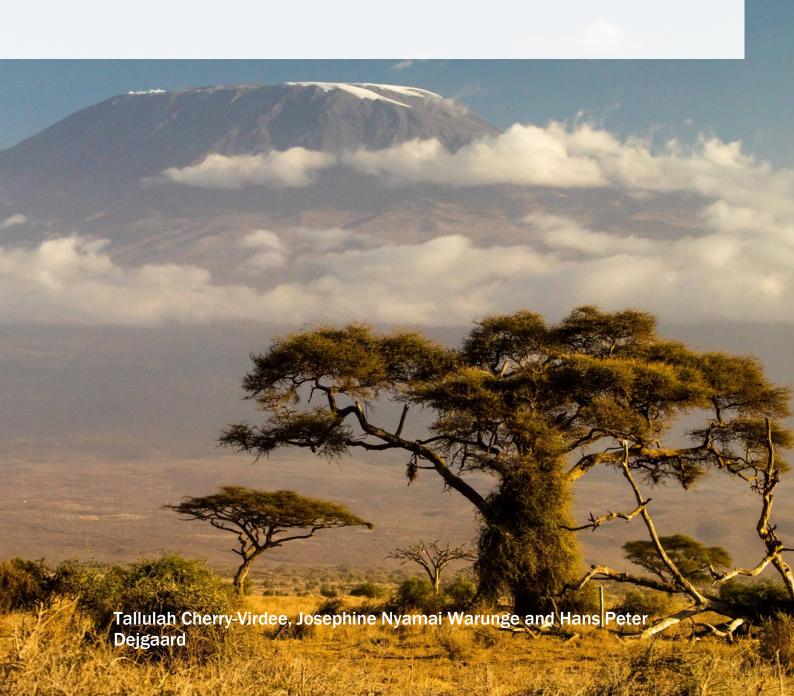


CLIMATE FINANCE IN EAST AFRICA



Acknowledgements

Working Papers make DIIS researchers' and partners' work in progress available to readers prior to formal publication. They may include documentation which is not necessarily published elsewhere. DIIS Working Papers are published under the responsibility of the author alone.

This publication has received financial support from the Ministry of Foreign Affairs of Denmark. It reflects the views of the authors alone. The working paper is part of the four-year research programme *Governing Adaptation Finance for Transformation* (GAP), coordinated by Esbern Friis-Hansen, Senior Researcher, DIIS.

Tallulah Cherry-Virdee

Climate Consultant, INKA Consult tallulah@inkaconsult.dk

Josephine Nyamai Warunge

Budget Coordinator, Coast Regional Budget Hub Kenya jnyamai70@gmail.com

Hans Peter Deigaard

Director and Senior Consultant, INKA Consult info@inkaconsult.dk

Cover photo: Feiflyfly / Shutterstock (ID 1521860945)

DIIS WORKING PAPER 2024: 04

DIIS · Danish Institute for International Studies Gl. Kalkbrænderi Vej 51A, DK-2100 Copenhagen, Denmark

Tel: +45 32 69 87 87 E-mail: diis@diis.dk www.diis.dk

ISBN 978-87-7236-169-7 (pdf), 978-87-7236-170-3 (print)

DIIS publications can be downloaded free of charge from www.diis.dk

© Copenhagen 2024, the authors and DIIS

CLIMATE FINANCE IN EAST AFRICA

Tallulah Cherry-Virdee, Josephine Nyamai Warunge and Hans Peter Dejgaard

TABLE OF CONTENTS

Abbreviations	3
Abstract	5
Summary	5
Introduction	7
About the working paper	7
Background	8
Methodology for the research	10
Auxiliary data sources	10
Climate finance data sources	12
Data gathering and processing	15
Limitations	20
Socioeconomic and climatic overview of Kenya, Tanzania and Uganda	20
Country overviews	21
Indebtedness and risk of debt distress	23
Climate change projections and impacts	24
Specified financial needs for climate action	28
Climate change and gender	29
Climate change and climate finance governance in Kenya, Tanzania and Uganda	30
Climate change governance in the East African Community	30
Climate change governance in Kenya	31
Climate change governance in Tanzania	34
Climate change governance in Uganda	36
Comparative analysis of Kenya, Tanzania and Uganda	38
Analysis of climate finance for Kenya, Tanzania and Uganda	40
Quantity of total climate finance	40
Trends in adaptation-related development finance committed to Kenya, Tanzania and Uganda	45
Channel of delivery of adaptation-related development finance and degree of devolution	51
Financial instrument, concessionality and grant equivalence of adaptation-related development finance	52
Adaptation-related development finance committed and adaptation finance needs	56
Sectors targeted by adaptation-related development finance	57

Gender responsiveness of adaptation-related development finance	59
Discussion and reflections	60
Amount of adaptation-related development finance committed to I Tanzania and Uganda	Kenya, 60
Channel of delivery and degree of devolution	64
Financial instruments used for adaptation-related development fin	ance 66
Gender responsiveness of adaptation-related development finance	67
Climate finance definitions, tracking and reporting	68
Conclusion	70
Annex: grant element calculations	71
References	73

ABBREVIATIONS

AfDB African Development Bank

BAU Business as Usual

CCCF County Climate Change Fund

CFU Climate Finance Unit
CIF Climate Investment Funds
COP Conference of the Parties
CRS Creditor Reporting System

DAC Development Assistance Committee
DFI Development Finance Institution

DIIS Danish Institute for International Studies

DOE Division of Environment
EAC East African Community
EIB European Investment Bank

EU European Union

FAO Food and Agriculture Organisation FLLoCA Financing Locally-Led Climate Action

GAP Governing Adaptation for Transformation (GAP)

GCF Green Climate Fund
GDP Gross Domestic Product
GEF Global Environment Facility
GEM Gender Equality Marker

GGGI Global Green Growth Institute

GHG Greenhouse Gas

GNI Gross National Income

IFAD International Fund for Agricultural Development

IMF International Monetary Fund

IPCC Intergovernmental Panel on Climate Change

LDC Least Developed Country
LGA Local Government Authority
LLA Locally-Led Adaptation

LMIC Lower-Middle Income Country

LoCAL Local Climate Adaptive Living Facility

MDB Multilateral Development Bank

MoFPED Ministry of Finance, Planning and Economic Development

NCQG New Collective Quantified Goal on Climate Finance

ND-GAIN Notre Dame Global Adaptation
NDC Nationally Determined Contribution

NDF Nordic Development Fund

NGO Non-governmental Organisation ODA Official Development Assistance

OECD Organisation for Economic Co-operation and Development

PBCRG Performance-based Climate Resilience Grant

PO-RALG President's Office-Regional Administration and Local Government

UNCDF United Nations Capital Development Fund UNEP United Nations Environment Programme

UNFCCC United Nations Framework Convention on Climate Change

WB World Bank

ABSTRACT

This working paper analyses the public international climate-related development finance reaching Kenya, Tanzania and Uganda, the three largest countries in the East Africa region, in the period 2015-2022 with a focus on the quantity of and trends in commitments of adaptation-related development finance. The paper also provides an overview of the countries' climatic, economic and sociopolitical contexts including indebtedness and risk of debt distress, climate change projections and impacts and governance for climate change and climate finance. The discussion of the paper contextualises the observed trends in climate and adaptation-related development finance commitments within this overview and leads to five key conclusions regarding the amount of adaptation finance, the degree of devolution, the use of financial instruments and the grant equivalence of climate loans, the level of gender integration and climate finance tracking and reporting.

SUMMARY

Highly vulnerable to climate change and already facing significant climate impacts, the countries of East Africa require both domestic and international climate finance to meet their climate goals, adapt to the impacts of climate change and build resilience. This study analyses the public international climate-related development finance reaching Tanzania, Kenya and Uganda, the three largest countries in the East Africa region, with a focus on the quantity of and trends in commitments of adaptation-related development finance, including the channel of delivery, sectors targeted, type of financial instrument and the grant equivalence of concessional climate loans.

The paper is an initial outcome of the four-year research programme (2021-2025) Governing Adaptation Finance for Transformation (GAP) involving collaborating research institutions in Denmark, Kenya and Tanzania. Analysis is based on the OECD's climate-related development finance dataset for the period 2015-2022. Findings are discussed with regard to the countries' climatic, economic and sociopolitical contexts including indebtedness and risk of debt distress, climate projections and impacts, and the policies, laws, regulations and strategies that have been developed to direct adaptation and mitigation efforts and mobilise finance to support measures. This leads to five key conclusions regarding the amount of adaptation-related development finance committed, the channel of delivery and degree of devolution, the financial instruments used for adaptation-related development finance, the gender responsiveness of adaptation-related development finance and climate finance tracking and reporting.

The share of adaptation-related development finance committed to Kenya, Tanzania and Uganda is relatively balanced at around 52% on average over the period 2015 to 2022. However, commitments of adaptation-related development finance to Kenya (USD 3.53 billion) were significantly higher than for Tanzania

(USD 2.62 billion) and Uganda (USD 1.64 billion), with Kenya having a more established policy, strategic and regulatory framework for climate finance access and mobilisation than Tanzania and Uganda. Despite relative increases in adaptation-related finance over the period for all three countries, amounts fall short of what is needed to achieve the needs specified in Kenya and Uganda's Nationally Determined Contributions. In 2022, adaptation-related development finance commitments cover 13% of the specified needs for Kenya and 21% for Uganda.

Current reporting methods for international climate finance do not provide detailed information on how much of this finance reaches the local level. However, studies indicate that most adaptation finance is governed nationally or internationally. Indeed, 66% of the adaptation-related development finance committed to the three countries in the period 2015-2022 is reported as having the recipient government as the first implementing partner. Initiatives like FLLoCA in Kenya and LoCAL in Uganda and Tanzania seek to address this by empowering local actors to lead adaptation efforts and incorporate principles of locally-led adaptation. While these approaches are gaining traction, there is a need for further research to address on-the-ground-implementation. Existing legal and institutional frameworks within each country influence the degree of devolution in climate finance, with Kenya, for example, having a more established framework for devolution.

The majority of adaptation-related development finance committed to Kenya, Tanzania and Uganda was delivered through loans, with concessional loans accounting for 61% and non-concessional loans 7%, while only 32% was committed through grants. It is important to consider the debt burden of these loans, particularly those provided on non-concessional terms, as Kenya, Tanzania and Uganda already spend large amounts of their budget servicing debt repayments and are at risk of debt distress according to the IMF World Bank Debt Sustainability Analysis. Furthermore, the 'real value' of provided adaptation-related finance would be reduced to just 64% of the face value amount when considering the grant equivalent value of this finance, accounting for debt service payments, interest, administration fees and other costs associated with debt burdens. This is influenced largely by several key providers – the MDBs, France, IFAD and the GCF – that provide most of their finance in the form of loans. Given the escalating debt crisis and growing impacts of climate change, it is imperative that donors in the field of adaptation prioritise climate grants over loans.

A relatively high proportion of the adaptation-related development finance committed between 2015 and 2022 integrates gender, with 66% addressing gender as a significant objective and 7% as a principal objective. However, a large share of multilateral adaptation-related finance was not screened for gender, which makes assessment of the level of gender integration in these projects difficult. While the level of gender integration reported by bilateral donors is relatively high, both bilateral donors and multilateral institutions should increase efforts to ensure consistent gender integration in climate financed projects and programmes in Kenya, Tanzania and Uganda.

There is a significant need for enhanced transparency in climate finance reporting to enable assessment of whether developed countries are delivering on their commitments under the USD 100 billion annual goal and forthcoming NCQG and whether flows are addressing the specific needs of vulnerable countries. Currently, the lack of a commonly agreed definition of climate and adaptation finance and varying accounting practices make it difficult to accurately assess and compare data. Improved reporting on disbursements is particularly important, as the amount of finance disbursed for adaptation has been shown to be often much lower than the committed amounts. There is also a need for accounting based on the grant equivalent values of climate loans to better reflect the debt burden and financial benefit to recipient countries. Without standardised accounting and reporting based on the grant equivalent figures, it is challenging to determine if financial flows are meeting both global targets and the financial needs outlined by recipient countries in their Nationally Determined Contributions (NDCs).

INTRODUCTION

About the working paper

This paper is an initial outcome of the four-year research programme (2021-2025) Governing Adaptation Finance for Transformation (GAP) involving collaborating research institutions in Denmark, Kenya and Tanzania.¹ This working paper provides analysis of public international climate finance committed by both bilateral and multilateral sources to Kenya, Tanzania and Uganda, the three largest countries in the East Africa region, with a focus on the quantity and trends in adaptation-related finance flows over the period 2015-2022. This includes the balance in mitigation and adaptation finance, the channel of delivery, sectors targeted, the type of financial instrument and the grant equivalence of concessional climate loans. Findings are discussed with regard to the countries' climatic, economic and sociopolitical contexts including indebtedness and risk of debt distress, climate projections and impacts, and the policies, laws, regulations and strategies that have been developed to direct adaptation and mitigation efforts and mobilise finance to support measures.

The working paper is structured as follows. First, Chapter 2 outlines the data sources and methodology used. Chapter 3 presents an overview and general statistics of Kenya, Tanzania and Uganda, including climate change projections and impacts, vulnerability, readiness and specified financial needs. This is followed by an overview of policies, laws, regulations and strategies developed in order to direct adaptation and mitigation efforts and mobilise finance to support measures for the East African Community (EAC) and at the national level for Kenya, Uganda and Tanzania in Chapter 4. Chapter 5 provides analysis of the quantity of and trends in climate finance flowing to the countries, including

¹ https://www.diis.dk/en/projects/governing-adaptation-finance-transformation-gap

comparison to the stated financial needs of the countries and their level of climate vulnerability. Finally, Chapter 6 provides discussion and conclusion of the findings

Background

While the countries of the East Africa region have contributed only marginally to global greenhouse gas emissions, they are at the forefront of climate change. Climatic variability and extreme events have increased, with a recent prolonged drought across the region leading to food insecurity, malnutrition, displacement and loss of lives (World Health Organization, 2024). Projected changes include higher temperatures, greater variability in rainfall, increased frequency and intensity of heavy rainfall events, a higher risk of floods and droughts and sea level rise. The impacts of these changes extend to agriculture and food security, water resources, ecosystems, biodiversity and livelihoods (Richardson et al., 2022) and are compounded by existing socioeconomic challenges, vulnerabilities and inequalities. At the same time, the ability of East African communities to pursue effective adaptation is constrained by a lack of finance, with annual finance flows targeting adaptation significantly less than estimated adaptation costs (Climate and Development Knowledge Network Global, 2022).

Finance for adaptation and mitigation has for many years been a prominent part of international climate discussions and a priority for developed countries. At the 15th Conference of the Parties (COP) in Copenhagen in 2009, developed country parties to the United Nations Framework Convention on Climate Change (UNFCCC), committed to jointly mobilising USD 100 billion annually for climate change mitigation and adaptation in developing countries by 2020 (UNFCCC, 2009). The goal was subsequently extended to 2025 when the New Collective Quantified Goal on Climate Finance (NCQG) will be adopted (at COP29 in November 2024), raising the floor on climate finance above the current target and taking into account the needs and priorities of developing countries (UNFCCC, 2023b).

There is no mutually agreed definition of climate finance and no clear provision or modalities for how finance should be made available or accounted for under the UNFCCC. As such, climate finance can be mobilised from a variety of sources through varying instruments and channels, and may target mitigation, adaptation, or both. In light of this ambiguity and as deliberations for the new collective quantified goal continue in international negotiations, actors are increasingly looking at trends in mobilised climate finance, including amounts mobilised for mitigation and adaptation, the type of financial instrument, the channel of delivery and sectors targeted. According to the OECD, developed countries fell short of meeting the USD 100 billion commitment until 2022, with only USD 83.3 billion provided and mobilised in 2020 and 89.6 in 2021 (OECD, 2024a). In 2022, the OECD reported that developed countries provided and mobilised USD 115.9 billion in climate finance, reaching their collective annual goal two years later than the original 2020 target year. However, it has been estimated that the specified financial needs of developing countries are much greater than the politically

agreed goal (UNEP, 2023b). Furthermore, despite being a paramount concern for many developing countries, studies have shown that adaptation finance remains particularly low in both absolute and relative terms (OECD, 2023a, 2024a; UNEP, 2023b) and continues to be provided in the form of loans rather than grants (OECD, 2023a, 2024a; Zagema et al., 2023) which contributes to recipient countries' debt burdens.

There has also been increased focus on implementation of climate finance activities to ensure that projects achieve effective outcomes on the ground and are responsive to the needs, priorities and vulnerabilities of affected communities. This is especially important for women and other vulnerable groups who often face disproportion impacts from climate change but are marginalised from decision-making processes. Recognising the importance of locally driven climate action where local actors are empowered to plan, prioritise and implement actions, there has been focus on who decides how climate finance is allocated and used with a particular view on devolution to the subnational level and locally-led adaptation principles (Mulwa and Gravesen, 2022; Tidemand et al., 2022). A preliminary estimate showed that less than 10% of climate finance is directed to local level climate activities (Soanes et al., 2017) and in Tanzania and Kenya, a GAP review of 40 donor funded projects found that around 42% of funding was channelled through local governments in Tanzania and only 5.2% in Kenya (Tidemand et al., 2022). Ensuring responsiveness to the needs of affected communities also requires consideration of gender. In recognition of the intersection between climate change and gender equality the extent to which climate finance activities consider issues of gender equality has garnered increasing attention (Roy et al., 2021). In 2019-20, Oxfam found that around 51% of bilateral climate-related development finance targeted gender objectives to some degree, though only 2.4% targeted gender as a principal objective (Zagema et al., 2023).

In providing an overview of international climate-related finance committed to Kenya, Tanzania and Uganda, the study seeks to address the knowledge gap in assessing how and how much international climate finance flows to vulnerable developing countries and regions. Most studies take a provider perspective to analyse the public climate finance contributions of multilateral and bilateral donors, only providing aggregate figures for Africa or sub-Saharan Africa without country breakdowns (Kowalzig et al., 2024; OECD, 2023a, 2024a; Zagema et al., 2023). Very few studies take a recipient perspective and country or regional level to examine whether the finance reaching developing countries is needs based, of sufficient quality and is reaching the intended rights holders (though see research conducted for the West Africa and Central Africa/Sahel countries; Martín Casas and Remalia Sanogo, 2022; Roy et al., 2022).

METHODOLOGY FOR THE RESEARCH

This section outlines the methods and data sources used including data sources, methodologies for tracking and reporting of climate finance, data gathering and processing, and limitations.

Auxiliary data sources

To contextualise the analysis of international public climate finance flowing to Kenya, Tanzania and Uganda, this paper uses a range of auxiliary data sources relating to climate change vulnerability and readiness and climate finance needs, among others.

Socioeconomic statistics

Statistics are gathered for population, gross national income (GNI) and official development assistance (ODA) from the OECD (OECD, n.d.-d) and World Bank Open Data portal (World Bank, 2024c). Data related to poverty levels are retrieved from the World Bank Poverty Inequality Platform (World Bank, 2024a), based on an Upper Middle Income Country poverty line of 6.85 USD a day and an international poverty line of 2.15 USD a day, using 2017 prices.

In addition, descriptive statistics and indicators are used to assess debt burdens and levels of debt distress. Levels of external debt compared to GNI and debt servicing costs compared to, for example, tax revenues, are sourced from the World Bank Open Data portal (World Bank, 2024c). Risk of debt distress is assessed through the International Monetary Fund (IMF) World Bank Debt Sustainability Analysis for Low-Income Countries, which uses a four-scale classification to assess the overall public risk of debt distress in low-income countries: (i) low; (ii) moderate; (iii) high and (iv) in debt distress (International Monetary Fund, 2024). All other data sources used are referenced in the relevant section of the paper.

Notre Dame Global Adaptation Index

The Notre Dame Global Adaptation (ND-GAIN) Index is a global index that incorporates both a country's vulnerability to climate change and its readiness to leverage private and public sector investment for adaptation actions. The index combines a vulnerability score with a readiness score to assess each country on a scale of 0-100, where higher scores indicate the countries that are the least vulnerable and most ready to adapt.

Vulnerability is here defined as the 'propensity or predisposition of human societies to be negatively impacted by climate hazards' (Notre Dame Global Adaptation Initiative, 2023: 5). This is estimated based on indicators across three cross-cutting components of exposure, sensitivity and adaptive capacity covering the food, water, health, ecosystem services, human habitat and infrastructure sectors. The definitions of these components are stated as:

- Exposure: The extent to which human society and its supporting sectors are stressed by the future changing climate conditions. Exposure in ND-GAIN captures the physical factors external to the system that contribute to vulnerability.
- Sensitivity: The degree to which people and the sectors they depend upon are affected by climate-related perturbations. The factors increasing sensitivity include the degree of dependency on sectors that are climate-sensitive and proportion of populations sensitive to climate hazard due to factors such as topography and demography.
- Adaptive capacity: The ability of society and its supporting sectors to adjust to reduce potential damage and to respond to the negative consequences of climate events. In ND-GAIN adaptive capacity indicators seek to capture a collection of means, readily deployable to deal with sector-specific climate change impacts. (Notre Dame Global Adaptation Initiative, 2023: 5)

The ND-GAIN measures readiness to make effective use of investments for adaptation actions by considering three components of economic, governance and social readiness. The definitions of these components are given as:

- *Economic readiness*: The investment climate that facilitates mobilising capitals from private sector.
- Governance readiness: The stability of the society and institutional arrangements
 that contribute to the investment risks. A stable country with high governance
 capacity reassures investors that the invested capitals could grow under the
 help of responsive public services and without significant interruption.
- Social readiness: Social conditions that help society to make efficient and equitable use of investment and yield more benefit from the investment.
 (Notre Dame Global Adaptation Initiative, 2023: 6)

The ND-GAIN provides a standardised assessment of a country's vulnerability and readiness to adapt. It has been selected since it has wide coverage in terms of both countries and years and provides easily accessible data. Also important is the emphasis on a country's ability to leverage public and private sector funding, which is of relevance to this study.

