



TRACKING AND REPORTING FINANCE FOR LOCALLY LED ADAPTATION TO CLIMATE CHANGE

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EXECUTIVE SUMMARY

Highlights

- As national governments invest in building resilience to climate impacts, many are recognizing the importance of locally led adaptation (LLA). LLA requires finance and decision-making processes that prioritize the agency of local actors who are on the front lines of climate change impacts and are often best placed to identify adaptation solutions.
- This paper provides metrics governments can use to track not only how much finance reaches the local level for adaptation but also its quality, in terms of how well it supports local agency in adaptation decisions, which is fundamental to LLA. It also recommends tracking and reporting options that governments can adapt to their own country contexts and climate finance objectives.
- Tracking and reporting quantity and quality of finance for LLA is important for ensuring adequate and sound investments, and ultimately for finance to reach and meet the needs of those most directly affected by climate change. Tracking and reporting also supports transparency, accountability, and resource mobilization.
- However, neither quantity nor quality of finance for LLA is systematically tracked or reported. Barriers such as complexity of measuring and tracking finance, lack of data, and other resource limitations mean that most governments are not able to assess whether domestic or international finance supports LLA.

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Working Papers contain preliminary research, analysis, findings, and recommendations. They are circulated to stimulate timely discussion and critical feedback, and to influence ongoing debate on emerging issues.

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Context

In 2021, more than 40 organizations endorsed the Principles for Locally Led Adaptation, which outline key requirements for local priorities to drive locally led adaptation finance and decision-making processes. These include devolving decision-making to the lowest level appropriate, flexible funding and programming, and patient and predictable finance. Recent global efforts highlight that adaptation finance that supports local actors and vulnerable populations is a priority for a growing number of countries. Examples include the Least Developed Country (LDC) Initiative for Effective Adaptation and Resilience's (LIFE-AR) commitment of 70 percent climate finance for local action; Local Climate Adaptive Living (LoCAL) Facility for local governments; County Climate Change Funds in Kenya; the Philippines' People's Survival Fund; and the U.S. Justice Initiative, which mandates that 40 percent of benefits from federal climate investments must flow to disadvantaged communities.

Despite growing acknowledgment of the importance of ensuring that finance addresses the priorities of those most at risk from climate change, several practical and methodological challenges hinder systematic tracking and reporting of the information needed to understand whether public finance for adaptation is supporting LLA.

About This Working Paper

This paper offers practical and flexible approaches to help governments assess whether and how finance is supporting locally led adaptation, including how much finance reaches the local level and whether this finance supports local agency over adaptation decisions. It is based on analysis of tracking and reporting of finance for adaptation in nine countries—Colombia, Germany, Jamaica, Kenya, Mali, Mozambique, Nepal, the Philippines, and Uganda—as well as on literature review and expert consultations. These countries have systems in place that cover some aspects of tracking finance for adaptation. The recommended metrics and tracking and reporting options discussed in this paper are primarily targeted to national governments. Other actors such as donors, multilateral development banks, intermediary organizations, and civil society also have an interest in supporting LLA and have key roles to play in enhancing tracking and reporting of finance for LLA, but the roles of these other actors are not the focus of this paper.

Findings and Recommendations

While there are multiple barriers that inhibit tracking of finance for LLA, there are also metrics and options governments can adopt to navigate challenges. Tracking any type of investment in adaptation is complex and can be time consuming and resource intensive. Differences in fiscal practices among ministries and public agencies, discrepancies in definitions of LLA, and gaps in data and information availability are among other challenges governments face.

Identifying what information is most important to track is the first step to enhancing finance tracking and reporting systems for collecting information about quantity and quality of finance for LLA.

The paper focuses on two types of metrics: quantity and quality. Metrics of *quantity* can be used to improve understanding of how much finance reaches subnational actors. Metrics of *quality* indicate whether finance meets criteria for supporting locally led adaptation. Recommended metrics of quality are grounded in three of the eight Principles for Locally Led Adaptation: devolving decision-making to the lowest appropriate level, flexibility, and patience and predictability.

A range of options is available to governments to introduce new or update existing tracking and reporting systems to assess how finance supports locally led adaptation. These options fit into three categories: budget tagging, expenditure review, and integration with existing planning or policy processes such as National Adaptation Plan (NAP) development and Biennial Update Reporting. The tracking and reporting options outlined in this paper can be adjusted according to factors such as data availability, resource constraints, and policy objectives.

The metrics and tracking and reporting options here are intended to serve as a starting point for countries to enhance tracking and reporting. Governments can tailor these approaches to accommodate their objectives and contexts, and they can contribute to efforts to ensure local actors on the front lines of climate change have agency over adaptation priorities.

1. INTRODUCTION: WHY FINANCE LOCALLY LED ADAPTATION?

As the impacts of climate change become increasingly clear, the economic, moral, and environmental imperatives for adaptation have only grown. Recent adaptation cost estimates for developing countries range from \$140 to \$300 billion per year by 2030, and increase to almost double, or \$280 to \$500 billion, per year by 2050 (UNEP 2018). However, in 2015–16, bilateral and multilateral contributors provided only \$14.79 billion on average for adaptation (UNFCCC 2018), addressing a fraction of current and projected needs.

Tracking these limited resources is crucial to understanding where, how, and to whose benefit adaptation is happening. Periodic analyses, such as the Climate Policy Initiative’s (CPI) *Global Landscape of Climate Finance 2019* and Oxfam International’s *Climate Finance Shadow Report 2020* often profile sources and recipients of finance, sectoral trends, and the types of financial instruments that are used to channel resources (Buchner et al. 2019; Carty et al. 2020). These factors are important to understanding whether current investments in adaptation are adequate to address climate risks, and for informing future investments in building resilience (Richmond and Hallmeyer 2019).

These analyses, however, do not indicate whose priorities are addressed and how decisions about using this finance are made. Adaptation needs to occur at different scales to meet different needs—for instance, transboundary adaptation is often required for shared natural resources. The impacts of climate change are felt at the local level, yet adaptation decision-making tends to be top-down and denies local actors a role in determining what interventions are chosen and how they are implemented. Information about how much finance reaches the local level and whether this finance is available to support locally led adaptation is sparse, inaccessible, and difficult to produce (Wilkinson et al. 2014).

Locally led adaptation recognizes that the people closest to the effects of climate change—especially those facing marginalization due to systemic inequities in income, education, social capital, and political power—require the financing and decision-making power to ensure that adaptation investments reflect their priorities (Coger et al. 2021). This approach to adaptation is characterized by

local actors having individual and collective agency over their adaptation priorities and over how adaptation takes place (Soanes et al. 2021).

Finance for locally led adaptation is finance that local actors, such as community leaders or local governments, can directly access and program to address their adaptation needs. Finance that truly supports LLA should also be gender sensitive and seek to address structural social inequalities. This means shifting the paradigm for how adaptation is funded, including decision-making, and access and reporting norms. In practice, this could look like changing requirements for accreditation for direct access to finance, supporting decentralization of decision-making about adaptation to the lowest appropriate level, and having administrative characteristics that support ownership by local institutions—such as flexibility and patience with regard to process, outputs and outcomes, and time lines (Patel et al. 2020).

Locally led adaptation is an emerging priority for some governments, bilateral and multilateral donors, and other institutions. More than 40 governments and institutions endorsed the Principles for Locally Led Adaptation in January 2021, committing to changing their priorities and ways of working and to strengthening existing efforts to promote agency of local actors in adaptation (WRI 2021b). Other examples include programs such as the Least Developed Country (LDC) Initiative for Effective Adaptation and Resilience (LIFE-AR), County Climate Change Funds in Kenya, the Local Climate Adaptive Living (LoCAL) Facility hosted by the United Nations Capital Development Fund (UNCDF), Enhanced Direct Access programs within funds like the Adaptation Fund and the Green Climate Fund, and localization movements in the humanitarian and development sectors (LDC Group on Climate Change 2019; LoCAL 2020; Crick et al. 2019; GCF 2019; Adaptation Fund 2020).

Tracking and reporting finance for locally led adaptation (LLA) is a key component for understanding whether these investments are shaped by and address the priorities of local people, communities, and institutions on the front lines of climate impacts. This paper discusses what information national governments can track and report to assess the quantity and quality of finance for adaptation, including how much reaches the local level and whether this finance aligns with select criteria for supporting

locally led adaptation. It also outlines tracking and reporting options that countries can adopt to better understand how they can track finance that supports locally led adaptation.

Box 1 elaborates on the definition of LLA and other relevant terms for this paper. The scope of this definition is intentionally broad, to cover the range of actors that comprise “the local level.”

1.1 A Focus on Near-Term Opportunities for Central Governments for Long-Term Systemic Change

Finance for locally led adaptation may come from dedicated adaptation finance flows, or through climate and development finance flows that integrate adaptation into other priorities, such as agricultural productivity or urban development. Countries may support adaptation through a combination of their domestic budgets and international climate and development finance. The metrics and options for tracking and reporting discussed in this paper apply to countries’ domestic budgets that may support adaptation, including but not limited to dedicated adaptation finance.

Box 1 | Relevant Definitions

Local – May refer to the household, business, community, municipal, district, or province level as applicable to the context and requirements of a given adaptation intervention.

Local actors – Stakeholders of an adaptation intervention or their accountable representatives at the appropriate subnational level; refers to individuals or groups from the whole of society, including the subnational government, local enterprises, civil society, and community-based organizations, as well as households and individuals.

Adaptation and climate resilience – Process of adjusting and responding to actual or expected climate change and its effects on adaptation. While adaptation is an action and process, resilience refers to the capacity of a system to cope and adjust to a hazardous event or trend.

Locally led adaptation – Characterized by local people and their communities having individual and collective agency over their adaptation priorities and over how adaptation takes place.

Finance for locally led adaptation – Climate finance that reaches the local level in a way that intentionally encourages and enables local actors to have agency and decision-making power over how the finance is programmed to support adaptation to climate change impacts.

Sources: Soanes et al. 2020; IPCC 2014; WRI authors.

Besides national governments, there are many other important players in this space. These include donors, multilateral development banks, intermediary organizations, and initiatives aimed at finance accountability and tracking, such as the World Observatory on Subnational Government Finance and Investment, that influence whether information about finance for LLA is tracked and reported. Civil society organizations (CSOs) also have an important role to play in ensuring accountability and reporting and facilitating community-led initiatives, but recent initiatives and research, including the Adaptation Finance Accountability Initiative, have already provided analysis and recommendations for civil society to support tracking and reporting of adaptation finance (Krishnan 2020).

There are several reasons this paper focuses on opportunities for national governments. Governments play a central role in channeling finance to the local level. Most finance that reaches the local level—and could potentially be programmed in a locally led manner—is from government sources. As international donors increasingly prioritize country ownership, national governments can inform good practices in tracking and reporting. If countries embrace LLA, donors can support this by reorienting their funding streams, options for accessing finance, and reporting requirements.

This paper focuses on metrics and options for finance tracking and reporting aligned with national-level budget systems, plans, and policies, acknowledging that government bodies at all levels have a role to play in supporting any tracking systems put into place. To this end, this paper does not present a full roadmap for how national governments can support LLA; rather, it presents ideas that could feed into a growing conversation on this topic.

