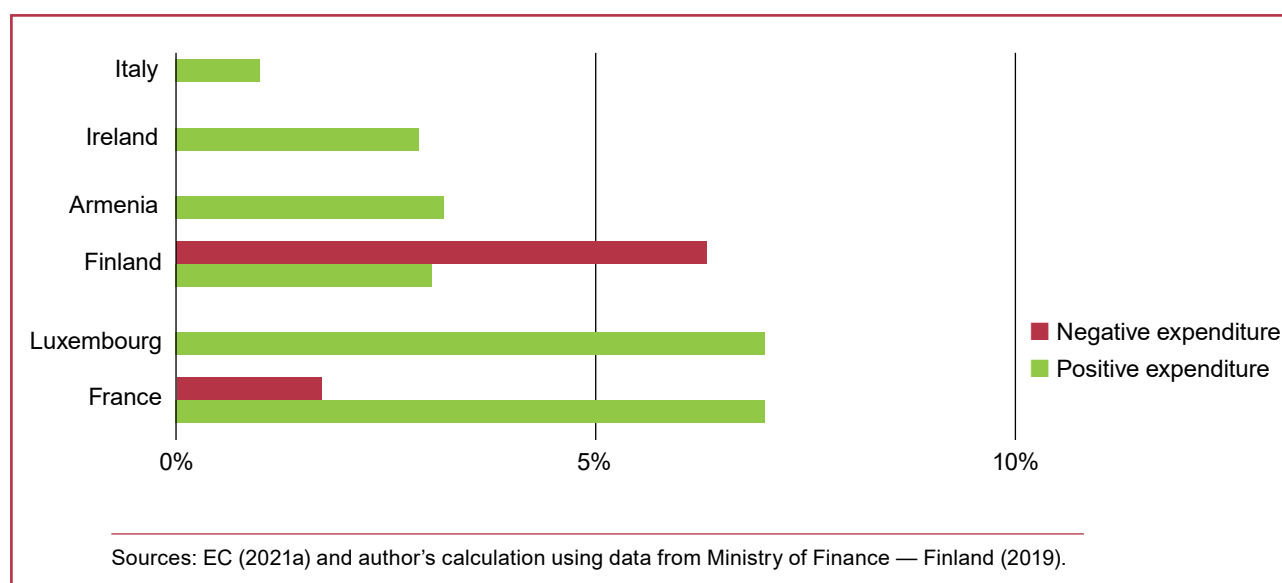
- Poland: National Fund for Environmental Protection and Water Management, source of funding for the National Adaptation Plan
- Netherlands: compensation scheme for uninsured property damaged by major flood and other disasters
- Norway: National Fund for Natural Damage Assistance
- Paraguay: Law 2.615 creates the National Emergency System, which requests the allocation of 5% of sub-national territories' funds to actions on DRR focusing on the prevention and mitigation of disasters and the preparation response and rehabilitation of affected communities (IADB, 2017a).
- Costa Rica tags 3% of public institutions' and enterprises' budgets to fund the National Emergency Fund (IADB, 2015a).

- Dominican Republic requests the availability of 1% of public assets to cover unforeseen disasters (IADB, 2015b).
- Mexico: the Fund for the Prevention of Natural Disasters is authorised to provide resources for preventive projects aimed at reducing risks and avoiding or reducing the effects of natural hazards. It also provides incentives for investments in DRM to states, municipalities and federal public administration entities (IADB, 2015c).

Negative expenditure

Among over 40 countries reviewed, France was identified as the only country that tags negative contribution to climate objectives annually. Ireland plans to capture spending that may have a negative impact on climate and environmental outcomes in 2022. A few countries in Europe were found to assess the harmful impacts of subsidies. Italy identified subsidies with positive and negative environmental impacts at the request of the Italian Parliament in 2016. Finland's 2019 budget review includes an assessment of the volume of subsidies with negative environmental impact, while Norway reviews subsidies with harmful impacts on biodiversity. While it is necessary to address various political, institutional and technical challenges in capturing negative expenditures, it would be important to consider how negative expenditure can be identified and tracked. As shown in Figure 2 below, in some cases, the benefits of positive expenditure could be outweighed by the harmful effects of negative expenditure.

Figure 2. Positive expenditure and negative expenditure as a share of total budget (%)



Local-level budget tagging and expenditure tracking

In the case of CBT and DBT, sub-national and local-level coverage is particularly important, as DRR and CCA implementation largely lies at this level of governance. The important role of local governments in climate adaptation and DRR finance is clearly demonstrated in the Philippines. The Department of Interior and Local Government developed the guidelines to implement budget tagging. In 2021, over 15,000 projects, activities and programmes across 34 agencies were climate-tagged, accounting for nearly 6.26% of the total national budget. Around 93% of the climate-tagged budget supports climate adaptation and DRR objectives including the construction and maintenance of flood mitigation structures and drainage systems. Climate expenditure tagged in the Department of Public Works and Highways, Agriculture, Environment and Natural Resources and the Metropolitan Manila Development Authority is incorporated in the Programme Convergence Budgeting of the Cabinet Cluster on Climate Adaptation and Mitigation — Disaster Risk Reduction (Philippines Climate Change Commission, 2021).

Private sector-related expenditures and revenues

Many countries in Europe and Latin America and the Caribbean apply climate tags to transfers to SOEs, but there seems to be limited evidence in Africa (except South Africa's CBT, which includes SOEs) and Asia (except Pakistan and the Philippines, which tag central government transfers to SOEs) (World Bank, 2021a). Several countries in Europe and Latin America and the Caribbean have experience with the issuance of sovereign green bonds, which include DRR- and CCA-related expenditures. Chile's Sovereign Green Bonds Framework has broad coverage, including tax expenditures related to subsidies and tax exemptions, and in Europe, France and Belgium's green bonds also include tax expenditures and subsidies (World Bank, 2021a).

Objectives

Across different regions reviewed, the following six objectives were most commonly identified in climate- and DRR-related budget tagging and expenditure tracking initiatives: **i) raising awareness; ii) informing policy and financing strategy development; iii) increasing budget transparency and accountability; followed by iv) assessing trends, tracking and monitoring for decision making and budget allocations; v) identifying financing gaps and available resources; and vi) mainstreaming into different sectors** (Table 5). In Africa, most countries indicate that they introduced related CBT or DBT reforms to identify and track climate-related expenditure and to increase transparency and accountability of climate and disaster finance. European countries mostly aimed at promoting budget transparency, meeting international and national commitments and promoting environmentally responsive policymaking (OECD and European Commission, 2020). In Latin American and Caribbean countries, CCA- and DRR-related budget tagging initiatives were framed under national policies and strategies, and sought to inform decision making on budget allocation and mobilisation of financial resources for CCA and DRR. Only Ireland, Luxembourg, Nigeria and Indonesia linked CBT to supporting the issuance and reporting of sovereign green bonds.

Table 5. Objectives of climate and disaster-related budget tagging and public expenditure tracking across Africa, Asia-Pacific, Europe and Latin America and the Caribbean

	Raise awareness, better understand publicly funded climate actions	Inform policy and financing strategy development	Increase budget transparency and accountability	Assess trends, track and monitor for decision making and budget allocations	Identify financing gaps and available resources	Mainstream into line ministries, agencies
Africa						
Ethiopia	X	X		X	X	
Ghana	X		X	X	X	
Kenya	X	X	X			
Mauritius	X		X	X		
Nigeria	X	Support the issuance of green bonds				X
South Africa	X		X	X		
Uganda				X		
Asia-Pacific						
Fiji	X	X		X	X	
Indonesia		Report on the green bond/ Sukuk	X	X		
Philippines			X	X		X
Europe						
Ireland		Support the issuance of green bonds	X			
Luxembourg		Support the issuance of green bonds	X			
Armenia, Georgia, Serbia disaster recovery expenditure		X (disaster risk financing strategy)				
EU funds				X		X
Moldova		X	X	X		
Spain		X	X	X		
Latin America and the Caribbean						
Honduras				X	X	
Nicaragua				X	X	
Columbia				X		

Notes: Countries in Europe responded to questions about the objectives based on a set of pre-defined categories as part of a survey, while countries in other regions did not participate in the same survey and defined their objectives in different ways.

Reporting and dissemination

At present, many countries with climate or disaster tagging — particularly in Africa and Asia and the Pacific — have not (yet) produced budget reporting documents that are publicly available. This includes climate and disaster budget reports or citizens' climate and disaster budgets.

Some countries, however, have established reporting, or are in the process of putting measures in place to produce climate- and/or disaster-related budget reporting in the future, including Austria, Bangladesh, Cambodia, Chile, Columbia, Ecuador, Finland, France, Ghana, Honduras, India, Ireland, Italy, Kenya, Luxemburg, Mexico, Nepal, Nicaragua, the Philippines and Uganda.

How the data is reported, analysed and used varies across countries and can change over time. In the state of Odisha in India, for instance, a climate budget was initially included as an individual chapter of the state budget in 2019 and was published separately in subsequent financial years. As presented in the Odisha Climate Budget 2022–2023, climate-relevant shares have been introduced for 11 sectors, including the coast and disaster risk management sector (Government of Odisha, 2022). In Bangladesh, based on a green budget process, an annual report on Climate Financing for Sustainable Development is published with the aim of engaging civil society and holding the government accountable. The report also presents the percentage

of expenditure on climate-related activities to show the government's commitment to addressing climate change and creating knowledge and understanding of climate finance among stakeholders (OECD, 2020c). Further regional examples of how climate-related expenditure is reported are summarised in Box 3, below.

Several countries are using online portals or citizens' budgets to disseminate information on climate-related budget allocation and expenditure to the wider public.

Online portals: Several countries make climate-related budget information available online, or are developing websites for this purpose, even when the budget reporting itself does not include allocation or expenditure towards CCA or DRR, for example:

- Uganda introduced an online portal using information generated from CBT. The portal contains information on the flow and use of climate finance.
- The Philippines publishes national and local climate change expenditure tagging (CCET) findings online via the National Integrated Climate Change Database and Information Exchange System (<https://niccdies.climate.gov.ph/climate-finance/ccet>). The website makes available information on local climate investments for climate adaptation and mitigation separately for around 140 local government units across 48 provinces.