Nationally Determined Contributions

In accordance with Article 4, Paragraph 2 of the Paris Agreement, Parties are required to prepare, communicate and maintain successive Nationally Determined Contributions (NDCs) (Paris Agreement, 2015), country-level climate action plans that outline commitments, strategies and actions for reducing emissions in line with global goals and adapting to the impacts of climate change. NDCs present short- to medium-term plans and should be updated and submitted every five years to the UNFCCC secretariat to reflect increased ambition.

Many countries have now assessed and communicated finance needs for implementation of their NDC pledges and intended actions. This may include quantitative estimates of financial support needs across adaptation and mitigation

or sectors, and some parties also differentiate between estimates for conditional actions that require international support and unconditional actions that will be funded domestically through public and private sources (UNFCCC, 2023a).

For this working paper, the NDCs of Kenya, Tanzania and Uganda are analysed to contextualise climate finance flows over the period 2015-2022 in terms of stated financing needs. The submitted NDCs were accessed from the UNFCCC NDC Registry (UNFCCC, n.d.-a) and information manually extracted for emissions and adaptation pledges, time of implementation and finance needs. The Africa NDC Hub was used for further information (Africa NDC Hub, n.d.).

There are several limitations to the financial needs estimates available in the NDCs. As there is no mandate within the UNFCCC for countries to report finance needs, there is no standardised method that countries must follow for calculating in each submission. Countries take differing approaches to developing estimates, varying across the climate scenarios considered, the methods used to identify and prioritise actions, sectoral coverage, costing approaches and the timeframe of implementation. The methodological choices and assumptions underpinning estimates tend not to be detailed in NDCs which makes it difficult to assess the scope covered (African Development Bank, 2019). This is particularly important for adaptation costs which are difficult to estimate given uncertainty in mitigation pathways. Alongside methodological challenges, countries have highlighted technical and financial capacity gaps in identifying and quantifying adaptation needs (UNEP, 2023b).

Furthermore, adaptation planning is a continuous process, and the reporting and assessment of financial needs is ongoing. For example, in Kenya's first NDC (2016), the country estimated its total climate finance needs at USD 40 billion and in its updated NDC (2020), finance needs for adaptation alone were USD 43.9 billion. These considerations make aggregation and comparability of finance data difficult, and figures must be interpreted with caution. Nonetheless, the NDCs remain an important means by which countries communicate their adaptation needs and are an important source for contextualising the adaptation finance flowing to countries.

Climate finance data sources

On an annual basis, the OECD Development Assistance Committee (DAC) collates information on official development assistance (ODA) and other flows from bilateral and multilateral providers to developing countries, which is then published publicly in the Creditor Reporting System (CRS) database (OECD, n.d.-c). To analyse international public climate finance flows to Kenya, Tanzania and Uganda, this study uses the climate-related development finance dataset of the OECD DAC CRS for the years 2015-2022 (OECD, n.d.-b) which provides publicly available project-level data on climate-related development finance. While the data is available from both a provider and a recipient perspective, this analysis utilises the recipient perspective which captures (i) projects provided and reported by developed countries with climate change objectives and (ii) the outflows of

climate finance from multilateral organisations.² All data is provided on a commitment basis³ (no disbursements data is available in the dataset). Additionally, grant element percentages are estimated for each bilateral donor using the CRS aid activity dataset (OECD, 2024b), which provides data on the grant equivalent values and loan conditions of disbursed climate-related ODA loans, information which is not available in the climate-related development finance dataset.

In addition to reporting to the OECD, donor countries have since 2013 reported climate finance information in the Biennial Reports (BRs) submitted to the UNFCCC and will continue to do so in the forthcoming Biennial Transparency Reports (BTRs), under the Enhanced Transparency Framework, from 2024. There are several differences between these reports and the OECD dataset due to varying reporting rules and practices. For example, in the BRs and BTRs donor countries may report either disbursements or commitments, while the OECD dataset is published for committed projects. Not all projects reported in the OECD dataset will be listed in the BR or BTRs for the same year, and vice versa, and the OECD dataset includes only finance provided to countries that are eligible to receive ODA.

The OECD climate-related development finance dataset is used for both bilateral and multilateral climate finance estimates in this working paper. The BRs are the primary alternative data source for bilateral data but to date only provide information on climate finance up to and including reporting year 2020, while the OECD dataset provides data to 2022. Furthermore, the climate-related development finance dataset provides important information about multilateral outflows not available in the BRs or forthcoming BTRs.

Methodologies for tracking and reporting climate finance

In reporting to the OECD DAC, two methodologies are used by providers of international climate finance to arrive at project-level financial figures: the Rio marker approach which is used by most bilateral providers as well multilateral climate change funds, and the climate components approach which is used by multilateral development banks (MDBs) and is based on the Joint Methodology for Tracking Climate Change Adaptation Finance and the Common Principles for Climate Change Mitigation Finance Tracking.

The Rio markers

The Rio markers were borne out of the Rio Conventions to show alignment with biodiversity, climate change and desertification objectives. For each project or programme reported to the CRS database, donors are requested to identify the mainstreaming of these policy objectives according to a three-tier scoring system

² Information regarding mobilised private finance and officially supported export credits is not available at the project level and is included at the aggregate level in annual OECD climate finance reports using non-publicly available data.

³ A financial commitment is defined by the OECD as: 'A firm obligation, expressed in writing and backed by the necessary funds, undertaken by an official donor to provide specified assistance to a recipient country or a multilateral organisation' (OECD, n.d.-a).

in which projects are marked as targeting climate change mitigation and adaptation objectives as a 'principal' objective (score 2) or a 'significant' objective (score 1), or as not targeting the objective (score 0):

- A project can be marked as 'principal' when the objective (climate change mitigation or adaptation) is explicitly stated as fundamental in the design of, or the motivation for, the activity. Promoting the objective will thus be stated in the activity documentation as one of the principal reasons for undertaking it. In other words, the activity would not have been funded (or designed that way) but for that objective.
- A project can be marked as 'significant' when the objective (climate change mitigation or adaptation) is explicitly stated but it is not the fundamental driver or motivation for undertaking it. Instead, the activity has other prime objectives, but it has been formulated or adjusted to help meet the relevant climate concerns.
- A score of 'not targeted' means that the project was examined but found not to target the objective (climate change mitigation or adaptation) in any significant way.

For projects that have not been assessed, the marker field should be left empty. This ensures that there is no confusion between projects that do not target the objective (score 0), and projects for which the score is not known (score = null or blank).

Climate components

Using the climate components method, the MDBs identify the specific components of a project that directly support climate change adaptation or mitigation and calculate the financial amounts corresponding to these components (rather than the whole project amount). Thus, instead of resulting in a set of three 'scores' as in the Rio marker approach, the climate components approach results in a quantitative amount, expressed in USD, that can be considered as climate-related development finance.

For tracking adaptation finance, at COP27 the MDBs presented an updated methodology to be applied from 2023 (European Investment Bank, 2022, p. 4), which is based on the Common Principles for Climate Change Adaptation Finance Tracking (African Development Bank et al., 2015). The Joint Methodology for Tracking Climate Change Adaptation Finance states the following three steps are required to identify the adaptation finance of a given project:

- 1) Setting out the project's context of vulnerability to climate change
- 2) Making an explicit statement of intent to address this vulnerability as part of the project
- 3) Articulating a clear and direct link between the vulnerability and the specific project activities.

(European Investment Bank, 2022: 4)

For mitigation finance, the MDBs apply the Common Principles for Climate Change Mitigation Finance Tracking, stating that: 'An activity can be classified as climate change mitigation where the activity, by avoiding or reducing GHG emissions or increasing GHG sequestration, contributes substantially to the stabilisation of GHG concentrations in the atmosphere at a level which prevents dangerous anthropogenic interference with the climate system consistent with the long-term temperature goal of the Paris Agreement'. (African Development Bank et al., 2021: 4).

While these methodologies provide an indication of the approach taken by the MDBs, the full details of the climate components methodology used to calculate climate and adaptation finance figures is not published publicly.

Additional information in the climate-related development finance dataset

For each activity or project, the climate-related development finance dataset includes donor-reported information relating to, among others, financial instrument (grants, loans) used, type of finance (concessional or non-concessional), the sector targeted and the channel of delivery. For bilateral finance, it is mandatory for donors to report on the degree to which their ODA addresses gender equality and the empowerment of women and girls using the gender equality policy marker (GEM). The GEM assesses activities at the planning and design phase, stating that an activity should be classified as addressing gender equality if 'it is intended to advance gender equality and the empowerment of women and girls or reduce discrimination and inequalities based on sex' (OECD, 2023c: 95). The gender equality markers follow the same three-tier scoring system as the Rio markers and can therefore be used to estimate the flows of climate finance that target gender equality as a policy objective.

Data gathering and processing

The recipient perspective climate-related development finance dataset was downloaded on 14 June 2024 (OECD, n.d.-b) for the period of analysis (2015-2022). To prepare this data for analysis, the following steps were taken:

- The OECD has a standardised list of recipient countries/regions by which countries can report their projects against and the dataset was filtered to include only the recipient countries of Kenya, Tanzania and Uganda using the 'recipient' column. Some projects in the dataset are reported with the recipient as 'Africa, regional' and 'Eastern Africa, regional'. It is often not possible to identify for these entries whether the funding included any of the countries of study. Thus, while these projects may have funds committed in one or more of the three countries, they are not included in the analysis.
- The 'Provider type' column was filtered to exclude private donors, so all analysis includes public finance only.
- Bilateral providers were filtered to include those on the OECD list of developed countries, which includes Annex II Parties to the UNFCCC, all Member States of the European Union, as well as Liechtenstein and Monaco (OECD, 2024a).

- Columns were added to categorise reported delivery channels (in the 'Channel of delivery' column) according to a list defined by the OECD (OECD, 2024b).
- Analysis used commitments in 'current' USD figures.

The CRS aid activity dataset was downloaded on 22 April 2024 from the CRS (OECD, 2024b) for the years 2018-2022. To prepare this data for analysis, the following steps were taken:

- File were converted from CSV to XLS.
- Climate-related projects were identified for each year of data based on the Rio markers reported for climate change mitigation and adaptation. This is not possible for MDBs and other multilateral organisations who do not report using the Rio markers.
- Projects were filtered to include only bilateral projects by selecting '1' in the 'Bi_Multi' column and only ODA loans by selecting only 'ODA loans' in the 'FlowName' column.
- To ensure the CRS data was limited to include only relevant transfers of climate finance, aid classified as general budget support (type of aid A01), imputed student costs (E02), debt relief (F01) except debt swaps, administrative costs (G01), development awareness (H01) and refugees in donor countries (H02) was excluded. This is based on the coverage of the Rio markers outlined by the OECD (OECD, 2023b).

Further calculations and adjustments were made to the datasets to conduct the analysis. These calculations are described in the following sections.

Adjustment for developed countries share of multilateral donors' finance

Climate finance outflows from multilateral organisations were adjusted to only include the shares attributable to developed countries. To do so, the latest available percentage share attributable to developed countries for each multilateral institution as published by the OECD DAC (OECD, 2024a) is applied to each individual outflow activity.

The Islamic Development Bank is not included in the OECD report and the share attributable to developed countries was manually assigned to zero as no Annex I countries are funders. For the Food and Agriculture Organisation and Global Green Growth Institute, also not listed in the OECD report, the share attributable was assigned as 100% to give benefit of the doubt.

Adjustment for Rio marker scores to estimate climate finance flows

By identifying activities targeting climate change as a principal or significant objective, the Rio markers provide an indication of the degree of mainstreaming of climate considerations into a given project. While not originally designed to track flows, the markers allow for an approximate quantification of development finance that target climate objectives and can therefore be used to estimate flows of climate finance.

To arrive at an estimate of climate finance flows and to create a standardised dataset, a percentage of the overall budget of the project can be considered relevant to climate change mitigation, adaptation or cross-cutting objectives⁴ depending on the Rio marker score. This step is also necessary to reduce 'inflation' i.e. that 100% of a projects value with a 'significant' score can be reported as climate finance. In this analysis, Rio-marked projects in the climate-related dataset were adjusted so that a Rio marker of 'significant' results in an adjustment of 40% of the project value, while for a Rio marker of 'principal' the entire project value is counted. In practice, a range of coefficients are applied to projects with a 'significant' score for adaptation and/or mitigation, though most bilateral donors use a coefficient of between 30% and 50% (OECD, 2023e).

The Rio marker score is also used to determine which objective the financial support is attributed to. In the methodology utilised in this research, the value of a project is assigned to the highest Rio marker. For projects for which one of the Rio markers is either 'significant' or 'principal' and the other is zero, the financial support is considered to contribute to the 'significant' or 'principal' Rio marker. For projects for which one of the Rio markers is 'significant' and the other is 'principal', the financial support is considered to completely contribute to the 'principal' Rio marker. For projects for which both Rio markers are set to 'significant' or 'principal', the financial support is considered to contribute to cross-cutting objectives. This approach seeks to demonstrate the extent of finance that is primarily supporting either of the objectives and eliminates double counting.

Based on this, an example Rio marker matrix estimating climate finance is presented in Figure 1. It shows, for example, that for a project with Rio marker scores of 'significant' for adaptation and 'significant' for mitigation, 40% of the total project amount is reported as cross-cutting finance. For a project with a Rio marker score of 'principal' for adaptation and 'significant' for mitigation, 100% of the total project amount is reported as adaptation finance.

The finance reported by the MDBs through the climate components approach is not adjusted but the finance is attributed to adaptation, mitigation and crosscutting objectives according to the columns for mitigation, adaptation and overlapping dollar amounts in the dataset.

⁴ The categories 'mitigation', 'adaptation' and 'cross-cutting' are mutually exclusive when calculating climate finance totals. Mitigation and adaptation support are defined as per OECD DAC definitions. Cross-cutting activities are those that involve both mitigation and adaptation components.

Figure 1. Matrix indicating how adaptation and mitigation Rio markers determine the type of support as adaptation (green), mitigation (blue) or crosscutting (orange), and the resulting coefficients used to adjust a project's total budget

Mitigation	KI0	marker

		Not targeted (Score 0)	Significant (Score 1)	Principal (Score 2)
	Not targeted (Score 0)	Not relevant	40% of aid in support of activity is counted as mitigation	100% of aid in support of an activity counted as mitigation aid
Adaptation Rio marker Significant (Score 1)		40% of aid in support of an activity counted as adaptation aid	40% of aid in support of an activity counted as cross-cutting aid	100% of aid in support of an activity counted as mitigation aid
Ad Principal (Score 2)		100% of aid in support of an activity counted as adaptation aid	100% of aid in support of an activity counted as adaptation aid	100% of aid in support of an activity counted as cross- cutting aid

Source: Authors' own.

Grant equivalence calculations

Developed country donors can report climate finances provided not only using grants, which are free of interest and require no repayments, but also finance delivered using loans and other instruments such as equity investments. Concessional, or soft, loans are delivered on more generous terms than on the market, usually with lower interest rates than if countries borrowed from commercial banks. Non-concessional loans, on the other hand, are typically delivered with market-based interest rates.

Though both concessional and non-concessional loans require repayment, the full face value of loans lent to developing countries are often reported to the UNFCCC as climate finance (i.e. a USD 10 million loan is reported as the same amount of climate finance as a USD 10 million grant). However, reporting of non-grant finance at its face value does not accurately reflect the differences in the terms of finance provided – a grant represents a greater donor effort than a concessional loan, and in turn a concessional loan represents a greater donor effort than a non-concessional loan. It is therefore argued that face value amounts can be considered a somewhat inaccurate estimate of actual financial effort towards UNFCCC targets (see for example the Oxfam Shadow reports; Kowalzig et al., 2024; Zagema et al., 2023).

However, it is possible to estimate the grant equivalence of loans to give a clearer picture of the flow of climate finance. The grant equivalent figure is a monetary value that estimates at the present value of money how much is being given away

over the lifetime of a transaction compared to if that transaction was extended at market terms, where discount rates are set to adjust future reflows of a loan to the present value (OECD, 2017). Expressing the grant equivalent figure as a percentage of the total amount extended gives the grant element. A loan offered at market terms has a grant element of 0% while a grant has a grant element of 100%. In reporting the grant equivalent figure, only the grant portion of a loan is counted as climate finance and thus grant equivalent amounts reflect more clearly the financial effort of each donor, showing which donors rely more heavily on loans and providing an idea of the favourability or concessionality of those loans for developing country recipients.⁵

The methodology used in this analysis to calculate grant equivalent values is as follows:

- Grants have a grant element of 100%. Since grants require no repayments back to the donor they are counted at their face value.
- Non-concessional instruments in both bilateral and multilateral finance are
 estimated to have zero direct assistance value and a grant element of 0%.
 While some loans that are reported to be non-concessional may include some
 level of concessionality, this type of finance is not generous to be categorised
 as ODA and as such it is not counted as assistance.
- Equity and shares in collective investment vehicles are estimated to have a
 grant element of 0%. Such instruments are designed with the expectation of
 profitability by investors, including developed countries through development
 finance institutions (DFIs). Therefore, though such instruments can play an
 important role in mobilising additional finance, the financial effort is here
 estimated to be zero.
- Officially supported export credits are estimated to have a grant element of 0%. Export credit agencies aim to support national exports, and while they mitigate risks, they often operate with the expectation of profitability, similar to commercial financial institutions.
- For concessional loans and other debt instruments, a grant equivalent value is calculated by multiplying the face value commitment by an estimate of the grant element of a given donors' provision of climate-related loans in each year. The grant element (a percentage for each donor) is dependent on the conditions of the extended non-grant finance including the loan's interest rate, grace period, maturity, and discount rate, and is estimated based on the CRS aid activity dataset (OECD, 2024b) for the years 2018-2022. A full outline of the methodology used for grant element and grant equivalent calculations for concessional loans and other debt instruments is provided in the Annex.

DIIS WORKING PAPER 2024: 04

⁵ The grant equivalent measure was introduced by the OECD in reporting of ODA following a decision by the DAC at its High-Level Meeting in December 2014. After a transition period from 2015 to 2017, the grant equivalent measure became the standard for 2019 reporting of 2018 flows so that only the grant equivalent value of loans is recorded as ODA, though the cash flow figures continue to be published (OECD, 2023d).

Limitations

Tracking international climate finance flows is not straightforward. There is no internationally agreed definition of climate finance and while the core definition of the OECD and MDBs is generally in accordance, in reporting to the OECD donors utilise their own operational definitions which can affect estimates of climate finance flows.

There are also several limitations to the climate-related development finance dataset and methodology that are relevant to the study. First, the data in the climate-related development finance dataset is provided on a commitment basis only. While climate finance commitments are a good indication of ambition, analysis has indicated that there can be a significant difference between commitments and disbursements (UNEP, 2023b). Furthermore, as some reporting nations to the UNFCCC elect to report disbursements instead of commitments, there may be a discrepancy between the results of this study and officially reported figures reported to the UNFCCC. In addition, the OECD can retrospectively update datasets for previous years. This could have an impact on the comparability across analyses which utilises the OECD climate-related dataset.

Furthermore, the Rio markers are self-reported by donor countries and thus the markers may not always have been applied accurately or consistently. In addition, using a fixed Rio marker coefficient may in some cases overestimate and in others underestimate the climate finance volumes directed toward climate objectives. For example, a project reported with a significant climate adaptation Rio marker may in reality only contain a small adaptation component, but in this study a fixed coefficient of 40% is applied.

Use of the gender equality markers for gender and climate analysis also comes with limitations. First and foremost, the gender markers may not always have been applied accurately and thus truly reflect the level of gender integration in the project. The OECD marking guidelines can be interpreted differently and applied inconsistently, and some DAC members have noted difficulties in determining the score of activities (OECD, 2023c). It is also likely that the quality of application of the gender markers has improved over time as reporting countries become more familiar with the process. Furthermore, the gender marker is a qualitative instrument and thus provides an *estimate* of finance in support of gender equality and an indication of broad trends, rather than an exact quantitative calculation.

SOCIOECONOMIC AND CLIMATIC OVERVIEW OF KENYA, TANZANIA AND UGANDA

This chapter first presents a brief overview of the climatic, economic and sociopolitical context in Kenya, Tanzania and Uganda, including indebtedness and risk of debt distress. The main climate change projections, impacts and

vulnerabilities for each country are presented, alongside each country's specified financial needs to address these impacts.

Country overviews

Kenya, Tanzania and Uganda are characterised by different agroecological and climatic zones, as well as diverse socioeconomic, political and governance contexts. The East Africa region has witnessed high economic growth in recent years, but gross national incomes vary significantly, as shown in Table 1. The COVID-19 pandemic had both direct and indirect social and economic impacts across all the countries, affecting economic growth, employment, inequality and food security, among others (Clough et al., 2023). Poverty has reduced significantly in most countries in the region though remains a significant challenge, particularly among rural populations, with large parts of the rural population living on less than the World Bank threshold for extreme poverty of USD 2.15 a day. Agriculture is the predominant sector in terms of employment though there is high growth in services and extractive industries (UNFCCC, 2021b). Both Tanzania and Uganda are, as of 2024, classified as a Least Developed Country (LDC) according to the United Nations, which indicates high vulnerability to economic and environmental shocks and low levels of human assets, and provides access to specific international support measures. However, in May 2024 both met the criteria for graduation for the first time, based on assessment of income per capita, human assets and economic vulnerability (United Nations, 2024).

Kenya

Kenya is geographically varied, with climates including hot and humid coastal areas, a dry and arid north, and cooler central highlands. Eighty-five per cent of land in the country is classed as a fragile arid and semi-arid ecosystem, and much of this is pastoral (The World Bank Group, 2021a). Recently classified as a Lower-Middle Income Country (LMIC), Kenya is the largest economy in East Africa and one of the largest in sub-Saharan Africa with a GNI of USD 116.4 billion and GNI per capita of USD 2,112. Trade, energy, water, energy and tourism are significant parts of the economy. Agriculture contributes around 33% of total gross domestic product (GDP) and employs more than 40% of the population, rising to 70% in rural areas (Ministry of Agriculture and Livestock Development, 2019).

Despite a relatively high GNI and GNI per capita, poverty levels remain high with 36% of the population living under the international poverty line of USD 2.15 a day. In rural areas, research finds that poverty is 40%, compared to 29% in urban areas (Kenya National Bureau of Statistics, 2020). In recent years, compounding factors including below average rainfall leading to prolonged drought, floods, conflict and global increases in food and energy prices have led to periods of acute food insecurity (Integrated Food Security Phase Classification, 2023).