The authors recognize that LLA requires a systemic shift away from common finance and decision-making practices. Many of the measures needed for long-term LLA at scale will not be possible without significant changes to existing governance structures and financing systems. The authors acknowledge the apparent contradiction of presenting metrics and tracking and reporting options that align with existing systems. Within the current paradigm of top-down governance and imbalanced power structures, using metrics to assess and analyze domestic adaptation finance flows provides one entry point to better understand how to enable locally led adaptation. The paper intends to inform practical, near-term steps toward the longer-term transformational change LLA demands.

1.2 Drawing on Existing Country Approaches to Inform Recommendations for Locally Led Adaptation Finance

This paper is based on analysis of tracking and reporting of finance for adaptation in nine countries, a literature review on climate finance and decentralized governance, as well as semistructured consultations with twelve experts on locally led adaptation and climate and development finance tracking. The individuals consulted were experts in climate finance and represented international research organizations, development banks, and donors. Information obtained through expert consultations informed the paper's assessment of the context, challenges, and opportunities associated with tracking finance for locally led adaptation.

The countries analyzed include Colombia, Germany, Jamaica, Kenya, Mali, Mozambique, Nepal, the Philippines, and Uganda. While not all these countries track and report finance for LLA, they were selected because they have systems in place that cover some aspects of tracking finance for adaptation and provide a range of models for tracking information about adaptation finance, in some cases to subnational levels. They also represent a range of country contexts in terms of levels of decentralization and climate policy environments. They do not, however, represent the full range of countries relevant to the analysis herein. Countries across the Global North and South, spanning all geographies and income levels, will need to adapt to climate change and support LLA as part of adaptation efforts (Global Commission on Adaptation 2019).

The analysis of country cases included assessment of the type and frequency of data collected, responsible agencies, defining characteristics of tracking and reporting systems, and relevant metrics of quality tracked through these systems. Summaries of each of these nine countries' approaches to tracking information about adaptation finance and relevant details about context are provided in Appendix A.

The findings and recommendations presented in this paper contribute to ongoing discussions on how governments, donors, and other observers can better assess how climate resilience investments contribute to supporting the local actors who are most directly impacted by climate change but who have historically had limited agency due to structural inequities in resource allocation and decision-making authority.

2. WHY TRACK AND REPORT FINANCE FOR LOCALLY LED ADAPTATION?

Determining how much finance is allocated for adaptation—locally led or otherwise—is a complicated task, in part because of different criteria for what counts as adaptation. Based on a sample of projects that represented 13 percent of global adaptation finance between 2013 and 2017, a 2021 CARE report found that finance for adaptation tends to be overreported by 42 percent because expenditures not focused on adaptation are included or because the adaptation component of projects is over-emphasized (Hattle 2021). Tracking how much finance reaches the local level for adaptation adds another layer of complexity. Similar challenges apply to understanding how finance supports LLA, as generally accepted metrics for finance for LLA have not been established. Thus, the information needed to understand the quantity and quality of finance for locally led adaptation is not systematically tracked and reported.

National governments are central to this effort: they can contribute to a more accurate understanding of the quantity and quality of finance for LLA by developing systems to collect and report the necessary information. Local governments and civil society also have an influential role to play in ensuring finance is adequately resourced, distributed, and applied to further local ownership of adaptation actions (Leiter et al. 2019).

2.1 Benefits and Opportunities of Tracking and Reporting Finance for Locally Led Adaptation

Investing in locally led adaptation means investing in the future viability of physical assets, natural resources, and citizen safety, health, and well-being, while also ensuring that the most vulnerable communities have agency to decide on and invest in their priorities. Tracking and reporting finance for LLA helps governments, donors, and civil society fulfill their responsibility to monitor these investments and ensure that the limited resources available for adaptation are leveraged to protect local assets, communities, and investments from climate change (BMU 2016).

Tracking and reporting also improves transparency and accountability to the public (Carty et al. 2020). For instance, Colombia, the Philippines, and Uganda have publicly accessible online data portals that share information about climate finance in the country (GoC, DNP 2020; GoP 2021; RoU, MFPED 2020).

Some countries have quantitative targets for decentralized climate finance, such as Nepal, which has a target of 80 percent of finance for adaptation reaching the local level (Wenju et al. 2018), and LIFE-AR front-runner countries, which have the target of at least 70 percent of climate finance being used for local climate action (LDC Group on Climate Change 2019). Systems for tracking and reporting finance for LLA can support monitoring of progress toward these targets.

Countries may also be able to use information gathered from tracking locally led adaptation finance to support other policy goals. For example, the German Strategy for Adaptation to Climate Change aims to “support regional and local stakeholders in their capacity to adapt to the consequences of climate change” (BMU 2016), and having information on finance that supports LLA can help meet this strategy’s goals. Enhancing tracking and reporting of finance for LLA can provide data for tracking and reporting progress against the Sustainable Development Goals (SDGs) and other international commitments that overlap with the objectives of LLA (Bain et al. 2019). Countries that receive international climate and development finance can also use information about finance for LLA as evidence to support resource mobilization efforts for adaptation.

2.2 Limitations to Tracking and Reporting Finance for Locally Led Adaptation

While these and other cobenefits of tracking and reporting may provide additional incentives to governments, it is important to acknowledge the limitations of tracking and reporting finance for LLA. Tracking expenditures is only one component of the full spectrum of actions required for meaningful accountability and transparency, which also include processes for public participation and civil society engagement (Krishnan 2020). Additionally, tracking and reporting quantity or quality of finance does not provide information about whether investments achieved their intended outcomes. Separate monitoring and evaluation (M&E) systems are required for this type of information (Silva Villanueva 2011).

3. WHAT INFORMATION IS IMPORTANT TO TRACK AND REPORT TO UNDERSTAND WHETHER FINANCE SUPPORTS LOCALLY LED ADAPTATION?

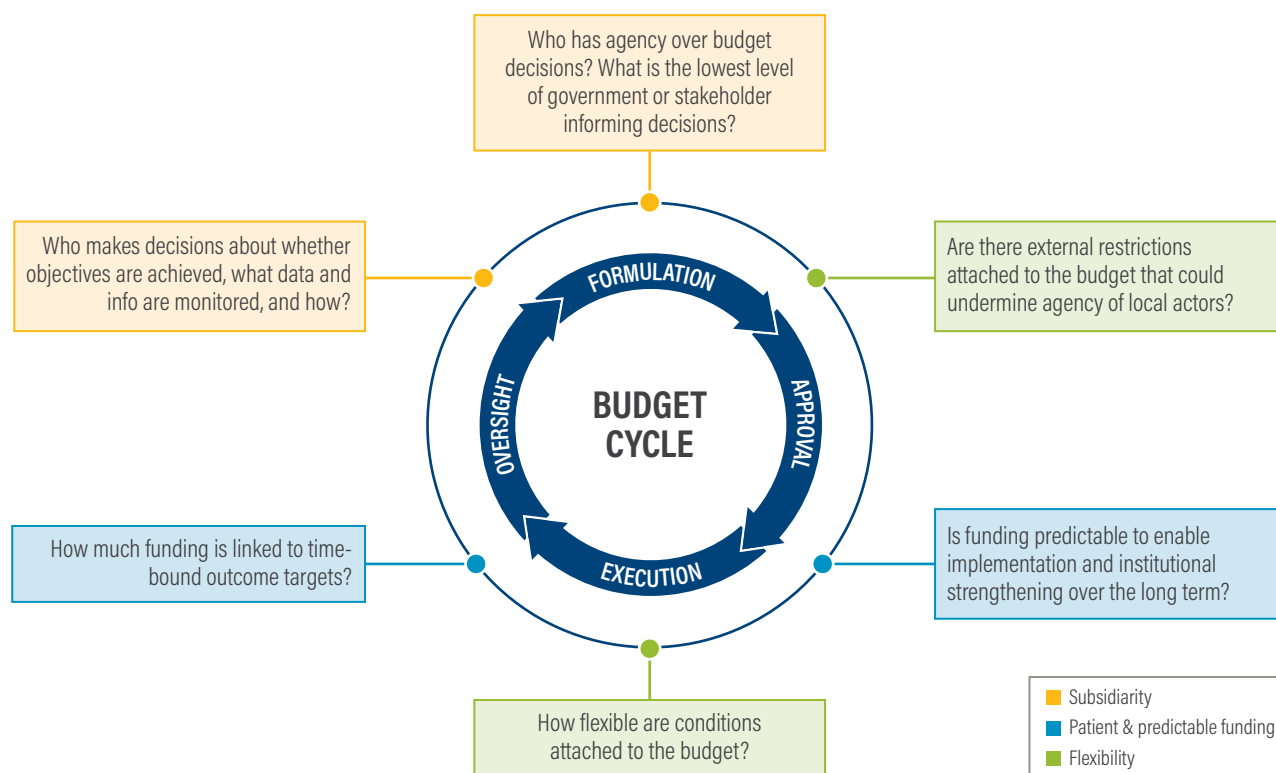
This section presents a preliminary set of metrics that governments could use to enhance their knowledge of how much finance for adaptation is allocated to the local level, and the likelihood that this finance will support local agency over adaptation investment decisions. Tracking the quality of finance for LLA is a nascent approach; thus, using and improving these metrics will be an iterative effort. By starting to track and report as many of these metrics as is practical and useful, governments can begin to obtain a more comprehensive assessment of how public climate finance supports local actors on the front lines of climate change.

The Principles for LLA lay out the key elements of adaptation that are accessible to and owned by appropriate local actors.

These principles were developed for the Global Commission on Adaptation by the World Resources Institute (WRI) and the International Institute for Environment and Development (IIED), with input from BRAC International, the International Centre for Climate Change and Development, Slum Dwellers International, Huairou Commission, Women’s Climate Centers International, and many others (Soanes et al. 2021). Appendix B provides a complete description of the Principles for LLA.

Three principles—devolution of decision-making (subsidiarity), flexibility, and patience and predictability—are particularly relevant to a typical funding cycle and integral to understanding the quality of finance for locally led adaptation. These principles can therefore be considered criteria for finance to support LLA. The criteria can be broken down into measurable components, lending themselves to metrics that can be tracked over time. These three principles encompass the main phases of designing, financing, and implementing interventions that support LLA. Figure 1 illustrates how these three principles align with the project funding cycle.

Figure 1 | **Indicative Applications of Subsidiarity, Flexibility, and Patience and Predictability throughout the Program Investment Cycle**



Source: International Budget Partnership 2021; WRI authors.

3.1 Tracking How Much and How Well Finance Supports Local Agency in Adaptation

Metrics aim to improve understanding of how much finance is flowing to the local level and the extent to which all finance meets certain conditions for supporting locally led adaptation. Both elements are required to understand whether and how locally led adaptation is enabled. This includes understanding the process of deciding how finance for adaptation should target the local level, whether this process involves and supports local actors, and the level of restrictions and period of performance for funding.

