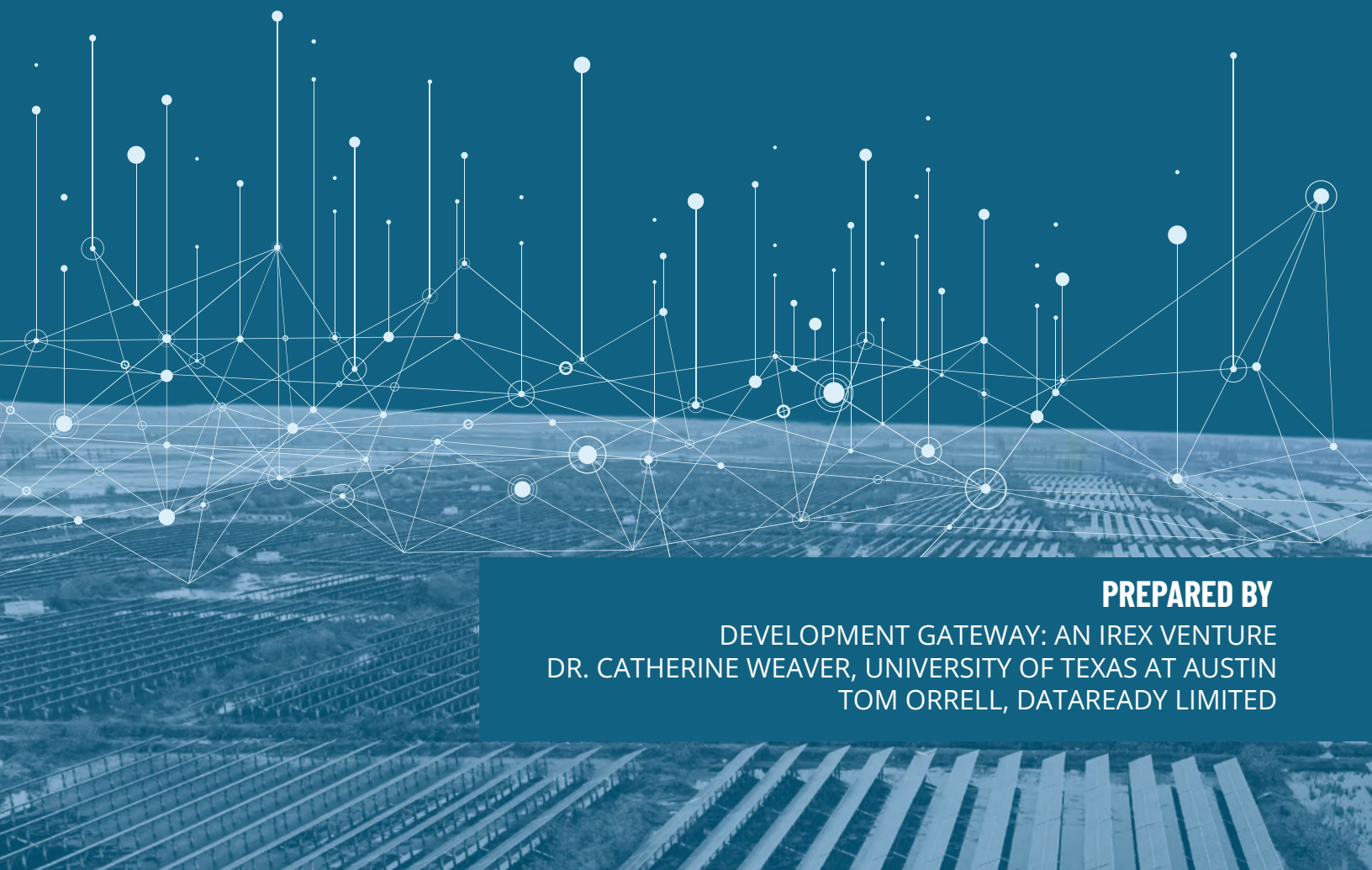


White Paper

TRACKING CLIMATE FINANCE IN AFRICA

POLITICAL AND TECHNICAL INSIGHTS ON BUILDING
SUSTAINABLE DIGITAL PUBLIC GOODS



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Acronyms

ADB	Asian Development Bank
AfDB	African Development Bank
AIIB	Asian Infrastructure Investment Bank
AMP	Aid Management Platform
CCCF	County Climate Change Fund (Kenya)
CEB	Central European Bank
CFT	Climate Finance Tracking
COP	Conference of the Parties (United Nations)
CPI	Climate Policy Initiative
DAC	Development Assistance Committee (OECD)
DG	Development Gateway
DPG	Digital Public Good
EBRD	European Bank for Reconstruction and Development
EIB	European Investment Bank
FOI	Freedom of Information
GCF	Green Climate Fund
GFANZ	Glasgow Financial Alliance for Net Zero
GHG	Greenhouse Gas Emission
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (Germany Agency for International Cooperation)
IDBG	Inter-American Development Bank Group
IFMIS	Integrated Financial Information Management System (Kenya)
IMF	International Monetary Fund
IsQR	Islamic Development Bank
LT-LEDS	Long-Term Low Emission Development pathways
MDB	Multilateral Development Bank
MIGA	Multilateral Investment Guarantee Agency
NDB	New Development Bank
NDC	National Determined Contributions
ND- GAIN	Notre Dame Global Adaptation Initiative
NGO	Non-Governmental Organization
ODA	Official Development Assistance

OECD	Organization for Economic Cooperation and Development
SAGA	Semi-Autonomous Government Agency (Kenya)
SDGs	Sustainable Development Goals
SRH	Sexual and Reproductive Health
UN	United Nations
UNEP	United Nations Environmental Program
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States dollar
WBG	World Bank Group
WRI	World Resources Institute



Executive Summary



Meeting the commitments of the 2015 Paris Agreement, including net zero emissions by 2050, will require not just enormous investment, but also vast quantities of data to track the value and impact of those investments. This is especially true in Africa, where countries are facing the double burden of extreme vulnerability to climate change with the fewest resources to build resilience to climate risks. More than ever, African countries need to attract international finance from public, private and philanthropic channels to supplement scarce domestic resources to address climate change. To do so, these countries need to demonstrate their ability to absorb such funds with guarantees of transparency, fiduciary responsibility and accountability to multiple stakeholders.

