

Financial Pathways to Climate Change Adaptation

Insights from Tanzania

By Dr. Peter Msumali Rogers, 24th February 2026

Summary

Climate change poses escalating global risks, yet pathways for financing climate adaptation remain insufficiently explored in the literature. This study applies actor-oriented theory to examine fiscal settings and climate finance flows across the allocation, disbursement, and expenditure stages, drawing on evidence from Tanzania. Using a longitudinal research design, the study focuses on national and subnational levels, with case studies from Karatu and Monduli districts. Data were collected through document review of OECD-DAC¹ records and national and district budgets covering 2014–2022, complemented by key informant interviews with stakeholders from national and subnational governments and development partners. Findings indicate a multi-level, actor-driven fiscal setting, with international sources allocating US\$2.9 billion and disbursing US\$2.1 billion, while national sources allocated US\$1.7 billion and expended US\$1.3 billion over the observed time period. Subnational expenditure lagged behind allocations. Financing was dominated by multilateral loans, with agriculture, energy, water, and transport as priority sectors. The study concludes that while adaptation financing is progressing, improving fiscal coordination and increasing domestic financing are critical to enhancing effectiveness and sustainability.

Motivation

This study is guided by two interrelated research questions. This includes how fiscal settings support climate finance and how adaptation finance from international, national, and subnational sources are allocated, disbursed, and expended in Tanzania. The motivation for this research arises from the growing global emphasis on adaptation finance amid persistent implementation bottlenecks and limited empirical evidence on how funds flow through public finance systems. By grounding the analysis in real budgetary data and local government experiences, the study addresses a critical evidence gap and generates insights directly relevant to policy reforms aimed at strengthening climate-resilient development and locally led adaptation.

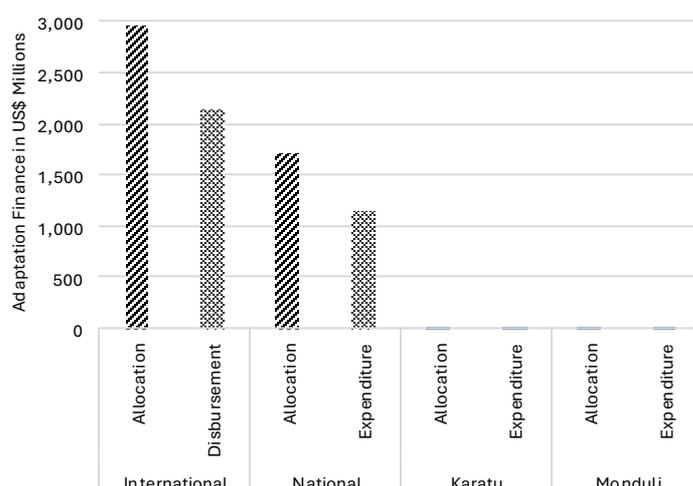
Approach and methods

To generate the findings, the study combined budget tracking and stakeholder perspectives. The study first reviewed international and national climate finance records, including OECD-DAC data and national and district budgets, to trace how adaptation funds were allocated, disbursed, and spent over time from 2014–2022. To complement the numbers, the study conducted interviews with officials from central and local government as well as development partners, asking how decisions were made, where delays occurred, and what constraints they faced. By bringing together financial data and real-world experiences from those managing the funds, the approach shows not only how (much) money flows, but how climate finance works in practice and why gaps emerge along the way.

Key findings

- **Climate finance is growing in Tanzania, but leakage occurs along the way.** International sources allocated approximately US\$2.9 billion, yet only US\$2.1 billion (72%) was disbursed. Similarly, national sources allocated US\$1.7 billion, of which US\$1.3 billion (76%) was expended. Karatu District allocated US\$8.9 million and spent US\$6.0 million (67%), while Monduli allocated US\$8.3 million and spent US\$5.9 million (71%). A significant share of allocated funds was not fully disbursed or spent, revealing inefficiencies between commitment and

Figure 1: Financial allocation, disbursement and expenditure for climate adaptation



implementation. This may be explained by challenges in reporting, exchange rates, institutional challenges, financial shift.

- **The system is actor-driven, not automatic.** Funding flows are shaped by negotiations, incentives, and institutional power across multiple levels, rather than by technical rules alone, which helps explain uneven outcomes across sectors and districts.
- **Loans dominate adaptation finance.** Multilateral loans account for the largest share of resources, outweighing grants from bilateral and domestic sources. This raises concerns about long-term debt sustainability.
- **Financing targets livelihood-critical sectors.** The bulk of funds supported agriculture, energy, water, and transport, sectors that directly underpin climate resilience and economic stability.

Insights and interpretation

These findings matter reveal that climate adaptation finance is not only constrained by insufficient commitments, but also by how fiscal systems, institutions, and actors interact to translate commitments into action. The consistent gap between allocation, disbursement, and expenditure highlights structural frictions in public financial management and donor modalities. What is striking is the dominance of multilateral loans over grants, echoing global concerns that adaptation finance is increasingly debt-financed, potentially undermining long-term resilience. The actor-driven fiscal setting observed supports recent scholarship calling for political economy informed approaches to climate finance, suggesting that technical fixes alone are insufficient. For policy and practice, the results point to the need for reforming fiscal policy and practice, strengthening domestic financing, and institutionalizing locally led mechanisms.

Recommendations

The findings suggest that improving climate adaptation outcomes requires shifting attention from headline financing figures to the systems and actors that determine whether funds are used effectively. Reforms are needed to strengthen fiscal policy and practice, rebalance financing sources, and enable local actors to play a more decisive role in climate finance delivery. In sum, this research suggests:

- **Strengthen fiscal and public financial management systems** to reduce gaps between allocation, disbursement, and expenditure, through clearer roles, timelines, and accountability across actors.
- **Increase domestic financing** for adaptation to reduce overreliance on multilateral loans and improve long-term fiscal sustainability.
- **Institutionalize locally led climate finance mechanisms**, building on evidence that subnational governments can effectively absorb and utilize adaptation funds when resources are predictable.
- **Rebalance adaptation finance toward grants**, especially for highly vulnerable sectors and communities, to avoid increasing debt burdens.
- **Apply political economy and actor-oriented analysis** in climate finance design to ensure that financing mechanisms reflect operating institutional and power dynamics rather than purely technical assumptions.

Attribution: This brief is an output associated with the ClimateFiGS Speaker Series, and is based on the following sources: Rogers, P.M, Mabhuye, E.D and Pauline, N.M. 2025. *Rethinking the Institutional Architecture for the Governance of Climate Change Adaptation Finance in Tanzania. The Journal of Environment & Development.* DOI: 10.1177/10704965251386572 and Rogers, P.M, Mabhuye, E.D and Pauline, N.M. 2026. *Factors Used in Allocating Finance for Climate Change Adaptation in Tanzania. Sage Open.* DOI: 10.1177/21582440261424966. It was shared in relation to the session “Getting Climate Finance to the Frontlines: Lessons from Tanzania” on 24th February 2026; ClimateFiGS did not fund, commission, or substantially edit the underlying paper.



Funded by
the European Union



European Research Council
FUNDING EXCELLENCE

ClimateFiGS is funded primarily by the European Union (ERC, ClimateFiGS, 101117670). Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Research Council. Neither the European Union nor the granting authority can be held responsible for them