Subsidiarity refers to decision-making about finance for adaptation at the lowest level appropriate. Tracking how finance aligns with the goal of subsidiarity is important to promote downward accountability and to help make sure finance supports the adaptation priorities of those most directly affected (Patel et al.

2020). This metric indicates the level of involvement and influence of local actors in decision-making processes tied to finance and adaptation. The German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) has reported on metrics such as the number of cooperation forums with local actors and the number of active participants per event, as part of reporting on pilot projects related to cooperation on local climate adaptation. While these metrics do not reflect the full picture of how much agency local actors have over decisions, they can be systematically reported to provide an indication of whether local actors are given the opportunity to influence decisions (BMU 2016). In its overview of Draft Budget Estimates of Revenue and Expenditure for fiscal year (FY) 2019/20, the Ugandan government noted another element of subsidiarity in the context of goals for agriculture extension services: the capability of local actors to articulate

demand (RoU 2020). While not a metric, this example highlights that accessible information and avenues to inform and express demand are elements of subsidiarity governments can measure.

Flexible funding allows local actors to control funds in ways that best fit local needs, priorities, and evolving contexts. Flexibility of financing, especially when combined with flexible design and implementation, makes it easier for interventions to address different climate or development scenarios that may play out, as well as unanticipated, highly localized climate-driven impacts, such as pest and disease frequency. It allows for innovation, learning, and adjustment throughout the adaptation process. Factors that affect flexibility include who controls the funding: channeling of funds through a large intermediary is likely to result in additional transactions and administrative requirements and less flexibility (Shakya et al. 2019). Earmarks and other conditions can also be a factor: if they are stringent or contingent on predetermined or top-down-driven results, they may dissuade innovative responses, thus potentially hindering efficacy and sustainability of adaptation initiatives. LoCAL is an example of a model designed to be flexible enough to accommodate increasing decentralization—by adjusting fund flows—and to rely on minimum conditions and performance measures (De Coninck 2017).

Patience of funding refers to the acceptance of longer time frames for achieving desired outcomes. Longer-term finance supports capacity-building and investment in local institutions, provides time for communities and stakeholders to learn what works and adapt to changing conditions, and, ultimately, results in more sustainable locally led adaptation investments (Patel et al. 2020). Some researchers and organizations recommend at least seven-year funding windows (Soanes et al. 2021).

Predictability of funding has to do with whether local actors can count on continued or future funding, which allows local actors to plan accordingly and enables mutual accountability for funds expected. Some experts recommend project execution time lines of at least five to seven years for local institutions to strengthen their capabilities to implement adaptation in the long term, and to allow adequate time to experiment, learn, and adjust, as needed, to manage the uncertain and dynamic nature of adapting to climate impacts (Soanes et al. 2021; Shakya et al. 2019).

Quantity metrics aim to improve understanding of how much finance is allocated to the local level. In general, quantity indicators provide a measure of either the total amount or a percentage of finance allocated to relevant subnational levels. These can then be disaggregated, by sector or jurisdiction, depending on the governance structure and governmental priorities regarding tracking adaptation finance. Disaggregation can be useful in helping governments understand not just how much finance is allocated to local levels, but also trends and differences in where and for what purposes the finance is allocated.

Colombia, for example, tracks the total amount of climate finance allocated to subnational governments (departments and municipalities), how much finance was allocated for adaptation, the number of adaptation projects per geographic locality, the executing entities, and the funding source (GoC, DNP 2020; Bocanegra 2019). Colombia's Measurement, Reporting, and Verification (MRV) system for climate finance includes a detailed methodology that identifies 248 actions within 12 sectors and 35 subsectors relevant to climate change, and delineates whether actions should be counted as adaptive, mitigative, or both (GoC, DNP 2020). The Philippines is another country that reports quantitative metrics, tracking both total amount and percentage of finance for adaptation at the municipal level (GoP, CCC 2017).

3.2 Metrics Options: A Starting Point to Better Understand Finance for Locally Led Adaptation

This section lays out suggested metrics for tracking quantity and quality of finance for LLA. The proposed metrics are intended to serve as a customizable menu to guide governments and their stakeholders as they start to track information about finance for LLA (see Table 1).

They were developed to align with the following criteria:

- **Reflecting agency of local actors** in decision-making.
- **Realistic and feasible** for governments to track, avoiding metrics that may be relevant but burdensome.
- **Measurable** metrics that are well-defined and can be tracked and verified. The more metrics a government tracks, the more comprehensive its understanding of how finance supports LLA.

- **Adequate** to provide information needed to improve understanding of whether finance can support LLA. These metrics are not intended to provide information about the outcomes of this finance, which would require a distinct but related process.

There are several assumptions behind these proposed metrics. One key assumption is that the metrics will be applied to domestic public finance that has already been defined as finance for adaptation, according to the government’s established definitions. Therefore, these metrics do not address adaptation explicitly. They are intended to supplement the government’s other metrics for adaptation finance that are already in use.

Another assumption is that these metrics will not necessarily be adopted “as is” or in their entirety. For each objective in Table 1, only one of the several metrics options would need to be tracked. No objective or metric is more or less important than another. Factors such as status of existing budget tracking and reporting systems, data availability, and human and technological resources will influence which and how many metrics governments are able to start tracking against.

These metrics are designed primarily as either simple yes or no questions or quantities to facilitate ease of use and uptake by relevant budget officers (e.g., subnational, sectoral, or central), who are often responsible for coding annual budget requests and proposed investments. Table 1 also marks whether these indicators are to be used at a portfolio (P) level, comprising a set of investments, or at an investment (I) level, referring to individual project, program, or other individual investments. Only the cross-cutting metric is focused on overall flows to the local level and is structured differently.

It is assumed that these metrics will not replace or be mutually exclusive to financial audits. This assumption is particularly relevant to metrics of flexibility, to separate the need for auditing and fiscal responsibility from restrictions that may limit agency of local actors.

There are limitations to how much metrics can convey about the quantity and quality of locally led adaptation finance. These proposed metrics provide an indication of how much finance reaches local actors, and if its qualities align with locally led adaptation. These are not intended to determine whether finance is definitively locally led, whether LLA is happening, what

Table 1 | **Proposed Metrics for Tracking Finance for Locally Led Adaptation**

PRINCIPLE	OBJECTIVE	METRICS OPTIONS
Subsidiarity/devolution of decision-making about finance to the lowest level appropriate	Degree of meaningful involvement of local actors in decision-making related to the financial transactions	P: Proportion or frequency of planning and decision-making forums where local actors were given a say in decisions I: Decisions about financial transactions informed by local actors I: Proportion of local representatives among decision-makers involved in decisions about financial transactions
	Ability of local actors to make decisions about finance for adaptation	P/I: Number, proportion, or frequency of engagement of active agents representing local level in decision-making meetings P/I: Level of government or where purpose of funding was decided P: Proportion/number of investments in activities intended to build local actors’ capacities to identify and make adaptation decisions P/I: Number of accessible and publicized avenues for local actors to express demand for adaptation expenditures P/I: Policy incentives in place for government decision-makers to seek out and account for local demand for adaptation expenditure (yes/no)

Table 1 | Proposed Metrics for Tracking Finance for Locally Led Adaptation (Cont.)

PRINCIPLE	OBJECTIVE	METRICS OPTIONS
Flexibility	Level of external restrictions imposed on use of funds	P: Presence (yes/no) or number of external restrictions that could undermine agency of local actors in adaptation spending decisions I: Funding is tied to external restrictions that would flow down to and undermine agency of local actors (yes/no) <hr/> P/I: Presence or number of intermediaries with decision-making authority over use of funding
	Ability of local actors to adjust to unforeseen changes	P/I: Number or frequency of opportunities to review and adjust programming <hr/> P/I: Proportion of budget for learning and adaptive management (vs. physical outputs)
Patience and predictability	Duration of funding	P/I: Duration of support provided to local actors (number of years) <hr/> P: Proportion of funding for projects with execution time lines > 5 years
	Patience in achieving desired outcomes	P/I: Proportion of funding linked to strict time-bound outcome targets
	Predictability	P/I: Proportion/Number/Total amount of finance linked to transparent allocation formulas <hr/> P/I: Proportion/Number/Total amount of finance linked to multicontract/grant funding sources
Cross-cutting	Tracking how much finance for adaptation flows to subnational levels	P/I: Amount or percentage of finance for adaptation allocated to relevant subnational levels. Options for disaggregation are, as follows: by project or program; by source (e.g., domestic budget, MDB, bilateral donor); by subnational level (e.g., state, province, county); and/or by sector (e.g., agriculture, water, forestry, land & soil, tourism)

Note: MDB = Multilateral development bank; P = Portfolio level; I = Investment level; P/I = Portfolio and/or Investment levels.

Source: WRI authors.

the quality or outcomes of such interventions are in terms of building resilience, or whether total national adaptation finance is sufficient to deliver desired outcomes.

These finance-related metrics should not be conflated with those in an M&E system concerned with process, outputs, and outcomes. As further discussed in Section 5, integrating these finance metrics into an M&E system for a holistic approach to tracking finance and outcomes is good practice. The metrics proposed in this paper deliberately do not speak to outcomes or effectiveness of LLA, because in most cases measuring outcomes of LLA will entail a separate and complex process. This paper aims to focus on what is specifically relevant to the process of allocating finance to support LLA. Other studies such as Cogger et al. (2021) describe good practice for M&E for LLA.

In addition to the practical challenges of collecting necessary data, there are limitations to how much detail metrics about quality can convey about complex issues like local agency over adaptation finance. Even though these metrics are designed to be well-defined and as objective as possible, there will still be a degree of subjectivity to reporting them. Tracking more than one of these metrics for each objective and principle will provide a more holistic view of the quality of finance. This helps triangulate between the portfolio and the investment levels, and balances the limited information that can be gathered during budgeting. Using ranges (e.g., 0 to 100 percent), rather than relying on yes or no answers, to track qualitative information can communicate nuances and integrate metrics into existing tracking and reporting systems. This approach and other options to track these metrics are further discussed in Section 5.

4. BARRIERS TO TRACKING AND REPORTING INFORMATION ABOUT FINANCING FOR LOCALLY LED ADAPTATION

Governments face several barriers to developing and improving systems for tracking information about finance for LLA. These include definitional challenges, gaps in data and information availability, and barriers related to political processes and practices. Despite their complexity, developing new or enhancing existing systems to capture information about finance for LLA yields benefits. In addition to providing a more complete picture of adaptation investments and enhancing the ability to prioritize local actors, tracking supports transparent planning, community and civil society engagement, strengthening of local public institutions, and strategic policy priorities.

Defining locally led adaptation is a critical but challenging initial step in developing or enhancing tracking and reporting systems to account for finance for LLA. While there is no universal definition for LLA, and by its nature LLA should be defined in partnership with local representatives, the Principles for Locally Led Adaptation and the metrics suggested in Section 3 can serve as a starting point to creating standards for accounting for finance and aggregation across diverse local scales.