BOX 3. HOW CLIMATE-RELEVANT BUDGET ALLOCATIONS AND EXPENDITURE ARE REPORTED IN EUROPE, LATIN AMERICA AND THE CARIBBEAN

In Europe, climate- (and/or environment-)relevant allocations are reported as part of the budget in Austria, Finland, France, Ireland, Italy and Luxembourg (EC, 2021a). Relevant reports or tables are annexed to budget proposals submitted annually to parliament. Finland, Italy and Luxembourg also include the relevant reports with multi-year plans; and, in the case of Italy, with budget execution reports. They are then used in parliamentary discussions. In France these reports are also used for structured dialogue with civil society bodies and other stakeholders on the climate or environmental impact of budget decisions (EC, 2021a). Information on environment and climate expenditure under EU funds is published annually by the EC in the 'Programme statements of operational expenditure', part of the package of working documents in support of its annual budget proposals. Environmental effects are discussed in

Norway's general tax expenditure report, which is publicly available (Nesbit et al., 2021).

In Latin America and the Caribbean, climate-relevant allocations are reported as part of the budget in Nicaragua, Honduras and Mexico. In some cases, this is annexed to the annual budget documents, or captured through a separate analytical report (World Bank, 2021a). Nicaragua is the only country identified in the region that presents climate-, disaster- and environment-related expenditures in the general budget, and where the general budget execution reports reflect this spending, and where final expenditures are included in the general budget liquidation report (World Bank, 2021a). Honduras presents its climate budget in a separate analytical report, including detailed budget tables of all climate-relevant activities (World Bank, 2021b).

- In Ecuador, final expenditures on climate change are not reflected in budget settlement reports, but public access to real-time data generated from tagging is available on the website of the Ministry of Finance (World Bank, 2021b).
 - In Colombia, the climate finance MRV platform provides interactive maps to visualise data on public climate expenditure by sector, implementing entity, sub-national unit and origin of funding. Raw data can also be downloaded, but no narrative or analytical reports are available, except for elements included in Colombia's Third National Communication under the UNFCCC, which includes details on climate change expenditures using this data (World Bank, 2020a).
 - Ghana is currently developing a public climate finance dashboard (see Box 4).
- Citizens' budget:** A few countries, such as Bangladesh, Cambodia and Nepal, publish citizens' budgets specifically focused on climate, for example:
- The Freedom Forum publishes the Nepal's Citizens Climate Budget to communicate, inform and encourage public understanding and engagement on the government's budget to raise and spend public money to address climate change and its effects. The government's planned expenditure on actions to respond to climate change has increased from 10 to 27% of the total annual budget (Freedom Forum, 2019).
 - The Cambodian NGO Forum also publishes a Citizens Climate Budget, which includes gender information. In 2017, climate change-related programmes with a gender focus constituted 10% of the total budget. Gender-related programmes that are relevant for climate change account for 55% of the total budget. The sectoral share of climate change shows that spending on disaster

BOX 4. CLIMATE EXPENDITURE REPORTING IN GHANA

Ghana has successfully rolled out CBT at the national and sub-national level. Climate budget tagging is integrated into the Ghana Integrated Financial Management Information System (GIFMIS), which allows for the monitoring of climate expenditure. According to the Ministry of Finance, the information generated from CBT is used to:

- Inform resource allocations to climate action
- Share with relevant partners to help identify financing gaps
- Help incentivise ministries, departments and agencies (MDAs) to make budget allocations towards climate action, that is, by sharing information and raising awareness that climate expenditure is tagged and monitored
- Allow MDAs to engage with other stakeholders on climate finance.

Government officials have access to the data generated from CBT. However, at present, it is only available to the public on request. The Ministry of Finance is developing a public dashboard that contains comprehensive information on public climate change finance. They also expect to publish their first climate budget report in 2023.

Further, climate change is included in the SDG budget report. Ghana's government launched its SDG budget report in 2019 and is currently working to the second edition. The report presents the

budget allocations across MDAs and metropolitan, municipal and district assemblies (MMDAs).

The Chart of Accounts is the 'cornerstone' of the GIFMIS and the Budget Management System (Hyperion). It is made up of 12 segments. The policy objective segment is coded to reflect government policies as presented in the National Medium Term Development Policy Framework. The SDG targets were mapped and linked to individual policy objectives, ensuring SDG targets were unique to the policy objective. During budget preparation, all MDAs and MMDAs are mandated to assign budgets (with the exception of salaries) to policy objectives and SDG targets. Since 2019, budgets for MDAs and MMDAs have been prepared and approved based on this process.

The SDG budget report contains information on all 17 SDGs. The report makes reference to climate change when reporting on Goal 13 on climate action and Goal 11 on sustainable cities and communities (for example, the city of Accra has at least 27 initiatives that "seek to reduce flooding, improve drainage and sanitation, affordable housing, clean transportation and vulnerability to shocks and disasters"), as well as on Goal 14 on life below water and on Goal 15 on life on land.

Source: Authors' consultations with Ghana Ministry of Finance and Economic Planning; Ghana Ministry of Finance and Economic Planning (2018, 2019, 2020)

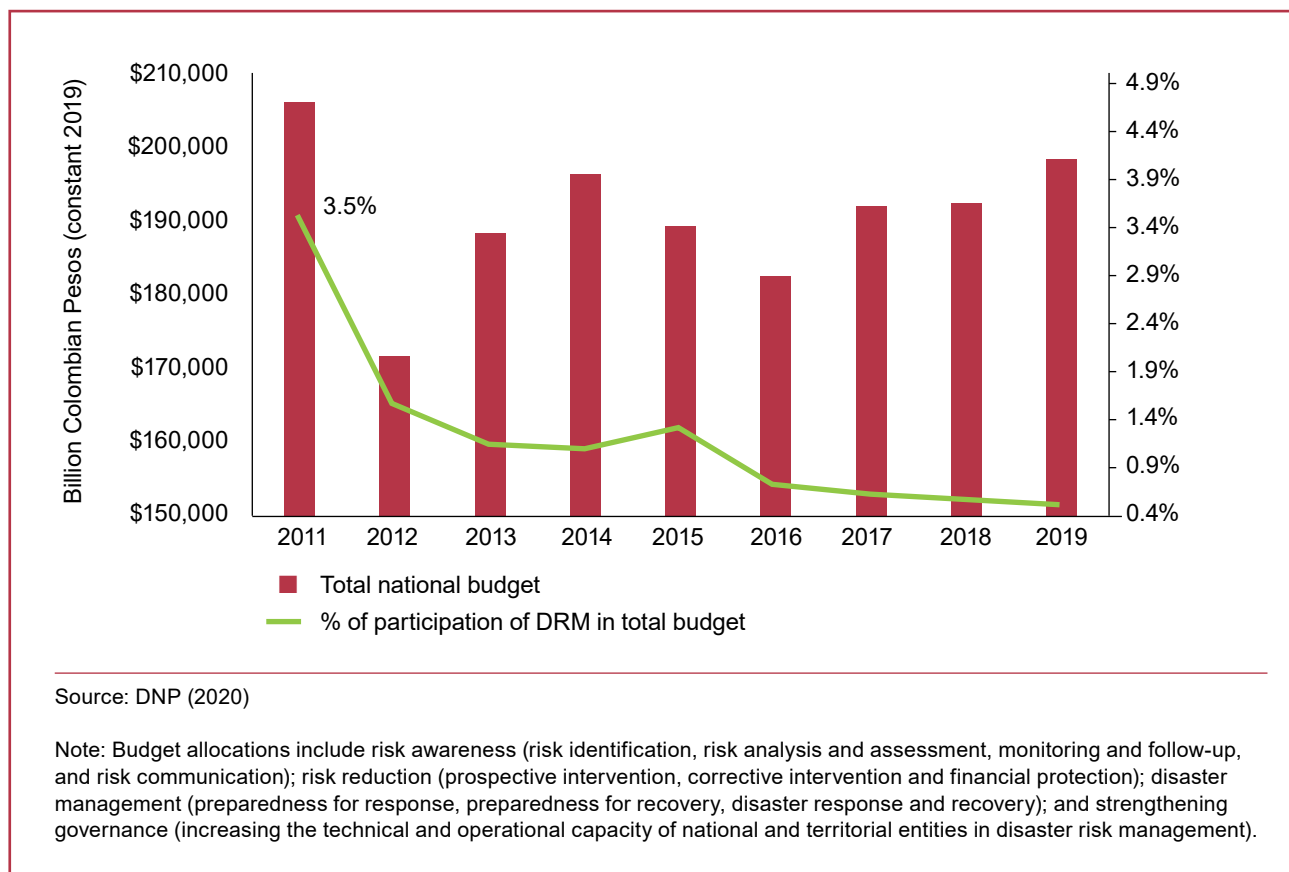
reduction covers 4.2% in 2017 (NGO Forum on Cambodia, 2019).

We were not able to identify any countries that issue citizens' budgets specifically focused on disaster-related expenditure (though both disaster- and climate-relevant expenditure may be included in more general citizens' budgets in other countries).

For the most part, reporting and dissemination of progress is concentrated on climate, rather than disaster-related budgeting or the integration of both. For examples of climate expenditure reporting at the country level, see Box 5. Fewer countries report systematically and regularly on DRR-related budget allocation or expenditure. One exception is Colombia, which has been tracking public investment in DRM. The latest report presents an overview of budget allocation and shares of DRM in the total budget between 2011 and 2019, as shown in Figure 3 below. It is unclear, however, to what extent climate change adaptation considerations are reflected in the DRM budget reporting.

In most countries, climate-related budget reporting captures budget allocations, rather than expenditure. However, whether or not reports capture only budget allocation, or include expenditure, can make a big difference in the accuracy of reporting on how much is actually spent on CCA and DRR. When there are discrepancies between allocation and expenditure, but only the former is reported, this can have significant negative implications on whether adaptation and risk reduction outcomes are achieved as was planned during budget allocation. As outlined in Box 4, Ghana produces an SDG budget report, which includes aspects of climate change. However, the SDG budget report only captures budget allocations and not the actual expenditure. According to a recent study on Ghana (Aloryito, 2022), while aggregate budget execution is high, a breakdown of expenditure across sectors and spending type reveals 'serious disparities between planned and actual spending', which could undermine achievement of the SDGs.