Table 1. Country statistics for Kenya, Tanzania and Uganda

Country	Economic classification ^a	Population 2023 (millions) ^b	Population growth 2023 (annual %)°	Urban population growth 2023 (annual %) ^d	GNI 2023 (billions USD) [€]	GNI per capita 2023 (USD)¹	Net ODA received 2022 (% of GNI) ^g	Poverty rate at 6.85 USD a day (% population) ⁿ	Poverty rate at 2.15 USD a day (% population) ⁱ
Kenya	Lower-middle income	55.1	2.0	3.7	116.4	2113	2.4	91.28	36.15
Tanzania	LDC/Lower-middle income	67.4	2.9	4.9	79.3	1176	3.6	92.27	44.95
Uganda	LDC/Low income	48.6	2.8	5.1	47.4	976	4.7	91.05	42.12

- Source: World Bank (2024b) and (United Nations, 2024). For the 2025 fiscal year, low-income economies are defined as those with a GNI per capita, calculated using the World Bank Atlas method, of USD 1.145 or less in 2023, lower-middle income economies are those with a GNI per capita between USD 1.146 and USD 4.515. LDC status is a designation by the United Nations for countries that face severe socioeconomic challenges, including low income and economic vulnerability.
- b. Source: World Bank (2024c).
- c. Source: World Bank (2024c).
- d. Source: World Bank (2024c).
- e. Source: World Bank (2024c). Estimates use World Bank Atlas Method.
- Source: Authors' own calculation based on GNI and population.
- Source: World Bank (2024c). World Bank GNI estimates used for the denominator.
- Source: World Bank (2024a). Poverty headcount ratio at USD 6.85 a day is the percentage of the population living on less than USD 6.85 a day at 2017 international prices. Data shown: Kenya in 2021; Tanzania in 2018; Uganda in 2019.

Source: World Bank (2024a). Poverty headcount ratio at USD 2.15 a day is the percentage of the population living on less than USD 2.15 a day at 2017 international prices. Data shown: Kenya in 2021; Tanzania in 2018; Uganda in 2019.

Tanzania

The topographical diversity in Tanzania gives rise to a range of climatic conditions: a humid, high rainfall subtropical lowland coastal area; hot and semi-arid central zones; cooler highlands in the northeast and southwest; and semi-temperate lake regions in the north and west.

Tanzania has high population growth (3% in 2023) and is one of the fastest growing economies on the continent, moving from low to lower-middle income status. However, economic growth has largely been concentrated in capital-intensive sectors such as communications, manufacturing, retail, construction and financial services and in large urban areas and as such has only marginally contributed to reducing poverty among rural and agrarian households. Indeed, 45% of the population live below the international poverty line of USD 2.15 a day, which is the highest share among the countries in this study. The population of Tanzania is predominantly rural (80%) and the agricultural sector remains a principal livelihood source for many, accounting for around 66% of employment

(The United Republic of Tanzania, 2017). Other important sectors are mining, industry and energy.

Uganda

Uganda is a land-locked country with a climate that is largely influenced by its equatorial position. Much of the country lies within a relatively humid equatorial climatic zone which experiences bi-modal rainy seasons and is highly influenced by the Inter Tropical Convergence Zone. The El Niño-Southern Oscillation also affects Uganda, driving intra- and inter-annual rainfall variability and leading to flooding during the rainy season. The remainder of the country to the north (approximately one quarter) lies outside of the tropical belt and typically receives much less rainfall, with just one rainy season.

Of the three countries, Uganda has the lowest total population (48.6 million) but is experiencing high population growth (3% in 2023) and rapid urbanisation, with one of the highest urban population growth rates in the world (5% in 2022). Uganda is the third-largest economy in East Africa, though has significantly lower GNI (in both absolute and per capita terms) than both Kenya and Tanzania. Poverty levels remain high, with 42% of the population living below the international poverty line. The service sector has grown in importance in Uganda and contributes 42% of GDP (Uganda Bureau of Statistics, 2021). The agriculture sector represents 24% of GDP but employs 68% of the workforce, supporting livelihoods for a large proportion of the population (ibid). Other important sectors are industry including mining, construction, electricity, water and gas and tourism.

Indebtedness and risk of debt distress

The external debts of countries in Africa have increased notably in the past decade, with many countries using an increasing share of their budget to service debt. According to the IMF World Bank Debt Sustainability Analysis, Tanzania and Uganda are moderately at risk of debt distress while Kenya is at high risk of debt distress, marking a rapid change from 2022 when Kenya was deemed to have a 'sustainable' level of debt (International Monetary Fund, 2024). This change has been driven by an expansionary fiscal policy with high spending on large infrastructure projects, financed largely through commercial loans, and compounded by the COVID-19 pandemic and rising global interest rates. Indeed, the present value of external debt is highest for Kenya at 28% of GNI and as of 2022 Kenya pays the equivalent of 24% of its export of goods, services and primary income on debt servicing. Debt levels are 22% of GNI for both Tanzania and Uganda, though Uganda spends approximately 32% the export of goods, services and primary income on servicing debt while this is lower for Tanzania at 16%.

Table 2. Debt statistics for Kenya, Tanzania and Uganda

	Risk of debt distress	Present value of external debt 2022 (current USD billion)	Present value of external debt 2022 (% GNI)	Debt service on external debt 2022, total (current USD billion)	Total debt service (% of exports of goods, services and primary income)
Kenya	High	31.03	27.8	3.34	24.0
Tanzania	Moderate	15.91	21.4	1.98	16.3
Uganda	Moderate	9.64	21.6	1.93	31.7

Source: Risk of debt distress from the IMF World Bank Debt Sustainability Analysis for Low-Income Countries (International Monetary Fund, 2024). All other statistics sourced from the World Bank Open Data portal (World Bank, 2024c). Data presented for the latest year available.

Climate change projections and impacts

Climate impacts for Kenya, Tanzania and Uganda are numerous and are already being experienced across the region, affecting livelihoods, public infrastructure, transport, energy, human health and ecosystems, with implications for food security, poverty, inequality and gender equality. Mean annual temperatures in the East Africa region increased by 0.7-1°C between 1973 and 2013 and are projected to increase by 1.7-3.9°C by 2080 relative to pre-industrial times depending on the emissions scenario (GIZ, 2023). A shared characteristic among the countries is the predominance of the agricultural sector and a high dependence on climate-sensitive natural resources for livelihoods. In particular, the pastoral, agropastoral and agricultural livelihoods in the region depend to a large extent on predictable and timely rainy seasons. Increased temperatures and projected changes in precipitation including increased variability in rainfall and more extreme rainfall present an ongoing threat to these livelihoods (Richardson et al., 2022).

Climate-related disasters such as droughts and floods have already seen a notable increase, with a prolonged drought across large swathes of Somalia, Ethiopia and Kenya, leading to food insecurity, malnutrition, displacement and loss of lives (World Health Organization, 2024).

Kenya

The annual mean temperature in Kenya has increased by approximately 1.0°C since the 1960s, most significantly in the arid and semi-arid areas of the country (The World Bank Group, 2021b). Main projected climate changes include continued temperature rise, increased annual and seasonal rainfall in some areas, an increase in the frequency, duration and intensity of heavy rainfall events and sea level rise (Richardson et al., 2022).

Droughts and floods are the primary climate hazards and have already had widespread socioeconomic impacts, exacerbated by non-climatic factors such as land use changes and urbanisation. These hazards are a major concern for the

agricultural sector, which is highly susceptible to changes in rainfall, with impacts on livestock, fisheries and yields of staple crops. The arid and semi-arid areas that make up much of the country's area are particularly at risk from droughts.

Sea level rise is already affecting coastal communities and is projected to lead to coastal erosion and wetland loss (Ministry of Environment and Forestry, 2020). Rising temperatures have led to coral bleaching and mortality, as well as negative impacts on coral reef systems and the abundance and composition of fish species (ibid.). Some areas in Kenya already face challenges in water availability, and this is projected to increase with increases in drought conditions and supply and salinisation problems due to sea level rise combined with non-climatic factors including population growth and deforestation.

Main health impacts include increased incidence of some vector-borne, waterborne and food-borne diseases, heat stress, food insecurity and risks from climatic events such as floods.

Tanzania

Tanzania is already experiencing increased seasonal variation in rainfall and there has been a significant increasing trend in the average maximum temperature of around 1°C since 1961 (The United Republic of Tanzania, 2021). Climate projections include continued future warming, an increase in annual rainfall in some areas, increased variability in seasonal rainfall amounts and timings, more frequent and intense heavy rainfall events and sea level rise (Richardson et al., 2022).

Many key sectors of the Tanzanian economy such as agriculture, tourism, fishing and livestock are extremely climate sensitive. Agriculture is dominated by rainfed, smallholder farms which are highly susceptible to climate variability. Higher temperatures, longer dry spells and more frequent and intense high rainfall events as well as increased climatic variability are expected to alter the distribution of Tanzania's agroecological zones, reduce the length of growing seasons and lead to declines in crop and livestock production, including for important crops such as maize, rice, sorghum and rice, which has significant implications for livelihoods, health and food security. Similarly, coastal and inland fisheries are threatened by warming ocean and freshwater temperatures.

While there may be water scarcity in some areas, there is projected flooding and sedimentation in others. Already one of the most flood-affected countries in East Africa, heavy rainfall events and sea level rise are likely to cause impacts on key services such as energy, water and transportation, as well as infrastructure, ecosystems and human populations. Impacts on human health include an increase in water and vector-borne diseases and flood-related incidents such as drowning.

Uganda

Uganda has experienced an average temperature increase of 1.3°C since the 1960s as well as an increase in the frequency of hot days and nights (World Bank, 2021). This temperature rise is expected to continue under all emissions scenarios. There

has been a decreasing trend in annual and seasonal rainfall in recent decades though future rainfall projections are uncertain with increases in some areas and decreases in others. However, there is expected to be an increase in heavy precipitation events with associated risks of landslides and flooding.

Uganda already experiences extreme weather events such as landslides and flooding, and these have increased over the last 30 years with impacts on infrastructure, human health, livelihoods and food security (World Bank, 2021). The risk and intensity of flooding is projected to increase, while there is also an increased likelihood of drought stress and water scarcity in some areas. Impacts are exacerbated by non-climatic stressors such as high urbanisation, land degradation, poverty and development of industry placing leading to pressure on natural resources (World Bank, 2021). The agricultural sector, a significant part of Uganda's economy, is highly vulnerable to climate change. Increased temperatures leading to increased aridity and the severity of the dry seasons will affect the areas suitable for agriculture, growing seasons and yield potential. The increasing frequency of extreme events such as floods and droughts can impact agricultural lands, cause soil erosion and land degradation with impacts on agricultural production. As a result, yields of maize, millet and sorghum are projected to decline.

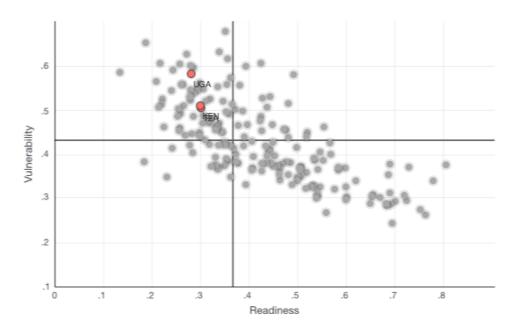
Health impacts are expected to arise from events such as heatwaves, flood and droughts, as well as increased risk of malnutrition and hunger. Flooding, temperature increases and increases in precipitation can lengthen transmission periods and shift the geographic ranges of vector-borne diseases, leading to increases in the risk of diseases such as malaria.

Climate change vulnerability and readiness

The ND-GAIN index shows that Kenya, Tanzania and Uganda are highly vulnerable to climate change and among the countries least well-prepared to address its impacts. Falling in the upper-left quadrant of the ND-Gain matrix (see Figure 2), these countries are described as those with 'a high level of vulnerability to climate change but a low level of readiness. These countries have both a great need for investment and innovation to improve readiness and a great urgency for adaptation action' (Notre Dame Global Adaptation Initiative, 2023: 12). Based on ND-GAIN vulnerability and readiness scores (see Table 3) the countries are ranked on the ND-GAIN index as follows:

- Kenya is ranked 150 out of 185 nations. Kenya is the 41st most vulnerable country with a vulnerability score of 0.510 and the 40th least ready country with a readiness score of 0.302.
- Tanzania is ranked 145 out of 185 nations. Tanzania is the 45th most vulnerable country with a vulnerability score of 0.504 and the 42nd least ready country with a readiness score of 0.305.
- Uganda is ranked 173 out of 185 nations. Uganda is the 14th most vulnerable country with a vulnerability score of 0.581 and the 30th least ready country with a readiness score of 0.284.

Figure 2. ND-Gain index vulnerability and readiness scores for Kenya, Tanzania and Uganda, shown alongside all countries



Source: Notre Dame Global Adaptation Initiative (2024b). Data displayed for 2021.

Table 3. ND-GAIN index vulnerability and readiness scores for Kenya, Tanzania and Uganda

	ND-GAIN vulnerability score (lower scores better)	ND-GAIN readiness score (higher scores better)	Overall ND-GAIN ranking (of 185 countries)
Kenya	0.510	0.302	150
Tanzania	0.504	0.305	145
Uganda	0.581	0.284	173

Source: Notre Dame Global Adaptation Initiative (2024a). Data displayed for 2021. The vulnerability component is assessed based on exposure, sensitivity and adaptive capacity across various sectors. The readiness component encompasses social, economic and governance indicators to assess a country's readiness to deploy private and public investments for adaptation, with scores from 0 (low readiness) to 1 (high readiness). These scores are combined for an overall ND-GAIN ranking.

Specified financial needs for climate action

On a global level, adaptation costs and needs are rising and are 10-18 times greater than current international adaptation finance flows, leading to a widening adaptation finance gap (UNEP, 2023b). The latest NDC submissions of Kenya, Tanzania and Uganda provide information on the financial needs required to meet the countries' respective Paris Agreement pledges (see Table 4). Kenya and Uganda include quantitative estimates of financial costs/needs for adaptation and mitigation, broken down into an unconditional element which will be met by the countries themselves and conditional element which depends on international support from a range of sources including international public finance. Tanzania does not provide this level of detail.

Kenya's most recent NDC update in 2020 demonstrated an increase in climate mitigation ambition, with an emission reduction target of 32% by 2030 compared to the Business as Usual (BAU), marking an increase from its initial commitment of 20% in 2015. Likewise, the estimated financial need for implementation of its NDC actions increased significantly from USD 40 billion to around USD 62 billion in total, of which USD 43.93 billion is for adaptation and USD 17.73 billion is for mitigation. The majority of this is conditional, with 90% of the adaptation cost (39.53 billion) and 79% of the mitigation cost (14.00 billion) dependent on international support (Ministry of Environment and Forestry, 2020).

Uganda submitted its updated NDC in 2022. The cost of implementation for the NDC is UDS 28.1 billion in total of which USD 10.3 billion is for mitigation and USD 17.7 billion is for adaptation. Again, much of this financial need is conditional on international support (85% or USD 8.7 billion for mitigation and 86% or USD 15.2 billion for adaptation) (Ministry of Water and Environment, 2022).

Tanzania's 2021 NDC estimated its total climate finance needs at USD 19.23 billion. Tanzania does not provide a breakdown of financial need by objective nor whether finance is conditional or unconditional, though states that 'NDC implementation depends largely on support from the international community' (The United Republic of Tanzania, 2021: 25).

The financial needs of Kenya are significantly higher than Uganda and Tanzania. The amount of adaptation finance need estimated varies due to the size of a country's economy as well as the methodology employed in identifying and quantifying needs (UNEP, 2023b). However, without methodological information it is impossible to identify the assumptions, prioritisation and choices that have resulted in such a difference. Furthermore, adaptation needs may be underestimated due to a lack of data and technical expertise and uncertainty in future emissions.

None of the countries provides estimates of costs per sector in their NDCs, though Kenya does so in the National Adaptation Plan. In aggregated analysis, the United Nations Environment Programme (UNEP) identifies the highest finance needs in the sub-Saharan Africa region are required by the infrastructure and settlement sector (24% of the total), followed by agriculture (21% of the total) and water (17% of the total) (UNEP, 2023b).

Table 4. Summary of specified financial needs for Kenya, Tanzania and Uganda

	Mitigation pledge	NDC implementation	Specified financial needs (USD millions)			
	wittigation pleage	period	Total	Mitigation	Adaptation	
Kenya	Type: Relative emission reduction Target: 32% Baseline: BAU Target year: 2030	2021-2030	61,625	17,725 3,725 unconditional 14,000 conditional	43,927 4,393 unconditional 39,534 conditional	
Tanzania	Type: Relative emission reduction Target: 30-35% Baseline: BAU Target year: 2030	By 2030	19,232	N/A	N/A	
Uganda	Type: Relative emission reduction Target: 24.7% (5.9% unconditional, 18.8% conditional) Baseline: BAU Target year: 2030	2021-2030	28,100	10,300 1,600 unconditional 8,700 conditional	17,700 2,500 unconditional 15,200 conditional	

Source: Kenya's Updated Nationally Determined Contribution (Ministry of Environment and Forestry, 2020), Tanzania's Nationally Determined Contribution (The United Republic of Tanzania Vice President's Office, 2021) and Uganda's Updated Nationally Determined Contribution (Ministry of Water and Environment, 2022).

Climate change and gender

The Sixth Assessment Report from the Intergovernmental Panel on Climate Change (IPCC) states that vulnerability to climate change is exacerbated by marginalisation and inequities linked to gender as well as other intersecting socioeconomic factors such as ethnicity and poverty (IPCC, 2023). In East Africa, as in other regions of the world, gender-based norms mean that women often take on the largest share of unpaid domestic, care and reproductive work. They are often the primary providers of fuel, water and food and are more likely to be dependent on climate-sensitive natural resources for their food and income (Office of the United Nations High Commissioner for Human Rights and UNEP, 2022). Climate change can also exacerbate existing social inequalities, as women bear the burden of care during floods or storms, for example. Research has shown that gender roles and the burden of care shifted during the drought situation in Marsabit, Kenya, with more women taking on care and domestic work (Concern and Plan International, 2022). Social, economic and political norms and practices also limit access to resources and rights to education, employment, land and

income which in turn limit women's ability to adapt and cope with the impacts of climate change. In sub-Saharan Africa, the disproportionate impacts of climate change exist across agricultural production, food and nutrition security, health, water and energy, climate-related disaster, migration and conflict (Awiti, 2022).

Participation in climate action and decision-making processes is also often differentiated based on gender. Women may be prevented from fully participating in climate-related planning, policy making and implementation due to inequitable distribution of rights, resources, education and training, as well as embedded gender norms and decision-making powers. Thus, while women may have extensive knowledge on local circumstances and experiences of climate change, this is often neglected in decision-making processes (UNFCCC, 2019) resulting in policies that do not adequately address their needs and priorities.

The Gender Action Plan (GAP), which will be reviewed at COP29 in November 2024, is the main entry point for advancing gender-responsive climate action for the implementing of the Paris Agreement.

CLIMATE CHANGE AND CLIMATE FINANCE GOVERNANCE IN KENYA, TANZANIA AND UGANDA

Kenya, Tanzania and Uganda have committed globally to key international agreements on climate change including the UNFCCC and Paris Agreement and have submitted NDCs under the latter. At both the national and regional level in East Africa, policies, laws, regulations and strategies have also been developed to implement these agreements, direct adaptation and mitigation efforts and mobilise climate finance. This section provides an overview for the East African Community (EAC) and at the national level for Kenya, Uganda and Tanzania.

Climate change governance in the East African Community

At the regional level, the EAC, a regional intergovernmental organisation of which Kenya, Tanzania and Uganda are members, has agreed to a series of policies, strategies and institutional frameworks to address the impacts of climate change and facilitate access to and mobilisation of climate finance for adaptation and mitigation within the region. The following are the most relevant climate change EAC policies, plans and strategies.

• EAC Climate Change Policy (2011) aims 'to contribute to sustainable development in the EAC region through harmonised and coordinated regional strategies, programmes and actions to respond to climate change' (East African Community, 2011b: 9). The policy objectives are to establish a regional framework for harmonising and coordinating climate change initiatives among partner states, identifying priority adaptation and mitigation actions, promoting public awareness, fostering capacity-building efforts, advancing climate change research, integrating climate change into regional development

- processes, and facilitating resource mobilisation for implementing the regional climate change response framework (East African Community, 2011b).
- EAC Climate Change Master Plan (2011-2031) provides a long-term vision and basis for operationalising the EAC Climate Change Policy (East African Community, 2011a).
- EAC Climate Finance Access and Mobilisation Strategy for the East African Community (2022/23-2031/32) sets out a strategic framework that seeks to assist the EAC in effectively mobilising, accessing, utilising and scaling up climate finance to contribute to the achievement of climate change goals and a low-emission development pathway (UNFCCC, 2022). The Strategy was prepared under the Needs-based Finance Project⁶ and based on a technical assessment of the priorities, needs and barriers to climate finance for partner states (UNFCCC, 2021b).

Institutionally, the Climate Change Coordination Unit and the Climate Change Technical Working Group operate under the EAC Secretariat and are responsible for coordinating climate change initiatives within the EAC. The Climate Change Coordination Unit collaborates with internal and external climate units and institutions across partner states, focusing on providing technical guidance for climate change projects and programmes.

Climate change governance in Kenya

Kenya was among the first countries to develop comprehensive policy, strategic and institutional frameworks to steer climate change adaptation and mitigation efforts and to mobilise climate finance both domestically and internationally. The following are some of the frameworks Kenya has put in place for climate change.