Many governments that are starting to track finance for adaptation have encountered the definitional challenge of bounding what counts as adaptation versus broader development goals (Wilkinson et al. 2014). This challenge extends to tracking finance for LLA but can be managed by defining up front which sectors and functions will be tracked and which characteristics of finance for LLA are most relevant to track. Many adaptation investments incorporate multiple components, making it difficult to know how much of the investment should count as supporting LLA, thus posing a risk of overcounting finance for LLA. Tracking alignment with the metrics described in Section 3 can help to more accurately estimate the proportion of finance that supports LLA. For example, depending on how the components of a project align with the metrics, different percentages can be attributed to LLA.

Data requirements, limited data availability, and institutional data management capacity complicate collecting information about finance for LLA. Tracking the quantity and quality of finance entails examining multiple aspects of a program or investment, which can be time- and resource-intensive. Reviewing a project

title or short description of a program or investment is insufficient to understand whether finance supports LLA. Most governments are not equipped to consistently report the types of information needed to assess quantity and quality of finance for LLA (Soanes et al. 2021).

Operational differences among relevant ministries and agencies that have a role in allocating and tracking funding for LLA can pose barriers to transparency of finance for LLA. There may be distinct processes for allocating funding to and for decision-making in urban versus rural areas, or there may be ongoing data availability problems. Establishing political buy-in across government has allowed governments, for instance in Kenya, Nepal, and the Philippines, to identify and address potential challenges up front and secure leadership from ministries of finance or planning to support and integrate tracking efforts (Bain et al. 2019).

Bias toward central (e.g., national) actors versus local government in social and development interventions can limit decentralization of finance and associated tracking and reporting and reduce the benefits of locally led adaptation. In the context of public finance, upholding existing standards of centralized control can contribute to the privileging of national-level actors, resulting in processes and metrics that are less relevant to local actors. It can also lead to local actors being treated as drivers of fiduciary risks while overlooking their essential role in managing climate risks and contributing to local adaptive capacity. This limits local actors' access to finance and their agency over planning and budgeting decisions, and may preclude the potential benefits of locally led adaptation to the whole of society (Boex 2013; Fedelino and Smoke 2013).

5. RECOMMENDED OPTIONS FOR WHAT GOVERNMENTS CAN DO TO TRACK AND REPORT THE RIGHT INFORMATION

National governments can overcome the barriers to tracking finance for locally led adaptation through different approaches. This section presents a set of strategies drawn from country models for tracking adaptation finance, and discusses how these options can be used to track and report against the metrics proposed in Section 3. These

options recognize diversity in existing processes for budgeting, expenditure, tracking, and reporting; in data availability; and in capacity to track and report on finance flows.

Potential strategies include the following:

- Prospective budget tagging for LLA, which builds on countries' experience with climate budget tagging (CBT).
- Retrospective processes, such as adapting Public Expenditure Reviews, Climate Public Expenditure and Budget Reviews (CPEBR), or other types of expenditure reviews for climate change to identify finance that supports locally led adaptation.
- A category of options related to planning or policy processes in which some countries may already engage. These include surveys of relevant subnational activities, the National Adaptation Plan process, and the *Biennial Assessment and Overview of Climate Finance Flows*, which report domestic public adaptation finance at the country level.

Notably, these options are not mutually exclusive. For instance, Kenya's Climate Public Expenditure and Budget Review (CPEBR), completed in 2016, found that almost 40 percent of the government budget could be considered "off-treasury," or allocated through other agencies rather than through centralized systems and would therefore require manual review (Bain et al. 2019). The CPEBR helped provide a more complete view of which expenditures would be captured through CBT and suggested the CBT methodology would need to be adjusted to avoid underreporting. This example shows how CPEBR can complement or inform CBT.

For all these options, it is necessary to determine which scale(s) are considered "local," and how LLA is, thereby, defined; how strict or flexible the criteria are for including or excluding finance; and whether the scope of the assessment is broad or limited. The quantity and quality metrics proposed in Section 3 are just a starting point. Contextualizing these metrics to existing government systems and decisions around definitions and criteria should be made by relevant national, regional, and local government entities, in consultation with parliamentary and civil society organizations and communities, based on their priorities.

Since the second and third options are less resource-intensive than building out a CBT system, one approach national governments can take is to review existing plans

and processes to better understand what information on climate finance for LLA is most appropriate and useful to track, while building internal capacity on LLA finance tracking. This information can then be used to inform development of a full CBT system that can support tracking of finance to the local level.

5.1. Option 1: Budget Tagging to Support Locally Led Adaptation

CBT is a tool used *ex ante* to identify, classify, and sometimes weigh climate-relevant expenditures within a government's existing budget system. CBT enables estimating future amounts of climate finance, as well as enabling monitoring and tracking of the finance as it is spent. Once implemented, CBT provides data on the government's allocations and expenditures, which can be analyzed to assess overall quantities of finance but also whether finance is meeting identified priorities. This can help highlight shortfalls and inform future resource mobilization (Bain et al. 2019).

Finance that helps a country and its citizens adapt to the negative impacts of climate change is often integrated, or "mainstreamed," into existing finance to ensure that development activities are accounting for and responding to climate change impacts. Traditionally, national budget management does not easily support the tracking of finance that cuts across ministries or departments. However, CBT is designed to address this dispersed nature of financial flows and builds on experience from other thematic budget measurement tools, such as those developed for tracking gender or poverty reduction (Bain et al. 2019).

As with defining metrics, to determine what counts as LLA finance and scope, governments will need to undertake a participatory process to develop their CBT system, including its purpose and parameters, the breadth and depth of coverage, and how adaptation expenditures will be identified in the public financial management (PFM) system. These choices should be based on collective objectives, data availability, and capacity. As the next sections discuss, governments have additional options that can be particularly useful in tracking finance flows to the local level: using dynamic multidigit codes, applying weights to tagged expenditures, and tracking geographic locations. While not specific to LLA, resources such as the United Nations Development Program (UNDP) 2019 guidance note, *Knowing What You Spend*, provide details on developing a CBT system (Bain et al. 2019).

5.1.a. Using dynamic multidigit codes

Some countries use multidigit codes in their CBT systems. This approach is considered “dynamic” because different digits are used to indicate distinct qualities of climate finance. Static codes use one number to indicate alignment with an entire category, for example, Jamaica’s budget code 005 for “disaster management” (GoJ, Ministry of Finance and the Public Service 2019). Kenya’s dynamic codes have four digits: the first two for the main subject of tracking (climate change or enabler); the third digit for the division within the main subject (adaptation, mitigation, or cross-cutting); and the fourth digit for whether the division is considered principal or significant to the activity. For example, adaptation would be considered a principal division if it is a fundamental purpose of the activity, and significant when it is explicitly stated but not fundamental (GoK, National Treasury; and UNDP 2019). This approach builds on the Organisation for Economic Co-operation and Development’s (OECD) Rio Markers; lessons from its application should be considered prior to its use in other instances. The Philippines also has a multidigit code: the first digit marks whether the objective of the finance is adaptation or mitigation; the next three digits indicate details on the priority, subpriority, and instrument; and the final two digits are an activity code (GoP, CCC 2017).

These types of dynamic multidigit codes can provide more nuanced information about the use of climate finance and can be used to track finance for LLA. A CBT system akin to Kenya’s, for example, could include digits for one or more metrics of quantity or quality of finance for LLA. If a country chooses CBT codes like those used in the Philippines, the digit denoting localization can be included in the second or third digit as a subpriority. This digit could take on a range of values, for example, on a scale of 1 to 10, with 1 being the most localized decision and 10 being national, to indicate level of localization. Similarly, another digit could be used to reflect consultations and/or recipient’s level (e.g., village or regional level).

Nepal’s use of digits for pro-poor and gender-sensitive indication is a model that governments could adapt to track LLA. Projects channeled through a designated list of sectors that directly target poverty alleviation are given the code “1,” while poverty-neutral budgets are assigned “2”; for gender, indicators are tallied to determine the project’s code on a scale of 1 to 3, three being most gender-responsive (GoN 2012). Employing this option to track quality does present a risk of overcounting, if criteria for

what counts as finance for LLA is not clearly defined or not closely adhered to. Using metrics of quality as a basis for criteria can help mitigate this risk.

5.1.b. Weighting tagged expenditure

Once budget codes are used to identify climate-related expenditures relevant for locally led adaptation, weighting can help track the degree of relevance to LLA; that is, the proportion of the expenditure considered directly relevant. Bangladesh used the Climate Fiscal Framework weighting methodology in its budget until 2017/18, to designate projects that address one or more of its “Climate Change Strategy and Action Plan thematic areas” as 100 percent climate-relevant, and those addressing “land stabilization and protection of coastal areas” as 60 percent relevant (Bain et al. 2019). Governments could opt to weight their LLA-relevant expenditures in a similar manner, thus more accurately determining how much finance is really flowing to local stakeholders to address climate change.

Governments can approach weighting in two ways: based on objectives or benefits. The former assesses the relevance of a program’s stated objectives to LLA and is simpler to conduct. Benefits-based weighting involves assessing the additional benefit of a program in light of climate change impacts (Bain et al. 2019). For example, resources allocated to a community-based adaptation program, if evaluated on its objectives, would likely be considered 100 percent relevant for LLA. However, a benefits-based approach would require showcasing the community-based program’s benefits prior to the expenditure being weighted.

Given that weighting can be a complex process, it may be useful to pilot this effort in one sector. Nepal’s Ministry of Agriculture is piloting a methodology of determining the relevance of activities using three nonfinancial factors: the degree to which an activity targets the correct beneficiaries (including gender); linkages to climate change policies; and whether it is based on a climate risk assessment. If an activity includes two of these factors, it is considered “highly relevant,” and if it meets one, it is considered “relevant” (Bain et al. 2019).

This weighting can be particularly useful for gathering data for quality metrics for assessing finance for locally led adaptation. For instance, a factor that could be included for assessing relevance (and thus, weight)—akin to Nepal’s

assessment of whether an activity targets the correct beneficiaries—could be whether the activity demonstrably includes local actors in adaptation decision-making. This in turn links with the metrics associated with devolving decision-making to the lowest appropriate level.