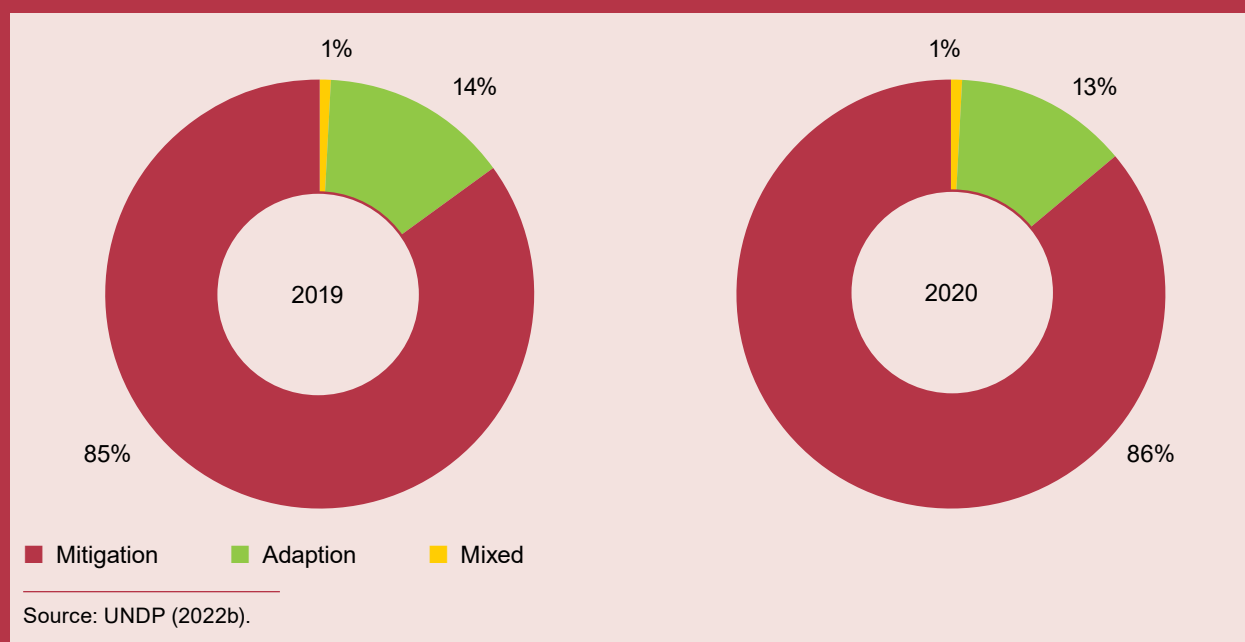
Figure 3. Colombia's budget allocations towards DRM (2011–2019)



BOX 5. CLIMATE EXPENDITURE REPORTING IN CHILE AND MEXICO

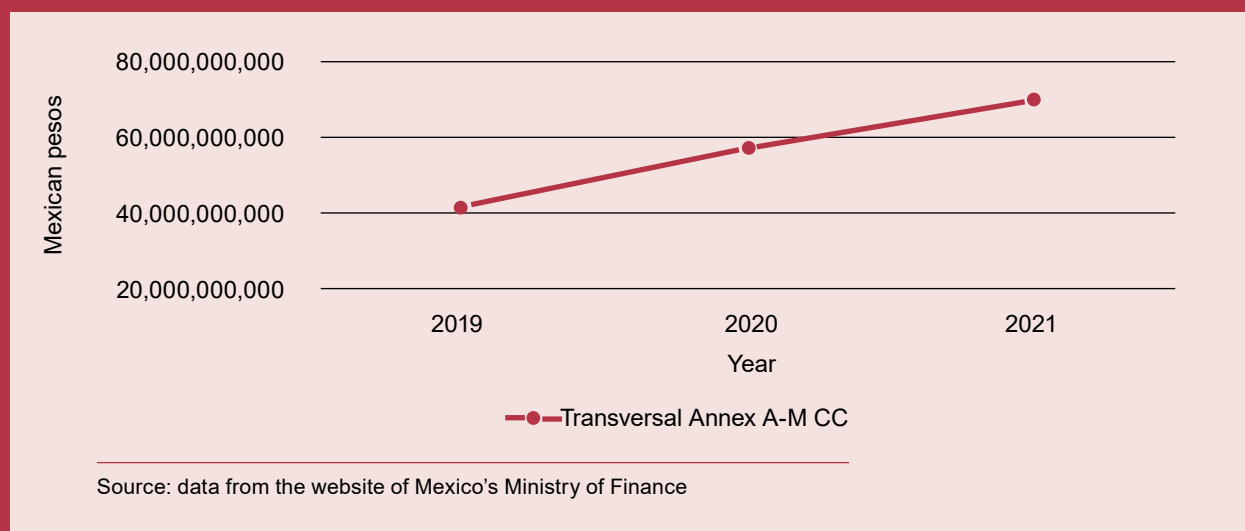
In Chile, as part of the collaboration of the Budget Directorate of the Ministry of Finance with the UNDP, three reports presenting expenditure on climate change have been prepared. Looking at executed budget for climate change programmes and initiatives in 2019 and 2020, a 1% increase in expenditure for adaptation can be identified (UNDP, 2022b). The figure below shows the percentage of budget allocated in Chile to programmes with climate change components by line ministries by objective, highlighting that most of the budget goes to adaptation.

Percentage of budget allocation to programmes with climate change components in Chile, 2019–2020



In Mexico, the National Institute of Ecology and Climate Change developed a MRV methodological proposal for climate finance. The expenditure budget of the Federation includes the Transversal Annex 16 'Resources for the Adaptation and Mitigation of the Effects of Climate Change', which contains the resources to address climate adaptation and mitigation in various agencies and entities of the federal public administration (Hernández, 2020). Using data from the Transversal Annex for 2019–2021, the following shows the evolution of climate change public expenditure in Mexico.

Public expenditure towards climate change in Mexico, 2019–2022



Capacity assessment

Most climate and/or disaster budget tagging reforms have ambitions to be rolled out at the national and sub-national level, with tagging typically done by spending ministries and agencies (see also the section on leadership and coordination above). This requires capacity building at all levels of government on climate and DRR concepts, as well as on how to apply related tags during budget preparation.

Capacity levels can influence the design of tagging reform. For example, in Ethiopia, the OECD Rio marker definitions for climate change and disaster management were adopted due to their simplicity and comparability in terms of application and scoring. The European Commission has not accepted a recommendation to separate mitigation from adaptation in their EU fund expenditure, as “the implications of this additional administrative burden for both the Commission and the Member States are unclear” (ECA, 2022). This points to the need for countries to be realistic about what they are able to do and what they cannot, as tagging and tracking is a demanding and time-consuming exercise. Most piloting reforms, therefore, start with limited scope, with plans to further expand and refine the estimation methodology, including related definitions and weighting.

Maintaining continuous capacity at all levels of government is resource intensive. Funding availability was therefore identified as a key constraint to DCBT, for example, in consultations with African country representatives and other stakeholders working on CBT or DBT. In Moldova, one of the reasons given for why the methodology developed for CBT has not been implemented is that insufficient funds were provided for training (World Bank, 2020b). Different institutional arrangements often result in a siloed approach and different budgets for climate change and DRR. This creates barriers to combined activities in the areas of awareness raising and capacity building.

Specific capacity challenges

Few assessments have been conducted to provide detail on the specific capacity gaps that hamper climate and disaster budget tagging and tracking in different countries. In countries where limited or no specific capacity gap assessment could be identified, some capacity gaps can be inferred from the way CBT has been implemented in the past.

The majority of capacity assessments we were able to identify are focused on European and Central Asian countries, where limited thematic knowledge and inadequate knowledge of tagging and tracking methodologies were highlighted

as major constraints. In a 2020 survey conducted by the European Commission, countries mentioned limited knowledge of green budgeting frameworks and practices, as well as a lack of experience with methods to identify relevant revenue and expenditure as key issues (EC, 2021a). In Armenia, a capacity assessment of national institutions was carried out in a CPEIR. Recommendations included the need to enhance the capacity of ministries to identify climate-relevant expenditures (Sirunyan and Ward, 2020). As part of the BIOFIN (Biodiversity Finance Initiative) process in Kyrgyzstan, Kazakhstan and Georgia, the capacities of national institutions related to biodiversity financing were assessed prior to the biodiversity expenditure review (though still part of the same process) (Sarsembayeva, 2015; Phulariani et al., 2016; UNDP, 2019). For example, inadequate staffing in the field of biodiversity finance and inadequate knowledge among relevant staff on the economics of natural resources management was identified as one of the major barriers in Kazakhstan (Sarsembayeva, 2015). The assessment for Kyrgyzstan highlighted not only the limited specialised knowledge and skills of government ministry and agency staff but also the limited capacity of ministries and departments to coordinate their actions effectively and to develop balanced and integrated solutions, as well as weak delineation of responsibilities of different agencies (UNDP, 2019).

Lack of human capacity and specific staff expertise is also an important challenge for the implementation of CCA and DRR tagging and tracking in other regions. In Colombia, the tagging system was used without common procedures, and staff were not trained to categorise expenditures adequately (source: authors’ consultations). In Chile, staff training on classification procedures involved a challenge, too: the expenditure tagging methodology was not able to identify specific expenditures, such as those related to staff recruitment (source: authors’ consultations). In Indonesia, specific capacity limitations were identified in prioritising climate change activities, synchronising the information with the national action plan on climate change mitigation and adaptation, and tracking activities that produce co-benefits for adaptation and mitigation (Fiscal Policy Agency — Ministry of Finance Republic of Indonesia, 2019). Capacity and resource limitations are also key issues in Pacific countries, including in Fiji, Kiribati and Vanuatu (Delaisainiai, 2021; Ministry of Finance — Government of Fiji, 2015; Deutsche Gesellschaft für Internationale Zusammenarbeit et al., 2020; Government of Vanuatu, 2014), with particular capacity gaps in line ministries and local government entities, for example, in relation to using specific classification and weighting approaches.

Specific capacity gaps are highly dependent on country context as well as the level of government at which tagging is implemented, in other words, whether the country has taken a centralised or decentralised approach. In the case of Colombia, for example, the centralised approach to CBT has posed particular capacity challenges. The number of thematic tagging initiatives constitutes a significant burden on national and sub-national entities in terms of monitoring and reporting, and in the view of line ministries, they are an additional reporting requirement rather than a tool to improve their planning and budgeting (World Bank, 2021b). The National Planning Department has limited capacity to continue annual reviews and is unable to review and validate all the tags applied, which has an impact on the quality and robustness of the data (World Bank, 2021a). This has impacted the development of climate tagging. Challenges with implementation can also arise with a decentralised approach and are related to a certain extent to capacity issues. This has been observed in the case of Ecuador, with low compliance in introducing the budget classifier from line ministries (source: authors' consultations).