At a technical level, identifying, labeling, structuring, analyzing and sharing the data needed to track the value and impact of climate finance at a national level – climate finance tracking (CFT) – is a Herculean task. It requires building digital infrastructure, human and computational capacity, data and accounting literacy, and complementary institutions and policies to become usable and useful for decision-making. Leveraging and building on existing data management systems, as well as developing new innovative tools, will be key to enabling the systematic tracking of climate finance in the medium to longer term.

In recent years, there have been several large-scale efforts to improve the standardization of CFT methodologies.


While there has been some success in this space, both technical and political challenges have impeded the elaboration of a comprehensive internationally recognized system to track climate financing. Effective climate finance tracking at the national and subnational levels faces a fundamental problem: the very definition of “climate finance” is hindered by ambiguity and political contestation over what activities are directly or indirectly motivated by climate change concerns. The solution to this quandary ultimately must come from a consensus between countries, international organizations, the private sector and civil society on “what counts” as climate change activity.

The good news is that we are not starting work on CFT from a blank slate. Significant progress around aid transparency, open budgets and statistical capacity building in the last fifteen years provides important foundations, and lessons, for this work. Likewise, emerging technologies and the international data revolution for sustainable development have resulted in policy interest in the value and potential of numerous digital public goods (DPGs) to facilitate many kinds of finance tracking. Within the sustainable development sector, there is renewed emphasis on the need for and value of DPGs; they are recognized as crucial enablers of digital transformation and data system modernization, which in turn are recognized as accelerators of sustainable

development outcomes, including the SDGs. Two such DPGs - the Development Gateway's Aid Management Platform (AMP) and TruBudget - provide key examples of established DPGs that may serve as key platforms within which to integrate CFT.

Together, AMP and TruBudget have the potential to serve as practical tools to help governments track climate finance. To be successfully adapted for this purpose, however, key decision-makers will need to tackle the more fundamental political challenges that impede the establishment of creating effective CFT systems. Specifically, they need to resolve either the challenges that persist in defining the parameters of climate finance and how investments are tracked, or the challenges inherent to coordinating between political perspectives and institutions in contexts where climate change remains a partisan issue. Moreover, the AMP and TruBudget platforms on their own are ineffective without supporting laws and recurring budgets that mandate reporting, validate data and require use of that data for planning, management and accountability.

Within this context, this brief was developed to help inform future work on building CFT architectures at the national level in Africa. It specifically seeks to identify CFT needs and opportunities at the national level. The brief offers five overarching reflections and insights to help guide practitioners working on



the development of CFT systems in the development space, including:

1. CFT should not be treated as a primarily technical endeavor. Data is inherently political; as such, any effort to build a viable and sustainable CFT architecture must first and foremost approach this as a political task. This need is recognized by multi-stakeholder initiatives such as the Blended Finance Taskforce, which seeks to bring together multilateral, public, private and civil society stakeholders to build political consensus on CFT system needs.

2. Building a CFT system at the national level will require a concerted investment of time and resources to build accessible and usable technical systems to capture critical information, as well as the human capacity and political willingness to sustain it.

3. It will be critical to ensure the interoperability of different budget systems to avoid data silos and facilitate the exchange of information between aid, procurement, budget and other data systems relevant to CFT.

4. Building CFT systems will involve reaching consensus on how to standardize definitions, measurements, methods of reporting and other data requirements. The list of stakeholders to be included is long.

5. CFT systems require planning from subnational to transnational levels. Subnational political will and capacity will have to be carefully cultivated, as this is where most money is spent. At the national level, efforts to build robust CFT architecture will also need to coordinate with efforts at transnational levels, especially to empower the tracking of regional resources and spillover effects of national programs.



Introduction: Why Track Climate Finance?



In 2015, 196 Parties to the UN Climate Change Conference (COP21) adopted the Paris Agreement. The Agreement is a legally binding international treaty whose goal is to hold “the increase in the global average temperature to well below 2° C above pre-industrial levels [and pursue efforts] to limit the temperature increase to 1.5° above pre-industrial levels.”¹ The Paris Agreement represents the firmest commitment ever made by UN Member States to both mitigate and adapt to climate change, the effects of which are already wreaking havoc on communities around the world. Pivotal to its success are

its provisions relating to the financing of climate change mitigation and adaptation efforts. In this regard, the Treaty reaffirms the obligations of more developed countries to support lesser developed ones. It specifies that financial resources should support both adaptation and mitigation efforts and that a Green Climate Fund (GCF)² shall serve as the conduit of official multilateral financial support for implementation. Complementing the Paris Agreement, the UN Member States also agreed in 2015 to the Sustainable Development Goals (SDGs).³ The SDGs provide a further multilateral framework

1 [UN 2015](#), Article 2(1)(a).