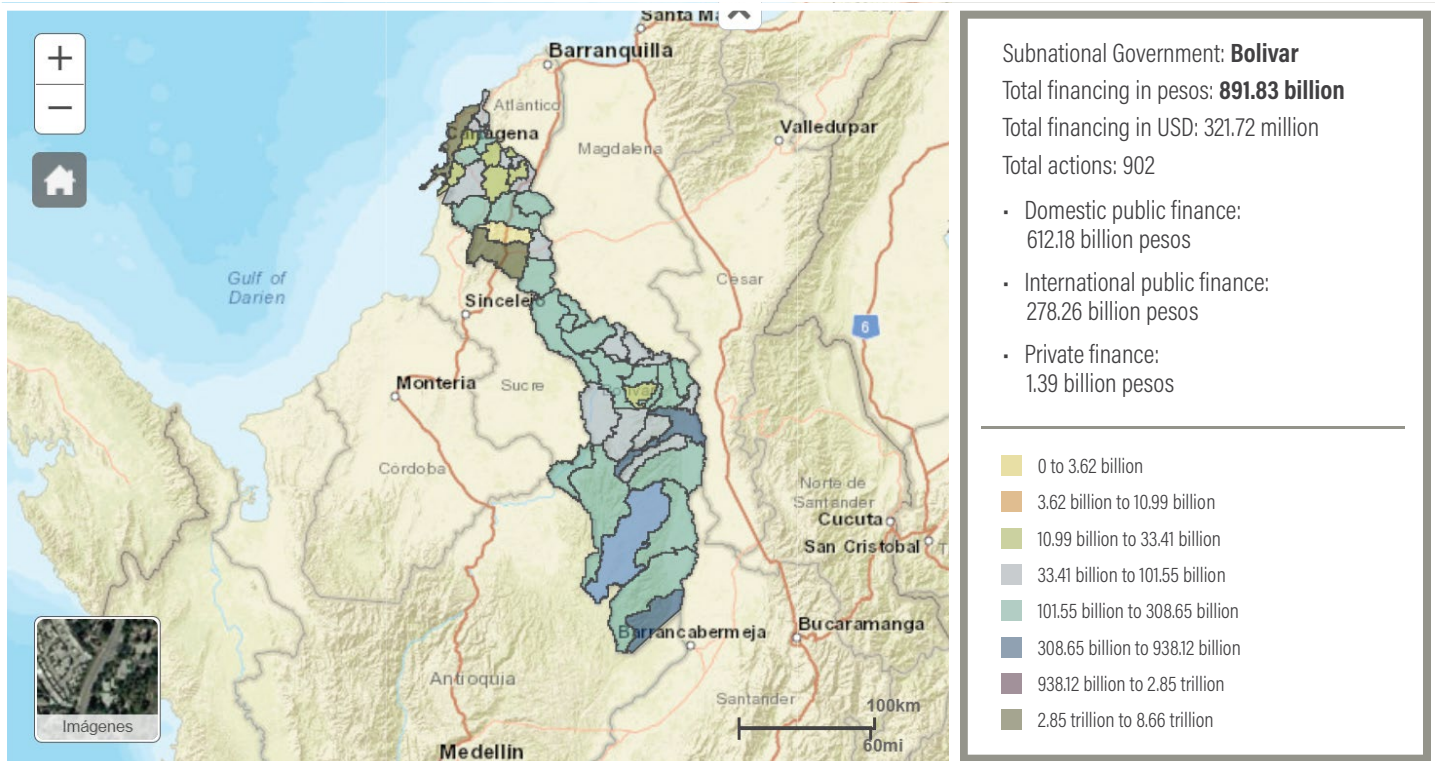
5.1.c. Tracking geographic locations

Tracking subnational geographic locations of adaptation investments offers another opportunity for governments to tailor CBT systems according to their objectives and constraints. Sharing climate finance information through maps or infographics, as shown in the example of Colombia in Figure 2, can help provide transparency and accountability of climate finance tracking, which can catalyze locally led adaptation. Analyzing this information over time provides insight into areas that do or do not attract adaptation finance. If the CBT system includes metrics that support tracking for LLA, this can help indicate not only how much finance is flowing to these areas but also the degree to which local actors are determining how this finance is utilized for adaptation.

Colombia’s CBT system offers an example of disaggregating climate finance information by geographies. Colombia is decentralized into 32 subnational governments (*departamentos*) and further subdivided into 1,102 municipalities, which are governed by locally elected mayors. Colombia’s Measurement, Reporting, and Verification (MRV) System for climate finance, launched in 2017, has three parts: (1) a tailored methodology to track domestic-public, domestic-private, and international-public funds; (2) an online platform for project-level data analyzed in map or infographic form; and (3) implementation of an ownership strategy of the MRV framework at different levels of governance (Guzman 2016; GoC, DNP 2020). The online platform allows users to apply filters to visualize the data by different variables, including sector, state, municipality, and financial source.

Through this platform, Colombia provides open access to basic information about climate finance that goes down to the regional and municipal levels, including the amount of finance, whether it is for adaptation or mitigation (or both), and which government entity the finance is

Figure 2 | Total Climate Finance per Municipality in the Department of Bolivar, Colombia, in Colombian Pesos (2011-2019)



Note: The numbers in this figure are rounded.

Source: mrvapp.dnp.gov.co/Mapas/General.

channeled through. While there is no information about whether local actors (beyond the regional/municipal government for specific projects) have been included, in what ways, or how much, the MRV methodology includes requirements for consultations with recipients.

Climate budget tagging presents advantages as well as limitations. As part of a country's public financial management system, it can help raise awareness of climate change issues among government officials and enable them to make informed decisions. It generates data on climate change investments, which is not covered by regular budget classifications. Dynamic multidigit code data can also be aggregated to provide different levels of information. For instance, the Philippines code can provide data on all budgets marked "A" for adaptation, and related disaggregated priorities, subpriorities, and instruments (GoP, CCC 2015). Access to this data enables public scrutiny of climate change-related expenditures, which in turn improves transparency and accountability. A 2019 UNDP Guidance Note highlights that CBT can even lead to other budget reforms, including adding climate risk screening protocols or integrating climate considerations into medium-term expenditure frameworks that help governments protect their economies from climate change impacts (Bain et al. 2019).

Developing these tagging systems should be participatory in nature, like in Nepal, which held a series of workshops with officers from different ministries (GoN 2012), and Colombia, whose MRV system was developed with regional and local government participation, and whose tracking methodology mandates stakeholder processes. This practice could be extended to include participation from local government representatives as appropriate, to allow for a fuller range of feedback on potential challenges to using budget tagging to track finance to the local level.

Despite its advantages, budget tagging is an extensive exercise that requires high levels of government buy-in, adequate resources, and capacity. It also has limitations in that it captures national budget expenditures but rarely donor or international climate finance that does not flow through national budget systems. Kenya is one such example, where climate-relevant donor funds are sent directly to subnational governments and nongovernmental organizations (NGOs). Because this finance does not flow through its Integrated Financial Management Information System (IFMIS), which mandates tagging, a labor-intensive manual process is required to develop a full

picture of climate finance flowing to the local level (Bain et al. 2019). Colombia, by contrast, has added external donor information-tracked data (GoC, DNP 2020).

5.2 Option 2: Review of Expenditures and Programs

Countries are assessing how to integrate climate finance flows into their policies, programs, and budgets. Specific reviews, such as Climate Public Expenditure and Institutional Reviews (CPEIRs), can help countries better understand the opportunities and challenges of doing so. A typical CPEIR will comprise policy analysis that includes a review of existing climate vulnerability assessments, relevant social and economic development strategies, and relevant sectoral policies; institutional analysis that includes budgeting and planning processes, assessments of climate coordination mechanisms, and reviews of institutional accountability; and climate public expenditure analysis that includes assessing fiscal instruments for climate change, options for weighting climate relevance, and data classification (Dendura and Le 2015). Bringing this varied information together highlights gaps and opportunities to integrate climate change into the budgeting and planning process.

A second set of options revolves around reviews of expenditure and relevant programs—including CPEIRs, Public Expenditure Reviews, and Climate Public Expenditure and Budget Reviews (CPEBRs)—to identify programs that channel finance to, and support, locally led adaptation. Conducting these types of ex post reviews may be more feasible for countries than developing a budget tagging system and can inform the development of a budget tagging system in the future. As with the budget tagging option described above, countries can align these reviews to their priorities and available resources. National governments invested in ensuring that climate finance supports LLA may find the following suboptions useful.

5.2.a. Applying a locally led lens

A 2014 UNDP draft methodological note outlines an analytic framework to incorporate poverty and gender analysis into the CPEIR methodology (Mukherjee 2014). The framework suggests including gender and poverty analysis to highlight gaps, risks, and perspectives, as well as assessing institutional capacity for mainstreaming gender and poverty analysis into policies and budgets. The authors suggest asking key questions; for example, "How can climate risk assessment take poverty and gender

analysis into account?” and “What can we infer from an integrated analysis regarding the impact of climate change on men and women, especially the poor and the vulnerable?” (Mukherjee 2014).

Similarly, a locally led lens can be applied to the CPEIR methodology to make it more sensitive to whether existing institutions, policies, and budgetary practices are aligned with local priorities and strengths for building climate resilience. This suboption may be especially useful for gathering data that can feed into the quality metrics for locally led adaptation.

For example, a locally led lens can be applied to the institutional analysis component, which provides an overview of the existing decision-making process for translating climate policies into budget allocations and expenditures, and identifies which institutions have a role in this process, their existing capacity, and opportunities to strengthen their capacity (Dendura and Le 2015). This provides an opportunity to identify institutional reforms

needed to enable locally led adaptation and generate data for metrics linked with the ability of local actors to make decisions about finance for adaptation, like the proportion of planning and decision-making forums or meetings that involve cooperation with local actors.

5.2.b. Incorporating relevance and weighting

Weights can be used to assess the degree to which a country’s existing climate policies, budgets, and relevant institutions are aligned with locally led adaptation. Currently, CPEIRs include weights for climate, poverty, and gender; an additional weighting option for local agency could be included. Bangladesh has included all three weights—as depicted in Table 2 for its FY2013/14 budget (Dendura and Le 2015). Notably, the Local Government Division of the Local Government Ministry was allocated the highest share of climate change expenditure, indicating that adding a weighting for a local agency could be an option. However, it is important to differentiate between local authorities and local government: the former indicat-

Table 2 | Selected Rows of Bangladesh Fiscal Year 2013/14 Budget with Climate, Gender, and Poverty Relevance Weights

MINISTRY	TOTAL BUDGET 2011-12 (LAKH, TK)	% CLIMATE (A)	% GENDER (B)	% POVERTY (C)	% CC EXPENDITURE SHARE
Ministry of Environment and Forest	123,100	66.58	41.01	79.16	9
Ministry of Water Resources	222,800	33.73	49.24	69.6	8.2
Women and Children Affairs Ministry	123,600	33.61	85.37	87.37	4.6
Defense Ministry	11,574	32.31	3.92	33.01	0.4
Prime Minister's Office	50,600	28.09	24.3	56.82	1.6
Rural Development and Cooperative Division, Local Government Ministry	80,200	26.61	70.02	84.38	2.3
Ministry of Home Affairs	7,720	25.27	9.57	50.19	0.2
Ministry of Expatriates Welfare and Overseas Employment	23,100	24	28.33	52.33	0.6
Ministry of Food, Disaster Management and Relief	708,600	20.79	69.84	96.91	16.2
Planning Division, Ministry of Planning	116,400	19.22	48.82	97.6	2.5
Local Government Division, Local Government Ministry	1,090,900	18.68	47.41	88.86	22.4
Ministry of Agriculture	740,600	18.66	38.4	84.64	15.2

Notes: Tk = Taka (Bangladesh currency); lakh = 100,000; CC = Climate change.

Source: Dendura and Le 2015.

ing subnational entities often controlled by the central government (i.e., Local Government Division in this example), and the latter being elected representatives who may better reflect community voice and agency.