Another stated challenge related to capacity and linked to the political sphere is high staff turnover. This has been highlighted in the case of Honduras, but it applies to other countries. Teams in the Ministry of Finance and other line ministries can be replaced with changes in political positions, which results in a loss of knowledge and know-how and requires constant training and capacity building (World Bank, 2020a).

Initiatives to address capacity constraints

Where internal capacity is limited, external technical support, for example, from regional organisations and development partners, was identified as important. In some cases, climate or disaster policy and expenditure reviews are carried out by external agencies or consultants in collaboration with national authorities. This has been the case, for example, with reviews in Armenia, Azerbaijan, Georgia, Kyrgyzstan, Kazakhstan, and Serbia. DRR and CCA expenditure review in Spain is implemented with support from the EU, while technical implementation is led by the Ministry of Environment. This indirectly suggests that the capacities to perform budget tagging and tracking in these countries are low and that external support can be a critical enabler in such cases.

However, concern was expressed that, at times, external technical support does not invest enough effort in understanding the national context and tailoring support to national needs. As a result, some initiatives become academic exercises that are not implementable. In addition,

it was highlighted that capacity-building efforts supported by external partners would be more effective if they were delivered in the working language officials are most comfortable with. This would allow officials to grasp complex topics more easily. Our consultations also raised questions about whether external technical support and externally funded and implemented exercises contribute to national capacities to track relevant expenditure in the medium to longer term. In some Latin American and Caribbean countries, for instance, capacity challenges can be linked to the fact that many initiatives were undertaken with external support from consultants. Experience shows that in cases where strong collaboration was established with ministries of finance and environment, national capacities seem to be reinforced.

Some countries have explicitly incorporated capacity-building provisions within their tagging and tracking frameworks to address capacity gaps. In the Philippines, for example, tagging and tracking of climate change expenditure in the local budget was initiated in 2014 through the release of the Joint Memorandum Circular 2014–01 issued by the DBM, CCC and the Department of the Interior and Local Government. Based on the lessons learned through the national-level implementation of budget tagging and tracking, this memorandum was amended by the Joint Memorandum Circular 2015–01 issued in 2015, under which the Department of the Interior and Local Government has to provide continuous capacity-building programmes for local government units to institutionalise and sustain CCET in their annual investment programming and budget planning process and monitor compliance by the local government units (Department of Budget Management et al., 2015).

To address capacity constraints, guides and handbooks are another key strategy undertaken to train staff in tagging methodologies. In Colombia, given the lack of expertise among staff, consultants were hired to support the government with its implementation, and there is a process to develop dissemination tools on how to use the tagging system. Two important contributions towards this goal are a handbook on the tagging system use and a regional pilot on climate budget tagging (source: authors' consultations). Chile implemented a pilot measurement of expenditure for the fiscal years 2022–2023 once it assessed and created capacities. The Finance Ministry also developed a guide to identifying public expenditure on climate change aimed at line ministries (source: authors' consultations). At the national level in Africa, Kenya developed a 'Training Handbook on Climate Finance: Budget Coding, Tracking And Reporting' for state and non-state actors in 2019. Ghana has an SDG budgeting manual produced in 2018 (see Box 4).

While most guides and handbooks seem to be focused on CBT, some explicitly include DRR components, for instance, the Inter-American Development Bank (IADB)'s recently published conceptual framework for the classification of public spending on climate change, which includes mitigation, adaptation and disaster management activities (Pizarro et al., 2022). Building on the IADB framework, the Dominican Republic developed an integrated conceptual model for public expenditure identification and classification in climate change and disaster risk management (Government of the Dominican Republic, 2022).

South–South exchange and knowledge sharing could play an important role, particularly in relation to initiatives that have taken an integrated approach to climate change and DRR. For instance, countries are already engaging, as in the case of Kenya and Ethiopia outlined in Box 6.

BOX 6. SOUTH–SOUTH EXCHANGE AND KNOWLEDGE SHARING IN KENYA AND ETHIOPIA

South–South exchange and knowledge sharing have been central to the reform processes taking place in Ethiopia and Kenya. While Kenya introduced CBT in 2017, they have recently designed and piloted a new framework to track disaster-related expenditure. Ethiopia is designing and piloting a combined disaster and climate expenditure tagging system. Officials from Ethiopia visited Nairobi for a study tour and officials from both countries shared their experience with tagging and tracking climate and disaster expenditure. In addition, there is a Kenyan PFM expert as part of the team designing the tagging system in Ethiopia.

Source: Authors' consultations

Content of CBT and DBT interventions

CBT is fully operational and part of budget processes in Austria, Bangladesh, Cambodia, Ecuador, Finland, France, Ghana, India, Indonesia, Ireland, Italy, Honduras, Luxembourg, Mexico, Nepal, Nicaragua, Pakistan, Peru, the Philippines and Kenya, as well as for EU funds. Most reforms in other countries are still in the design and/or piloting phase (see for example, Table 6 for an overview of CBT and DBT reform progress and coverage in Africa). In Ethiopia, for instance, it is in

the process of being designed and piloted (Table 6), while in Colombia, CBT has only been partially implemented. Argentina and Chile are currently developing tags for climate expenditure, and El Salvador, the Dominican Republic and Guatemala have developed but not (yet) implemented their climate budget tags (IADB, 2021).

Other countries have conducted tagging and tracking as one-off exercises undertaken outside of the regular budget process, or they count on budget objects, taggers or classifiers for CCA and DRR budgets to be used by public institutions when planning annual budgets and to facilitate the measurement of investments and financing of activities. Box 7 highlights several examples of countries using budget object taggers or classifiers in Latin America and the Caribbean.

Countries that undertake CBT and/or DBT either use a binary approach for classifying and estimating relevant budget lines, or rely on a relative classification and estimation approach, which distinguishes whether a programme or activity is fully or only partially supporting CCA and DRR. There are some countries that consider only programmes whose main objective is climate change in climate budget tagging and tracking. While the number of activities included is narrowed, all the expenditures within those programmes are considered relevant (World Bank, 2021a). Most countries reviewed for this paper, however, use relative estimation approaches and weights to classify shares of total programme or activity expenditure (see Table 7) as CCA or DRR-related, often building on the OECD DAC Rio marker or the CPEIR methodology.

- **The OECD Rio marker methodology:** This has been applied, for instance, by Ethiopia and Kenya. It assigns three categories: (i) principal, which relates to expenditure where climate change or DRR is fundamental to the design of an activity or the primary objective; (ii) significant, which is for expenditure where climate change or DRR is significant but not the primary objective; and (iii) not tagged. These are typically given corresponding weights of 100%, 40% and 0%, although some countries opt not to use weights.
- **CPEIR methodology:** In some countries, CBT was preceded by a CPEIR, which is often the starting point for climate change mainstreaming. The methodology for CBT, therefore, at times builds on the CPEIR methodology, for instance, in Ghana. This methodology has more categories, allowing the inclusion of programmes that only marginally contribute to climate action or DRR. For example, Ghana and Mauritius make use of three categories: high, medium and low relevance (Table 6).

Table 6. Summary of CBT and DBT reforms in African countries

	Ethiopia	Ethiopia	Ghana	Kenya	Kenya	Kenya	Mauritius	Nigeria	Seychelles	South Africa	Uganda
Phase	Pilot	Pilot	Rollled Out	Rollled Out	Pilot	Pilot	Pilot	Pilot	Pilot	Pilot	Pilot
CBT/DBT	CBT	DCBT	CBT	CBT	DBT	CBT	CBT	CBT	CBT	CBT	CBT
Year	2017	2022	2016	2017	2020	2017	2021	2021	2021	2021	2019
CPEIR done prior	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Was planned	Yes	Yes	Yes
R-SBR/IPFSDRR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Definition	Objective-based	Objective-based	Policy-based	Objective-based	Objective-based	Objective-based	Objective-based	Objectives approach and benefits approach	Objectives approach and benefits approach	Objectives approach and benefits approach	Mixed approach
Part of budget process or ex-post	Ex-post	Budget process	Budget process	Budget process	Ex-post	Ex-post	Budget process	Budget process	Ex-post	Ex-post	Ex-post
Coverage	Selected sectors	Selected sectors	All sectors	All sectors	All sectors	Selected sectors	Selected sectors	Energy sector	Selected sectors	Selected sectors	Selected sectors
Budget type: Investment (Inv.) or Recurrent (Rec.)	Inv.	Inv. and Rec.	Inv. and Rec.	Inv. and Rec.	Inv. and Rec.	Inv.	Inv.	Inv. and Rec.	Inv. and Rec.	Inv. and Rec.	Inv. and Rec.
Revenue	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sub-national transfers/budgets	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Transfers to SOEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Weighting	DAC	DAC	CPEIR	DAC	DAC	CPEIR	CPEIR	CPEIR	CPEIR	CPEIR	CPEIR
Budget circular	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Linkage with other cross-sectoral priorities	SDGs	SDGs	SDGs	SDGs	SDGs	SDGs	SDGs	SDGs	SDGs	SDGs	SDGs
											Gender

BOX 7. EXAMPLES OF BUDGET OBJECTS, TAGGERS OR CLASSIFIERS IN THE LATIN AMERICA AND THE CARIBBEAN REGION

Based on the Index of Governance and Public Policy in Disaster Risk Management (iGOPP) country reports, six countries (Brazil, Mexico, Nicaragua, Honduras, Panama and Peru) have budget taggers, expenditure objects or classifiers for both CCA and DRR, while four countries (Paraguay, Barbados, Guatemala and Haiti) have only DRR tags. Ecuador and Uruguay have tags to identify CCA expenditure and no DRR tags.

Brazil has a tool to identify budget allocations related to programmes on DRM — Programme ‘2040 — Risk and Disaster Management’ — and another one to identify budget allocations to climate change adaptation — Programme ‘2050 — Cambio Climático’ (IADB, 2017b).

In **Panama**, the Ministry of Finance modified the Budget Classification Manual in 2013 and created the Disaster Risk Management Expenditure Object, which is intended to be used by public institutions that plan ex-ante disaster risk management investment activities in their budget proposals to the National Budget Office. The Ministry of Finance organised an induction process for the correct use of this new object of expenditure (IADB, 2015d).