2 <https://www.greenclimate.fund/>

3 <https://sdgs.un.org/goals>

that establishes several targets on climate change mitigation and adaptation. Specifically, SDG 13 requires States' Parties to "take urgent action to combat climate change and its impacts."⁴

Beyond these overarching multilateral frameworks, there is broad recognition across governments, business communities, academia, the third sector and the general public that tackling climate change requires a whole-of-society approach. From governments to hedge funds, through to international organizations and philanthropic foundations, a significant spending splurge is underway. The most recent estimate is USD1.3 trillion in 2021-2022: a figure that is over ten times the amount originally proffered at the 2009 COP in Copenhagen (CPI 2022). Nonetheless, many experts conclude that climate finance will still fall short of the USD3-4 trillion deemed essential to meeting 2030 net zero targets.⁵

More critically, these aggregate numbers can be deceiving. Where are these funds actually flowing and to what ends? According to a 2021 report from the Climate Policy Initiative, around USD653

billion climate finance was dispersed in 2019 and 2020, yet only USD29.5 billion of this total went to Africa (CPI 2021). Less than half of this was dedicated to climate adaptation - far less than the amounts called for in African countries' Nationally Determined Contributions, as agreed in the Paris Agreement. Thus, a vital question for Africa today is how to unlock access to climate finance and how the international community in turn can meet the expectations of a climate justice agenda.⁶

The challenges of CFT go well beyond implicit accountability questions. The rapid emergence of so many different types of climate financing unfolding in an uncoordinated fashion has introduced additional international cooperation and national governance challenges for CFT. Today, in addition to public flows from global trust funds, multilateral development banks and bilateral assistance, there are numerous innovations in domestic and private sector resource mobilization, including green and blue bonds.⁷ The private sector itself is increasing investment in climate change, with investments skewed largely towards large scale renewable energy projects. Philanthropy and nongovernmental

4 <https://sdgs.un.org/goals/goal13>.

5 Moreover, a quick review of the literature reveals that estimates have varied wildly, and have increased exponentially over the past decades. For example, the Climate Policy Initiative (CPI) now predicts that between USD8-9 trillion will be needed by 2030 to meet the climate financing needs of developing countries.

6 Mohieldin, Kenewendo and Wambui. 2023.

7 Green bonds are debt instruments issued by public or private institutions to finance a wide range of projects related to adaptation and mitigation on land. Blue bonds largely fund ocean-related investments that focus on marine diversity and protection, and offshore renewable energy.

organizational contributions are more likely to address adaptation needs, but are so far estimated to represent a small fraction of global flows (less than 1% according to CPI 2019). Yet another global fund for Loss and Damage will be the focus of 2023 COP 28 in Dubai, expanding upon growing attention to climate change insurance mechanisms.⁸

Above all of this lies the specter of increasing debt. If climate finance is provided mainly in the form of loans or other debt-related instruments, it may threaten to crowd out other critical investments in poverty alleviation and economic growth that are essential for Africa countries' development. To this end, CFT architectures must be aligned with broader national budget management systems. Furthermore, as a matter of good governance, it is crucial that all stakeholders have access to information about how public, private and blended resources are spent. Without knowledge of these expenditures, it will be impossible to ascertain which public projects deliver the best value for money to taxpayers, which investments deliver the best returns for shareholders and those directly affected by climate change, and which governance mechanisms need to be established to ensure the transparent and accountable

procurement and management of climate finance. These data should be tracked alongside goals set out in Nationally Determined Contributions and National Climate Change Strategies. As national governments struggle to coordinate and lead climate financing efforts in their countries, CFT systems should be designed to facilitate planning, manage implementation and assess impact. Designing such systems starts with extensive consultations at the country level, an appreciation for the distinct data ecosystems and political structures that already exist, and objectives that prioritize domestic data needs.

It is critical that national governments, in collaboration with civil society groups, are in the driver's seat in this complex landscape. To this end, multi-stakeholder led approaches are also emerging. For instance, the Blended Finance Taskforce was set up to mobilize private capital for the SDGs.⁹ In September 2023, the initiative published a consultation paper on investing in Green Accountability for people and the planet with support from the World Bank's Global Practice for Social Accountability.¹⁰ The consultation paper proposes 'green accountability' "as an approach to achieving transparent, inclusive and representative decision-

8 <https://www.unep.org/unep-climate-cop27>

9 [Blended Finance Taskforce](#) 2023.

10 [Blended Finance Taskforce](#) 2023a.

making across the lifecycle of climate finance commitments”¹¹ in a manner that brings stakeholders together around the globe to ensure that the financing flows needed to tackle the climate crisis in developing economies is trust-, demand-, and accountability-based. Initiatives such as these, that bring together stakeholders from across multilateral bodies, government and civil society will be key in ensuring that the political consensus needed to agree on CFT systems is built and maintained.

Civil society organizations in particular have a lot to contribute in this regard. Many organizations have undertaken substantial research into CFT methods and objectives, often with the dual objectives of improving financial flow transparency and system efficacy in mind. Box 1 highlights several examples.

Box 1: Civil society CFT initiative examples

» *The World Resources Institute (WRI) uses research-based approaches to support sustainable development. It views people, nature and the climate as interconnected domains through which global crises must be tackled. To this end, the organization undertakes substantive research into climate finance tracking and has produced several pertinent resources, including Tracking and Reporting Finance for Locally Led Adaptation to Climate Change¹² and A guide to assessing the political economy of domestic climate change governance,¹³ which provides insights into how domestic coalitions of stakeholders can improve their coordination and influence in relation to climate change. Moving forward, WRI is working with the World Bank’s Global Practice for Social Accountability to launch a green technology accountability accelerator in 2024.*

» *Publish What You Fund, a campaign for aid transparency, has developed a bespoke analytical approach “which tracked funds to identify an acute adaptation funding gap in the energy sector. This transparency allows [aid] recipient countries to track their spend, building trust with donor countries.”¹⁴*

11 Ibid, p. 8.

12 [WRI](#) 2021.