The process of assigning weights can also be an opportunity to integrate quality metrics. For instance, weights could be based on metrics associated with the level of external restrictions imposed on use of funds, such as the proportion of transactions or expenditures tied to external conditions (including preconditions, auditing requirements, or performance requirements); the duration of funding—for example, the proportion of funding with execution time lines longer than five years; or predictability of funding, associated with the proportion or number of transactions or expenditures linked to clear and transparent budget allocation formulas (that objectively allocate resources to programs).

5.2.c. Undertaking targeted assessments

Instead of, or in addition to, CPEIRs, countries can undertake reviews focused on specific sectors and issues. Nepal conducted an impact assessment of climate investments in the agriculture sector that assessed whether the vulnerability of people and areas was considered during planning and resource allocation at national and subnational levels. The report also made recommendations about how vulnerability assessments can be systematized and made available for improving budget proposals. The findings from this assessment fed into improvements in the tagging method to incorporate gender into climate action planning (Bain et al. 2019).

Reviewing expenditure and programs can provide information about the quantity and quality of climate finance that supports locally led adaptation with less up-front investment than budget tagging, and the information gathered can inform future efforts at budget tagging. It may also be easier to gather more information about quality of finance, as expenditure reviews can be easily structured to emphasize the government's areas of interest. To this end, it may also be simpler, in this way, to integrate other social equity factors, such as gender, into reviews compared with using a CBT methodology. However, reviews are stand-alone efforts that are not systematically or frequently done; nor are they integrated into existing systems. They also require data and resources outside of normal government functioning. Over the longer term, a more systematic approach is needed to review budget and support uptake of LLA practices.

5.3 Option 3: Existing Policy or Planning Processes

This category of options includes a heterogeneous set of activities that countries may already do as part of policymaking or planning processes, which they can use to better track LLA finance. Since countries have their own approaches to policymaking and planning, and different ways of linking these to tracking and reporting climate finance, this is not an extensive list of relevant processes. Rather, it is a sample to highlight possibilities for countries to consider and add to, given their own context.

5.3.a. Surveys of relevant subnational activities

If a country is interested in enhancing centralized efforts at tracking climate finance by capturing flows outside of the government system, a survey may be helpful. For example, in Ghana, the government collects data on climate funding that flows to civil society organizations and private sector actors manually through a biannual survey. Over time, this could be adapted to be mandatory. The government records this information in its Integrated Financial Management Information System (Bain et al. 2019). A survey can help establish a baseline of quality of climate finance that can support local action: for example, metrics associated with subsidiarity of decision-making to the lowest appropriate level that also reflect the level of meaningful involvement of local actors in decision-making could be included. If conducted regularly, surveys can improve data, enable consistent reporting, and increase transparency. However, this would need to be balanced with the demands placed on smaller organizations or subnational authorities with limited capacity to report regularly.

5.3.b. The National Adaptation Plan process

During the National Adaptation Plan process, national governments are encouraged to intentionally create strategic linkages to subnational planning, implementation, and monitoring and evaluation systems through the process of vertical integration (Dazé et al. 2016; Ziervogel et al. 2019). The process of undertaking the National Adaptation Plan (NAP) may also be an opportunity for countries to build out some of the options outlined above. For example, Moldova designed its CBT system as an element of the monitoring and evaluation framework for its NAP. By doing so, indicators on national and sectoral objectives

could be supplemented with information on overall spending, its distribution among sectors, and sources of funding (Bain et al. 2019).

5.3.c. The Biennial Assessment and Overview of Climate Finance Flows process

Another existing option is the Biennial Update Reports that feed into the Biennial Assessment and Overview of Climate Finance Flows. In 2018, 18 countries and the European Commission reported on their domestic public adaptation finance at the country level (UNFCCC 2018). Thus far, no country has reported on the quantity of finance that can support locally led adaptation. However, the Call for Evidence on information and data for the preparation of the “2020 Biennial Assessment and Overview of Climate Finance Flows” report includes a request for data on domestic climate finance flows, particularly national and subnational climate-related investments and expenditure (UNFCCC 2020). This is a collective reporting process that only Annex I Parties to the UNFCCC are currently required to participate in, but the principles followed in this exercise could be expanded to other countries interested in tracking or reporting finance for LLA.

5.4 Good Practices and Next Steps for Advancing Tracking and Reporting of Finance for Locally Led Adaptation

Certain good practices apply across these different approaches to tracking and reporting. These include making information transparent and accessible, integration with national M&E systems, and institutionalization within relevant ministries.

Ensuring that tracked finance information is also made publicly available and accessible is essential to supporting LLA. This practice of transparency and mutual accountability is important for facilitating local ownership of adaptation interventions, in alignment with the Principles for Locally Led Adaptation (Mfitumukiza et al. 2020; Soanes et al. 2021). It helps enable civil society to inform investments, facilitate local leadership, and support tracking and monitoring efforts (Krishnan 2020). After years of intensive design and review, Colombia, the Philippines,

and Uganda now have publicly accessible online portals for data about climate finance (GoC, DNP 2020; ODPH 2021; RoU, MFPEd 2020). While this practice can be lengthy and demands continuous oversight, it further supports transparency and accountability objectives.

Integrating tracking and reporting with national M&E systems, or other reporting mechanisms, like NAP reporting, can provide a more comprehensive assessment of not just the quantity and quality of finance, but also how finance inputs relate to adaptation outputs and outcomes. Kenya’s National Integrated Monitoring and Evaluation System is an example of this approach, which has been mainstreamed to local government through the County Integrated Monitoring and Evaluation System (GoK 2019). Institutionalizing tracking and reporting within relevant central ministries is another good practice to support coordination, sustainability, and data availability.

These good practices are steps toward the systemic change required for LLA at scale. Learning from implementation and continued research will be important to strengthen good practice. The options discussed in this paper are new, and will need to be refined and improved as governments, communities, and other stakeholders start to apply them. Given the limited scope of this paper, additional research is required to inform how tracking and reporting by central governments is linked to the LLA process, and how the role of central governments is linked to the roles of other actors. For example, further examination of how to integrate finance tracking and M&E for LLA can help governments understand both the quality of the process for financing LLA and the outputs and outcomes of these investments. There are different stakeholders involved in tracking and reporting finance for LLA: research and practice are needed to support donors, national and subnational governments, and civil society and communities to play their roles in tracking finance for LLA. As tracking and reporting of finance for LLA progresses, shared learning among actors involved will be important for uptake and scaling of good practices.

6. SUMMARY OF RECOMMENDATIONS FOR TRACKING AND REPORTING FINANCE FOR LOCALLY LED ADAPTATION

National governments, among other institutions, are increasingly supporting adaptation that centers on the priorities and agency of actors at the local level, who are most directly affected by climate change. While LLA is growing as a policy priority, approaches to determining whether finance for adaptation supports local action are limited, and governments face multiple barriers to track and report finance for LLA.

To enhance finance tracking and reporting systems to collect information about quantity and quality of finance for LLA, governments need to know what information is most important to track. Metrics of quantity address how much finance for adaptation reaches the local level. Metrics of quality help understand whether finance for adaptation not only reaches local actors but also supports their agency over adaptation investment decisions. Governments can tailor metrics related to subsidiarity, flexibility, and patience and predictability to start understanding quality of finance with respect to LLA.

Existing models of tracking and reporting climate finance can be adapted to communicate metrics for finance to support LLA. Three categories of approaches stand out: climate budget tagging, expenditure review, and integration into existing policy and planning processes. Climate budget tagging is one option that offers the potential for systematic forward-looking budget estimates—customizing with weights and codes—and provides opportunity

to integrate metrics specific to finance for LLA. Expenditure review and existing policy and planning processes, program surveys, NAP development, and reporting to the Biennial Assessment and Overview of Climate Finance Flows are other options for retrospective assessment of the quantity and quality of finance for LLA.

There are limitations to how the metrics and tracking and reporting options presented in this paper can be used to assess how well finance for adaptation supports LLA. To meaningfully support LLA, measures to support local leadership and public participation, balance power, and redress social inequities, as well as mechanisms to finance LLA—such as direct access, updated procurement policies, and dedicated funds—must accompany the recommendations in this paper. Given the nascency of these approaches, additional research and practice will be required to refine and improve these options. This paper provides a starting point to advance global progress on tracking finance for LLA.

APPENDIX A: ADDITIONAL INFORMATION ON COUNTRY CONTEXTS RELEVANT TO TRACKING AND REPORTING FINANCE FOR ADAPTATION

Colombia

Colombia is decentralized into 32 subnational governments (*departamentos*), and further subdivided into 1,102 municipalities that are governed by locally elected mayors (*alcaldes*). Colombia's financial system is considered the third-most decentralized in Latin America. Subnational governments' ability to provide public services is largely determined by the funding available for them—which varies immensely across Colombian territories.

The country's Climate Change Act in 2018 stipulated the need for sectoral and territorial Climate Change Action Plans, and currently each territory has used the Measurement, Reporting, and Verification (MRV) online platform to include information on how to finance these action plans, on which measures are currently financed, and on how much has been spent on climate change so far. Climate finance tracking in Colombia is part of the Integrated System of Financial Information, an initiative of the Ministry of Finance and Public Credit. Data are collected annually, but some data are updated throughout the year, and tracking is a primary function of the Sustainable Territorial Development Direction of the National Planning Department (DNP).

Colombia's MRV system for climate finance was developed in a participatory process with local and regional governments as well as with international stakeholders and donors. Its three parts are (1) a tailored methodology, which mandates stakeholder processes and identifies 12 sectors relevant to climate change mitigation and adaptation as well as 35 subsectors, and identifies 248 actions that are either adaptive, mitigative, or both; (2) an online platform on which project-level data can be analyzed in map/infographic form. The platform notes whether a funder is domestic or foreign; public or private; what sector, financial instrument, funding source it uses; and when money goes to the regional or municipal level; and (3) implementation of an ownership strategy of the MRV framework at different governance levels and with the public and private sectors. For more information on these three components, visit Colombia's online portal, MRV de Financiamiento Climático (mrv.dnp.gov.co).

Sources: GoC, DNP 2020; OECD 2019; Bird 2012; GoC et al. 2016; Partnership on Transparency 2019.

Germany

Germany's domestic climate budget goes primarily toward mitigation, but the country does have a National Strategy for Adaptation to Climate Change designed to promote a cross-sectoral approach at the federal level. Domestic finance for adaptation is increasingly mainstreamed within existing sectoral budgets, which presents a challenge in determining exact figures for domestic adaptation finance.

The German National Adaptation Strategy recognizes the role of local government and other local actors in adapting to climate change. A Standing Committee on Adaptation to Climate Change Impacts is the primary vehicle for subnational (specifically, *länder*, or state) contribution to the National Adaptation Strategy. The strategy also describes local pilot projects as part of its aim to support regional and local stakeholders. Germany also notes Regional Planning and Civil Protection as an action area for adaptation. The German Ministry of Finance reports high-level year-to-date revenue and expenditure data on a monthly basis, including energy and climate grants and grants to local authorities.