In **Peru**, the most important developments related to DRR tagging include the Budget for Results and the design of the Strategic Budget Program for Vulnerability Reduction and Disaster Emergency

Response in the Framework of the Budget for Results. Through this budgetary tool, it has been possible to verify the allocation of resources to different ex-ante DRM activities, which in turn has made it possible to measure the real investment that the country makes in risk management (Ferradas Manucci, 2022). The country also has a budgetary tool that allows the tracking of resources allocated to climate change adaptation activities.

Regarding the experiences of countries with only DRR tags, **Paraguay** has budget classifier no. 831, ‘Contributions to social purpose entities and the National Emergency Fund’ (IADB, 2021), which was introduced in 2016 and includes the transfers or contributions to the National Emergency Fund. In **Barbados**, the iGOPP report evidenced a spending budget line for ex-ante DRM activities — Programme 200 National Emergency Preparedness, with the Programme Statement “To coordinate the Disaster Management programmes and activities both within the public service and on a national scale” (IADB, 2020). In **Haiti**, the Finance Law 2013–2014 includes a budget classifier used by different sectors to assign resources to ex-ante DRM activities. In **Guatemala**, the tool Special Expenditure Tracking (SIAF-Sicoín), allows the identification of budget allocations related to DRM, but it is not being used, as is the case for the Guatemalan CBT tool.

Table 7. Country examples of binary and relative classification and estimate approaches

BINARY APPROACH (THAT IS, 100 OR 0)
<p>Colombia weights all climate-relevant programmes at 100%, but if their main objective is not to address climate change, they are marked as ‘associated activities’ (World Bank, 2020a).</p> <p>Finland, Ireland and Luxemburg apply a binary approach (100–0).</p>
RELATIVE APPROACH (FOR EXAMPLE, PRINCIPAL, SIGNIFICANT, NOT TARGETED; 100, 40, 0)
<p>Ecuador measures activities rather than programmes, meaning different activities under one programme can have different tags (World Bank, 2020a). Tagging is part of the budgeting process, therefore, it takes place every year, according to budget preparation. Activities are tagged in the Integrated Financial Management Information System (IFMIS), and no weighting is applied (World Bank, 2021b).</p> <p>Ethiopia’s DCBT approach makes use of the OECD Rio marker methodology of principal, significant and not targeted, applying a weight of 100%, 40% and 0%, respectively.</p> <p>Fiji, Samoa and the Marshall Islands’ CPEIR framework applies high, medium and low relevance criteria, using weights of 80%, 50% and 25%, respectively. In the case of Samoa, the climate public expenditure classification framework includes several DRM-related aspects under high relevance.</p> <p>France relies on an inter-ministerial working group to appraise expenditure as favourable, neutral or unfavourable on the six axes corresponding to the environmental objectives selected (EC, 2021a).</p> <p>Ghana builds on the 2015 CPEIR methodology, applying three categories of high, medium and low relevance, which are given a weight of 100%, 50% and 20%, respectively. A distinction between mitigation and adaptation is made, allowing expenditure that supports both actions to be split.</p> <p>Honduras assigns activities to four groups — completely relevant, very relevant, quite relevant and relevant — which are weighted accordingly (90%–100%, 60%–80%, 30%–50% and 10%–20%) (World Bank, 2021b).</p> <p>Kenya makes use of the OECD Rio marker methodology of principal, significant and not targeted. Since 2021, corresponding weights of 100%, 40% and 0% are applied.</p> <p>Laos, Thailand and Vietnam classify expenditure under the DRM-PEIRs code into different categories covering pre- and post-disaster stages. Weighting covers complete/very high relevance (100%), high (75%), medium (50%), low (25%), minor (10%) and none (0%).</p> <p>Mauritius has adopted three levels of climate relevance — high, medium and low — for adaptation and mitigation relevant expenditure. No weighting is applied.</p> <p>Nepal tags the climate budget at the activity level. Aspects considered in weighting an activity as highly relevant, relevant or not relevant include function (adaptation, mitigation, both), gender focus, and links with national commitments (SDGs, NDCs and climate policies) (Upadhya, 2019).</p> <p>Pakistan builds on the CPEIR methodology, using high relevance (>75%), medium relevance (50%–74%), low relevance (25%–49%) and marginal relevance (<25%) categories and corresponding weights. The tagging and coding system is configured in IFMIS. It covers four main elements, namely adaptation, mitigation, adaptation/mitigation, and supporting areas. Disaster preparedness is listed as a sub-main element under adaptation.</p> <p>South Africa takes the CPEIR approach, with six levels — full importance, high, medium, low, marginal and zero, with corresponding weights of 100%, 75%, 50%, 25% and 0%.</p> <p>Vanuatu’s CPEIR expenditure classification system uses five levels of relevance and weights: high relevance (80%), medium relevance (50%), low relevance (25%), marginal relevance (5%), and no relevance (0%). Activities involving DRR and disaster management capacity and additional costs for changing the design of a programme to improve climate resilience to cyclones and floods (beyond routine maintenance or rehabilitation) are considered of high relevance (Government of Vanuatu, 2014).</p>

Importantly, most of the countries analysed across the different regions do not have standard tags or codes to reflect consistency with DRR or CCA policy and strategy. To our knowledge, none of the countries has an operational process for budget tagging and tracking in place that reflects common policy objectives and overlaps in expenditure across DRR and CCA; though some countries, such

as Ethiopia, are in the process of developing DCBT systems that acknowledge and consider overlaps. The Philippines seems to be somewhat of an exception here, as the country has been developing a policy-based climate change typology and coding structure, which explicitly links expenditure tagging codes with strategic priorities in the National Climate Change Action Plan (NCCAP) (Box 8).

BOX 8. POLICY-BASED TYPOLOGY AND CODING STRUCTURE FOR CLIMATE CHANGE EXPENDITURE TAGGING IN THE PHILIPPINES

A policy-based typology has been developed for the Philippines (Republic of the Philippines — Department of Finance, 2022). The CCC of the Philippines has developed a standard climate change typology and a coding structure to provide the foundation for CCET. The first letter of the CCET typology can take either 'A' or 'M' depending on the two climate change pillars, adaptation and mitigation. The second digit of the code covers the strategic priority of the NCCAP. The strategic priorities include: (1) food security, (2) water sufficiency, (3) ecosystem and environmental stability, (4) human security, (5) climate-smart industries, (6) sustainable energy and (7) knowledge and capacity development. The third position of the code identifies the sub-priority under each strategic priority. The instruments are identified

by the next digit in the code. The instruments can include: (1) policy and governance, (2) research and development, (3) knowledge and capacity building and training and (4) action delivery. The final two digits of the code identify specific activities as per the illustration below.

It is interesting to note that some of the aspects related to DRR are explicitly identified by the typology code under the adaptation pillar (a few examples of this are provided in the table below). The integrated climate change expenditure tagging system, which covers climate spending at both local and national levels, has contributed significantly to the efficient allocation and financial resources for integrating the DRR and CCA efforts (Japan International Cooperation Agency, 2018).

Examples of climate change expenditure tagging codes relevant to DRR in the Philippines

STRATEGIC PRIORITY	SUB-PRIORITY	INSTRUMENT	ACTIVITY
Food security	Agriculture and fishing communities	Knowledge and capacity building and training	Develop and conduct formal and non-formal training programmes on CCA and DRR
Water sufficiency	Integrated water resource management (IWRM) and water governance	Knowledge and capacity building and training	Conduct IWRM and CCA and DRR training for vulnerable communities
Human security	Community and local-level CCA and DRR	Policy and governance	Mainstream CCA, DRR and DRM in local plans
		Research and development	Identify, map and profile areas and communities highly prone to climate-related disasters
	Health and social protection	Policy and governance	Develop post-disaster epidemic outbreak management and disease surveillance system (for example, for water-borne diseases and other health risks due to climate change)
Sustainable energy	Local and community CCA and DRR	Human settlements and services	Develop and implement post-disaster resettlement and counselling of displaced families and communities
		Knowledge and capacity building and training	Conduct disaster awareness and preparedness trainings
			Produce and disseminate disaster awareness and preparation information materials
Action delivery	Conduct trainings on community-based CCA and DRR		
		Action delivery	Conduct DRR operations

Source: Department of Budget and Management and Climate Change Commission Philippines (2014)

Testing, monitoring and learning

Few specific plans for testing, monitoring and learning on DCBT could be identified. This is the case even in countries that have relatively advanced CBT frameworks, for instance Colombia, where monitoring of budget execution for climate change is an objective of the climate finance MRV system. Similarly, Honduras has stated that once its tagging system operates, it shall be monitored by the Finance Ministry (Núcleo et al., 2019), but a more detailed plan was not available. Some countries, however, have reviewed their CBT or DBT approaches, and used lessons learned to improve classifications and methodologies (see examples in Box 9).

Initial piloting is sometimes done ex-post and manually, with the intention of integrating the process into the budget cycle and IFMIS (for example, in South Africa). However, in other examples, such as the CBT initiatives in Ethiopia, the

system is designed for ex-post periodic review. The DCBT reform in Ethiopia is planned to be integrated into the budget process and IFMIS. A comprehensive summary of CBT and DBT reforms in a number of African countries is given in Table 6.

Evaluations are not necessarily planned, and CPEIRs have taken place at specific moments when support from agencies was offered, as in the case of UNDP in Ecuador and Chile. Several African countries conducted a CPEIR prior to introducing CBT. Ghana has conducted two CPEIRs. The first, in 2015, provided the roadmap for climate change mainstreaming, and the second provided a review that informed better policy and institutional alignment and provided recommendations to expand coverage of CBT (UNDP, 2022a). Both South Africa and Nigeria have embarked on CBT without first doing a CPEIR; however, both plan to conduct a CPEIR for periodic review of climate budgeting in the future (see Table 6).

BOX 9. EXAMPLES OF COUNTRIES REVIEWING AND REVISING CBT AND DBT APPROACHES

Mexico has developed a MRV methodology for climate finance, which aims to verify that actions effectively contribute to addressing climate change and to generate valuable information for decision making. In addition, the Mexican Ministry of Finance carried out an evaluation of its budget annex on climate change for the years 2013–2017 to draw lessons on its public climate finance strategy (Hernández, 2020).