13 [WRI](#) 2021a.

14 Supra at 10.

» *Development Initiatives (DI), a global organization that works to harness the power of data and evidence to tackle poverty, reduce inequality and increase resilience, has undertaken substantive research into data issues relating to CFT. Among others, DI has produced detailed research on: i) the lack of uniformity among reporting methods; ii) the absence of detail in the reporting of different climate finance modalities; iii) the inaccuracy of spending estimates; iv) the lack of specificity in regard to transaction details; and, v) the absence of transparency on finance additionality.¹⁵ DI has also produced a mapping of climate finance and a vulnerability dashboard, powered by official development assistance data (ODA) from the OECD.¹⁶*



Report Objectives and Structure

African countries, despite having contributed negligent levels to total global carbon emissions, face a daunting “double burden”: the highest vulnerability in the world to climate change’s effects coupled with the weakest financial capacity to take action on building resilience in the face of these risks.¹⁷ Even if sufficient international and domestic climate finance can be mobilized, it is a tall order to navigate this weak financial landscape and to develop standards and systems to disentangle, track and manage these myriad funds. This is especially true for least developed countries with weaker institutional structures and statistical capacities.¹⁸


Building a robust CFT architecture at the national level requires building digital infrastructure, human and computational capacity, data and accounting literacy, and complementary institutions and policies to become usable and useful for decision-making. Leveraging and building on existing data management systems, as well as developing new innovative tools, will be key to enabling the systematic tracking of climate finance in the medium term. More critically, political capacity and willingness must be mobilized to sustain CFT efforts. As discussed in this report, the political requirements for CFT entail building wide consensus on what counts as climate finance and who is responsible for reporting and using financial data, and the strengthening

15 For more information on each of these areas, see here: [DI](#), 2023.

16 [DI](#), 2023a.

17 Doshi and Garschagen 2020.

18 <https://www.afdb.org/en/knowledge/statistics/statistical-capacity-building>



of institutional capacity and willingness to sustain CFT systems at the local, national, regional and international levels.

Within this context, this brief was developed to inform future work on building CFT systems in Africa. It specifically seeks to identify climate finance tracking needs at the national level and to preliminarily explore the potential of digital public goods to meet these needs. Section One discusses the purpose and scope of CFT. Section Two reviews progress already made, surveying the strengths and weaknesses of the CFT methods currently used by the OECD, multilateral development banks (MDBs) and several non-governmental initiatives, as well as work initiated by the Government of Kenya as an illustration of national initiatives. Section Three explores the potential of digital public goods (DPGs), in particular Development Gateway's Aid Management Platform and GIZ's TruBudget, to serve as practical tools that can be leveraged to track climate finance at the national level. Section Four concludes with insights and reflections on how to proceed in light of the myriad challenges identified in this report and the broader goals of national and international climate change agendas.



Section 1: Purposes and Scope of Climate Finance Tracking



CFT entails the collection, monitoring and analysis of information on financial flows for climate-related activities, foremost mitigation, adaptation and related institution- or capacity-building.¹⁹ Comprehensive CFT aspires to capture data from domestic and international entities, both public and private, including funds from international organizations, national governments, philanthropic organizations and investment firms.

There are multiple purposes of CFT. Previous CFT efforts have focused

foremost on accountability: creating transparency surrounding financial flows and activities to hold international and domestic actors accountable to goals espoused in global forums (such as the UNFCCC Conference of the Parties) and national strategies (such as National Determined Contributions). Such efforts have relied primarily on high level estimates of climate finance needs and funding, more often than not relying on past calculations rather than focusing on capturing real-time data.

¹⁹ Mitigation projects include activities which seek to reduce greenhouse gas emissions, conserve water, reduce deforestation, coastal erosion and topsoil loss. Adaptation projects focus on adapting physical, social and economic infrastructure to reduce vulnerability or build resilience against higher temperatures, extreme weather events, rising sea levels, flooding and droughts. (Imperial College Business School 2020: 3)

Less emphasized is the role of CFT in facilitating policy planning and management, the alignment of resources and assessed needs, auditing to ensure effective use of funds and impact evaluation, and civil society participation and feedback. Such tracking requires more disaggregated and timely data that can be analyzed in conjunction with climate change indicators (such as rainfall variability or resiliency indicators), subnational activity locations and information on implementing partners and local stakeholders. A CFT architecture capable of serving these purposes needs detailed financial data such as commitments, disbursements and the types and terms of loans (e.g., concessional or non-concessional fundings, loan denominations, and interest rates). Such fine-grained financial data is especially critical in light of growing reliance on private capital and the emergence of new forms of financing such as results-based climate finance (World Bank 2022). These emerging features of the climate finance field will require developing countries to demonstrate both absorptive capacity and fiscal responsibility in order to attract investments, participate in green and blue bond markets, and avoid unnecessary debt risks.²⁰

Given the volume of estimated climate finance needs, many experts have called for public financing to leverage private capital.²¹ This presents dual challenges. First, private sector interests are not always aligned with the specific climate finance needs of developing countries, generally skewing heavily towards clean energy mitigation projects in developed and emerging market economies.²² This leaves an ever-growing gap in adaptation finance for least developed countries, especially in highly vulnerable countries and adaptation projects.²³ Second, private sector finance is considerably harder to track, as proprietary data concerns and a reliance on largely voluntary reporting of data produces distinct dilemmas to the comprehensive collection and auditing of private sector data. The governance task here is for public and private sector actors to collaborate on data reporting requirements, to align investment flows with national climate change priorities and to create data transparency practices that enable the capture of private sector data in national systems.