- National Climate Change Response Strategy (2010) is the first national climate change-related policy document, aimed at advancing the integration of climate change adaptation and mitigation into government planning, budgeting and development objectives. It identifies climate funds but lacks recommendations for Kenya to access them and focuses more on financing mitigation efforts like carbon finance, neglecting adaptation strategies (Government of Kenya, 2010).
- Climate Change Act (2016) provides the regulatory framework for climate change responses, seeking to mainstream these into development planning, decision-making and implementation across all sectors of the economy at national and county levels. It seeks to foster co-operation in governance between national and county governments and sets out the establishment of the Climate Change Fund (Climate Change Act, 2016).
- **Kenya's Vision 2030** is the national development blueprint outlining flagship programmes and projects with an aspect of adaptation and mitigation (Republic of Kenya, 2022a).
- National Climate Change Action Plan (I) (2013-2017) establishes Kenya's baseline emissions projections and developed a low-carbon, climate-resilient

⁶ https://unfccc.int/NBF-Project

- development pathway for the country, outlining priority adaptations and mitigation actions (Republic of Kenya, 2013).
- National Climate Change Action Plan II (2018-2022) intends to build on the
 earlier climate action plan objectives and introduced a series of actions to meet
 Kenya's NDC, with a particular focus on adaptation (Republic of Kenya, 2018).
- National Adaptation Plan (2015-2030) presents a vulnerability analysis and proposes macro-level adaptation actions and sub-actions across sectors with indicators. The plan also elaborates institutional arrangements (Republic of Kenya, 2016a).
- Green Economy Strategy and Implementation Plan (2016-2030) promotes a globally competitive low-carbon development path by prioritising economic resilience, resource efficiency and sustainable natural resource management. It focuses on developing sustainable infrastructure and fostering social inclusion (Government of Kenya, 2016).
- Draft Green Fiscal Incentives Framework (2022) outlines fiscal and economic mechanisms for a low-carbon, climate-resilient green development pathway in Kenya and additionally outlines how ministries, departments and agencies can mobilise climate finance from private, public, multilateral, bilateral and philanthropic sources (Republic of Kenya, 2022a).

In addition, Kenya has in place sector-based plans, policies and strategies such as the Kenya Climate Smart Agriculture Strategy (2017-2026).

In terms of institutional arrangements, the Climate Change Act establishes the National Climate Change Council as an unincorporated body chaired by the President. The council is tasked with approval and implementation of the National Climate Action Plan. Additionally, the act establishes the Climate Change Directorate which acts as the secretariat of the National Climate Change Council and serves as the government's lead agency for national climate change plans and actions, coordinating operations, providing technical support and facilitating national and international reporting requirements. Climate change units are established in all ministries, departments and agencies to mainstream climate change.

Additionally, the act mandates Kenya's 47 county governments to mainstream the National Climate Change Action plan into planning processes and the development of the County Integrated Development Plans and County Sector Plans. It also requires the appointment of a County Executive Committee Member to coordinate climate initiatives.

Climate finance access and mobilisation in Kenya

Kenya has a well-established framework for climate finance access and mobilisation. The National Policy on Climate Finance (2016) seeks to improve Kenya's ability to access, mobilise, manage, monitor and report on climate finance and sets out how national and county governments will deliver on the climate finance aspects outlined in both the Climate Change Act and international obligations including the NDC (Republic of Kenya, 2016b).

The Climate Change Act establishes the Climate Change Fund which is held by the National Treasury and receives funds from various sources, including appropriations from the Consolidated Fund through parliamentary acts, donations, grants, gifts and monies designated to the fund by other legislative acts (Climate Change Act, 2016). The fund is administered by the National Climate Change Council and managed by the Principal Secretary in the Ministry of Environment, Climate Change and Forestry. It will ultimately provide direct financial support to county governments, organisations and communities to implement climate change actions and interventions.

The County Climate Change Fund (CCCF) mechanism aims to allow counties to access and use climate finance and enhance public participation in management and use of this finance. The funds are managed at the discretion of the county government and are established to support operational costs and fund investments at the county and ward level. Launched in 2011 as a pilot programme in five counties, the funds are capitalised from a variety of sources, including county budgets, the National Climate Change Fund, multilateral funds and bilateral donors. Under the funds, there are county and ward county climate change planning committees that conduct participatory assessments to evaluate a community's resilience to current climate hazards and future climate change and engage communities in planning and prioritisation of investments (CIF, 2024).

The CCCF mechanism is being scaled up by the Financing Locally-Led Climate Action (FLLoCA) programme, implemented by the national government in collaboration with county governments and with support from the WB. With funding of USD 171.40 million, the five-year programme seeks to strengthen local resilience to the impacts of climate change by enabling counties to plan, implement and monitor adaptation actions in partnership with communities.

Through the National Treasury's Climate Finance and Green Economy unit and the FLLoCA programme, Kenya is in the process of developing a Climate Finance Mobilisation Strategy. The strategy will serve as a framework for implementing the National Policy on Climate Finance, aligning with key national and regional climate action plans and strategies such as the updated NDC, National Climate Change Action Plan III and the EAC's Climate Finance Access and Mobilisation Strategy (2022/23-2031/32). Its overarching goal is to expedite access to public international climate finance, stimulate private sector involvement in climate finance, increase domestic investment in climate projects, deploy innovative financing instruments, and foster coordinated and sustainable climate finance flows.

Additionally, the government of Kenya proposes to create a green investment bank to provide diverse funding options and incentives, addressing barriers to large-scale green investments. It will offer financial instruments such as credit guarantees, risk reduction facilities and support for innovative instruments like green bonds (Republic of Kenya, 2022b).

Climate change governance in Tanzania

Tanzania focuses on integrating climate change adaptation and mitigation into broader development plans and has prepared a National Climate Change Strategy, identifying priority areas for climate action. The following are some of Tanzania's key climate change policies, plans and strategies.

- National Environmental Management Act (2004) provides the legal and institutional framework for environmental management including climate change (Parliament of Tanzania, 2004).
- Tanzania Development Vision 2025 is the overall development framework that guides national level economic and social development efforts, including the National Adaptation Programme of Action and Five-Year Development Plan III. The main aim of the vision is to move Tanzania from a least developed to a middle-income country. Though with an emphasis on sustainable development, climate change is not identified as a priority policy (United Republic of Tanzania, 1999).
- National Adaptation Programme of Action (2007), the main strategic document of Tanzania's adaptation policy, was developed in 2007 as mandated by the UNFCCC. The plan maps key climate vulnerabilities across sectors and identifies immediate adaptation actions (United Republic of Tanzania, 2007).
- National Five-Year Development Plan III (2021/22-2025/26) marks the
 concluding plan for realising Tanzania's Development Vision 2025. Key
 interventions identified address both climate change mitigation and
 adaptation, and the plan identifies the need to build institutional capacity to
 access climate change funds including the establishment of a National Climate
 Change Financing Mechanism (United Republic of Tanzania, 2021c).
- National Climate Change Response Strategy (2021-2026) prioritises interventions for climate resilience and greenhouse gas (GHG) emissions reduction, focusing on opportunities like digital and blue economy initiatives, low emissions development and climate financing (United Republic of Tanzania, 2021a). The strategy is a revision of the National Climate Change Strategy (2012) that sought to identify measures to address climate change.
- National Environmental Policy (2021) creates a national framework for coordinated environmental management to improve the well-being of present and future generations, ensuring predictable and sustainable financial resources for environmental initiatives (United Republic of Tanzania, 2021b).
- National Environmental Master Plan for Strategic Interventions (2022) aims
 to guide strategic and coordinated environmental interventions by assessing
 and identifying priority focus areas and establishing options to address
 environmental challenges (United Republic of Tanzania, 2022).

Tanzania has also established sector plans such as the National REDD+ Strategy and Action Plan and the Agriculture Climate Resilience Plan.

The National Environmental Management Act underpins the institutional arrangements for the implementation of climate change initiatives in Tanzania. The Vice President's Office, and in particular the Division of Environment (DoE),

is responsible for monitoring and evaluating the overall implementation of Tanzania's climate change issues, including coordination and communication with the UNFCCC (Parliament of Tanzania, 2004).

Additionally, national committees have been established in coordination of the national climate change response. The National Climate Change Steering Committee and Zanzibar Climate Change Steering Committee guide the coordination and implementation of NDCs, offer policy guidance and seek to ensure cross-sectoral participation. The National Climate Change Steering Committee is chaired by the Permanent Secretary in the Vice President's Office and members are the Permanent Secretaries from relevant sector ministries. The National Climate Change Technical Committee and Zanzibar Climate Technical Committee provide technical advice, with their chair being the Director of the Environment in the Vice President's Office (United Republic of Tanzania, 2021a). At the subnational level, the President's Office-Regional Administration and Local Government (PO-RALG) is to coordinate with Local Government Authorities (LGAs) to mainstream the National Climate Change Response Strategy into planning processes (United Republic of Tanzania, 2021a).

Climate finance access and mobilisation in Tanzania

The framework for climate finance access and mobilisation is nascent in Tanzania and indeed the National Climate Change Response Strategy (2021-2026) identifies that access to available global funding has been limited. The strategy highlights several challenges related to this including inadequate frameworks and mechanisms in place to finance climate change, a lack of capacity of climate change focal points/desk within sector ministries, and the inadequate capacity of climate change stakeholders to develop viable financial proposals (United Republic of Tanzania, 2021a).

As of 2024, Tanzania lacks a strategy for mobilising climate finance at national and subnational levels. However, the National Climate Change Response Strategy (2021-2026) outlines actions to be taken to strengthen national capacity related to climate change finance, including establishing a tracking system for domestic and international climate finance flows and enhancing the capacity of sector ministries, local government authorities, the private sector and civil society organisations to develop fundable projects. It proposes the establishment and operationalisation of the Climate Change Budget Code and National Climate Change Financing Mechanism. The strategy also notes the need to facilitate accreditation of institutions to access finance from facilities such as the GCF (United Republic of Tanzania, 2021a).

In 2019, the PO-RALG launched the Local Climate Finance Initiative (LCFI) in partnership with the United Nations Capital Development Fund (UNCDF) and the International Institute for Environment and Development (IIED). The main objectives of the initiative are to enhance the capacity of PO-RALG and LGAs to respond to climate change, integrate climate change into LGA planning and financial systems and increase the climate finance available to LGAs.

Embedded in the LCFI, the Local Climate Adaptive Living Facility (LoCAL) has also been initiated in Tanzania to support the government to integrate climate adaptation into local government's planning and budgeting and implement a decentralised climate finance programme that brings adaptation funding to local communities (UNCDF, 2018). In a methodology designed by the UNCDF, who have initiated the mechanism in 32 countries across Africa and Asia, the facility seeks to channel international climate finance to local governments through performance-based climate resilience grants (PBCRG). The mechanism is currently being piloted in the districts of Chamwino, Mpwapwa and Kondoa, providing support to identify priority adaptation measures to be financed with PBCRGs (UNCDF, 2024)

Climate change governance in Uganda

Uganda has established a framework to address climate change, incorporating numerous policies, strategies and plans to ensure a low-emission and climateresilient future. The following are some of the key strategies and plans.

- Uganda Vision 2040 outlines development objectives for Uganda, emphasising the importance of development adaptation and mitigation strategies across sectors, policies, organisational structures and building capacity (Uganda National Planning Authority, 2018).
- Third National Development Plan III (2020/21- 2024/25) includes focus on natural resources, environment, climate change, land and water management and recognises the importance of addressing climate-related disasters by promoting inclusive, climate-resilient and low-emissions development (Republic of Uganda, 2020).
- National Climate Change Act (2021) governs the national response to climate change and enforces international climate agreements in Uganda. The act, among other provisions, provides the institutional arrangements for activities related to climate change and mandates the creation of a Framework Strategy on Climate Change and a National Climate Change Action Plan as well as District Climate Action Plans by each district in Uganda. In addition, the act outlines arrangements for climate change financing (Republic of Uganda, 2021a).
- National Climate Change Policy (2015) aims to ensure a harmonised and coordinated approach toward climate-resilience and low-carbon development. The main objective of the policy is to ensure that stakeholders address climate change impacts and their causes through appropriate measures while promoting sustainable development and a green economy. The policy further aims to facilitate the mobilisation of financial resources to address climate change in Uganda, stipulating that 70% of climate finance will be sourced externally while 30% will be sourced domestically (Republic of Uganda, 2015).

Uganda also has several sector-relevant plans such as the National REED+ Strategy and Action Plan, the National Biodiversity Strategy and Action Plan II 2015-2025), the Climate Smart Agricultural Programme (2015-2025), the Forest Investment Plan (2017) and the National Adaptation Plan for Agriculture (2018).

The Ministry of Water and Environment, specifically the Climate Change Department, manages and coordinates the nation's climate change efforts. It ensures compliance with international climate agreements and can introduce further regulations on climate mechanisms and private entity roles, as authorised by the National Climate Change Act of 2021. The ministry leads the National Climate Change Advisory Committee, which provides independent technical advice on climate change to key governmental bodies and clarifies the responsibilities of district and local governments.

Established in 2019, the Parliamentary Standing Committee on Climate Change reviews climate change bills and collaborates with various stakeholders to guide national climate action strategies. In addition, the Policy Committee on Environment advises the Climate Change Department and lead agencies on implementing the Climate Change Act and the National Climate Change Policy. The Parliamentary Forum on Climate Change - Uganda was established in 2018 and seeks to foster collaboration among parliamentarians, policy makers, academia and civil society, strengthen parliamentary advocacy for climate resilience, promote inclusive climate laws, and facilitate stakeholder dialogue in Uganda (Parliamentary Forum on Climate Change-Uganda, 2024).

At the district level, climate change management falls under the Natural Resources Department and the District Environment and Natural Resources Committee for each district. The Climate Change Act (2021) mandates the development of District Climate Change Action Plans. Each district can tailor its action plan to local needs, ensuring alignment with the national climate strategy and action plan. The committee for each district is responsible for integrating climate change into development plans and projects and monitoring and coordinating climate change activities within the district. Lower local government committees act at the municipal, town, division, county, sub-county, parish and village level to implement the District Climate Change Action Plans, embedding climate action into the governance structure across all levels of local government.

Climate finance access and mobilisation in Uganda

The National Climate Change Act (2021) obligates the Minister of Finance and Minister of Water and Environment to provide for climate change finance and establish regulations setting out procedures for accessing financing (Republic of Uganda, 2021b). Further, the Public Finance Management Act of 2015 requires the Budget Framework Paper, the government's overall strategy document for the budget, to be climate change responsive with adequate allocation for funding climate change measures and actions (Republic of Uganda, 2021b).

Despite having a comprehensive policy, legal and institutional framework for climate adaptation and mitigation, Uganda lacks a specific strategy for mobilising climate finance at both national and district levels. However, in 2023, the government of Uganda set up the Climate Finance Unit (CFU) under the Ministry

of Finance, Planning and Economic Development (MoFPED). The unit seeks to mobilise both international and domestic climate finance, ensure efficient utilisation of climate finance, and build the capacity of ministries, agencies, civil society organisations the private sector to access and manage climate finance. This involves establishing institutional frameworks, mechanisms and tracking tools. The CFU also seeks to enhance the capacity of the MoFPED as National Designated Authority to the Green Climate Fund (GCF). The creation of a National Climate Finance Strategy is an objective of the recently formed CFU, and it has also focussed on developing and operationalising a climate budget tracking tool (United Kingdom Foreign, 2023).

The UNCDF LoCAL mechanism is currently being piloted in four districts in Uganda (Kasese, Nwoya, Nebbi and Zombo) with mobilisation of EURO 6.4 million from the Federal Government of Belgium and co-financing of up to USD 1 million from the Federal Government of Uganda. Adaptation measures have also been identified with the intention of implementing PBCRG (UNCDF, 2024).

Comparative analysis of Kenya, Tanzania and Uganda

Table 5 provides a comparative analysis of the policies, regulations and strategies that have been developed in order to direct adaptation and mitigation efforts and mobilise finance for climate change in Kenya, Uganda and Tanzania.

Table 5. Policies, regulations and strategies for climate change in Kenya, Uganda and Tanzania

	Kenya	Tanzania	Uganda
Policy, regulatory and strategic framework for climate change	Kenya has established a robust climate policy and regulatory framework, starting with the Climate Change Act of 2016. The country's long-term development agenda is integrated into Vision 2030, which incorporates adaptation and mitigation strategies. The National Climate Change Action Plans outline emissions reduction and resilience pathways, while the National Adaptation Plan focuses on addressing vulnerability.	The National Environmental Management Act of 2004 provides the legal framework for environmental management, including climate change, in Tanzania. The National Adaptation Programme of Action (2007) identifies priority adaptation areas and the National Climate Change Response Strategy (2021-2026) outlines both mitigation and adaptation interventions. Tanzania also focuses on integrating climate change adaptation and mitigation into broader development plans, such as the Five-Year Development Plan III.	Uganda's climate change response is grounded in the Climate Change Act of 2021, which sets out the legal and institutional framework for climate action. The Act mandates national and district-level climate action plans. Vision 2040 and the Third National Development Plan III also guide climate actions.
Institutional arrangements for climate change	Kenya has institutionalised climate governance through the National Climate Change Council, which is responsible for overseeing the implementation of national	The institutional framework in Tanzania emphasises cross-sectoral participation and the engagement of local government authorities in implementing climate strategies.	Uganda's Ministry of Water and Environment, through the Climate Change Department, manages climate governance at the national level. It coordinates climate action, while the

Kenya Tanzania Uganda

policies, demonstrating a strong political commitment to climate action. Further, the Climate Change Directorate serves as the central coordinating body. Each county is mandated to integrate climate actions within their planning processes and development plans. This structure facilitates the integration of climate change actions across different levels of governance (national and county) and sectors.

The National Environmental Management Act underpins the institutional arrangements for climate change in Tanzania. The Vice President's Office, particularly through the Division of Environment, is responsible for monitoring and evaluating the overall implementation of Tanzania's climate change response. The National and Zanzibar Climate Change Steering Committees coordinate responses at the national level, offer policy guidance and seeking to ensure crosssectoral participation. The National and Zanzibar Climate Technical Committees provide technical input. At the subnational level, LGAs are tasked with mainstreaming climate change strategies in their planning processes.

National Climate Change Advisory Committee provides technical advice. At the district level, climate change management is overseen by the Natural Resources Department and the District Environment and Natural Resources Committee in each district. These committees are tasked with integrating climate change into local development plans and projects, as well as coordinating and monitoring climate-related activities within the district. The Climate Change Act (2021) also mandates the creation of District Climate Change Action Plans.

Climate finance access and mobilisation Kenya's climate finance framework is well-established, anchored in the National Policy on Climate Finance of 2016, which seeks to further access to, mobilise and manage climate finance. The country's Climate Change Fund plays a key role, providing resources for various initiatives. County governments also benefit from the County Climate Change Fund (CCCF), which supports local climate actions. Furthermore, Kenya is developing a Climate Finance Mobilisation Strategy to further enhance access to both international and domestic finance. Additionally, the government plans to establish a green investment bank to support large-scale green investments with financial instruments like green bonds. These mechanisms facilitate the mobilisation of resources from both domestic and international sources.

Tanzania does not have a climate finance mobilising strategy or plan. The National Climate Change Response Strategy identifies challenges in accessing and mobilising climate finance such as limited capacity. To address this, Tanzania aims to strengthen institutional capacity and establish a National Climate Change Financing Mechanism.

The National Climate Change Act of 2021 mandates the Minister of Finance and Minister of Water and Environment to mobilise climate finance. Uganda has also recently established a Climate Finance Unit (CFU) under the Ministry of Finance to enhance its capacity to mobilise climate finance. Uganda lacks a climate finance mobilisation strategy at the national and district level; however, the newly established CFU is tasked with developing such a strategy.

	Kenya	Tanzania	Uganda
Climate finance at the local level	The Constitution of Kenya, 2010 establishes a devolved governance system in Kenya. At the county level, County Climate Change Funds have been piloted. Managed at the discretion of the county government, the funds aim to allow counties to access and use climate finance and enhance participation. They are capitalised from a variety of sources, including county budgets, the National Climate Change Fund and domestic and international partners. The Financing Locally-Led Climate Action (FLLoCA) programme is working to scale up these county-level funds and aims to strengthen county government capacity to manage and deliver locally-led climate interventions.	In Tanzania the Local Climate Finance Initiative was initiated in 2019 by PO-RALG, the UNCDF and the IIED. The initiative aims to strengthen local government authorities' capacity to address climate change, incorporate climate change into local level planning and financial systems, and increase the availability of climate finance available to LGAs. The Local Climate Adaptive Living Facility is also being piloted in several districts. The mechanism seeks to channel international climate finance to local governments through performance-based climate resilience grants, providing support to identify priority adaptation measures to be implemented with PBCRG.	There is no specific climate fund established and manned at the district level, apart from the implementation of action plans. However, Uganda is piloting the LoCAL mechanism in four districts, with PBCRG to support local climate adaptation efforts.

Source: Authors' own.

ANALYSIS OF CLIMATE FINANCE FOR KENYA, TANZANIA AND UGANDA

This chapter provides analysis of international public climate finance to Tanzania, Kenya and Uganda that has been committed bilaterally by developed countries and multilaterally by MDBs, climate change funds and other multilateral institutions and as reported to the OECD DAC CRS between 2015 and 2022.

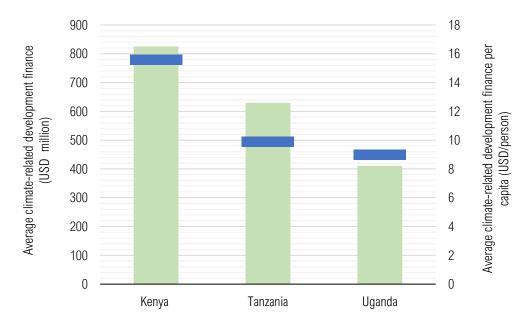
Quantity of total climate finance

Total and per capita international public climate finance

In the eight-year period until 2022, total international public climate-related development finance commitments from bilateral and multilateral providers to Kenya, Tanzania and Uganda were USD 14.93 billion, equivalent to an average of USD 1.87 billion per year. In absolute terms, the climate-related development finance committed from bilateral and multilateral providers to Kenya (USD 6.60 billion total; USD 825 million average per year) was significantly higher than for both Tanzania (USD 5.03 billion total; USD 629 million average per year) and Uganda (USD 3.29 billion total; USD 411 million average per year) over the eight-year period. Likewise, when considering per capita climate-related development finance committed, Tanzania and Uganda receive only around two-thirds the

amount that is reported for Kenya on average over the eight-year period, as shown in Figure 3.