Tagging and subsequent analysis of environmental budgets in **France** include assessments of previous experience. For example, the 2022 budget report includes some methodological refinements and new analyses based on experiences from the year prior. Green budgeting is also used to support local governments' policies and France's experience has served as inspiration for other countries to promote green budgeting practices (Government of France, 2021).

The Philippines reviewed its CBT approach (Department of Budget and Management and Climate Change Commission, 2015) on the basis of:

- Lessons learned during the 2015 budget process
- Developments in the budgeting system introduced by the DBM (the implementation of the Unified Accounts Code Structure to strengthen the process for tracking, monitoring and reporting climate change expenditures)

- Performance-informed budgeting starting 2015, and
- Revision in the climate change typologies.

Indonesia has identified issues regarding marking budgets that can result in suboptimal uses of the assessments. When the budget tagging system was in operation in 2016 and 2017, it was carried out based on a post-tagging system. Indonesia began a pre-tagging system in 2018, and this system allows for optimal allocation of the budget. This can be considered an improvement (Fiscal Policy Agency — Ministry of Finance Republic of Indonesia, 2019). The CCET is intended to serve as the basis for performance-based budgeting. However, due to the absence of relevant instruments to assess the effectiveness of the climate change budget, this has not been achieved yet (Fiscal Policy Agency — Ministry of Finance Republic of Indonesia, 2019). Further, Indonesia faces constraints in the information system used for budget tagging, which are a result of the fact that institutional capacities and responsibilities in climate change are developed and operated by different ministries and agencies (Center for Climate Finance and Multilateral Policy, 2021). The monitoring, evaluation and reporting component only includes mitigation and adaptation activities and emissions reduction for the mandated ministry and its specific activities. Synchronisation of data under related systems is a key need to support performance-based budgeting (Fiscal Policy Agency — Ministry of Finance Republic of Indonesia, 2019).

3 Challenges, lessons learned and good practices

This chapter summarises challenges countries have faced and the lessons to be learned about budget tagging and tracking relevant to designing and implementing DCBT. Some of these challenges and lessons learned are from CBT or DBT interventions, while others were identified from tagging and tracking efforts in other cross-cutting areas such as gender, nutrition and the SDGs.

Legislative frameworks and political support

A conducive policy and legal framework is essential for effective budget tagging and tracking. For example, Australia pioneered the introduction of gender budget tagging, but the system proved unsustainable due to the absence of legislation. Legislative frameworks may help in assuring the sustainability of budget tagging and tracking initiatives, while policy frameworks can establish clarity about the underlying purposes of DRR/CCA expenditure tracking. For instance, Armenia's CPEIR suggests that a clear climate

mitigation and adaptation policy at the national level is a necessary element for a meaningful climate expenditure review (Sirunyan and Ward, 2020).

Policy and legal frameworks on their own are not sufficient to ensure the implementation of regulatory mandates (Gordon, 2013). Securing consistent political support can be a significant challenge. For instance, a lack of political will is a major constraint for climate and disaster budget tagging in the Pacific Island countries (Delaisainiai, 2021). Climate change action and DRR may not have strong political support as countries have competing development priorities, such as social protection, welfare, youth issues, and so on. The political will to implement DCBT may also greatly vary among different parts of government. Indonesia's experience in managing a network of multiple stakeholders involved in climate and disaster finance (including direct access entities and sub-national actors) demonstrates the importance of having significant institutional capacity and political support (Center for Climate Finance and Multilateral Policy, 2021).



GOOD PRACTICE — HIGH-LEVEL POLITICAL SUPPORT AND INSTITUTIONAL ARRANGEMENTS

High-level political commitment and cross-sectoral institutional coordination are crucial for advancing integrated DCBT. The multisectoral budget tagging and tracking system for nutrition interventions in Indonesia can provide important insights for how this can be achieved in practice. Key features of the system that facilitate political backing and institutionalisation include the following (Purnomo et al., 2022):

- High-level political authority achieved by designating the vice president as the leading coordinator
- Political commitment demonstrated through an evidence-based multisectoral nutrition strategy with clear roles and responsibilities for all stakeholders
- Policy reforms to enhance collaboration between the Ministry of Planning and the Ministry of Finance for budget tracking, tagging and evaluation (these included government regulations on synchronised planning and budgeting and a memorandum of understanding between the ministries to improve data availability through information and communication technology systems)
- Regular monitoring of budget tracking for improved data availability, timeliness, quality and accuracy
- Budget performance evaluations to facilitate data-driven decision making and to inform policies.

Leadership, institutional arrangements and coordination

Experience in Latin American and Caribbean countries shows that without the necessary involvement of authorities and ministries of finance, tagging exercises do not move forward.

In both Chile and Colombia, consultancies were carried out through international organisations without close collaboration with teams within the ministries of finance. As a result, the results of the consultancy were received, but the methodology was not validated within the governments, and the exercise did not have the expected impact. This has changed in recent years in Chile, where the political context is also helping to put forward the climate agenda.

A related key lesson learned in the region is that the implementation of tagging initiatives should be spearheaded by the ministry of finance, both due to its role in the budget process and to reduce incentives for greenwashing (which may otherwise lead sectoral ministries to overestimate DRR or CCA budget allocations and expenditure). The leadership of finance and planning ministries is also essential for ensuring that public expenditures are consistent with national resilience goals.

Nonetheless, collaboration with the sectoral ministries is key. Experience from India, Indonesia, and the Philippines suggests, for instance, that it is critical to mobilise both ministries of finance and ministries responsible for infrastructure development and management in estimating public investment in DRR. This need for cross-sectoral collaboration represents an important coordination and leadership challenge that requires special attention. In Latin

American and Caribbean countries, the role of planning ministries or their equivalent — in addition to ministries of finance — seems particularly relevant and can be a source of important lessons for the work ahead. Evidence from the Philippines shows that the successful implementation of the climate change expenditure tagging depended, among other things, on assigning clear responsibilities to all agencies, CCC, and the DBM through a joint memorandum.

Limited awareness and understanding of roles and responsibilities associated with climate and disaster budget tagging across ministries of finance and DRM authorities is a major challenge in designing initiatives related to DRM financing and expenditure tracking, especially in Central Asia and, to a lesser extent, in Southern Europe. Low levels of awareness of the cross-cutting nature of DRR were noted among respondents across different regions. Most referred to disaster expenditure in terms of disaster preparedness and response. In European countries, levels of understanding and engagement of ministries of finance, in turn, appeared higher for CCA finance and CBT than for DRR finance and expenditure tracking.

Lack of policy and institutional coordination between central agencies that handle climate change and DRM is an important challenge to advancing climate- and disaster-related budget tagging and public expenditure tracking in a number of countries (Fiji, Laos, Thailand, Vietnam). Further, in some countries such as Fiji, there is a lack of coherence in resource allocation for climate change and DRM and policy-level alignment between the two areas.



GOOD PRACTICE — LOCAL-LEVEL OBJECTIVES

The Philippines established specific objectives for budget tagging at the local level and provides a good example for strengthening sub-national-level effort. The objectives of climate change expenditure tracking at the local level in the Philippines include:

- To identify, prioritise and tag climate expenditure programmes, activities and projects by all departments and offices of local government units
- To take stock of climate change programmes, activities and projects, and track and report climate change expenditures of local government units, and
- To clarify and spell out responsibilities among local government units, the DBM, the CCC and the Department of the Interior and Local Government relative to the tagging of climate change expenditures in the Annual Investment Programme of the local government units (Department of Budget Management et al., 2015).

Implementing reform for greater coherence

There appears to be demand from some of the countries included in this review for a more integrated approach to CCA and DRR budget tagging and tracking, but progress is hindered by capacity constraints, separate governance arrangements and different funding mechanisms.

CBT reforms are already technically challenging, and including DRR results in an additional layer of complexity. This is particularly difficult when coupled with low levels of human and financial capacity, as key features in the design of the methodology will affect the level of capacity required, for example, definitions, scales and the way the overlap between CCA and DRR is treated.

In recent years, more resources have been available for climate and the increased funding has allowed climate-related reforms to be implemented at a faster pace than disaster-related budget tagging and tracking. There is very limited experience with routine DBT, but the experience with periodic expenditure reviews can provide a good starting point. African countries do not yet have systems in place to tag and track their DRR expenditure as part of the budget process (Van Niekerk et al., 2012). However, at least 17 countries have done risk-sensitive budget reviews, and a further seven countries have Investment Planning and Financing Strategies for Disaster Risk Reduction. This knowledge can be leveraged and built upon, as was the case in Ethiopia, where the DCBT methodology was informed by the risk-sensitive budget review (UNDRR, 2022e).



GOOD PRACTICE — PHASED APPROACHES TO INTRODUCING BUDGET TAGGING AND TRACKING

Given the complexity, capacity constraints and technical challenges associated with climate and disaster budget tagging, an incremental and phased approach was identified as a good practice. This can create awareness and avoid overburdening the systems and entities responsible for developing and implementing CCA- and DRR-related public expenditure tracking.

For example, **Odisha state** in India introduced a simple and relatively objective budget coding system through a phased approach in the climate change impact appraisal of a departmental budget (The Climate Group, 2021). The gender budgeting system in **Bangladesh** has followed a similar approach. Budget tools were rolled out incrementally to allow time for understanding and learning to avoid overburdening government officials. The gender-responsive budgeting system, which started with small steps in **Fiji**, serves as a model for adoption by other countries in the Pacific (ADB, 2020b). Experience from **Pakistan** also suggests keeping the system simple at the beginning and linking the coding with the Chart of Account and IFMIS (Ishtiaq, 2021).

Ethiopia is in the process of piloting a combined DCBT reform. The process is being led by the Ministry of Finance. They make use of the OECD Rio marker definitions. The decision to use OECD Rio markers and definitions was based on capacity constraints and the simplicity they provide. The same scale is used for both climate change and disaster management. There was also some familiarity with related definitions for those institutions that were involved with the risk-sensitive budget review and those engaged with climate expenditure reporting. Ethiopia plans to extend definitions and weights when capacity levels increase. Piloting will be for the capital budget at the Federal level and include six priority sectors identified in the Climate Resilience and Green Economy Strategy — water, agriculture, transport, energy, forests and environment. Ethiopia plans to roll out disaster and climate budget tagging at the Federal and sub-national level. The reform is happening in tandem with the roll out of the IFMIS at the Federal level. It is therefore planned that DCBT will be integrated into the IFMIS, with tagging done by line ministries who have better knowledge of respective programmes and activities (source: authors' consultations).