Ultimately, effective climate finance tracking at the national and subnational levels faces a more fundamental problem: the very definition of “climate finance” is hindered by ambiguity and political

20 Ahluwalia and Patel 2023; Belianska et al 2022.

21 Economist 2022.

22 CPI 2023: 5.

23 Islam 2022; UNEP 2023; Canales and Sawidou 2023.

contestation over what activities are directly or indirectly motivated by climate change concerns.²⁴ For example, both mitigation and adaptation can encompass a wide range of development activities that contribute to reduction in GHG emissions and people's ability to reduce their vulnerability and build resilience to risks posed by warming environments and volatile weather events. In this sense, a poverty alleviation program may contribute to household resilience to climate shocks, a health program may include anti-malaria prevention and treatment in warming regions, and a sustainable livelihoods project may promote the use of low-carbon means of production. But how much of a total health project's spend should count as adaptation aid? Likewise, an aid- or government-funded project to enhance the statistical capacity and transparency of governmental agencies writ large may not seem like climate change projects. However, when viewed in the light of strengthening institutions to be able to access green bond markets and otherwise attract and absorb public and private capital for climate change programs such as large-scale renewable energy projects, they can contribute directly to national climate change strategies.²⁵ Therefore, what percentage of the project's budget should be documented as contributing to climate finance?

24 Weaver et al 2012.

25 Imperial College Business School 2022.



Section 2: Climate Finance Tracking Methods



The analysis above indicates that building a CFT architecture requires a consensus regarding “what counts” as a climate change activity. In turn, CFT must specify methods for monetary accounting and aligned incentives for data reporters that avoid overcounting (by relying on total project commitment or disbursement data) and avoid undercounting (by failing to include activities that may have indirect climate change benefits). More controversially, a CFT system might also include net accounting, defined as the net sum of monetary value of activities

that benefit climate change mitigation and adaptation minus the value of activities that may work against mitigation or adaptation goals (such as dirty coal projects).²⁶ The challenge lies in how the parameters of what is ‘climate-positive’ and what is ‘climate-negative’ are defined, both politically and thereafter also technically within data classifications and broader ontologies.

Historically, these foundational tasks have posed significant challenges to tracking climate finance, as illustrated in three

26 Weaver et al 2012.

prominent methods of CFT currently in use today:

OECD Rio Markers: The OECD's Rio Markers were established in 1998 to track ODA finance as aligned with the three prior Rio Convention agreements. In relation to climate change, the Rio Markers were employed to track climate finance in official development assistance (ODA) in response to the 2009 COP 15 agreements and subsequent calls for accountability around pledges for new and additional financing. The Rio Markers, by design, are highly simplistic.²⁷ ODA projects are self-rated by donors on a 0-2 scale intended to capture the general climate relevance of a program, with little to no disaggregated data provided on specific activities or budgets. Subsequent studies revealed a strong bias in the OECD marker system²⁸ towards over-reporting,²⁹ leading to gross overestimates or "greenwashing" of commitments to mitigation and adaptation finance.³⁰

Multilateral Development Bank Joint Methodology: In 2013, a joint working

group of several MDBs released a common methodology for tracking climate change aid.³¹ This methodology³², updated in 2015, represents a vast improvement on the OECD Rio Marker system. It is designed to capture more standardized, comparable and granular information on climate change activities within MDB projects and loans. As a result, estimates of budgetary commitments that align with adaptation or mitigation-related activities within larger projects are now largely available on MDB and select bilateral aid organizations' project websites. As a result, it is possible to find both aggregated estimates of MDB commitments to adaptation and mitigation, as well as disaggregated information on baseline and current-level expenditures alongside targeted spending and project objectives.

While significantly better than the OECD's Rio Marker method and most bilateral efforts on this front, there remain systemic weaknesses in terms of the type and quality of data that is available to the public in these platforms. For example, a quick review of 20 active projects in

27 OECD.n.d.

28 In the simplest terms, 'policy markers' are accounting tools used by governments, MDBs, the UN system and the OECD among others to track the 'impact' of investments towards various hard-to-measure public policy objectives. Policy markers are generally not intended to track precise expenditure and investment but rather to provide insight into how spending on one project might contribute to broader development objectives. An example might be the use of a gender policy marker within a data system to tag money spent on a sexual and reproductive health (SRH) intervention as contributing to not only improved health outcomes, but also to gender equality and girls' education. In this way, policy markers enable the tagging of each \$1 of development assistance spent on a SRH project as contributing to improved health and improved gender equality and improved education outcomes.

29 Michaelowa and Michaelowa 2010.

30 Carty et al 2020

31 AfDB 2013. The 2022 Joint Report on Multilateral Development Banks' Climate Finance included contributions from the AfDB, ADB, AIIB, CEB, EBRD, EIB, IDBG, IsDB, NDB, and WBG. (EIB 2023)

32 <https://thedocs.worldbank.org/en/doc/20cd787e947dbf44598741469538a4ab-0020012022/original/20220242-mdbs-joint-methodology-climate-change-adaptation-finance-en.pdf>

Kenya, as captured in the World Bank's project database,³³ reveals spottiness in the availability of budgetary information, such as procurement documents that would be important for audits. Likewise, the timeliness of data is often unclear, thus complicating clear financial estimates, especially as commitments and disbursement levels are adjusted during project implementation. Other essential data - such as implementing partner names, geographical locations of project activities and results - are often missing entirely.