The German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU), within the Interministerial Working Group on Adaptation to Climate Change, is responsible for Germany's Adaptation Strategy and the National Climate Initiative (NKI) reporting process. NKI's total spending was €1.07 billion, invested in 32,450 adaptation and mitigation projects as of 2019. NKI has a local component in that it accepts applications from cities, municipalities, districts, municipal companies, social or cultural organizations, and sports clubs. Federal support such as consultation sessions or office hours are available to help applicants with the submission process, which is notoriously complex. BMU discloses information about funding for all climate protection and amounts by federal state and by type of project or sector (infrastructure, technology, advisory services, etc.). Most climate targets are mitigation related.

Other funding schemes for adaptation in Germany include the National Climate Protection Initiative, which funds programs for municipal-level adaptation; the Forest Climate Fund; and the KLIMZUG program on regional adaptation, which concluded in 2014. Local organizations are eligible to apply to the Adaptation Funding Program, which funds projects aimed at strengthening both the capacity of regional or local stakeholders for adaptation as well as high-profile facilities.

Sources: NKI 2021; BMU 2016, 2020.

Jamaica

Jamaica is a unitary country with a single level of subnational government (12 parishes and 2 municipalities). Parishes are both political and administrative. As of 2012, a major reform of subnational governments has aimed to enshrine local governments in the Constitution, and create three strategic laws increasing local autonomy, modifying accounting and financial management practices at the local level, and regulating the local workforce. The climate finance tracking system is preliminary, but the country has Local Sustainable Development Plans. Additionally, the Local Climate Adaptive Living (LoCAL) Facility is wrapping up its design phase. As Jamaica's LoCAL Facility moves into the pilot phase, a dedicated grant system for locally led adaptation will be created. Finance flows through this dedicated grant system will in turn be tracked and reported (LoCAL 2020; Essiet 2021).

Jamaica has annual estimates of expenditure—this is the entire budget, which is reported annually by the Ministry of Finance and the Public Service. While there is no separate tracking or reporting system, the budget can be analyzed through use of relevant static codes. For example, Jamaica uses codes for investments related to climate adaptation such as disaster management and meteorological, weather, and climate services. The budget also uses a functional classifier for environmental protection and conservation.

Sources: Ferro et al. 2020; GoJ, Ministry of Finance and the Public Service 2019; UCLG and OECD 2016.

Kenya

Kenya's climate finance tracking system has undergone several changes in the past five years. The country's tracking framework is largely based on a CPEBR introduced in 2016, as well as the recent addition of climate budget tags as part of the overall, multidigit budget tagging system. Through its Integrated Financial Management Information Systems (IFMIS), the new tags note whether a project is climate-related, whether it is mitigation or adaptation, and whether its activities are considered "principal" or "significant." Kenya also tracks subnational geographic locations as part of its budget tagging.

Kenya's National Climate Finance Policy mandates that the Ministry of Finance or line ministries perform the budget tagging at least biennially; the National Treasury developed the CPEBR and performs monitoring and evaluation. Kenya developed a National Integrated Monitoring and Evaluation System to help track financing in ministries, departments, and agencies. This has been further mainstreamed to counties through the County Integrated Monitoring and Evaluation System. Additional policies that have enhanced climate finance processes are the 2016 Climate Change Act and the National Climate Change Action Plans, 2013–2017 and 2018–2022.

Kenya's County Assemblies allocate the budget they receive from the national government in line with national development goals, but also in accordance with the county's development priorities. While so far it has been piloted in only 5 of Kenya's 47 counties, the County Climate Change Funds are a main mechanism for decentralization of climate funding and action, and an example of best practice. Results from these counties (Makueni, Wajir, Garissa, Isiolo, and Kitui) are encouraging, and the model of connecting local communities to the fund via ward-level planning committees has reportedly led to an 8 percent income increase at the household level. The pilots are being scaled out with funding from the World Bank, the Republic of Kenya, Embassy of Sweden, and others.

Sources: GoK et al. 2016; GoK, National Treasury, and UNDP 2019; GoK 2016; Crick et al. 2019; GoK 2019; Odhengo et al. 2019.

Mali

Mali, which began a decentralization process in 1993, now attributes responsibility to subnational government entities called *collectivités locales* or “local authorities.” While all finances are still centralized through the state, and local government entities have very limited institutional, technological, and financial capacity to manage climate risks and implement local adaptation strategies, Mali has made strides in tracking climate finance.

The Mali Climate Fund tracks total funds received from different donors, funds spent on different projects, and basic outputs of the projects; for example, the number of people trained, fisherfolk benefited, or hectares of land restored. Total finance going specifically to adaptation is also tracked. Notably, the Mali Climate Fund tracks the patience of funding by including the total number of months of climate projects and expected end dates in its annual reports.

Mali’s National Development Planning Directorate (DNPD) manages the country’s Integrated Public Investment Management System. Information about public investments is reported in hard-copy form to the DNPD. The Environment and Sustainable Development Agency within the Ministry of Environment, Sanitation, and Sustainable Development reports on funds received and spent, and outputs of projects funded through the Mali Climate Fund.

In 2015, The Near East Foundation; Innovation, Environment and Development in Africa (IED-A); and International Institute for Environment and Development (IIED) initiated the Decentralising Climate Funds (DCF) program with funding from the Department for International Development’s (DFID) Building Resilience and Adaptation to Climate Extremes and Disasters (BRACED) program. The DCF encourages decentralized allocation of climate finance by supporting communities in prioritizing climate resilience initiatives against a devolved climate finance budget managed by local governments. Broader country objectives include decentralizing climate efforts by getting the Local Authorities National Investment Agency, the Mali Folk Center, and the Malian Development Bank accredited to the Green Climate Fund.

Sources: IMF 2018; RoMa 2011, 2020; Gueye and Bocoum 2019; NDC Partnership 2017.

Mozambique

Mozambique began a process of decentralization and devolution in the 1990s. The country has 10 provinces, 129 districts, and 405 administrative posts, which are further divided into localities—the lowest geographical level of the central state administration. In 2014 Mozambique ranked third among sub-Saharan African countries in terms of climate finance that had been approved, at \$130 million.

Mozambique’s Ministry of Economy and Finance is responsible for collecting data on finance. There are numerous budget classifications that relate to climate change in explicit and cross-cutting ways (environmental protection, capacity strengthening for weather-related shocks, making smallholder farmers [particularly women] more resilient). The government also introduced a budget classification code explicitly for climate change in 2015. The country’s budget is released annually and has one midyear review; however, no figures are available concerning the total contribution of the Mozambican government to climate change–related actions. Relatively little information is available as to whether or how adaptation finance moves down to the local level. There are a few donor-funded local level and participatory initiatives such as the Local Climate Adaptive Living (LoCAL) Facility’s Performance-Based Climate Resilience Grants, through which international climate finance is channeled through national treasuries to the local level. In 2002, the electronic Integrated Financial Management Information System (e-SISTAFE) was developed to manage public sector expenditures; however, the country has struggled to train enough personnel to use this as an effective tracking mechanism.

Sources: Sietz et al. 2008; CABRI 2021; RoMo 2020; LoCAL 2021; Health Policy Plus 2019.

Nepal

Nepal tracks its climate finance and incorporates aspects of climate vulnerability into its tracking approach. The country tracks the total amount and proportion of climate-relevant activity within the total budget; uses codes to track the relevant strategic pillar; and notes whether a project is pro-poor or gender-sensitive. Climate budget codes were introduced in 2013. They are largely institutionalized in domestic budget systems and can be weighted in their relevance to climate change. Nepal has a target of 80 percent of climate finance reaching the local level.

Nepal has a federalized governance structure, devolved to seven provinces and 753 municipalities, which are responsible for service delivery, including climate change and disaster risk-reduction interventions. Expenditure on local adaptation at the subnational level falls within the Local Government Operation Act of 2017. Provincial and local governments use the Sub-National Treasury Regulatory Application to track budgeting and accounting. The Financial and Comptroller General Office reports climate expenditures versus allocations annually in a consolidated expenditure report.

Sector financial flows are recorded across four main systems that are relatively integrated at the national level. These systems include the Line Ministry Budget Information System (LMBIS), which supports the preparation of annual work plans and budget proposals; the Budget Management Information System, which provides a final update of the approved budget to LMBIS; and the Financial Management Information System and Treasury Single Account, which provide daily expenditure data. Nepal has a Citizen's Climate Budget, where expenditure and other budget data are in a more accessible format for local populations. However, data and information collected in the treasury system used by local governments to track budgeting and accounting are not made publicly available in disaggregated formats.

Sources: Mercy Corps 2019; World Bank 2019; GoN 2012, 2017; Nepal Legislative Parliament 2017.

The Philippines

The Philippines is an example of a country that reports quantitative metrics for adaptation at the local level and tracks both total amount and percentage of finance for adaptation at the national and municipal levels. The Department of Budget Management is responsible for budget tagging at the national level, while Local Government Units (LGUs) are responsible for budget tagging at the local level, and the national Climate Change Commission assesses and ensures the quality of the climate tagging. Philippines' expenditure data are available on an online portal at data.gov.ph; the most recent budget and coding information on the portal is from 2015. A "People's Survival Fund" is intended to support adaptation; as of 2019 six local adaptation projects have been able to access the fund.

LGUs are also responsible for planning and implementing climate actions in their communities; Local Climate Change Action Plans are integrated with Local Development Plans (LDPs), the National Framework Strategy on Climate Change, and the National Climate Change Action Plan (NCCAP). Each municipality publishes an annual investment program brief that includes the total number and funding amount of climate change adaptation and climate change mitigation investments, funding source, and alignment of these investments with the NCCAP. The Department of the Interior and Local Government is meant to provide continuous capacity-building programs for LGUs to institutionalize and sustain climate change expenditure tracking in LGU annual investment programming and budget planning processes.

The Philippines has a six-digit typology code that includes an adaptation or mitigation marker (A or M), three digits for the strategic priority, subpriority, and instrument, and a two-digit activity code. Adaptation codes include space to denote which of four instruments is being funded through the local budget: (1) policy development and governance; (2) research, development, and extension; (3) knowledge sharing and capacity-building; and (4) service delivery.

The Philippines launched the National Integrated Climate Change Database Information and Exchange System with detailed information on public and private climate finance data. Climate finance-related data can be accessed via an online portal, Open Data Philippines (ODPH) (data.gov.ph), where tagging includes year, agency/attached agency, budget cycle milestone (e.g., agency request), pillar (adaptation/mitigation), and strategic priority.

Sources: GoP, CCC 2017; GoP, CCC 2021; GoP, CCC 2015.

Uganda

Over the last decade Uganda has increased and improved its climate finance tracking efforts. In 2020 it made its budget, district, and municipal expenditure data, and other climate finance information available to the public online. Uganda tracks the total amount of climate finance in the country (mitigation and adaptation) and the total number of adaptation and mitigation projects, and has climate and environment line items in the national budget, including a line for “enhancing resilience of communities to climate change.” It uses a Grant Allocation Formula to determine how much local governments receive for different sectors, weighting different categories like population, land area, and poverty head count.