Resource and human capacity constraints

Resource and human capacity constraints can hamper effective implementation of DCBT, particularly considering its cross-cutting nature.

Experience in Pakistan indicates that a lack of professional staff for updating the codes has been a challenge for the sustainability of the system. Usually, cross-cutting programmes require a strong emphasis on policy instruction and follow-ups, execution of regulations, and capacity strengthening (Gordon, 2013).

Stakeholders expressed concern with the potential burden DCBT may impose on government agencies due to the introduction of parallel initiatives regarding other cross-cutting issues (Delaisainiai, 2021) such as gender and the SDGs. However, Bangladesh and Nepal show successful implementation of budget tagging for climate change and gender issues. Comprehensive capacity-building programmes were helpful for the successful implementation of climate finance tracking in Bangladesh. Mainstreaming climate change expenditure reports in the budget cycle, utilising the estimates to inform parliamentary debate and making climate expenditure reports available to the public

and civil society have contributed to the sustainability of the system (Ministry of Finance — Bangladesh, 2018). In the case of Nepal, gender-responsive budget tagging was started in 2009 before climate budget tagging was introduced in 2013. In both countries, the formats that had already been in use for gender budget statements were also used for climate budget tracking (Budlender, 2014), so CBT could build on existing experience. Nonetheless, there are some critical differences in tracking approaches for gender and climate change expenditure that need to be reflected in the approach, for example, with regards to focus, detail and length (Budlender, 2014).

Differences in capacity constraints across countries mean that the opportunities for expanding CBT reforms to include DRR vary. For example, Ghana tracks all 17 SDGs, and officials from the Ministry of Finance indicated that including more comprehensive tracking of DRR would not be technically challenging. In contrast, countries that have just started to introduce tagging reforms may prefer to pilot either climate or disaster first, before expanding to both, as was the case in South Africa. Capturing expenditure by local governments is a specific challenge in the case of DRR and CCA expenditure, especially in countries with higher levels of decentralisation.



GOOD PRACTICE — CAPACITY STRENGTHENING

The development of guidance documents, tools and support functions can be critical for the effective use of tagging and tracking methodologies.

As experience from the Philippines shows the establishment of a help desk to provide timely support to all agencies involved, together with well-developed typologies, CCET guides, manuals and separate templates for national CCET and local CCET (including separate analysis tools for provinces, and cities and municipalities), were critical for the successful implementation of the CCET. The help desk's specific activities include:

- Supporting key agencies in the implementation of CCET, including agency-specific orientations and capacity building in the 2016 budget cycle
- Assisting CCC and the DBM in facilitating training sessions on the climate change expenditure tagging guidelines, typologies and quality review and assurance
- Providing quick responses to queries
- Starting up an online community of practice on CCET, including updating the directory of planning, budget and climate change focal persons
- Consolidating and disseminating relevant climate change and CCET materials and updating frequently asked questions
- Prompting agencies on CCC/DBM advisories regarding CCET
- Assisting the CCC in consolidating and reviewing National Government Authorities' submissions

Country ownership

External technical support can help implement budget tagging and tracking in contexts where human and financial capacity is limited (see section on capacity assessment above). However, external assistance also carries a risk of undermining ownership and capacity for DCBT. In the Pacific region, for instance, several externally driven and project-based interventions in the past were not successful in achieving their objectives. Budget tagging initiatives, by contrast, are not externally driven in the countries in the Pacific region, even though some are externally supported. For example, the UNDP assists Fiji, Tonga and Solomon Islands to enhance coordination between the relevant ministries, to create awareness and provide some level of capacity building. National ownership and leadership is a critical factor in terms of the sustainability of the initiatives. Similarly, Chile conducted a CPEI but was slow to make further progress. This changed during the last couple of years when the Ministry of Finance started working closely with UNDP to advance CBT. The political context and public policy (that is, the Climate Change Law and other related instruments), together with the collaboration, helped progress.

Tagging and tracking methodologies

There are varied levels of success associated with the establishment of DRR markers and specific budget codes for DRR in tracking expenditure. Previous experience regarding some other cross-cutting issues suggests that markers have not always been successful in identifying investments, for instance, in the case of gender in official development assistance. Specific DRR budget codes have often failed to capture embedded DRR investment (Gordon, 2013), though DRR markers may be able to better capture such investments.

Establishing the appropriate timing and frequency of tagging and tracking can be a challenge, as there are trade-offs between identifying executed expenditure ex-post, compared to doing so in the budget formulation phase. Some countries analyse executed expenditure, and this can serve as a baseline to see how the budget varies from year to year. Others have targeted efforts at the planning of the budget bill with the aim of influencing budget formulation decision making and attracting resources. However, the disadvantages of tagging during the budget formulation process include the difficulty of identifying funding gaps. It also adds complexity to the negotiation process.

Budget systems with a higher degree of granularity can make tagging more accurate, but in the short term, it is complex to make profound modifications to the budget system. Therefore, although methodologies provide different approaches to climate change tagging, in practice, their application will be restricted to the level of complexity and granularity already present in the budget system. To address the complexities of granular approaches, technical teams in charge of tagging usually inquire about the existence of information that is not systematised in the budget system but is known by the financial departments of line ministries.

Availability of data and information, awareness, and technologies can be considered as enablers for budget tracking related to CCA and DRR (Kato, 2021). Gaps in these areas, in turn, can present major barriers to expenditure tracking. Several countries, including Laos, Thailand and Vietnam, face such limitations, especially with information on expenditures in certain areas of DRM, such as DRM policy, community awareness, capacity building, early warning, and research (Abbott, 2018).

Accuracy and comparability of measurement

When not only primary but also secondary (indirect) climate- and disaster-related expenditure is tagged, there is a challenge of overestimation of climate expenditure. Secondary (indirect) expenditure here refers to instances when the aim of a particular expenditure item is not primarily tackling climate change or disaster risks, or the impact on climate- and disaster-related goals is indirect. This criticism has been frequently mentioned for the system used for tracking climate expenditure for EU funds (Levarlet et al., 2022). The tracking methodologies under the 2014–2020 EU Multiannual Financial Framework were based mainly on the intent of the financed action. For the new 2021–2027 cycle, the European Commission is developing its tracking methodologies further to consider not just intent but also the expected effects of the actions (EC, 2021b). Other systems take a different approach to addressing this challenge. For example, Ireland includes indirect climate expenditure only when it is evident that all, or most, of the investment will support improved climate and environmental outcomes.

Due to differences in methodologies and in definitions of what constitutes CCA or DRR expenditure, comparisons of expenditure tracking results among countries should be made with caution. This makes it difficult to aggregate and compare results globally. Methodologies for expenditure tracking should be sufficiently detailed on how to assess climate adaptation/DRM impacts of expenditure.

4 Impacts of DRR- and CCA-relevant budget tagging and tracking

Potential benefits expected from DRR and CCA-related budget tagging and tracking initiatives include increased awareness, accountability, multi-stakeholder engagement, improved budget allocations and decision making and mobilisation of finance for CCA and DRR objectives. In particular, an important potential benefit is the increased ability to influence allocation decisions during budget preparation with relevant data to support arguments and negotiation processes.

Further, DCBT may provide a pathway towards more integrated plans and actions for climate and disaster risk management across sectors, such as joint National Adaptation Plans or DRR strategies with dedicated joint action plans and associated resources. Tagging could also facilitate the identification and, where appropriate, earmarking of revenues that contribute to climate and disaster resilience such as relevant fees, taxes and levies and help strengthen the link between CCA- and DRR-relevant revenues and expenditures (World Bank, 2021a).

Country experiences highlight how some of these benefits have materialised in practice. In Africa, as most countries do not yet report on their climate-related expenditure on the basis of data generated by CBT, it appears the main benefit has been to raise awareness of climate concepts and provide indicative estimates of public climate expenditure allocations. CBT has enabled governments to estimate allocations related to climate in the budget. However, this information does not yet appear to be used in a systematic way to influence policy. In the Asia-Pacific region, the climate budget tagging system

has been found useful in monitoring the amount of funds allocated to climate adaptation. For instance, in Indonesia, while there is a continuous increase in the budget allocated to climate change activities, only 38% of the estimated climate change funding need is met by this allocation (Fiscal Policy Agency — Ministry of Finance, Republic of Indonesia, 2019). In Timor-Leste, the expected benefits of the CBT include increased awareness of climate change among central and line ministries, greater transparency and accountability, and mobilisation of climate finance from development partners (Carvalho and Altangerel, 2022). In Europe, cross-sectoral collaboration was improved, for instance, in France, through the climate budget tagging exercise that helped improve engagement between budget authorities and other sector ministries.

Though some examples are available of the effects of mainly CBT, empirical evidence on the impact of budget tagging and tracking on policy, as well as budget allocation and expenditure towards CCA and DRR, is limited. According to the results of a European Commission survey conducted in 2020, none of the countries surveyed have tools and processes to measure the impact of green budgeting (including the impact of CCA/DRR expenditure tracking). There has been no systematic or official evaluation of the impacts/benefits of CCA- and DRR-related budget tracking initiatives. Climate and disaster budget tagging and tracking is a time- and resource-intensive process, so it could be useful to consider how countries could justify adopting it by identifying actual benefits and positive impacts.

5 Recommendations and ways forward

The international community is faced with escalating costs of disasters amid contracting fiscal space due to the effects of the COVID-19 pandemic and a global recession. This paper examined current practices, processes and approaches in tracking DRR and CCA in public expenditures across Africa, Asia-Pacific, Europe and Central Asia, and Latin America and the Caribbean. The findings revealed political, institutional, capacity and technical challenges in undertaking climate and disaster budget tagging initiatives.

This paper sets out recommendations to enhance the effectiveness and benefits of CCA and DRR-related budget tagging and to help increase coherence and maximise synergies between DRR- and CCA-related public expenditures and finance.