Figure 3. Total average climate-related development finance commitments (green bars – left axis) and per capita climate-related development finance commitments (blue marks – right axis) to Kenya, Tanzania and Uganda



Source: Authors' own calculations based on the climate-related development finance dataset of the OECD DAC CRS (OECD, n.d.-b). Data shown is an average for the period 2015-2022 from bilateral and multilateral donors.

The flow of climate-related development finance has broadly risen over the period from a total of USD 1.16 billion in 2015 to USD 3.47 billion in 2022 though there has been annual variation, with a significant decrease from 2020 to 2021 seen for both Kenya and Uganda. There can be considerable variation in climate finance due to the influence of changes in methodologies used by providers in reporting and the commitments of large individual projects. The trend of increasing finance between 2017 and 2020 followed by a decrease in commitments from 2020 to 2021 has also been seen globally (UNEP, 2023b). In 2021, for the first time since 2015 climate-related development finance committed to Tanzania (USD 779 million) was higher than Kenya (USD 694 million). This continued into 2022, when commitments of climate-related development finance to both Tanzania (USD 1.53 billion) and Uganda (USD 1.06 million) were higher than for Kenya (USD 875 million).

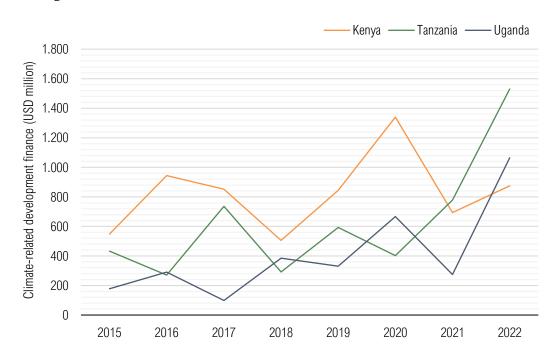


Figure 4. Climate-related development finance committed to Kenya, Tanzania and Uganda

Source: Authors' own calculations based on the climate-related development finance dataset of the OECD DAC CRS (OECD, n.d.-b). Data shown from bilateral and multilateral donors.

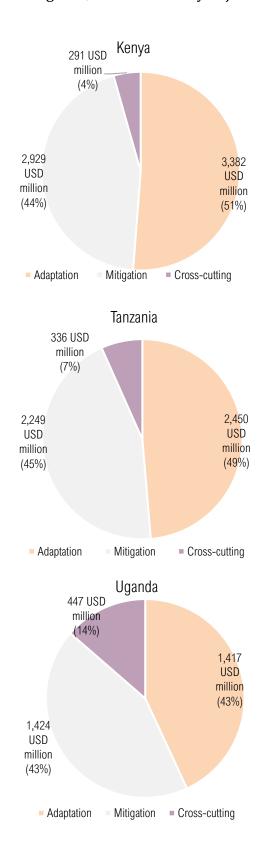
Balance between mitigation and adaptation finance

Over the eight-year period the climate-related development finance commitments to Kenya were slightly greater for adaptation (USD 3.38 billion or 51% of total finance) than mitigation (USD 2.93 billion or 44% of total finance) with a small amount allocated to activities that addressed both adaptation and mitigation, known as cross-cutting activities (USD 291 million or 4% of total finance).

Likewise, the commitments to Tanzania were slightly higher for adaptation (USD 2.45 billion or 49% of total finance) than mitigation (USD 2.25 billion or 45% of total finance) though with a higher share allocated to cross-cutting activities (USD 336 million or 7% of total finance).

Of the climate-related development finance committed to Uganda, an almost equal share was directed toward adaptation (USD 1.42 billion or 43% of total finance) compared to mitigation (USD 1.42 billion or 43% of total finance). Uganda also sees the highest share of cross-cutting finance (USD 447 million or 14% of total finance) of the three countries.

Figure 5. Climate-related development finance committed to Kenya, Tanzania and Uganda, broken down by objective



Source: Authors' own calculations based on the climate-related development finance dataset of the OECD DAC CRS (OECD, n.d.-b). Data shown from bilateral and multilateral donors for the period 2015-2022.

There have, however, been fluctuations in the share of climate-related development finance attributed to adaptation over the period. Attributing 50% of cross-cutting finance to adaptation, Table 6 shows the adaptation share of climate-related development finance committed to the three countries for each year of the study. While the overall adaptation share over the period for Kenya is approximately equal at 53%, there have been significant variations year-on-year, with just 23% of finance directed toward adaptation in 2016 and shares below 50% reported for three of the eight years. Over the eight-year period, the share of the climate-related development finance committed to Tanzania directed to adaptation is 52%, though shares of below 50% are reported in five of the years, including in 2020 and 2021. The share of adaptation finance committed to Uganda remained high from 2017 to 2021, with a peak of 77%, but subsequently fell in 2022 to just 31%. The average adaptation share for Uganda over the eight-year period is the lowest of the three countries at 50%.

Table 6. Climate-related development finance committed to Kenya, Tanzania and Uganda, broken down by objective

Climate-related development finance (USD million)	2015	2016	2017	2018	2019	2020	2021	2022	2015-2022
Kenya									
Adaptation	309	200	428	303	350	1,015	296	481	3,382
Mitigation	182	701	395	185	469	315	380	302	2,929
Cross-cutting	57	43	29	18	25	10	18	92	291
Total	549	944	852	505	844	1,340	694	875	6,603
Adaptation share	62%	23%	52%	62%	43%	76%	44%	60%	53%
Tanzania									
Adaptation	169	123	289	117	390	175	330	857	2,450
Mitigation	230	116	417	167	182	214	354	569	2,249
Cross-cutting	33	31	30	8	20	14	95	104	336
Total	433	271	736	292	593	402	779	1,530	5,035
Adaptation share	43%	51%	41%	41%	67%	45%	48%	59%	52%
Uganda									
Adaptation	50	73	55	189	156	419	182	292	1,417
Mitigation	77	121	20	146	83	239	34	704	1,424
Cross-cutting	51	97	24	50	91	9	58	68	447
Total	178	291	99	385	331	666	274	1,065	3,287
Adaptation share	43%	42%	67%	56%	61%	64%	77%	31%	50%

Source: Authors' own calculations based on the climate-related development finance dataset of the OECD DAC CRS (OECD, n.d.-b). Data shown from bilateral and multilateral donors. Adaptation shares include 50% of cross-cutting finance.

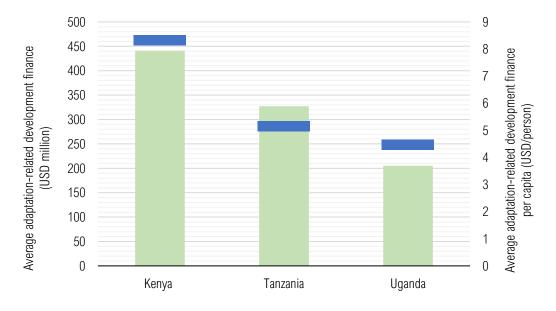
Trends in adaptation-related development finance committed to Kenya, Tanzania and Uganda

Total adaptation-related development finance

In the eight-year period, the total adaptation-related development finance (including 50% of cross-cutting finance) committed from bilateral and multilateral providers to Kenya, Tanzania and Uganda was USD 7.79 billion, equivalent to an average of USD 973 million per year. In absolute terms, the total adaptation-related development finance committed from bilateral and multilateral providers to Kenya (USD 3.53 billion or an average of USD 441 million per year) was significantly higher than for both Tanzania (USD 2.62 billion or an average of USD 327 million per year) and Uganda (USD 1.64 billion or an average of USD 205 million per year) over the eight-year period. Both Tanzania and Uganda also receive significantly less per-capita adaptation-related finance than is reported for Kenya on average over the eight-year period, as shown in Figure 6.

The flow of adaptation-related development finance has broadly risen over the period from USD 600 million in 2015 to USD 1.76 billion in 2022 though there has been annual variation, as shown in Figure 7. A large decrease is observed from 2020 to 2021 for both Kenya and Uganda followed by an increase, albeit to lower amounts than seen at the peak in 2020. The adaptation-related development finance committed to Tanzania fell from 2019 to 2020, but subsequently increased significantly in both 2021 and 2022, with a peak of USD 909 million in the latest year.

Figure 6. Total average adaptation-related development finance commitments (green bars – left axis) and per capita adaptation-related development finance commitments (blue marks – right axis) to Kenya, Tanzania and Uganda



Source: Authors' own calculations based on the climate-related development finance dataset of the OECD DAC CRS (OECD, n.d.-b). Data shown from bilateral and multilateral donors. Adaptation-related development finance includes 50% of cross-cutting finance.

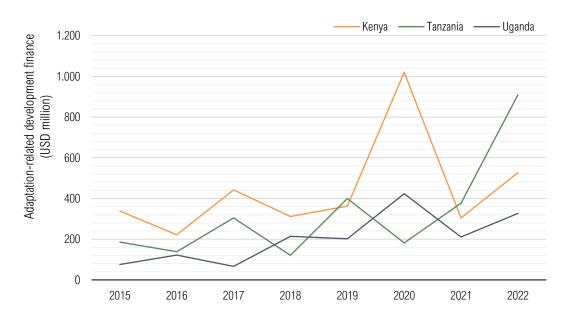


Figure 7. Adaptation-related development finance committed to Kenya, Tanzania and Uganda

Source: Authors' own calculations based on the climate-related development finance dataset of the OECD DAC CRS (OECD, n.d.-b). Data shown from bilateral and multilateral donors. Adaptation-related development finance includes 50% of cross-cutting finance.

Providers of adaptation-related development finance

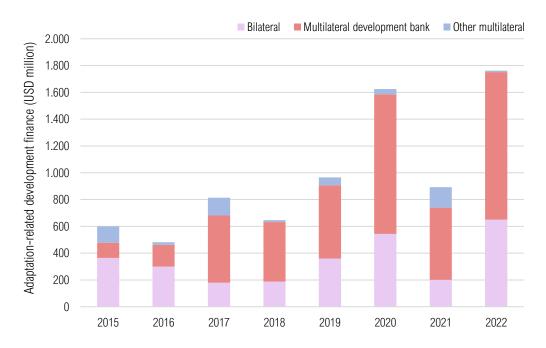
The providers of adaptation-related development finance to Kenya, Tanzania and Uganda as reported to the OECD DAC are bilateral donors, MDBs and other multilateral institutions such as the International Fund for Agricultural Development (IFAD), the GCF and the Adaptation Fund.

Over the eight-year period, the MDBs are the largest provider of adaptation-related development finance, accounting for approximately 57% (USD 4.45 billion) of total commitments. The financial commitments of MDBs have largely increased over the period and have remained high since 2017 notwithstanding a significant decrease from a peak of USD 1.04 billion in 2020 to USD 538 million in 2021, before subsequently increasing again to USD 1.10 billion in 2022.

Bilateral providers account for 36% (USD 2.78 billion) of the total adaptation-related development finance commitments to Kenya, Tanzania and Uganda over the eight-year period. The commitments of the bilateral providers reached a peak of USD 543 million in 2020, though subsequently fell to USD 201 million in 2021, before increasing significantly to USD 650 million in 2022.

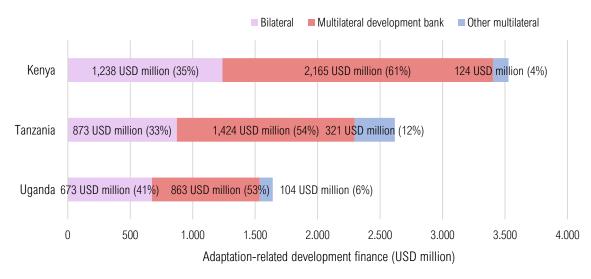
The commitments of the other multilateral providers including the main climate funds remain low throughout the period relative to the MDBs and bilateral providers, accounting for 7% of finance in the eight-year period. Peaks are observed in 2015 (USD 121 million) and 2017 (USD 132 million), and they are the only provider type to have increased their commitments from 2020 to 2021, to a high of USD 153 million, in line with global trends (UNEP, 2023b). In 2022, however, commitments reached their lowest at just USD 11 million.

Figure 8. Adaptation-related development finance committed to Kenya, Tanzania and Uganda, broken down by provider type



Source: Authors' own calculations based on the climate-related development finance dataset of the OECD DAC CRS (OECD, n.d.-b) Data shown is the adaptation-related development finance committed to Kenya, Tanzania and Uganda combined from both bilateral and multilateral donors for the period 2015-2022. Adaptation-related development finance includes 50% of cross-cutting finance.

Figure 9. Adaptation-related development finance committed to Kenya, Tanzania and Uganda, broken down by provider type



Source: Authors' own calculations based on the climate-related development finance dataset of the OECD DAC CRS (OECD, n.d.-b). Data shown from bilateral and multilateral donors for the period 2015-2022. Adaptation-related development finance includes 50% of cross-cutting finance.

Table 7. Adaptation-related development finance committed to Kenya, broken down by provider

Provider	Adaptation-related development finance (USD million)	Share of total adaptation-related development finance
Bilateral	1,238	35%
Japan	282	8%
France	225	6%
EU institutions (excl. EIB)	205	6%
Germany	130	4%
United Kingdom	87	2%
United States	68	2%
Sweden	67	2%
Denmark	44	1%
Canada	39	1%
Netherlands	28	1%
All others	62	2%
Multilateral development bank	2,165	61%
WB	1,795	51%
AfDB	371	11%
Other multilateral	3,652	104%
IFAD	86	2%
GCF	32	1%
GEF	5	0%
NDF	1	0%
FAO	0.2	0%
Grand total	3,528	100%

Source: Authors' own calculations based on the climate-related development finance dataset of the OECD DAC CRS (OECD, n.d.-b). Data shown from bilateral and multilateral donors for the period 2015-2022. Adaptation-related development finance includes 50% of cross-cutting finance.

Most of the adaptation-related development finance committed to Kenya in the eight-year period is provided by MDBs with commitments totalling USD 2.17 billion (61% of total adaptation-related finance). The largest provider under this category and the largest individual contributor of all donors to Kenya is the World Bank (WB) with a commitment totalling USD 1.79 billion over the eight-year period, or approximately 51% of all adaptation-related finance committed to Kenya. This is followed by the African Development Bank (AfDB), with a commitment totalling USD 371 million, or approximately 11% of total adaptation-related finance.

Bilateral donors provided approximately 35% of adaptation-related development finance to Kenya (USD 1.24 billion). The largest single bilateral provider of climate adaptation finance to Kenya is Japan, committing a total of USD 282 million over the period, or approximately 8% of the total adaptation-related finance committed. The next largest bilateral providers are France (USD 225 million or 6% of total adaptation-related finance), the European Union (EU) institutions (excluding the European Investment Bank, EIB) (USD 205 million or 6% of total adaptation-

related finance) and Germany (USD 130 million or 4% of total adaptation-related finance).

Of the small share committed by the other multilateral providers (USD 124 million or 4% of adaptation-related finance finance), IFAD and the GCF are the largest providers, with commitments totalling USD 86 million and USD 32 million, respectively, though these shares represent a very small proportion of the total adaptation-related finance committed. A summary of providers of adaptation finance to Kenya is provided in Table 7.

Table 8. Adaptation-related development finance committed to Tanzania, broken down by provider

Provider	Adaptation-related development finance (USD million)	Share of total adaptation-related development finance
Bilateral	873	33%
EU institutions (excl. EIB)	181	7%
France	153	6%
United Kingdom	130	5%
Japan	87	3%
United States	87	3%
Germany	70	3%
Sweden	58	2%
Ireland	22	1%
Norway	22	1%
Canada	21	1%
All others	42	2%
Multilateral development bank	1,424	54%
WB	1,313	50%
AfDB	111	4%
Other multilateral	321	12%
GCF	226	9%
IFAD	75	3%
GEF	15	1%
Adaptation Fund	5	0%
FAO	0.3	0%
Grand total	2,618	100%

Source: Authors' own calculations based on the climate-related development finance dataset of the OECD DAC CRS (OECD, n.d.-b). Data shown from bilateral and multilateral donors for the period 2015-2022. Adaptation-related development finance includes 50% of cross-cutting finance.

Around 54% (USD 1.42 billion) of adaptation-related development finance committed to Tanzania is attributable to the MDBs. The largest single provider of adaptation finance to Tanzania in the period is the WB, committing a total of USD 1.31 billion over the eight-year period, or approximately 50% of the total adaptation-related finance provided.

A relatively large share of the adaptation-related development finance flowing to Tanzania comes from the other multilateral funds (USD 321 million or 12% of total adaptation finance). Of this group, the GCF committed USD 226 million over the eight-year period, or 9% of total adaptation-related finance and IFAD committed

USD 75 million over the period, equivalent to 3% of total adaptation-related finance.

These commitments are comparable to the largest bilateral donors, namely the EU institutions (excl. the EIB) (USD 181 million or 7% of total adaptation-related finance), France (USD 153 million or 6% of total adaptation-related finance), the United Kingdom (USD 130 million or 5% of total adaptation-related finance) and Japan (USD 87 million or 3% of total adaptation-related finance). In total, a slightly smaller share is committed by bilateral donors to Tanzania than to Kenya and Uganda, at USD 873 million or 33%. A summary of providers of adaptation-related development finance to Tanzania is provided in Table 8.

Table 9. Adaptation-related development finance committed to Uganda, broken down by provider

Provider	Adaptation-related development finance (USD million)	Share of total adaptation-related development finance
Bilateral	673	41%
EU institutions (excl. EIB)	136	8%
Germany	109	7%
United States	93	6%
Netherlands	63	4%
United Kingdom	59	4%
Denmark	45	3%
Sweden	38	2%
France	37	2%
Belgium	30	2%
Norway	12	1%
All others	52	3%
Multilateral development bank	863	53%
WB	656	40%
AfDB	207	13%
Other multilateral	104	6%
GCF	31	2%
IFAD	25	1%
GEF	23	1%
Adaptation Fund	17	1%
NDF	6	0%
CIF	1	0%
GGGI	0.43	0%
FAO	0.28	0%
Grand total	1,640	100%

Source: Authors' own calculations based on the climate-related development finance dataset of the OECD DAC CRS (OECD, n.d.-b). Data shown from bilateral and multilateral donors for the period 2015-2022. Adaptation-related development finance includes 50% of cross-cutting finance.

Uganda receives most adaptation-related development finance from the MDBs (USD 863 million or 53% of adaptation-related finance). The WB is the single largest provider of adaptation-related finance to Uganda with commitments totalling USD 656 million. However, this represents a slightly smaller share (40%)

of adaptation-related finance than is observed for Kenya and Tanzania. The commitments of the AfDB (USD 207 million) on the other hand, contribute 13% of adaptation-related finance to Uganda, a higher share than for Kenya and Tanzania.

Of the USD 673 million (41%) of adaptation-related finance committed by bilateral providers, the EU institutions (excl. the EIB) have committed a total of USD 136 million or 8% of total adaptation-related finance. The next largest bilateral providers are Germany (USD 109 million or 7% of total adaptation-related finance), the United States (USD 93 million or 6% of total adaptation-related finance) and the Netherlands (USD 63 million or 4% of total adaptation-related finance).

The other multilaterals account for 6% (USD 104 million) of Uganda's adaptation-related finance. The GCF provides adaptation-related finance commitments to Uganda totalling USD 31 million or 2% of the total in the period. This is followed by the IFAD and the GEF with commitments of USD 25 million and USD 23 million, respectively. A summary of providers of adaptation-related development finance to Uganda is provided in Table 9.

Channel of delivery of adaptation-related development finance and degree of devolution

There is no standard methodology to track or monitor the extent of devolution of climate finance or to what extent climate finance is led or shaped by local communities. Current reporting methodologies do not include the information required to assess the specific type and nature of implementing or governance mechanisms. However, a broad assessment can be made using the channel of delivery reported in the OECD climate-related development finance dataset which tracks the first implementing partner including multilateral organisations, governments, donor and developing country-based NGOs, teaching and research institutions and other channels. The first implementing partner is the entity with responsibility for implementing funds, and thus provides a proxy to assess how projects are governed and managed, in particular whether the reported delivery channels are institutions or actors below the national level and thus whether the finance has the potential to be locally-led.

Most of the adaptation-related development finance committed to the three countries over the period is implemented through recipient governments (66%) while just 1% of finance is reported as delivered through developing country-based NGOs and the private sector in the recipient country.

The OECD climate-related development finance dataset provides a limited assessment of how much climate finance is reaching the local level. Given the limited information available, it is difficult to assess the exact nature of the leading entities. In addition, much of the climate finance flowing to the local level is not channelled through direct access entities but is funnelled down by entities such as recipient governments, delegated co-operation, international NGOs or UN structures. However, there is not yet public access to such level of detail. In the case of the OECD dataset, when several levels of implementation are involved in

an activity, only the first level of implementation is reported. When activities have multiple implementers, only the entity receiving the most funding is reported.

Table 10: Adaptation-related development finance committed to Kenya, Tanzania and Uganda, broken down by channel of delivery

Channel of delivery	Adaptation-related development finance (USD million)	Share of total adaptation-related development finance
Recipient government	5,153	66%
Central government	731	9%
Donor country-based NGO	354	5%
Public corporations	182	2%
Third country government (Delegated co-operation)	160	2%
Developing country-based NGO	97	1%
Private sector in recipient country	41	1%
Local government	3	0.03%

Source: Authors' own calculations based on the climate-related development finance dataset of the OECD DAC CRS (OECD, n.d.-b). Data shown is the adaptation-related development finance committed to Kenya, Tanzania and Uganda combined from both bilateral and multilateral donors for the period 2015-2022. Adaptation-related development finance includes 50% of cross-cutting finance.

Financial instrument, concessionality and grant equivalence of adaptation-related development finance

The financial instruments used for adaptation-related development finance provision for Kenya, Tanzania and Uganda over the period 2015-2022 are primarily concessional loans (61%), grants (32%), non-concessional loans (7%) and a small amount of equity and shares in collective investment vehicles or activities reported with the instrument or concessionality left blank (0.1%).