As a result, any stakeholders interested in knowing more about climate finance in their country or region must dig into whatever original project documents are available. In addition, they may have to conduct independent coding of aid objectives and GIS mapping of activity locations, as well as integration of other climate data, to assess whether climate aid is or is not effectively targeting the regions identified as high priority in national strategies. Such work is highly technical and requires both access to, and the ability to use, expensive GIS software and other data analytical tools.

Finally, while the MDBs now publish an annual Joint Report, the data available

in these documents remains high-level and thus not terribly useful for country-level budget tracking. One recent effort to obtain project-level climate-relevant budgetary data from the World Bank through a Freedom of Information request was denied twice, on the grounds that such information was "too onerous to collect" (despite the requestor having direct knowledge that such data already exist).³⁴ This experience indicates that as the MDBs and bilateral development finance providers seek to dramatically scale up climate finance, there should be requisite efforts to create greater transparency around climate finance bespoke to country-level data needs, including direct reporting of project- and loan-level data to country-owned information management systems.

Other CFT Methods: In addition to international public donors of climate financing, there have been numerous efforts by think tanks, international non-governmental organizations and private sector groups to develop and implement climate finance tracking methods. While most remain limited to highly aggregated information or have only select geographical coverage (e.g., OECD 2022, Climate Funds Update³⁵, Climate Action Tracker³⁶), a few have taken on deeper

33 <https://projects.worldbank.org/en/projects-operations/projects-home>

34 The FOI request was submitted by a co-author of Catherine Weaver in Fall 2023.

35 The Climate Funds Update tracks multilateral climate finance. <https://climatefundsupdate.org/>

36 <https://climateactiontracker.org/>

country-level work that attempts to move beyond official development aid finance to also capture private sector, NGO, philanthropic and nationally-mobilized funds.

For example, the Climate Policy Initiative (CPI) (which describes itself as an “analysis and advisory organization”) works directly with government partners to integrate climate finance data into existing data systems.³⁷ In comparison to the OECD and MDB methods, the CPI method is more comprehensive, especially with respect to the inclusion of funds from domestic resource mobilization and private sector investment (including green and blue bonds). Much of this work is nascent, and to date CPI has only conducted country-level analysis for 15 countries. Furthermore, the CPI’s raw data is largely not accessible to the public, which limits the utility of the work in terms of the multiple purposes of CFT described above. Nonetheless, the breadth and rigor of CPI’s work on CFT is highly promising and may provide a helpful method and toolkit for countries looking to integrate a cross-sectoral CFT tool into existing aid information or budget data platforms.

National CFT Initiatives. Kenya is a great example of a country with limited resources that has laid important

groundwork for this work, (see Box 2). Moreover, there is growing focus on multilevel governance needs, namely in terms of expanding CFT efforts to both local (county and municipal level financial tracking capacity) and regional levels. For example, the African Union is developing a Green Innovation Framework³⁸ as part of its Green Recovery Action Plan (2021-2027).³⁹ This initiative will support the work of member countries in developing standards and capacity around navigating an increasingly complex climate finance space.

37 <https://www.climatepolicyinitiative.org/climate-finance-tracking/>

38 <https://www.arin-africa.org/2020/07/17/africa-union-green-innovation-framework/>

39 <https://au.int/en/documents/20210715/african-union-green-recovery-action-plan-2021-2027>

Box 2: Climate Finance Tracking in Kenya

Kenya today is highly vulnerable to climate change, despite having low levels of greenhouse gas emissions relative to other emerging and developing economies. Kenya ranked 152 out of 181 countries in the 2019 ND-GAIN Index, which describes a country's vulnerability to climate change and its capacity to improve climate resilience.⁴⁰ Current climate risks include increasing temperatures and highly variable rainfall patterns, exacerbating instances of floods and droughts and contributing to heightened exposure to malaria and food insecurity. The World Bank estimates that over 70% of natural disasters in Kenya are attributable to extreme climatic events, which "lead to crop and livestock loss, as well as forest fires, damage to fisheries, reduced hydropower generation, reduced industrial production and reduced water supplies."⁴¹ Kenya's ability to tap into international funding to address these climate risks has been historically hindered by the lack of institutional capacity to manage such funds, as well as a "lack of an attractive host investment context."⁴²

Kenya stands out for numerous initiatives around climate change, which are well documented in a 2019 discussion paper from the National Treasury and Planning Department.⁴³ There have been numerous national strategies and policies enacted over the past decade that have laid out the country's priorities and climate finance needs. These include Kenya's National Climate Finance Policy (2018), National Climate Change Action Plan (2013-2022),⁴⁴ National Adaptation Plan (2015-2030),⁴⁵ Green Economy Strategy and Implementation Plan (2016-2030),⁴⁶ MTP III - Medium Term Plan (2018-2022),⁴⁷ and National Determined Contributions (2020).⁴⁸ Kenya first attempted to tag climate finance using a policy marker in its 2016 Climate Public Expenditure Budget Review, and then later in the 2020 Kenya Financing Strategy for the NDC. Critically, there has been an effort to centralize responsibility for managing and coordinating climate finance within the National Treasury, which has established a Climate Finance Unit.⁴⁹ Notably, Kenya has also emphasized the decentralization of climate funds, with a focus on subnational

40 University of Notre Dame (2020). Notre Dame Global Adaptation Initiative. URL: <https://gain.nd.edu/our-work/country-index/>

41 World Bank. 2021. Climate Risk Country Profile: Kenya. Washington, DC: World Bank, p.10. Available at https://climateknowledgeportal.worldbank.org/sites/default/files/2021-05/15724-WB_Kenya%20Country%20Profile-WEB.pdf.