Uganda’s Ministry of Finance, Planning, and Economic Development created climate budget tracking systems to identify annual adaptation and mitigation expenditures, with line ministries and districts expected to implement this system in FY2020/21. This will yield a shared tracking mechanism for government and civil society organization (CSO) use. The country’s existing performance measurement framework includes indicators that track adaptation-related outputs of investment. In the framework of the Local Climate Adaptive Living (LoCAL) Facility, Uganda has recently designed a performance-based climate resilience grant system aligned with its existing District Discretionary Development Equalisation Grant (DDEG), a mechanism for funding local development priorities in rural areas. The grant allocation formula for the performance-based climate resilience grants builds on the formula from the existing DDEG system, adding a range of climate change adaptation indicators as well as indicators related to local participation. The formula is calculated as a 30 percent addition to the District DDEG.

Uganda’s 2020 National Climate Change Bill supports planning and budgeting of District-Level Climate Change Action Plans in alignment with the national plan. It also lays out roles and responsibilities at the district and local levels. The Overseas Development Institute reported in 2013 that climate-related spending is often handled by subordinate agencies instead of the central ministry. More information on Uganda’s climate finance tracking can be found on its online portal, at climatefinance.go.ug.

Sources: RoU, MFPED 2020, 2021; Krishnan 2020; CARE 2020; Tumushabe et al. 2013; Parliament Watch 2020.

APPENDIX B: PRINCIPLES FOR LOCALLY LED ADAPTATION

Empowering local stakeholders to lead in adaptation gives communities on the front lines of climate change a voice in decisions that directly affect their lives and livelihoods. Shifting power to local stakeholders, without expecting them to shoulder the burden of adaptation, can catalyze adaptation that is effective, equitable, and transparent. While not all adaptation needs to be locally owned or led, countries and local stakeholders are demanding greater initiative on this and committing to putting more resources into local hands for local adaptation priorities.

The Principles for Locally Led Adaptation described below are intended to guide the adaptation community as it moves programs, funding, and practices toward adaptation that is increasingly owned by local partners.

1. Devolving decision-making to the lowest appropriate level

Most **business-as-usual** climate adaptation planning still happens at the international and national levels, away from the local realities of climate change impacts. Local actors and institutions participate on the margins of adaptation decisions. While most adaptation planning processes employ consultation and multistakeholder engagement, local communities are often excluded from having ownership over the adaptation interventions intended for them.

Making a shift toward **business-unusual** and more locally led adaptation means the people worst impacted by climate change are empowered to lead the prioritization, design, implementation, and evaluation of more adaptation initiatives. This business-unusual approach sends more adaptation finance directly to local actors and gives them more decision-making power over their process of adaptation. Where it is more appropriate for international or national institutions to lead adaptation, local actors must have a genuine voice.

2. Addressing structural inequalities faced by women, youth, children, disabled, Indigenous Peoples, and marginalized ethnic groups

Risk at the local level is influenced by structural, economic, and political inequalities. This may include discrimination, exclusion, and persecution due to gender, age, political affiliation, economic status, caste, linguistic group, ethnicity, religion, economic status, or cultural factors. These factors can determine exposure to hazards and can influence coping and adaptive capacities. Most **business-as-usual** adaptation initiatives merely engage the proximate causes of risk—such as hazard or exposure—as opposed to these underlying drivers and are focused on designing the infrastructure for risk reduction without engaging in underlying inequalities.

Business-unusual means facilitating locally led adaptation interventions that engage with these structural issues underpinning risk. They concretely integrate gender-based economic and political inequalities at the core of activities and support women, youth, children, disabled, Indigenous Peoples, and excluded ethnic groups to meaningfully participate and lead adaptation decisions. One way to do this is to provide exclusive streams of finance for action led by women, youth, children, disabled, Indigenous Peoples, and excluded ethnic groups.

3. Providing patient and predictable funding that can be accessed more easily

Business-as-usual adaptation funding is usually delivered as “project finance” with short time horizons and arduous processes to access it. This requires a high level of technical expertise held mostly by international actors and intermediaries, not by local institutions.

Business-unusual adaptation finance is provided over time frames long enough to build sustainable institutions and capacities at the local level (seven years or longer). It offers patient support to ensure communities can effectively influence adaptation processes and enable adaptive management so new climate information, skills, and innovations can be incorporated into locally led adaptation actions over time. This funding is predictable, enabling local actors to take risks and change behavior. It is also more easily accessible to local actors—acknowledging that they may not be fluent in existing proposal development practices—by addressing structural capacity imbalances in the aid system, such as through multistakeholder partnerships, video submissions for finance, and more emphasis on the risks of not investing.

4. Investing in local capabilities to leave an institutional legacy

In **business-as-usual** adaptation, local institutions are often used as “implementers” or “conduits” for adaptation activities, and there is scant focus on their institutional capacity development. This results in a lack of institutional agency and ability to play a decisive role in climate action after projects conclude, as funders and other intermediary organizations do not usually invest in institutions with low or no track record in managing climate finance.

Business-unusual adaptation builds the capabilities of local actors to lead on adaptation interventions and, where needed, develops new institutional structures at the local level to ensure local leadership on adaptation after project funding ends. This includes building local institutions’ capacity to understand climate risks and uncertainties, generate solutions, and facilitate and manage adaptation initiatives. Local institutions should also have the fiduciary and management capacity to provide grants and loans to other local actors for adaptation actions. Having these measures in place ensures that short-term investments in adaptation can contribute to an enabling environment where adaptation action is sustained after project finance runs out.

5. Building a robust understanding of climate risk and uncertainty

As the dangers of an exclusive reliance on scientific knowledge are now well understood, decisions to mitigate climate risks should ideally be informed through a convergence of scientific and local, traditional, Indigenous, and generational knowledge. However, **business-as-usual** adaptation decision-making is not commonly based on the convergence of local generational and scientific data, but instead biased toward approaches that employ top-down climate risk assessments using historical climate data and climate projections to predict the future.

Business-unusual adaptation means commencing adaptation from local, traditional, Indigenous, and generational knowledge, using bottom-up climate risk assessments that build from local communities’ understanding of climate risk and resilience pathways. Integrating these bottom-up climate risk assessments with scientific knowledge and climate scenarios tests appropriate low-regret adaptation options and produces robust adaptation strategies.

6. Flexible programming and learning

Locally led adaptation efforts must have the ability to shift tactics and approaches in tandem with changes in the operational environment. This “adaptive management” approach to programming ensures that the inherent uncertainty surrounding climate change can be addressed. However, under **business-as-usual** adaptation, practical examples of adaptive management are scarce, and program managers are unable to shift time lines, budgets, and outputs substantially, while the requirements for cofinance and access modalities remain high.

Business unusual means adaptation funding is provided with sufficient flexibility to support adaptive program management. Budgets for locally led adaptation initiatives can adjust to changing circumstances to allow locally led adaptation to prioritize and adjust to learnings as they emerge, especially through peer-to-peer knowledge exchanges. Donors and intermediary organizations must support robust monitoring and learning systems that can iteratively gauge the progress of adaptation and enable learning from the context in which interventions unfold.

7. Ensuring transparency and accountability

To ensure that local actors and institutions can lead adaptation initiatives, the process of financing, designing, and delivering programs needs to be transparent. Under **business-as-usual**, it is unknown how much adaptation finance reaches or is controlled by local actors. Nonlocal actors—who are accountable to donors, not communities—lead the development of financing arrangements, program design, governance structures, and adaptation delivery mechanisms that are often not shared meaningfully with communities. Where available, this information is often in formats and languages that are alien to local actors and institutions.

Business-unusual means donors, governments, intermediaries, and other adaptation implementors make their governance arrangements and financial allocations publicly accessible—right down to the local level—so local communities know how much finance is available and how it is distributed across the different activities and budget lines. Communities have a clear understanding of the aims and objectives of adaptation programs, as well as the delivery mechanisms, decision-making, and governance structures envisaged. Community members are involved in key decision-making mechanisms and evaluation and learning activities, using downwardly accountable and participatory approaches that account for power imbalances.

8. Collaborative action and investment

No single program or investment can address all climate risks in each context. It is therefore crucial that there is coordination and convergence between different locally led adaptation initiatives led by a variety of actors. **Business-as-usual** shows global climate funds making only sporadic attempts at coordination, national focal points that are at times not empowered to effect convergence, and institutions delivering local adaptation programs burdened with parallel accountability systems.

Business unusual means international institutions supplying adaptation finance will converge on simple investment (funding aims) criteria, readiness (capacity-building), accreditation (funding access) processes, and accountability mechanisms to avoid the creation of parallel systems accountable to different funding bodies. National focal points and institutions coordinate local action and investment. To maximize synergies at the local level, there is a need for greater collaboration across sectors and coordination of initiatives that have the potential to contribute to climate change adaptation, such as those aimed at humanitarian relief, public health, livelihoods, and agriculture. This is especially important in the context of a green recovery from COVID-19, where initiatives will need to tackle integrated threats and opportunities for building resilience to a range of shocks and stresses.

Sources: WRI 2021; Soanes et al. 2021.

ABBREVIATIONS

BMU	German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety	LLA	Locally led adaptation
CBT	Climate budget tagging	LIFE-AR	Least Developed Country Initiative for Effective Adaptation and Resilience
CPEBR	Climate Public Expenditure and Budget Review	M&E	Monitoring and evaluation
CPEIR	Climate Public Expenditure and Institutional Review	MRV	Measurement, Reporting, and Verification
CPI	Climate Policy Initiative	NAP	National Adaptation Plan
DDEG	Discretionary Development Equalisation Grant (of Uganda)	NCCAP	National Climate Change Action Plan (of Nepal)
IFMIS	Integrated Financial Management Information System	NGO	Nongovernmental organization
IIED	International Institute for Environment and Development	NKI	National Climate Initiative (of Germany)
LDC	Least developed country	ODPH	Open Data Philippines (platform)
LGU	Local Government Unit	PFM	Public financial management

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ABOUT WRI

World Resources Institute is a global research organization that turns big ideas into action at the nexus of environment, economic opportunity, and human well-being.

Our Challenge

Natural resources are at the foundation of economic opportunity and human well-being. But today, we are depleting Earth's resources at rates that are not sustainable, endangering economies and people's lives. People depend on clean water, fertile land, healthy forests, and a stable climate. Livable cities and clean energy are essential for a sustainable planet. We must address these urgent, global challenges this decade.

Our Vision

We envision an equitable and prosperous planet driven by the wise management of natural resources. We aspire to create a world where the actions of government, business, and communities combine to eliminate poverty and sustain the natural environment for all people.

Our Approach

COUNT IT

We start with data. We conduct independent research and draw on the latest technology to develop new insights and recommendations. Our rigorous analysis identifies risks, unveils opportunities, and informs smart strategies. We focus our efforts on influential and emerging economies where the future of sustainability will be determined.

CHANGE IT

We use our research to influence government policies, business strategies, and civil society action. We test projects with communities, companies, and government agencies to build a strong evidence base. Then, we work with partners to deliver change on the ground that alleviates poverty and strengthens society. We hold ourselves accountable to ensure our outcomes will be bold and enduring.

SCALE IT

We don't think small. Once tested, we work with partners to adopt and expand our efforts regionally and globally. We engage with decision-makers to carry out our ideas and elevate our impact. We measure success through government and business actions that improve people's lives and sustain a healthy environment.



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