Several providers commit a large proportion of finance using concessional loans. This is especially the case for France (95%), Japan (83%), the WB (93%), the AfDB (38%) and IFAD (92%). In addition, there is a high prevalence of non-concessional finance in the commitments of the AfDB (54%) and the GCF (24%). Given the high shares of loans used by some of the largest providers, in total the share of adaptation-related finance that is funded by grants in the three countries is just 32%.

The finance mechanisms of the multilateral banks (World Bank, AfDB, EIB and other multilateral banks) are, by nature, primarily comprised of loans. However, the high share of debt instruments used for the climate finance commitments of some bilateral providers and multilateral institutions is of note. IFAD for example, is a multilateral institution dedicated to supporting climate action and agricultural development in developing countries, but whose climate finance provided to the three countries heavily relies on concessional loans implying increased debt.

Table 11. Face value and grant equivalent adaptation-related development finance committed to Kenya, Tanzania and Uganda, broken down by provider and financial instrument

Provider	Adaptation- related development finance (USD million)	Grants	Concessional loans	Non- concessional loans	Other (equity, guarantees, export credits or instrument or concessionality left blank)	Grant equivalent (USD million)	Grant equivalent
Bilateral	2,785	72%	28%	0%	0%	2,397	86%
EU institutions (excl. EIB)	522	100%	0%	0%	0%	522	100%
France	415	5%	95%	0%	0%	181	44%
Japan	379	17%	83%	0%	0%	283	75%
Germany	309	76%	24%	0%	0%	258	84%
United Kingdom	276	100%	0%	0%	0%	276	100%
United States	247	100%	0%	0%	0%	247	100%
Sweden	163	100%	0%	0%	0%	163	100%
Denmark	93	100%	0%	0%	0%	93	100%
Netherlands	92	100%	0%	0%	0%	92	100%
Canada	69	100%	0%	0%	0%	69	100%
MDB	4,452	4%	85%	11%	0%	2,218	50%
WB	3,764	4%	93%	3%	0%	2,023	54%
AfDB	688	8%	38%	54%	0%	195	28%
Other multilateral	549	56%	31%	13%	0%	401	73%
GCF	290	76%	0%	24%	0%	220	76%
IFAD	185	8%	92%	0%	0%	107	58%
GEF	44	100%	0%	0%	0%	44	100%
Adaptation Fund	22	100%	0%	0%	0%	22	100%
NDF	6	100%	0%	0%	0%	6	100%
CIF	1	100%	0%	0%	0%	1	100%
FAO	1	100%	0%	0%	0%	1	100%
GGGI	0	100%	0%	0%	0%	0	100%
Grand total	7,786	32%	61%	7%	0%	5,016	64%

Source: Authors' own calculations based on the climate-related development finance dataset of the OECD DAC CRS (OECD, n.d.-b). Data shown is the adaptation-related development finance committed to Kenya, Tanzania and Uganda combined from both bilateral and multilateral donors for the period 2015-2022. Adaptation-related development finance includes 50% of cross-cutting finance.

For those providers that commit most of their climate finance as grants, the grant equivalent value of their adaptation-related development finance is close to or equal to the face value reported amount. However, by calculating the grant equivalent value of the finance provided by, for example, France, the WB and IFAD, it becomes clear that the grant equivalent values of their adaptation-related finance totals are significantly lower than the face value figures. As can be seen in Table 11, the grant equivalent value of the finance committed by France is estimated as just 44% of the reported amount. The grant equivalent value of the

finance committed by the WB represents 54% of the reported amount, while for IFAD this is 58%. Owing to the large amount of adaptation-related finance provided on non-concessional terms, the grant equivalent value of the finance committed by the AfDB is just 28% of the reported amount.

Table 12. Face value and grant equivalent adaptation-related development finance committed to Kenya, Tanzania and Uganda, broken down by recipient and financial instrument

Provider	Adaptation- related development finance (USD million)	Grants	Concessional loans	Non- concessional loans	Other (equity, guarantees, export credits or instrument or concessionality left blank)	Grant equivalent (USD million)	Grant equivalent
Kenya	3,528	23%	68%	9%	0%	2,085	59%
2015	338	33%	67%	0%	0%	249	74%
2016	222	57%	38%	6%	0%	171	77%
2017	442	27%	70%	2%	0%	289	65%
2018	312	16%	84%	0%	0%	186	60%
2019	363	34%	18%	48%	0%	157	43%
2020	1,020	6%	82%	11%	0%	513	50%
2021	304	22%	78%	0%	0%	200	66%
2022	527	25%	71%	3%	1%	320	61%
Tanzania	2,618	32%	62%	6%	0%	1,699	65%
2015	186	38%	49%	13%	0%	120	64%
2016	139	68%	32%	0%	0%	118	85%
2017	305	51%	49%	0%	0%	236	78%
2018	121	56%	44%	0%	0%	96	79%
2019	400	27%	69%	4%	0%	259	65%
2020	182	29%	71%	0%	0%	118	65%
2021	377	26%	55%	18%	0%	217	58%
2022	909	22%	73%	5%	0%	535	59%
Uganda	1,640	52%	44%	4%	0%	1,232	75%
2015	76	100%	0%	0%	0%	76	100%
2016	122	96%	1%	4%	0%	117	96%
2017	66	100%	0%	0%	0%	66	100%
2018	214	30%	70%	0%	0%	142	66%
2019	202	78%	22%	0%	0%	182	90%
2020	423	37%	63%	0%	0%	297	70%
2021	211	31%	39%	30%	0%	108	51%
2022	326	48%	52%	0%	0%	245	75%
Grand total	7,786	32%	61%	7%	0%	5,016	64%

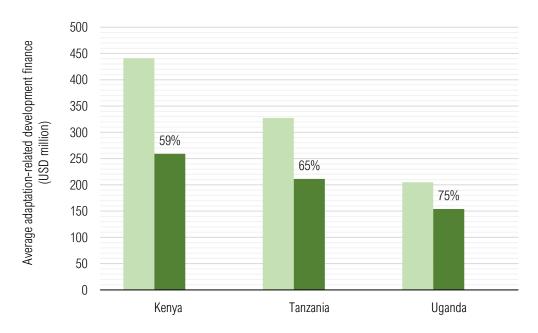
Source: Authors' own calculations based on the climate-related development finance dataset of the OECD DAC CRS (OECD, n.d.-b). Data shown from both bilateral and multilateral donors for the period 2015-2022. Adaptation-related development finance includes 50% of cross-cutting finance.

The distribution of grants and loans varies significantly among the countries. Uganda, classified as an LDC, has the highest share of grants among the three countries, with 52% of adaptation-related development finance commitments

taking the form of grants and 44% in the form of concessional loans, as shown in Table 12. Tanzania receives 32% of adaptation-related finance in the form of grants, and 62% in the form of concessional loans. On the other hand, Kenya, classified as a LMIC, receives 23% of adaptation-related finance as grants and 68% as concessional loans. Kenya is the country with the highest share of non-concessional loans at 9%, compared to 6% and 4% for Tanzania and Uganda, respectively.

The grant equivalent value of the climate adaptation-related development finance committed to Kenya is just 59% of the total reported amount due to the large share of concessional and non-concessional loans committed over the eight years. For Tanzania and Uganda, the grant equivalent values of their adaptation-related finance are estimated as 65% and 75% of the reported amount, respectively, with the relatively high grant value of Uganda's adaptation-related finance due to its larger share of adaptation grants. Overall, the adaptation-related finance commitments to the countries would be reduced to just 64% of the reported amount simply by accounting for debt service payments, interest, administration fees and other costs associated with debt burdens.

Figure 10. Average face value adaptation-related development finance commitments (light green bar) and grant equivalent adaptation-related development finance commitments (dark green bar) to Kenya, Tanzania Uganda



Source: Authors' own calculations based on the climate-related development finance dataset of the OECD DAC CRS (OECD, n.d.-b). Data shown from both bilateral and multilateral donors for the period 2015-2022. Adaptation-related development finance includes 50% of cross-cutting finance.

Adaptation-related development finance committed and adaptation finance needs

The amount of adaptation-related finance flowing to Kenya on average per year is USD 441 million over the eight-year period. In comparison, Kenya identifies adaptation finance needs of USD 39.53 billion over the period 2021-2030 from international support, or approximately USD 3.95 billion per year. Thus, the average amount of adaptation-related development finance committed each year in the period covers around 11% of the specified conditional adaptation finance need. In 2021, committed finance amounted to 8% of the annual adaptation finance need and in 2022 this was 13%.

For Uganda, reported annual average adaptation-related development finance is USD 205 million over the eight-year period. In comparison, Uganda specifies adaptation finance needs conditional on international of USD 15.2 billion over the period 2021-2030, or approximately USD 1.52 billion per year. The amount of adaptation-related finance committed each year in the period is therefore approximately 13% of the Uganda's adaptation finance need. In recent years, this percentage has increased somewhat as the amount of adaptation-related finance to Uganda has increased. In 2022, reported adaptation-related finance amounted to 21% of the specified adaptation finance need, compared to 14% in 2021.

The share of adaptation finance needs covered is lower when considering the grant equivalent values of the adaptation-related finance committed to Kenya and Uganda. Over the eight-year period, the average grant equivalent value of adaptation-related finance committed to Kenya is USD 261 million per year or 7% of Kenya's specified finance need. In 2022, the grant equivalent value of the adaptation-related development finance committed to Kenya is USD 320 million or just 8% of what is needed per year. For Uganda, the average grant equivalent value of committed adaptation-related finance is USD 154 million per year or 10% of the needs specified in Uganda's NDC. In 2022, the committed finance is USD 245 million or 16% of specified finance needs.

Table 13. Specified conditional adaptation finance needs and adaptation-related development finance committed to Kenya and Uganda

	Specified adaptation finance need per year (2021-2030)	Average adaptation-related development finance (2015-2022)		Adaptation-related development finance in 2021		Adaptation-related development finance in 2022	
	USD Million	USD Million	% of need	USD Million	% of need	USD Million	% of need
Kenya	3,953	441	11%	304	8%	527	13%
Uganda	1,520	205	13%	211	14%	326	21%

Source: Adaptation-related development finance commitments are authors' own calculations based on the climate-related development finance dataset of the OECD DAC CRS (OECD, n.d.-b). Data is from both bilateral and multilateral donors for the period 2015-2022. Adaptation-related development finance includes 50% of cross-cutting finance. Specified adaptation needs sourced from each country's NDC (Ministry of Environment and Forestry, 2020; Ministry of Water and Environment, 2022).

Table 14. Specified conditional adaptation finance needs and grant equivalent adaptation-related development finance committed to Kenya and Uganda

	Specified adaptation finance need per year (2021-2030)	Grant equivalent adaptation- related development finance (2015-2022)		Grant equivalent adaptation- related development finance in 2021		Grant equivalent adaptation- related development finance in 2022	
	USD Million	USD Million	% of need	USD Million	USD Million	USD Million	% of need
Kenya	3,953	261	7%	200	5%	320	8%
Uganda	1,520	154	10%	108	7%	245	16%

Source: Grant equivalent adaptation-related development finance commitments are authors' own calculations based on the climate-related development finance dataset of the OECD DAC CRS (OECD, n.d.-b). Data is from both bilateral and multilateral donors for the period 2015-2022. Adaptation-related development finance includes 50% of cross-cutting finance. Specified adaptation needs sourced from each country's NDC (Ministry of Environment and Forestry, 2020; Ministry of Water and Environment, 2022).

Sectors targeted by adaptation-related development finance

Globally, in recent years adaptation finance has targeted two primary sectors – agriculture, forestry and fishing (20%) and water supply and sanitation (19%) (UNEP, 2023a). This trend is also seen in the adaptation-related finance committed to Kenya, Tanzania and Uganda, as reported in the OECD DAC defined sectors.

- Adaptation-related development finance committed to Kenya is distributed across agriculture, forestry, and fishing (24%), water supply and sanitation (20%), transport and storage (17%) and disaster prevention and preparedness (11%).
- Adaptation-related development finance committed to Tanzania is distributed across water supply and sanitation (22%), transport and storage (17%), agriculture, forestry and fishing (14%), and education (9%).
- Adaptation-related development finance committed to Uganda is distributed across agriculture, forestry and fishing (37%), water supply and sanitation (18%), government and civil society (12%) and transport and storage (10%).

The high share of adaptation-related finance directed toward agriculture, forestry and fishing aligns with the high sensitivity of these sectors to climate change as well as their importance for employment and livelihoods across the countries. However, financing in other key sectors such as education, health and biodiversity remains low. Adaptation-related finance for the health sector is low across the countries, with shares of just 2% for Tanzania and Uganda and 1% for Kenya. Tanzania is the only country for which significant adaptation-related finance is directed toward education, accounting for 9% compared to 2% for Kenya and 4% for Uganda.

Table 15. Total adaptation-related development finance committed to Kenya, Tanzania Uganda, broken down by sector

Recipient	Adaptation-related development finance (USD million)	Share of total adaptation-related development finance
Kenya	3,528	
Agriculture, forestry, fishing	845	24%
Water supply and sanitation	694	20%
Transport and storage	615	17%
Disaster prevention and preparedness	397	11%
General environment protection	217	6%
Other multisector	212	6%
Government and civil society	147	4%
Other social infrastructure and services	99	3%
Education	61	2%
Banking and financial services	43	1%
All others	198	6%
Tanzania	2,618	
Water supply and sanitation	588	22%
Transport and storage	437	17%
Agriculture, forestry, fishing	362	14%
Education	245	9%
Other multisector	206	8%
Population policies/programmes and reproductive health	144	6%
Government and civil society	125	5%
General environment protection	105	4%
Other social infrastructure and services	87	3%
Energy	75	3%
All others	244	9%
Uganda	1,640	
Agriculture, forestry, fishing	600	37%
Water supply and sanitation	289	18%
Government and civil society	197	12%
Transport and storage	168	10%
Other multisector	86	5%
Education	58	4%
Energy	43	3%
General environment protection	40	2%
Other social infrastructure and services	39	2%
Health	38	2%
All others	81	5%

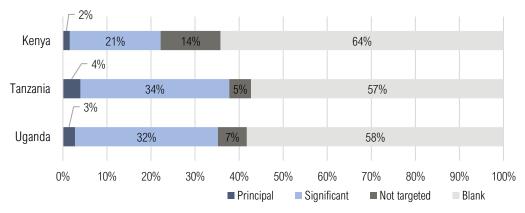
Source: Authors' own calculations based on the climate-related development finance dataset of the OECD DAC CRS (OECD, n.d.-b). Data shown from both bilateral and multilateral donors for the period 2015-2022. Adaptation-related development finance includes 50% of cross-cutting finance.

Gender responsiveness of adaptation-related development finance

When reporting to the OECD DAC, donors are requested to assess the extent to which their project portfolio addresses gender equality and the empowerment of women and girls through the GEM. The GEM is based on activities at the planning and design phase, and states that an activity should be classified as addressing gender equality if 'it is intended to advance gender equality and the empowerment of women and girls or reduce discrimination and inequalities based on sex' (OECD, 2023c: 95).

Figure 11 shows the gender markers assigned to the adaptation-related development finance flowing to Kenya, Tanzania and Uganda. The adaptation-related finance flowing to Kenya has the lowest levels of gender integration, with just 2% of finance assigned a gender marker of principal and 21% assigned a gender marker of significant. Tanzania and Uganda have slightly better levels of gender integration. Of the adaptation-related finance committed to Tanzania, 4% is assigned a gender marker of principal and 34% is assigned a gender marker of significant. Of the finance committed to Uganda, 3% is assigned a gender marker of principal and 32% is assigned a gender marker of significant.

Figure 11. Gender equality markers reported for the adaptation-related development finance committed to Kenya, Tanzania and Uganda



Source: Authors' own calculations based on the climate-related development finance dataset of the OECD DAC CRS (OECD, n.d.-b). Data shown from both bilateral and multilateral donors for the period 2015-2022. Adaptation-related development finance includes 50% of cross-cutting finance.

Bilateral providers are required to assign gender equality markers to each activity reported to the OECD. Of the bilateral adaptation-related development finance committed to three countries, 26% has been reported as not targeting gender as either a principal or significant objective over the eight-year period. 66% of bilateral climate finance was reported with a gender equality marker of significant and 7% with a gender equality marker of principal. Multilateral providers are not required to gender-mark their finance reported to the OECD. While some organisations elect to do so, in this case 99% of MDB finance was reported as not screened for gender; 1% was reported with a gender marker of significant and 0%

⁷ Note that data displayed includes both bilateral and multilateral providers.

with a gender marker of principal. The other multilaterals have higher proportions of gender integrated finance, with 1% of climate finance reported with a gender marker of principal and 46% reported with a gender marker of significant. The remainder of the finance from these institutions was not screened (53%) or screened and found not to target gender (0%).

Table 16. Gender equality markers assigned to the adaptation-related development finance committed to Kenya, Tanzania and Uganda, broken down by provider type

Provider	Gender equality marker			
	Principal	Significant	Not targeted	Blank
Bilateral	7%	66%	26%	1%
Multilateral development bank	0%	1%	0%	99%
Other multilateral	1%	46%	0%	53%

Source: Authors' own calculations based on the climate-related development finance dataset of the OECD DAC CRS (OECD, n.d.-b). Data shown is the adaptation-related development finance committed to Kenya, Tanzania and Uganda combined from both bilateral and multilateral donors for the period 2015-2022. Adaptation-related development finance includes 50% of cross-cutting finance. Note multilateral providers are not mandated to mark their finance, while bilateral providers are.

DISCUSSION AND REFLECTIONS

To conclude this working paper, this chapter discusses the findings of the analysis of international public climate-related development finance to Tanzania, Kenya and Uganda in light of their climatic, economic and sociopolitical contexts including indebtedness and risk of debt distress, climate projections and impacts and the policies, laws, regulations and strategies that have been developed to direct adaptation and mitigation efforts and mobilise climate finance. The discussion leads to five key conclusions that are drawn from the analysis.

Amount of adaptation-related development finance committed to Kenya, Tanzania and Uganda

Climate finance must be mobilised both domestically and internationally to ensure that Kenya, Tanzania and Uganda meet their climate targets and build resilience to climate change. Given that all countries have high vulnerability and low readiness to adapt to the impacts of climate change and that extensive impacts are already observed, adaptation is an important priority. The impacts of climate change extend to multiple sectors, affecting agriculture, water resources, health and infrastructure. From a climate justice perspective, these countries have negligible contributions to current and historical emissions yet face significant climate risks.

In Article 9.4 of the Paris Agreement, parties agreed that 'the provision of scaled-up financial resources should aim to achieve a balance between adaptation and mitigation' (Paris Agreement, 2015). However, to date adaptation objectives at the

global level have been consistently underfunded and it is clear from assessments that support for mitigation remains greater than support for adaptation (Zagema et al., 2023). UNEP has concluded that provision of climate finance for adaptation remains insufficient to respond to climate impacts in developing countries (UNEP, 2023b). An important decision was therefore taken at COP26 in Glasgow that urged developed nations to at least double their provision of adaptation finance by 2025 from 2019 levels, from USD 20 billion in 2019 to USD 40 billion by 2025 (UNFCCC, 2021a).

Somewhat in contrast to global trends, the share of adaptation-related development finance (when adding 50% of cross-cutting finance) for Kenya, Tanzania and Uganda is balanced at around 52% on average over the eight-year period. However, there are variations across the years. Kenya's adaptation share is approximately 53%, but this varies significantly year-on-year, with only 23% in 2016 and below 50% in three out of eight years. Tanzania's adaptation share averages 52% over the eight years but with below 50% in five years, including 2020 and 2021. Uganda maintained a high share of adaptation-related finance from 2017 to 2021, with a peak of 77%, but this dropped to 31% in 2022 resulting in an average adaptation share over the eight years of 50%.

There is a large difference in the absolute amount of adaptation-related development finance committed to each country, with the total committed to Kenya (USD 3.53 billion or an average of USD 441 million per year) significantly higher than for both Tanzania (USD 2.62 billion or an average of USD 327 million per year) and Uganda (USD 1.64 billion or an average of USD 205 million per year) over the eight-year period. Macroeconomic factors such as economic and political stability as well as the established regulatory environment can affect the ability of countries to access and mobilise climate finance. Countries receiving more climate financing tend to be those with clear national policies, regulations, national climate change funds and authorities to coordinate climate action (Africa NDC Hub, 2021). Given its LMIC-status, the economic and financial landscape in Kenya may present better conditions for borrowing. In addition, Kenya has made considerable efforts to integrate climate change into plans, policies and strategies and has a well-developed policy and institutional framework for climate finance, with a dedicated structure for coordination embedded in the National Policy on Climate Finance and the Climate Change Fund. These policies and institutional frameworks indicate strong political will and establish structured mechanisms for attracting and mobilising climate finance.

The policy, strategic and regulatory framework in place for climate finance is more nascent in Tanzania and Uganda. In Tanzania, the National Climate Change Response Strategy of 2021 seeks to enhance resource mobilisation, establish a National Climate Change Financing Mechanism and enhance the capacity of sector ministries, local government authorities, the private sector and CSOs to access and manage climate finance. However, Tanzania is lacking a distinct strategy or plan for climate finance and has not established an institutional framework to the same extent seen in Kenya. In Uganda, there have been recent developments that may affect climate finance mobilisation in the coming years.

The National Climate Change Act of 2021 mandates the Minister of Finance and Minister of Water and Environment to mobilise climate finance and the CFU, established in 2023, is tasked with mobilising international and domestic climate finance, capacity building to access and manage climate finance, and the creation of a National Climate Finance Strategy.

The high share of adaptation-related finance flowing to the three countries that is directed toward agriculture, forestry and fishing aligns with the high sensitivity of these sectors to climate change as well as their importance for employment and livelihoods across the countries. However, financing in other key sectors such as education, health and biodiversity remains low across all three countries, a trend that is also seen globally, with estimates that the health and education sectors receive 4% and 2% of global adaptation finance flows to developing countries, respectively (UNEP, 2023b).