42 Odhengo et al 2019:1.

43 Ibid.

44 https://climate-laws.org/document/national-climate-change-action-plan-2018-2022-nccap_a381

45 https://www4.unfccc.int/sites/NAPC/Documents%20NAP/Kenya_NAP_Final.pdf

46 <https://wedocs.unep.org/handle/20.500.11822/33042>

47 <https://vision2030.go.ke/publication/third-medium-term-plan-2018-2022/>

48 <https://unfccc.int/sites/default/files/NDC/2022-06/Kenya%27s%20First%20%20NDC%20%28updated%20version%29.pdf>

49 Odhengo et al 2019.

allocation and institutional strengthening, specifically through County Climate Change Funds (CCCFs). The Climate Finance Unit is currently working to build CFT capacity at the local level in light of this devolution of funding channels.

The most recent comprehensive attempt to track climate finance can be found in the *Landscape of Climate Finance in Kenya*.⁵⁰ The report attempts to “map public and private sector flows in the country by identifying the sources, intermediaries, instruments, disbursement channels, and utilization” for finance in FY2017-2018. Much of the data collected for the report came from the Government of Kenya’s Integrated Financial Management Information System (IFMIS) and National Treasury, which collects standardized data from government units, plus online surveys of private sector actors. The report also uses data on international public finance largely from OECD DAC, using the Rio markers method to identify and tag climate-related financial expenditures (despite well-known limits of the markers).

This work in Kenya is a promising step towards CFT at the country level. Yet, as noted in the *Landscape* report, challenges remain. For example, the authors reveal that Kenya’s informal sector contributes up to 90% of jobs in Kenya. However, this information is not listed on the Nairobi Securities Exchange, which complicates data collection.⁵¹ Data from private sector companies, civil society groups and community-based organizations is gathered manually from surveys, desktop research and internal budget documents, where available.⁵² Accurate data capture will need to sort out any potential double-counting by distinguishing sources of primary finance from implementing partner budgets and expenditures. Finally, the public aid data does not include information from non-DAC donors, foremost China. As Kenya dramatically expands its efforts to mobilize international public and private capital, it will be vital to resolve remaining data challenges, reduce reporting burdens and to firmly institutionalize standardized methods for CFT.

Overall, the largest gap in all of these CFT efforts, at both the international and national levels, is reliable data on private sector finance flows. Even here, however, there is evidence of efforts to redress this gap. For example, in April 2023 the Glasgow Financial Alliance for Net Zero (GFANZ) was established as a ‘pan-sectoral’ network for financial institutions with the goal of bringing “together independent, sector-specific Alliances to tackle net-zero transition challenges and connects the financial community to the Race

50 Odhengo et al, 2021.

51 Odhengo et al 2021: 42.

52 Odhengo et al 2021: 43-46.



to Zero campaign, climate scientists and experts, and civil society.”⁵³ The GFANZ includes over 450 firms with USD130 trillion in management assets.⁵⁴ The key in the near future will be to expand this alliance and use the forum to establish means of coordinating and tracking climate finance flows across all sectors. In addition, greater pan-sectoral cooperation should be explored, both in terms of leveraging public sector finance to incentivize private finance and piloting new forms of public-private partnerships that can serve the specific needs of least developed countries. More recently, the G20 adopted principles for aligning sustainable finance for mitigation⁵⁵ and the aforementioned Climate Policy Initiative has recently captured data on the use of proceeds from green and blue bonds.⁵⁶

53 <https://www.gfanzero.com/about/>

54 Ahluwalia and Patel 2023: 9.

55 World Bank Group, IMF, and OECD 2023.

56 CPI 2023: 5.



Section 3: Digital Public Goods for Climate Finance Tracking



The good news is that we are not starting work on CFT from a blank slate. Significant progress around aid transparency, open budgets and statistical capacity building in the last fifteen years provide important foundations, and lessons, for this work. Likewise, emerging technologies and the data revolution for sustainable development have resulted in policy interest in the value and potential of digital public goods (DPGs) to facilitate many kinds of finance tracking.⁵⁷ Within the sustainable development sector, DPGs are recognized as crucial

elements of digital transformation and data system modernization. These in turn are recognized as accelerators of sustainable development outcomes, including the SDGs. Two such DPGs - the Aid Management Platform (AMP) and TruBudget - provide key examples of DPGs that may serve as platforms within which to integrate CFT.

AMP is an aid informational management system pioneered by Development Gateway. Established over 15 years ago, AMP is a co-created suite of technical

⁵⁷ DPGs are defined by the the UN Office of the Secretary-General's Envoy on Technology as: "open source software, open data, open artificial intelligence models, open standards, and open content." See: <https://www.un.org/techenvoy/content/digital-public-goods-for-more-information>.

tools, training and policy support designed to help governments gather, access and monitor information on development activities. AMP captures timely and detailed information on donor activities. It can then generate geospatial visualizations of subnational locations that overlay up-to-date financial disbursement data. This system enables AMP users to track development projects from the planning to close-out phases of development projects. AMP supports countries to make informed decisions about resource allocation. Importantly, AMP systems are owned and managed by governments, with royalty-free licenses that confer ownership to governments. This provides governments with the authority to coordinate aid donors, exercise fiduciary responsibilities and demonstrate accountability with respect to management of critical budgetary resources.

AMP is a flexible tool that allows governments to fully customize data entry modules and to generate reports, analytical dashboards and data visualizations. AMP also includes geocoded mapping functions and the ability to export data to generate other geospatial maps for sectoral level analysis using other relevant information. As such, there are numerous opportunities to integrate key climate finance data, as well as underlying climate vulnerability data, into the

platform. To this end, the AMP is a proven and promising tool that can be built out to serve the multiple purposes of CFT.