Ensure political commitment and improve policy coherence between — and beyond — CCA and DRR

- Climate and disaster budget tagging is just one of a range of policy and budget tools for achieving climate and disaster resilience objectives. The motivation and decision to design and implement CCA- and DRR-related budget tagging should be backed up by strong political will and linked to relevant national policy and legal frameworks. Policymakers should be clear about the underlying purposes of DRR/CCA expenditure tracking and use it in their decision making so that the information from DRR and CCA budget tagging can be used to achieve the anticipated potential benefits, including improving budget allocations and increasing transparency and accountability in public expenditures for CCA and DRR.
- Integrated DRR and CCA budget tagging and tracking could potentially help improve policy coherence between climate and disaster policies, strategies and financing frameworks, including those for loss and damage from climate change. Better coherence in practices, standards, guidance, resources and knowledge could be achieved by closer coordination at the national and regional levels and internationally. Coordinated DRR and CCA expenditure tracking can help responsible authorities to identify such areas of convergence and thus improve the coordination, reduce duplication and support optimal resource allocation and investments in climate and disaster resilience.
- Efforts to increase transparency and accountability around loss and damage finance, for instance in the context of establishing a loss and damage finance facility, can build on CCA and DRR budget tagging experiences to help countries better track and assess public expenditures on losses and damages associated with climate change and climate-related disasters. Progress towards coordinated DCBT should help address overlaps and complementarities of loss and damage finance with existing CCA- and DRR-related budget and finance mechanisms.
- Tagging and tracking initiatives alone cannot improve DRR and CCA finance and policy effectiveness. It is important to consider complementary measures when planning tagging and tracking for CCA and DRR, such as integrating CCA and DRR into environmental impact assessments or strategic environmental assessments, long-term fiscal sustainability analysis and cost–benefit analyses.

Establish clear institutional arrangements and accountability frameworks that enable vertical and horizontal coordination across DRR and CCA stakeholders

- Clear institutional arrangements and an accountability framework are critical factors in successful CCA- and DRR-related budget tagging. Especially given the overlaps between CCA and DRR and the cross-cutting nature of DRR and CCA, the roles, mandates and responsibilities of multiple institutions and stakeholders need to be carefully clarified and agreed upon through cross-sectoral and multi-stakeholder consultation mechanisms. Before embarking on developing a tagging and tracking system, countries may first want to perform a policy and institutional review to identify gaps and overlaps in CCA- and DRR-related policies and institutional arrangements. When well designed, such assessments can serve as a ‘vehicle’ to engage with finance, planning and economy ministries. Such an approach would also allow the countries to take a phased approach, starting small and expanding the tracking system as their capacities increase. Collaborative work integrating financial departments of line ministries could also enable reaching a level of granularity beyond the aggregation level of the budget system.

- The leadership by finance and planning ministries is essential for ensuring that public expenditures are consistent with national climate and disaster resilience policies and finance strategies. The role of finance ministries is critical, both because of its central role in the budget process, and to ensure there are fewer incentives for greenwashing. Planning ministries play an important role in integrating DRR and CCA into national planning processes and in linking CCA and DRR strategies to investment programming within the framework of national public investment management systems.
- Ministries and agencies with mandates for coordinating climate change, environment and disaster management must be actively engaged from the very beginning and throughout the process in a coordinated manner to design, implement and ensure technical quality of CCA and DRR budget tagging and tracking. Based on the country experiences reviewed so far, it is recommended to more actively engage disaster management authorities in climate budget tagging and ensure more harmonised and coherent CCA and DRR expenditure tracking. Disaster management authorities will also need to proactively engage environment and climate ministries in disaster risk financing and disaster expenditure tracking initiatives, given significant overlaps between DRR and CCA. Line ministries and local governments should also have clear responsibilities in implementing DRR and CCA budget tagging.
- Adequate capacity development support should be designed and implemented to ensure quality, effectiveness and sustainability of DCBT. International support for introducing budget tracking systems should be designed to build long-term national capacities in climate and disaster expenditure tracking. Further guidance and capacity development would need to be provided across line ministries to tag and track public expenditures on CCA and DRR more accurately. Targeted capacity development is recommended for local governments, given their critical role in implementing DRR and CCA actions on the ground.

Develop common methodologies and technical guidance on DCBT

Gain broader political and public support through multi-stakeholder engagement

- Gaining broader political and public support is important throughout the process of CCA- and DRR-related expenditure review and tracking. For example, wider engagement with civil society groups can help build political pressure to meet the actual DRR and CCA funding needs and advance necessary measures politically (The Coalition of Finance Ministers for Climate Action, 2020). Citizens' budgets have proven to be effective tools to raise public awareness and to increase the demand towards politicians to allocate budgets for certain priorities.
- CBT reforms are technically challenging, and reflecting the overlaps and synergies between DRR and CCA expenditures would add yet another layer of complexity. The review of country experiences across different regions demonstrates a need to develop a more robust and clear definition of expenditure on climate and disaster resilience. This is especially important for tagging secondary (indirect) climate and DRR expenditure, as unclear definitions can lead to overestimation of CCA and DRR expenditure and lack of credibility of the expenditure tracked and reviewed. More detailed methodologies and guidelines need to be developed to identify and track overlapping CCA and DRR expenditures that contribute towards common policy objectives. This development should be informed by emerging experiences and lessons learned from DCPEIR exercises and DBCT reforms that already consider CCA and DRR jointly.
- It is recommended that classifications on DRR and CCA expenditures are consistent and compatible with international statistical and classification systems, and that tagging initiatives, and development partners supporting them, collaborate to build robust and common methodologies to avoid adding extra burdens and generating resistance from implementing institutions.
- As most countries are still developing and improving methodologies and technical guidelines for climate- and disaster-related public expenditure reviews and tracking, development partners may consider providing experience-sharing and technical assistance to countries through comparable, common standards and methodologies on coordinated CCA and DRR budget tagging and public expenditure tracking.

Provide capacity development support and avoid overburdening through a phased approach

- It is important to consider the heavy burden associated with budget tagging initiatives due to the time- and resource-intensive processes required. Countries that have just started to introduce tagging reforms may prefer to pilot either climate or disaster first, before expanding to both.

Promote collaboration on considering negative expenditures in climate and disaster public expenditure reviews and tracking

- While it is necessary to take into account various political, institutional and technical challenges with capturing negative expenditures, it is important to consider how negative expenditure can be identified and tracked. In some cases, the benefits of positive expenditure could be outweighed by the harmful effects of negative expenditure. Most countries reviewed for this study have limited experience and capacity in defining, identifying and tracking negative expenditure associated with CCA and DRR. Emerging climate and environmental expenditure review experiences in Europe, such as France, Italy, Finland and Norway, can be further examined and shared through cross-regional and cross-country learning. As there is very limited global experience in this area, similar experiences of identifying and tracking negative public expenditure in other cross-cutting policy areas can be examined to provide further guidance for reflecting negative expenditure that may hamper climate and disaster resilience. Cross-sectoral and international collaboration could help establish common standards and practices for considering negative expenditure to reduce the potential negative contribution of public expenditures on climate and DRR objectives and to shift more finance and investments towards positive contributions to climate- and disaster-resilient development.

Identify financing gaps and potential revenues through CCA and DRR budget tagging and tracking

- Existing CCA and DRR budget tagging and public expenditure tracking practices have had limited focus on identifying financing gaps and potential financial resources as part of their objectives and methodologies. Identification of a financing gap could be further considered in future climate and disaster public expenditure tracking initiatives to help address an increasing financing gap in implementing DRR and CCA policies and plans.

Assess the effectiveness of CCA and DRR public expenditures

- The information from climate- and disaster-related budget tagging can be further utilised to support the evaluation of the effectiveness of government responses to climate change. This could lead to more efficient allocation and use of resources for impactful climate and DRR policy measures. It is

important to learn from emerging initiatives, to move from just tagging to the high-level evaluation of the effectiveness of government responses to climate change, and to integrate reporting into the general performance budget framework. Expenditure tracking, in combination with performance budgeting could enable the assessment of the relative effectiveness of interventions across different sectors.

Capitalise on climate budget tagging and risk-sensitive expenditure review initiatives for improving public expenditure for climate and disaster resilience

- Across all regions reviewed under this study, most countries have more experience and focus on climate budget tagging than disaster-focused budget tagging. Most climate-related budgeting tagging systems include DRR to the extent it overlaps with CCA. Therefore, climate budget tagging provides a strategic opportunity for DRR to be more effectively reflected to increase DRR-related budget visibility, accountability and political support as part of climate- and disaster-resilient development efforts. At the same time, emerging risk-focused expenditure reviews, such as Risk-Sensitive Expenditure Reviews in African countries, could also inform climate expenditure tracking and help increase integration and coherence between DRR and CCA expenditures. Experiences from Pacific Island countries with PCCFAF, an approach that already integrates DRM within a climate change budget assessment framework, could help inform such efforts.

Experiences around the world in climate and disaster expenditure reviews and budget tracking reviewed in this paper demonstrate that countries face a number of challenges in undertaking DRR- and CCA-related budget tagging and tracking and achieving expected benefits for improved budget transparency, accountability, allocations and resource mobilisation. Strong political commitment, clear institutional arrangements and technical and capacity development are critical factors for effective and impactful DRR and CCA expenditure tracking. Going forward, further international collaboration is needed to strengthen coordinated DRR and CCA budget tagging and tracking systems as one of many policy tools to help increase transparency of climate and disaster finance, increase synergies and effectiveness of interlinked CCA and DRR actions, and ultimately, enhance the quantity and quality of climate and disaster financing for climate- and disaster-resilient development.

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March 2023

Climate change; Policy and planning

Keywords:

Disaster risk reduction, climate change adaptation, resilience, finance, loss and damage

The costs of disasters and the negative impacts of climate change are rising globally. Record numbers of extreme weather events, exacerbated by climate change, are already costing the world billions of dollars each year. Other threats, including pandemics, geophysical hazards and cyber risks, are adding to this bill. This paper zooms in on public finance for climate change adaptation and disaster risk reduction and provides an overview of the latest international and country trends in tagging budgets and tracking public expenditures on climate and disaster resilience. The paper also suggests a way forward for coordinated climate change adaptation and disaster risk reduction budget tagging and public expenditure tracking for consideration by ministries of finance, planning, environment and climate change, national disaster management agencies and relevant sectors, as well as international development partners engaged in climate and disaster finance.

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UNDRR would like to acknowledge its major core donors for their support: Sweden, Japan, Norway, Switzerland and Finland as well as the support by the Australian Government for this publication. However, the views expressed in this publication are the author's alone and are not necessarily the views of the donors.

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