Provided finance must also be aligned to the needs and priorities of the recipient nations, as stated in Article 9.4 of the Paris Agreement (Paris Agreement, 2015). Globally, adaptation finance needs are growing and the total amount of adaptation finance flowing from global north to global south remains inadequate, with an estimated adaptation finance gap of USD 194-366 billion per year (UNEP, 2023b). Even if countries met the goal of doubling adaptation finance by 2025 as pledged at COP26, only a small share of the adaptation finance gap would be accounted for (UNEP, 2023b). For Kenya and Uganda, this analysis shows that climate adaptation finance flows fall short of what is needed to achieve the needs specified in each country's NDC. Looking at 2021 levels of adaptation finance, commitments cover just 8% of the stated adaptation finance needs of Kenya and 14% for Uganda, while the grant equivalent value of this finance covers just 5% and 7%, respectively. In 2022, adaptation-related development finance commitments cover 13% of needs for Kenya and 21% for Uganda, while the grant equivalent value of this finance covers 8% and 16%, respectively. Tanzania has not communicated adaptation specific needs in their most recent NDC, and thus financial needs – both conditional and unconditional – must be laid out with greater detail in order to assess whether finance flows are meeting Tanzania's adaptation needs.

It is important to note that conditional finance does not necessarily need to come entirely from international public sources. Alternative sources such as the private sector may also contribute to reaching climate adaptation objectives and building resilience. Private sector flows are difficult to estimate and are not included in this analysis. However, estimates indicate that total private international and domestic finance flows to the whole of sub-Saharan Africa (50 countries in total) were USD 2 billion annually, while international public flows were USD 17 billion (Buchner et al., 2021).

Despite their emergence in recent years, climate funds who provide more specialised climate finance support provide only a small share of the finance committed to Kenya, Tanzania and Uganda with the majority provided by MDBs and bilateral donors. The MDBs are the largest provider of adaptation finance,

accounting for approximately 57% (USD 4.45 billion) of total public international adaptation finance commitments to the three countries, while bilateral providers account for 36% over the eight-year period (USD 2.80 billion). The commitments of the other multilateral providers including the main climate funds remain low throughout the period, accounting for just 7% of climate finance in the period.

In terms of accessing climate finance, the global climate finance architecture represents a complex and fragmented landscape with a proliferation of funding sources and channels with a variety of structures, terms and eligibility criteria (Weikmans, 2023). Accessing international climate finance therefore requires understanding of and the capacity to engage with a range of complex and diverse processes. It can be challenging, resource intensive and time consuming to prepare feasibility studies and develop project concepts and proposals according to different templates, requirements and assessment methodologies (Garschagen and Doshi, 2022). For example, it is reported that one of Tanzania's GCF project proposals took four years to be approved (United Nations Department of Economic and Social Affairs, 2021). This is particularly important for LDCs who may have limited institutional capacities (UN-OHRRLS, 2023). Tanzania, for example, relies on development partners to act as accredited entities or implementing agencies to access multilateral funds.

Key conclusion A: Somewhat in contrast to global trends, the share of adaptationrelated development finance for Kenya, Tanzania and Uganda is balanced at around 52% on average over the eight-year period. However, commitments to Kenya (USD 3.53 billion) are significantly higher than for both Tanzania (USD 2.62 billion) and Uganda (USD 1.64 billion) over the eight-year period, with Kenya having a more established policy, strategic and regulatory framework for climate finance access and mobilisation. Despite increases in adaptation-related finance over the period, amounts fall short of what is needed to achieve the needs specified in Kenya and Uganda's NDCs. Looking to the future, it is crucial that Kenya, Uganda and Tanzania receive climate finance flows that are commensurate with their high vulnerability to the impacts of climate change, low readiness to adapt, ability to mobilise domestic finance and financing needs. In addition to scaling up adaptation finance, there is a need for this finance to focus more on those sectors which are to date not receiving adequate finance at scale and to be tied to the priorities and needs of recipient countries and communities. Accessing climate finance remains challenging due to a complex, fragmented global finance architecture, requiring significant resources and time, particularly for least developed countries (LDCs) like Tanzania. Technical and management capacity in planning and implementing adaptation projects at both national and local level is therefore required.

Channel of delivery and degree of devolution

Attention to models of devolved adaptation finance and the role of local communities in prioritising and responding to climate change needs has emerged as an important aspect of ensuring effective climate adaptation implementation. Locally-led approaches are particularly important for women and other vulnerable groups who may be disproportionately affected by climate impacts but also have differing knowledge, expertise and experiences to mitigate and adapt (Schalatek, 2020). Research has also shown that the communities who most acutely experience the impacts of climate change are frequently marginalised from decision-making processes, with less power to determine where and how climate finance is utilised (Krishnan, 2020).

Current reporting methodologies for flows of international public climate finance do not include specific information on the type and nature of implementing and governance mechanisms, and the OECD climate-related development finance dataset offers limited insights into how much climate finance is reaching the local level. Nonetheless, a broad assessment can be made using the channel of delivery reported in the dataset which tracks the first implementing partner of a project. This analysis finds that 66% of the adaptation-related development finance committed to the three countries over the period is implemented through recipient governments while 1% of finance is reported as delivered through developing country-based NGOs and the private sector in the recipient country.

Project-level studies also indicate that most climate change adaptation finance is governed at national and international levels. A GAP analysis of 40 projects and associated documents in Kenya and Tanzania showed that 42% of project funding was channelled through local governments in Tanzania, but only 5.2% in Kenya (Tidemand et al., 2022). However, Tidemand et al. (2022) also outlines that the legal and institutional framework for devolution differs in Kenya and Tanzania, with a more extensive and established degree of devolution of finance and governance in Kenya. County governments in Kenya have constitutionally defined functions including key adaptation relevant sectors such as agriculture, water, roads and management of various natural resources (Tidemand et al., 2022). There is also a much higher degree of discretion of funding at the local government level in Kenya, where approximately 90% of fiscal transfers are discretionary for county governments to allocate across sectors, compared to just 5% at the local government level in Tanzania (Tidemand et al., 2022).

All three countries have in recent years seen the establishment of projects that reflect increased emphasis on devolved climate adaptation finance. The FLLoCA programme in Kenya builds on the CCCF mechanism and aims to support counties to plan, implement and monitor climate adaptation efforts. In Uganda and Tanzania, the LoCAL mechanism is a performance-based grant facility which seeks to establish a decentralised climate finance mechanisms for locally-led climate change adaptation, with the aim of empowering and enabling districts and communities to contribute to combatting the adverse effects of climate change.

LoCAL and FLLoCA follow many of the principles for locally-led adaptation (LLA) developed by the Global Commission on Adaptation (Global Centre on Adaptation, 2024). The principles reflect the need to shift from current top-down approaches where decisions are made by national and international decision-makers to a new model where local actors have greater power and resources to build resilience to climate change. LLA recognises that those communities who are at the forefront of climate impacts are often excluded from decision-making processes. In placing communities and local actors at the centre of decision-making processes, the approach seeks to address equity and justice concerns while increasing the effectiveness of projects. The approach is gaining traction with over 100 governments, donor agencies and NGOs having endorsed the principles, among them the Ugandan Government. However, there remains limited application of LLA on the ground and in practice LLA can overlook issues of power and injustice (Rahman et al., 2023).

A recent study presents an assessment framework to evaluate alignment to principles for LLA. The framework is applied to six water adaptation projects in Kenya and Tanzania, two funded by LoCAL in Tanzania and three by the CCCF in Kenya (Bedelian et al., 2024). The study concludes that the projects in Kenya perform better than those in Tanzania. This is attributed to institutional capacity for implementing adaptation interventions, institutionalised mechanisms for local-level decision-making, developed partnerships and the longer period for which the projects in Kenya had been established. In addition, the CCCF mechanism is anchored in the county government structure in Kenya which, as mentioned, has well-defined functions and a high degree of discretion in allocation of funds. LoCAL in Tanzania, on the other hand, works through national institutional frameworks on climate change. As the principles of LLA gain traction and with the development of projects such as FLLoCA and LoCAL, such research highlights the need for studies that assess the implementation of projects on the ground.

Key conclusion B: Current reporting methods for international climate finance do not provide detailed information on how much of this finance reaches the local level. However, studies indicate that most adaptation finance is governed nationally or internationally. Indeed, 66% of the adaptation-related development finance committed to the three countries in the period 2015-2022 is reported as having the recipient government as the first implementing partner. Recent initiatives like Kenya's FLLoCA programme and the LoCAL mechanism in Uganda and Tanzania seek to address this and incorporate principles for locallyled adaptation. While these approaches are gaining traction, challenges remain in their practical application, particularly in addressing issues of power and justice, highlighting the need for further research to assess on-the-ground implementation of such initiatives. Existing legal and institutional frameworks within each country influence the degree of devolution in climate finance, with Kenya, for example, having a more established framework for devolution. Ultimately, there is a need to incorporate locally-led adaptation principles at all stages of the project cycle in a manner that centres issues of power and justice and with the intention to involve counties, districts and communities in defining, prioritising, designing, monitoring and evaluating adaptation projects.

Financial instruments used for adaptation-related development finance

As there is no prescription under the UNFCCC on the degree to which climate finance should be met through grants or loans, developed countries are able to use significant discretion in the use of grants and loans and to date, global public climate finance for adaptation has been mainly provided through loans (OECD, 2023f). Indeed, loans are the most widely used financial instrument for adaptation across Kenya, Tanzania and Uganda from 2015-2022, with concessional loans accounting for 61% of committed adaptation finance and non-concessional loans accounting for 7%. Grants make up just 32% of adaptation finance committed.

Many (including the G77 and many NGOs) argue that financing for adaptation should be primarily grant-based (Weikmans, 2023). There are several arguments made in support of this position. First, it is argued that loans are not a suitable financing mechanism for adaptation activities that may offer significant societal benefits but not readily translate into financial returns. This is compared to mitigation activities, such as a renewable energy projects for example, that have more direct links to return on investment. Invoking debates around historical and current responsibility, other arguments posit that developing countries should not be forced to pay twice for the impacts of climate change, first for the damage caused by developed countries through their historical and current emissions and second for the cost of debts incurred to deal with these impacts. Related, is the argument that a climate debt is owed to developing countries by polluting nations and that adaptation finance constitutes the payment of this debt (Weikmans, 2023).

It is also relevant to consider the debt burden of vulnerable countries. Kenya, Tanzania and Uganda have high debt levels and already spend large amounts of their budget servicing debt. Kenya in particular is facing a worsening debt crisis and is at high risk of debt distress according to the IMF World Bank Debt Sustainability Analysis. These high and growing debt service burdens reduce the ability of governments to pay for other critical expenditures including health, infrastructure and public services as well as addressing adaptation needs and recovering from loss and damage. Furthermore, increasing interest rates on global capital markets imply higher repayments on climate loans and increases in public debt. This is particularly important for non-concessional loans, which are offered at, or near to, market terms.

The debt issue must be considered in the context of high levels of poverty, particularly among the rural population, recovery from the direct and indirect social and economic impacts of the COVID-19 pandemic that altered the fiscal situation of many developing countries, and ever-increasing climatic challenges, including ongoing drought and food insecurity. Indeed, at the Africa Climate Summit in Nairobi, Kenya, the African Heads of State and Government drew specific attention to the inordinate borrowing costs faced by developing countries as a root cause of recurring debt crises and an impediment to investment in the compounding challenges of climate action and development (African Heads of State and Government, 2023).

Several providers commit a large proportion of finance using concessional loans. This is especially the case for France (95%), Japan (83%), the WB (93%), the AfDB (38%) and IFAD (92%). In addition, there is a high prevalence of non-concessional finance in the commitments of the AfDB (54%) and the GCF (24%). The 'real value' of support offered by these donors alters significantly when considering the grant equivalent value of their adaptation finance. Grant equivalent values seek to better reflect the actual financial efforts made by donors, accounting for debt service payments, interest, administration fees and other costs associated with debt burdens. For example, the grant equivalent value of the finance committed by France is estimated as just 44% of the reported amount. The grant equivalent value of the finance committed by the WB represents 54% of the reported amount, while for IFAD this is 58%. Owing to the large amount of adaptation-related finance provided on non-concessional terms, the grant equivalent value of the finance committed by the AfDB is just 28% of the reported amount. Overall, the adaptation-related finance commitments to the countries would be reduced to just 64% of the reported amount when considering the grant equivalent value of provided finance.

Key conclusion C: Between 2015 and 2022, the majority of adaptation-related development finance committed to Kenya, Tanzania and Uganda was delivered through loans, with concessional loans accounting for 61% and non-concessional loans 7%, while only 32% was committed through grants. Given the high prevalence of loans, the adaptation-related finance commitments to the countries would be reduced to just 64% of the reported amount when considering the grant equivalent value of provided finance. The 'real value' of support provided by several key providers – the MDBs, France, IFAD and the GCF – that provide most of their finance in the form of loans reduces significantly when considering the grant equivalent value of their adaptation finance. The debt issue is particularly important as Kenya, Tanzania and Uganda already spend large amounts of their budget servicing debt repayments and are at risk of debt distress according to the IMF World Bank Debt Sustainability Analysis. They also face ongoing challenges including high levels of poverty, particularly among the rural population, recovery from the impacts of the COVID-19 pandemic and ever-increasing climatic impacts. Loans, particularly those provided on non-concessional terms, add to existing debt burdens and reduce the ability of governments to pay for other critical expenditures including health, infrastructure and public services as well as climate change adaptation. Given the escalating debt crisis and growing impacts of climate change, it is imperative that donors in the field of adaptation prioritise climate grants over loans.

Gender responsiveness of adaptation-related development finance

It is important that climate-related projects are responsive to the needs of different genders, ensure meaningful participation in decision-making at all levels and integrate gender equality considerations in their design, goals, budget and delivery. This acknowledges that gender power structures significantly influence an individual's vulnerability and ability to respond to climate impacts, as well as that climate change and its solutions have the potential to exacerbate existing

gender-based inequalities. Gender integration in climate finance is necessary to ensure responsiveness to the needs of all genders and reduce the risk of perpetuating or reinforcing inequalities, supporting more equitable and effective adaptation. The need to advance full, equal and meaningful participation of all genders has been recognised in the Paris Agreement and the establishment of the Gender Action Plan at COP23 (UNFCCC, n.d.-b).

In the case of Kenya, Tanzania and Uganda, a relatively high share of the bilateral adaptation-related development finance committed in the period 2015-2022 is reported as targeting gender as a significant (66%) or principal (7%) objective in the eight-year period. Around one quarter (26%) of adaptation-related finance in this period was reported as not targeting gender as either a principal or significant objective. In comparison, Oxfam estimates that in 2019-20, 49.0% of bilateral climate-related development finance targeted gender as a significant objective and just 2.4% targeted gender as a principal objective, while 43.5% did not target gender (Zagema et al., 2023). Thus, the extent to which the bilateral climate-related development finance committed to Kenya, Tanzania and Uganda integrates gender objectives is higher than that seen globally.

Only bilateral donors reporting to the OECD are required to report information on gender equality. However, some donors elect to do this voluntarily. This analysis finds that of the adaptation-related development finance committed by the other multilateral organisations in the eight-year period, 46% was reported with a gender marker of significant and 1% with a gender marker of principal. The remaining 53% of adaptation-related finance was reported without a gender marker, indicating it had not been screened. Of the climate-related development finance committed by the MDBs, 99% was not screened for gender.

Key conclusion D: It is essential that climate-related projects are responsive to the needs of different genders and integrate gender equality considerations into their design, goals, budgets and delivery. This recognises that gender power structures affect vulnerability to climate impacts and ability to adapt and is necessary to ensure climate finance is equitable and effective. A relatively high proportion of the adaptation-related development finance committed between 2015 and 2022 integrates gender, with 66% addressing gender as a significant objective and 7% as a principal objective. However, a large share of multilateral adaptation-related finance was not screened for gender, which makes assessment of the level of gender integration in these projects difficult. While the level of gender integration reported by bilateral donors is relatively high, both bilateral donors and multilateral institutions should increase efforts to ensure consistent gender integration in climate financed projects and programmes in Kenya, Tanzania and Uganda.

Climate finance definitions, tracking and reporting

Tracking of climate finance is necessary to enable assessment of whether developed countries are delivering on their commitments under the USD 100 billion annual goal and forthcoming NCQG, and whether flows are addressing the specific needs of vulnerable countries. International efforts to track climate finance

have progressed in the last decade, with the Rio marker and climate components method of the MDBs now the most well-established approaches for tracking and reporting of climate finance. However, despite many years of discussion under both the OECD and UNFCCC, there is no commonly agreed definition for climate or adaptation finance and no universal method for tracking this finance. Persistent ambiguities in defining climate assistance have resulted in a plethora of accounting and reporting practices which make comparison and aggregation of data difficult (Weikmans, 2023).

This analysis relies on data from the OECD climate-related development finance dataset, i.e. non-climate-specific ODA reporting, as this is the channel through which a significant portion of climate finance flows, despite the emergence of dedicated climate funds. Due to the nature of reporting to this dataset, the figures must be adjusted for Rio marker scores to estimate climate finance flows, which can lead to over- or under-estimation. The Rio markers rely on donor self-reporting and there can be ambiguity and inconsistency in their application with different interpretations of significant and principal climate projects and different ways of counting the climate finance for those projects. Indeed, in assessment of 80 of the largest international adaptation finance projects in Kenya and Tanzania from 2013-2019, the descriptions of several projects classified as primary in support for adaptation were found to have relatively little emphasis on adaptation (Tidemand et al., 2022).

The issue of reporting of the face value of climate loans, rather than their grant equivalent, in climate finance has also been raised by organisations such as Oxfam, who criticise this as a lack of transparency in current reporting practices (see for example the Oxfam Shadow Reports; Kowalzig et al., 2024; Zagema et al., 2023). Many donors report the face value of loans as climate finance which, it is argued, does not accurately reflect the differences in the terms of finance provided, the burden in providing that finance by the donor and the benefit to the recipient country given that all loans require repayment. Accounting based on the grant equivalent figures seeks to address this. In reporting the grant equivalent figure, only the grant portion of a loan is counted as climate finance. This better reflects the financial effort of donors and gives a clearer picture of support provided to developing nations because it accounts for the concessionality of delivered loans.

This study is limited further to analysis of the commitments of climate finance to Kenya, Tanzania and Uganda as the OECD dataset is compiled on a commitment basis only. However, climate finance only has an impact once that finance is disbursed and projects are implemented. For bilateral donors reporting to the UNFCCC there is no mandate to report on disbursements of climate finance (countries may choose to report either) and most MDBS and some of the other multilateral climate funds report only on commitments. This makes it difficult to track the amount of climate finance that is actually disbursed to developing countries. Given that disbursements from bilateral providers for adaptation are substantially lower than commitments (UNEP, 2023b), improved reporting on disbursements of climate finance is much needed.

Key conclusion E: There is a significant need for enhanced transparency in climate finance reporting to enable assessment of whether developed countries are delivering on their commitments under the USD 100 billion annual goal and forthcoming NCQG and whether flows are addressing the specific needs of vulnerable countries. Currently, the lack of a commonly agreed definition of climate and adaptation finance and varying accounting practices make it difficult to accurately assess and compare data. Improved reporting on disbursements is particularly important, as the amount of finance disbursed for adaptation has been shown to be often much lower than the committed amounts. There is also a need for accounting based on the grant equivalent values of climate loans to better reflect the debt burden and financial benefit to recipient countries. Without standardised accounting and reporting based on the grant equivalent figures, it is challenging to determine if financial flows are meeting both global targets and the financial needs outlined by recipient countries in their Nationally Determined Contributions (NDCs).

Conclusion

This working paper has analysed the public international climate-related development finance reaching Tanzania, Kenya and Uganda, the three largest countries in the East Africa region, in the period 2015-2022, with a focus on the quantity of and trends in commitments of adaptation-related development finance, including the channel of delivery, sectors targeted, type of financial instrument and the grant equivalence of concessional climate loans. It has also provided an overview of the countries' climatic, economic and sociopolitical contexts including indebtedness and risk of debt distress, climate change projections and impacts and governance for climate change and climate finance. The discussion of the paper contextualises the observed trends in climate and adaptation-related development finance commitments and leads to five key conclusions regarding the amount of adaptation-related development finance committed, the channel of delivery and degree of devolution, the financial instruments used for adaptation-related development finance, the gender responsiveness of adaptation-related development finance and climate finance tracking and reporting.

ANNEX: GRANT ELEMENT CALCULATIONS

To estimate the real support value of provided finance, we attempt to account for climate finance at its grant equivalent value. The methodology used in this analysis to calculate grant equivalent values is defined by the OECD (OECD, 2023b).

Average grant element percentages are estimated for each bilateral donor for 2018-2022 using the CRS aid activity dataset (OECD, 2024b), which provides data on the grant equivalent values and loan conditions of disbursed climate-related (Riomarked) ODA loans. This information is not available in the climate-related development finance dataset as grant equivalent figures are published only for loan disbursements and the climate-related development finance dataset is published on a commitment basis.

The grant element for bilateral donors that have reported sufficient information in the CRS aid activity dataset is calculated by dividing the total grant equivalent value of all disbursed climate-related (Rio-marked) ODA loans by the total disbursed face value of those loans. For bilateral donors where provider-specific grant element percentages could not be calculated due to data constraints but for which the OECD has published the average grant element of their total ODA loans, these figures are used for the years 2018 to 2021 (OECD, 2023d). For all other bilateral donors (for which there is no or insufficient information in the CRS aid activity dataset or for which there is no average grant element published by the OECD) as well as all multilateral donors, the weighted average grant element percentage of all bilateral donors' disbursed climate-related (Rio-marked) ODA loans for each year is used, as calculated from the CRS aid activity dataset. Since grant equivalent figures became standard in reporting to the OECD DAC only in 2018, for all years prior (2015-2017) the weighted average grant element of the years 2018-2022 is used.

The resulting grant element percentages are presented in Table 17. Grant equivalent values are then estimated for each concessional climate-related loan in the climate-related development finance dataset by multiplying the face value commitment with the grant element percentage for that donor.