Similarly, the TruBudget⁵⁸ initiative developed by KFW Development Bank is a digital blockchain platform and public expenditure tool designed to support GLZ's efforts around digital transformation.⁵⁹ The blockchain technology means that every project step is transparently documented on the platform, and participants can see who initiated what activity/transfer and when, including all payment transactions. The documentation is tamper-proof.

TruBudget's goal is to enable partner countries to take full control of external funds and to reduce the fiduciary risks to donors to such an extent that they can monitor how their funds are allocated through partner countries' budgets. By streamlining public expenditure tracking, donors can spend less on monitoring, and more on project implementation. Like the AMP, the TruBudget platform is open-source and can be adopted by anyone.

Together, AMP and TruBudget have the potential to be practical tools that can help governments to track climate finance. To be successfully adapted for this purpose, however, key decision-makers will need to tackle the more fundamental political challenges that impede the establishment

58 <https://trubudget.net/>

59 <https://www.giz.de/expertise/html/59628.html>

of effective CFT systems. Specifically, they need to resolve either the challenges that persist in defining the parameters of climate finance and how investments are tracked, or the challenges inherent to coordinating between political perspectives and institutions in contexts where climate change remains a partisan issue. Moreover, the AMP and TruBudget platforms on their own are ineffective without supporting laws and recurring budgets that mandate reporting, validate data and require use of that data for planning, management and accountability.



Section 4: Reflections and insights for future climate finance tracking endeavors



Prior work⁶⁰ around aid, budget and procurement transparency has yielded a wealth of useful insights on how (and how not) to build and sustain national data systems. The biggest lesson is to avoid treating CFT as a technical endeavor and falling victim to the fallacy that “if we build it, they will come.” Data is inherently political; as such, any effort to build a viable and sustainable CFT architecture must approach this as first and foremost a political task.⁶¹ This need is recognized by multi-stakeholder initiatives such as the Blended Finance Taskforce, which seeks to

bring together multilateral, public, private and civil society stakeholders to build political consensus on CFT system needs.

As such, a key part of any plan to build a CFT system at the national level will require a concerted investment of time and resources to build accessible and usable technical systems to capture critical information and the human capacity and political willingness to sustain it. In other words, this includes creating systems in an inclusive way that takes into account the interests, needs and technical capacities of

60 Davies, Walker, and Landry 2023.; Custer and Sethi 2017.

61 Worker and Palmer 2021.

different potential users. It also requires strong political support that goes beyond any individual “data champion,” as well as country ownership demonstrated by long-term (recurring) budget commitments, cross-ministerial and multilevel governance agreements on data reporting and sharing, and requisite national laws or administrative rules for using data for planning, management, accountability and evaluation purposes.

Similarly, it will be critical to ensure the interoperability of different budget systems to avoid data silos⁶² and facilitate the exchange of information between aid, procurement, budget and other data systems relevant to CFT. Specific data challenges - such as data duplication, timeliness and specificity of reporting, and missing data - should be anticipated and addressed at the time of data system design. A comprehensive CFT architecture should also include data from national strategies, including NDCs and Long-term low-emission development pathways (LT-LEDs), to enable tracking climate finance against nationally-determined climate change priorities.


Such work will involve reaching consensus on how to standardize definitions, measurements, methods of reporting and other data requirements. In the instance of CFT, the list of stakeholders to be included in this political endeavor is

long. On the reporting side, cooperation needs to be built with public, private and philanthropic actors so that there is a clear prior commitment to sharing data in a timely and standardized fashion that does not overly burden reporters with time-consuming tasks such as data cleaning, cross-walking data across platforms or chasing down information from disparate internal (and possibly non-digitized) reports. Mutual respect for the burden of reporting data is especially important when organizations and firms must expend their own resources to develop reporting capacity, collect relevant data and repackage information to align with the specific requirements of a data platform. There is also a prominent role for civil society or non-governmental groups in terms of monitoring and evaluating the impact of climate finance activities. The inclusion of these voices in the design of CFT architectures will be very important in the context of global development’s localization country ownership agendas.

Subnational political will and capacity will also have to be carefully cultivated. For example, in Kenya the Semi-Autonomous Government Agencies (SAGAs) are responsible for budget implementation and often are the frontline implementers of climate-related projects.⁶³ Each Ministry and State Department in the Government of Kenya has multiple SAGAs under their administrative jurisdiction, meaning

62 Custer and Sethi 2017.

63 Odhengbo et al 2021: 37-38.



that coordination will need to occur on both horizontal (inter-ministerial) and vertical (state-county) levels. Add in the public/private as well as domestic/international finance dimensions, and the result is a distinct multilevel governance challenge to obtaining timely, comprehensive, validated and standardized data that can be used for real-time analysis and decision-making. Efforts to build robust CFT architecture at the national level will also need to coordinate with efforts at transnational levels, especially to empower the tracking of regional resources and spillover effects of national programs.⁶⁴

As actions to adapt to and mitigate the effects of, climate change pick up steam in the years ahead, it may be that CFT evolves into an integral part of national economic planning and forecasting. As countries start to place greater emphasis on the cost of climate change in economic terms, CFT may become a factor in routine economic calculations of gross domestic product and core price inflation, among others. As project level initiatives to improve CFT processes and mechanisms proliferate, it is important to keep an eye on this macro end-goal and remember that the long-term objective of CFT is to ensure that collectively we are doing all we can to tackle climate change.

⁶⁴ Here we can learn from highly successful and impactful data coordination mechanisms. If we think about the international coordination that takes place around the development of national accounts (<https://unstats.un.org/unsd/nationalaccount/default.asp>), this offers a glimpse into how timely, highly standardized data from multiple countries can be aggregated frequently.

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