Table 17. Average grant element percentages estimated for bilateral donors and the weighted average of these grant element percentages across donors and years

Donor	2018	2019	2020	2021	2022	Weighted average 2018-2022
Australia	-	-	-	-	60.2%	60.2%
Austria	-	-	34.9%	98.3%	97.5%	79.3%
Belgium	79.4%	79.7%	79.0%	79.8%	80.3%	79.6%
Canada	100.0%	100.0%	95.3%	92.5%	99.3%	96.5%
EU institutions	38%*	39%*	45%*	43%*	-	-
Finland	79%*	67%*	-	66%*	-	-
France	35.5%	41.7%	43.3%	42.7%	34.2%	39.9%
Germany	31.3%	31.1%	32.5%	33.9%	28.6%	31.1%
Italy	92.1%	91.4%	36.6%	20.2%	12.7%	28.5%
Japan	69.5%	69.7%	69.7%	68.6%	69.5%	69.3%
Poland	85.1%	68%*	68%*	64%*	-	85.1%
Portugal	47%*	49%*	46%*	-	-	-
Spain	67.3%	33.2%	38.4%	33.4%	64.4%	49.8%
Switzerland	-	-	26%*		-	-
United Kingdom	100.0%	-	31%*	31%*	-	100.0%
Weighted average of all donors	53.2%	55.0%	53.0%	56.8%	51.8%	53.9%

Source: Authors' own calculations based on data from the CRS Aid Activity dataset (OECD, 2024b). Percentages marked with a star (*) indicates where the percentage is the average grant element percentage of all ODA loans as reported by the OECD (OECD, 2023d).

REFERENCES

Africa NDC Hub. (n.d.). *The Africa NDC Hub*. Retrieved January 16, 2024, from https://africandchub.org/

Africa NDC Hub. (2021). *Africa's NDC journey and the imperative for climate finance innovation*. https://africandchub.org/sites/default/files/2021-11/211103_ANDC%20Hub_Africa%E2%80%99s%20NDC%20journey%20and%20climate%20finance_.pdf

African Development Bank. (2019). *Analysis of Adaptation Components of Africa's Nationally Determined Contributions (NDCs)*.

 $https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/Analysis_of_Adaptation_Components_in_African_NDCs_2019.pdf$

African Development Bank, Asian Development Bank, Asian Infrastructure Investment Bank, European Bank for Reconstruction and Development European Investment Bank, Inter-American Development Bank Group, Islamic Development Bank, New Development Bank, International Bank for Reconstruction and Development, International Development Association, International Finance Corporation, and World Bank. (2021). *Common Principles for Mitigation Finance Tracking*.

https://www.eib.org/attachments/documents/mdb_idfc_mitigation_common_principles_en.pdf

African Development Bank, Asian Development Bank, European Bank for Reconstruction and Development, European Investment Bank, Inter-American Development Bank, International Finance Corporation, and World Bank. (2015). Common Principles for Climate Change Adaptation Finance Tracking. https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/Common_Principles_for_Climate_Change_Adaptation_Finance_Tracking_-_Version_1__02_July__2015.pdf

African Heads of State and Government. (2023). *The African Leaders Nairobi Declaration on Climate Change and Call To Action Preamble*. https://www.afdb.org/sites/default/files/2023/09/08/the_african_leaders_nairobi_d eclaration_on_climate_change-rev-eng.pdf

Awiti, A. O. (2022). Climate Change and Gender in Africa: A Review of Impact and Gender-Responsive Solutions. *Frontiers in Climate*, 4. https://doi.org/10.3389/FCLIM.2022.895950

Bedelian, C., Mulwa, J., Sumari, B., Rogers, P., Gravesen, M. L., and Funder, M. (2024). *Locally-led adaptation: moving from principles to practice in the water sector* | *DIIS*. https://www.diis.dk/en/research/locally-led-adaptation-moving-from-principles-to-practice-in-the-water-sector

Buchner, B., Naran, B., Fernandes, P., Padmanabhi, R., Rosane, P., Solomon, M., Stout, S., Strinati, C., Tolentino, R., Wakaba, G., Zhu, Y., Meattle, C., and Guzmán, S. (2021). *Global Landscape of Climate Finance 2021* (Issue December).

CIF. (2024). *Transformational Climate Finance: Kenya's County Climate Change Funds*. https://cif.org/sites/cif_enc/files/knowledgedocuments/tcf_kenya_case_study_apr11-compressed.pdf

Climate and Development Knowledge Network Global. (2022). *The IPCC's Sixth Assessment Report: Impacts, adaptation options and investment areas for a climate-resilient East Africa*. https://cdkn.org/sites/default/files/2022-09/IPCC%20Regional%20Factsheet_East%20Africa_WEB.pdf

Climate Change Act (2016).

https://cdn.climatepolicyradar.org/navigator/KEN/2016/climate-change-act-2016_45ed356c87ea6ccb5d90dda3b26e04aa.pdf

Clough, A., Monetta, C., Amondi, E., and Krishnaswamy, S. (2023). *The Lingering Impacts of COVID-19 on Food Security and Livelihoods across the Eastern Africa Region*. https://reliefweb.int/report/burundi/lingering-impacts-covid-19-food-security-and-livelihoods-across-eastern-africa-region-may-2023#

Concern, and Plan International. (2022). *Kenya Summary Report: Rapid gender and needs analysis in Marsabit (September 2022) - Kenya | ReliefWeb.* https://reliefweb.int/report/kenya/kenya-summary-report-rapid-gender-and-needs-analysis-marsabit-september-2022

East African Community. (2011a). East African Community Climate Change Master Plan 2011 - 2031.

 $https://www.meteorwanda.gov.rw/fileadmin/Template/Policies/EAC_Climate_Change_Master_Plan.pdf$

East African Community. (2011b). *East African Community Climate Change Policy*. https://www.eac.int/environment/climate-change/eac-climate-change-policy-framework

European Investment Bank. (2022). *Joint methodology for tracking climate change adaptation finance.*

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

Garschagen, M., and Doshi, D. (2022). Does funds-based adaptation finance reach the most vulnerable countries? *Global Environmental Change*, 73, 102450. https://doi.org/10.1016/J.GLOENVCHA.2021.102450

GIZ. (2023). *Climate Risk Profile for Eastern Africa*. https://www.weatheringrisk.org/sites/default/files/document/Climate-Risk-Profile_Eastern-Africa.pdf

Global Center on Adaptation. (2024). *Locally Led Adaptation*. https://gca.org/programs/locally-led-adaptation/

Government of Kenya. (2010). *National Climate Change Response Strategy*. https://cdkn.org/sites/default/files/files/National-Climate-Change-Response-Strategy_April-2010.pdf

Government of Kenya. (2016). *Green Economy Strategy and Implementation Plan* 2016–2030. https://www.fao.org/faolex/results/details/en/c/LEX-FAOC170764/

Integrated Food Security Phase Classification. (2023). *Kenya: IPC Food Security & Malnutrition Snapshot*. https://reliefweb.int/report/kenya/kenya-ipc-food-security-malnutrition-snapshot-acute-food-insecurity-july-2023-january-2024-acute-malnutrition-april-october-2023#

International Monetary Fund. (2024). *Debt Sustainability Analysis*. https://www.imf.org/en/publications/dsa

IPCC. (2023). *Climate Change* 2022 – *Impacts, Adaptation and Vulnerability*. Cambridge University Press. https://doi.org/10.1017/9781009325844

Kenya National Bureau of Statistics. (2020). *Comprehensive Poverty Report*. https://www.genderinkenya.org/wp-content/uploads/2020/08/CPR-Report-10_08_2020.pdf

Kowalzig, J., Cherry-Virdee, T., Bo Sørensen, R., and Cutts, S. (2024). *Climate Finance Short-changed*, 2024 *Update*.

https://www.oxfamnovib.nl/Files/rapporten/2024/Climate%20Finance%20Short-Changed%202024.pdf

Krishnan, N. (2020). Following The Money Isn't Enough: How Civil Society Organizations Provide Accountability For Climate Adaptation Finance. www.wri.org/publication/following-

Martín Casas, N., and Remalia Sanogo, A. (2022). Climate Finance in West Africa: Assessing the state of climate finance in one of the world's regions worst hit by the climate crisis.

https://oxfamilibrary.openrepository.com/bitstream/handle/10546/621420/bp-west-africa-climate-finance-270922-

en.pdf;jsessionid=945C64C0F8B79718638679F90E195F61?sequence=3

Ministry of Agriculture and Livestock Development. (2019). *Agricultural Sector Transformation and Growth Strategy*. https://faolex.fao.org/docs/pdf/ken189053.pdf

Ministry of Environment and Forestry. (2020). *Kenya's Updated Nationally Determined Contribution*. https://unfccc.int/sites/default/files/NDC/2022-06/Kenya%27s%20First%20%20NDC%20%28updated%20version%29.pdf

Ministry of Water and Environment. (2022). *The Republic of Uganda Updated Nationally Determined Contribution (NDC)*.

https://unfccc.int/sites/default/files/NDC/2022-09/Updated%20NDC%20_Uganda_2022%20Final.pdf

Mulwa, J., and Gravesen, M. L. (2022). *Mapping climate adaptation finance in Kenya's devolved governance system: a case of Makueni County* | *DIIS*.

https://www.diis.dk/en/research/mapping-climate-adaptation-finance-in-kenyas-devolved-governance-system-a-case-of-makueni

Notre Dame Global Adaptation Initiative. (2023). *University of Notre Dame Global Adaptation Initiative Country Index Technical Report*.

 $https://gain.nd.edu/assets/581554/nd_gain_countryindex_technical report_2024.pdf$

Notre Dame Global Adaptation Initiative. (2024a). *Country Index*. https://gain.nd.edu/our-work/country-index/

Notre Dame Global Adaptation Initiative. (2024b). *Notre Dame Global Adaptation Initiative Matrix*. https://gain.nd.edu/our-work/country-index/matrix/

OECD. (n.d.-a). *DAC Glossary of Key Terms and Concepts*. Retrieved January 4, 2024, from https://www.oecd.org/dac/dac-glossary.htm#Commitment

OECD. (n.d.-b). *Development Finance for Climate and Environment*. Retrieved December 18, 2023, from https://www.oecd.org/dac/financing-sustainable-development/development-finance-topics/climate-change.htm

OECD. (n.d.-c). OECD DAC Rio Markers for Climate Handbook.

OECD. (n.d.-d). *OECD Statistics*. 2023. Retrieved November 17, 2023, from https://stats.oecd.org/

OECD. (2017). Working Paper No. 339: The grant element method of measuring the concessionality of loans and debt relief. www.oecd.org/dev/wp.

OECD. (2023a). Climate Finance Provided and Mobilised by Developed Countries in 2013-2021. https://doi.org/10.1787/E20D2BC7-EN

OECD. (2023b). Converged Statistical Reporting Directives for the Creditor Reporting System (CRS) and the Annual DAC Questionnaire.

https://one.oecd.org/document/DCD/DAC/STAT(2023)9/FINAL/en/pdf

OECD. (2023c). Gender Equality and the Empowerment of Women and Girls DAC Guidance for Development Partners. https://one.oecd.org/document/DCD/DAC/M

OECD. (2023d). *Monitoring ODA grant equivalents*. https://one.oecd.org/document/DCD/DAC/STAT(2023)25/FINAL/en/pdf

OECD. (2023e). Results of the Survey on the Coefficients Applied to 2019-20 Rio Marker Data when Reporting to the UN Environmental Conventions. https://one.oecd.org/document/DCD/DAC/STAT(2022)24/REV1/en/pdf

OECD. (2023f). Scaling Up Adaptation Finance in Developing Countries: Challenges and Opportunities for International Providers. https://doi.org/10.1787/B0878862-EN

OECD. (2024a). Climate Finance Provided and Mobilised by Developed Countries in 2013-2022. https://doi.org/10.1787/19150727-en

OECD. (2024b). *DAC and CRS code list*. https://web-archive.oecd.org/temp/2024-06-19/57753-dacandcrscodelists.htm

Office of the United Nations High Commissioner for Human Rights and UNEP. (2022). A Study on Women, Gender Inequalities and Climate-Induced Migration in East Africa.

Paris Agreement (2015).

https://unfccc.int/sites/default/files/english_paris_agreement.pdf

Parliament of Tanzania. (2004). *The Environmental Management Act*, 2004. https://www.nemc.or.tz/uploads/publications/sw-1576228517-ema%20act2004.pdf

Parliamentary Forum on Climate Change-Uganda. (2024). *Parliamentary Forum on Climate Change-Uganda*. https://pfccparliament.go.ug/

Rahman, M. F., Falzon, D., Robinson, S. ann, Kuhl, L., Westoby, R., Omukuti, J., Schipper, E. L. F., McNamara, K. E., Resurrección, B. P., Mfitumukiza, D., and Nadiruzzaman, M. (2023). Locally Led Adaptation: Promise, pitfalls, and possibilities. *Ambio*, *52*(10), 1543–1557. https://doi.org/https://doi.org/10.1007/s13280-023-01884-7

Republic of Kenya. (2013). *National Climate Change Action Plan* 2013 -2017. https://cdkn.org/sites/default/files/files/Kenya-National-Climate-Change-Action-Plan.pdf

Republic of Kenya. (2016a). *Kenya National Adaptation Plan 2015-2030*. https://www4.unfccc.int/sites/NAPC/Documents%20NAP/Kenya_NAP_Final.pdf

Republic of Kenya. (2016b). *The National Treasury National Policy on Climate Finance*. https://faolex.fao.org/docs/pdf/ken190011.pdf

Republic of Kenya. (2018). *National Climate Action Plan (NCCAP) II (2018-2022)* . https://faolex.fao.org/docs/pdf/ken190169.pdf

Republic of Kenya. (2022a). *Draft National Green Fiscal Incentives Policy Framework*. https://www.treasury.go.ke/wp-content/uploads/2023/01/Draft-Green-Fiscal-Incentives-Policy-Framework.pdf

Republic of Kenya. (2022b). *Kenya Vision* 2030. https://www.planning.go.ke/kenya-vision-2030/

Republic of Kenya. (2022c). *The Republic of Kenya the National Treasury and Economic Planning Draft National Green Fiscal Incentives Policy Framework* 12/2022. https://www.treasury.go.ke/wp-content/uploads/2023/01/Draft-Green-Fiscal-Incentives-Policy-Framework.pdf Republic of Uganda. (2015). *Uganda National Climate Change Policy*. https://www.mwe.go.ug/sites/default/files/library/National%20Climate%20Change%20Policy%20April%202015%20final.pdf

Republic of Uganda. (2020). *Third National Development Plan (NDP III)* (2020/21-2024/25). https://www.npa.go.ug/wp-content/uploads/2023/03/NDPIII-Finale_Compressed.pdf

Republic of Uganda. (2021a). *National Climate Change Act*, 2021. https://ulii.org/akn/ug/act/2021/nn/eng@2021-12-31

Republic of Uganda. (2021b). *National Climate Change Act*, 2021. https://ulii.org/akn/ug/act/2021/nn/eng@2021-12-31

Richardson, K., Calow, R., Pichon, F., New, S., and Osborne, R. (2022). *Climate risk report for the East Africa region report*. https://reliefweb.int/report/ethiopia/climate-risk-report-east-africa-region

Roy, Bisan, Nitschke, and Reenberg. (2021). FROM WORDS TO ACTION LESSONS FROM NORDIC EFFORTS TO INTEGRATE GENDER EQUALITY IN CLIMATE FINANCE. https://actalliance.org/wp-content/uploads/2021/11/Climate FromWordToAction-final.pdf

Schalatek, L. (2020). *Gender and Climate Finance*. https://climatefundsupdate.org/wp-content/uploads/2021/03/CFF10-ENG-2020-Digital.pdf

Soanes, M., Rai, N., Steele, P., Shakya, C., and Macgregor, J. (2017). *Delivering real change Getting international climate finance to the local level*. www.iied.org@iiedwww.facebook.com/theIIEDhttp://pubs.iied.org

The United Republic of Tanzania. (2017). *Agricultural Sector Development Programme Phase II (ASDP II)*.

https://asdp.kilimo.go.tz/index.php/resources/view/agricultural-sector-development-programme-phase-ii-asdp-ii

The United Republic of Tanzania. (2021). *The United Republic of Tanzania Nationally Determined Contribution*. https://unfccc.int/sites/default/files/NDC/2022-06/TANZANIA_NDC_SUBMISSION_30%20JULY%202021.pdf

The United Republic of Tanzania Vice President's Office. (2021). *Nationally Determined Contribution*. https://unfccc.int/sites/default/files/NDC/2022-06/TANZANIA_NDC_SUBMISSION_30%20JULY%202021.pdf

The World Bank Group. (2021a). *Climate Risk Profile: Kenya*. https://climateknowledgeportal.worldbank.org/sites/default/files/2021-05/15724-WB_Kenya%20Country%20Profile-WEB.pdf

The World Bank Group. (2021b). *Climate Risk Profile: Kenya* (2021). www.worldbank.org

Tidemand, P., Hattle, A., Friis-Hansen, E., Sumari, B., Rogers, P., Mulwa, J., and Omala, M. (2022). *Devolution of donor funded climate change adaptation finance*. https://www.diis.dk/en/research/devolution-of-donor-funded-climate-change-adaptation-finance

Uganda Bureau of Statistics. (2021). *Uganda Bureau Of Statistics* 2021 *Statistical Abstract*. https://www.ubos.org/wp-content/uploads/publications/01_20222021_Statistical_Abstract.pdf

Uganda National Planning Authority. (2018). *Uganda Vision 2040*. https://npa.go.ug/vision2040/

UNCDF. (2018). Supporting local governments in Tanzania to increase awareness and capacities to respond to climate change - UN Capital Development Fund (UNCDF). https://www.uncdf.org/article/4040/supporting-local-governments-in-tanzania-to-increase-awareness-and-capacities-to-respond-to-climate-change

UNCDF. (2024). *Local Climate Adaptive Living Facility*. https://www.uncdf.org/local/where-we-work

UNEP. (2023a). Adaptation Finance Gap Update 2023. In *Adaptation Gap Report* 2023: Underfinanced. Underprepared. Inadequate investment and planning on climate adaptation leaves world exposed.

UNEP. (2023b). *Adaptation Gap Report* 2023. https://www.unep.org/resources/adaptation-gap-report-2023

UNFCCC. (n.d.-a). *Nationally Determined Contributions Registry*. Retrieved January 16, 2024, from https://unfccc.int/NDCREG

UNFCCC. (n.d.-b). *The Gender Action Plan*. Retrieved March 1, 2024, from https://unfccc.int/topics/gender/workstreams/the-gender-action-plan

UNFCCC. (2009). *COP 15 - Reports*. https://unfccc.int/process-and-meetings/conferences/past-conferences/copenhagen-climate-change-conference-december-2009/cop-15/cop-15-reports

UNFCCC. (2019). Differentiated impacts of climate change on women and men; the integration of gender considerations in climate policies, plans and actions; and progress in enhancing gender balance in national climate delegations. https://unfccc.int/sites/default/files/resource/sbi2019_inf8.pdf

UNFCCC. (2021a). *COP26 Outcomes: Finance for Climate Adaptation*. https://unfccc.int/process-and-meetings/the-paris-agreement/the-glasgow-climate-pact/cop26-outcomes-finance-for-climate-adaptation

UNFCCC. (2021b). Technical Assessment of Climate Finance in the East African Community.

https://unfccc.int/sites/default/files/resource/NBF_TA_Climate_Finance_EA_final.pdf

UNFCCC. (2022). *Climate Finance Access and Mobilization Strategy for the East African Community* (2022/23 - 2031/32). https://unfccc.int/documents/611239

UNFCCC. (2023a). *Nationally determined contributions under the Paris Agreement*. https://unfccc.int/sites/default/files/resource/cma2023_12.pdf

UNFCCC. (2023b). *New Collective Quantified Goal on Climate Finance*. https://unfccc.int/NCQG

United Kingdom Foreign, C. and D. O. (2023). *Annual Report on the Taskforce on Access to Climate Finance* 2023. https://ndcpartnership.org/sites/default/files/2023-12/annual-report-taskforce-access-climate-finance-2023.pdf

United Nations. (2024). *Least Developed Countries (LDCs)*. https://www.un.org/development/desa/dpad/least-developed-country-category.html

United Nations Department of Economic and Social Affairs. (2021). *Developing the strategic guidelines for climate financing, considering possible linkages between climate financing and post COVID-19 agricultural development in Tanzania*. https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/DESA-Intdiv-TZA.pdf

United Republic of Tanzania. (1999). *Tanzania Development Vision* 2025. http://www.tzonline.org/pdf/theTanzaniadevelopmentvision.pdf

United Republic of Tanzania. (2007). *National Adaptation Programme of Action* (*NAPA*). https://unfccc.int/resource/docs/napa/tza01.pdf

United Republic of Tanzania. (2021a). *National Climate Change Response Strategy*. https://faolex.fao.org/docs/pdf/tan214815.pdf

United Republic of Tanzania. (2021b). *National Environmental Policy*. https://www.vpo.go.tz/uploads/publications/en-1644923087-NATIONAL%20%20ENVIRONMENTAL%20POLICY%202021%20new.pdf

United Republic of Tanzania. (2021c). *National Five Year Development Plan* 2021/22-2025/26. https://repository.mof.go.tz/handle/123456789/107

United Republic of Tanzania. (2022). *National Environmental Master Plan for Strategic Interventions*. https://www.vpo.go.tz/uploads/files/MASTER%20PLAN-English_eBOOK_FINAL.pdf

UN-OHRRLS. (2023). *Improving Access to Finance for the Least Developed Countries Executive summary*.

https://www.un.org/ldc5/sites/www.un.org.ldc5/files/improving_access_to_finance_for_the_least_developed_countries-report.pdf

Weikmans, R. (2023). The Normative Foundations of International Climate Adaptation Finance. *Elements in Earth System Governance*. https://doi.org/10.1017/9781108943208

World Bank. (2021). Uganda Climate Risk Country Profile. www.worldbank.org

World Bank. (2024a). Poverty and Inequality Platform. pip.worldbank.org

World Bank. (2024b). *World Bank Country and Lending Groups*. https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups

World Bank. (2024c). World Bank Open Data. https://data.worldbank.org/

World Health Organization. (2024). *Drought and food insecurity in the greater Horn of Africa*. https://www.who.int/emergencies/situations/drought-food-insecurity-greater-horn-of-africa

Zagema, B., Kowalzig, J., Walsh, L., Hattle, A., Roy, C., and Dejgaard, H. P. (2023). *Climate Finance Shadow Report* 2023. https://doi.org/10.21201/2023.621500