ACADEMIA International Journal for Social Sciences
Volume 4, Issue 1, 2025 ISSN-L (Online): 3006-6638

Climate Finance and Sustainable Development in the Gambia: Financing Instruments, Institutional Capacity and Policy Pathways

Lamin Dampha
ldampha@utg.edu.gm
School of Business and Public Administration, University of the Gambia, Kanifing, The Gambia

Corresponding Author: Lamin Dampha ldampha@utg.edu.gm

Received: 03-01-2025 **Revised:** 29-01-2025 **Accepted:** 16-02-2025 **Published:** 26-02-2025

ABSTRACT

Climate finance has emerged as a critical instrument for reconciling climate resilience, low-carbon transformation and sustainable development in climate-vulnerable economies. This article examines how the design, allocation and governance of climate finance can advance sustainable development in The Gambia. Drawing on a structured narrative synthesis of scholarly and institutional literature on climate finance and sustainable development, the analysis integrates perspectives on climate justice, public goods, financing additionality and institutional capacity. The review identifies four interdependent conditions for effective development outcomes: alignment of financing instruments with project characteristics, prioritisation of vulnerable beneficiaries, credible national and local implementation capacity, and transparent monitoring of climate and socioeconomic co-benefits. Grants and highly concessional resources are particularly appropriate for adaptation activities with limited revenue-generating potential, whereas guarantees and blended instruments may support commercially viable mitigation investments when fiscal risks are carefully managed. The article advances an integrated policy framework linking financing purpose, instrument choice, beneficiary inclusion, governance and measurable development outcomes. It concludes that the developmental contribution of climate finance depends less on aggregate commitments than on equitable access, effective implementation and accountability, and proposes a practical agenda for climate-finance governance and future research in The Gambia.

Keywords: *climate finance; sustainable development; adaptation; mitigation; climate governance; The Gambia*

INTRODUCTION

Climate change has become a fundamental constraint on sustainable development. Its effects operate through agricultural production, water availability, coastal infrastructure, public health and household livelihoods, with disproportionate consequences for low-income populations (IPCC, 2022a; IPCC, 2023). The development challenge is not merely to mobilise additional finance but to ensure that financial flows reduce climate risk while improving access to essential services and productive opportunities. Climate finance thus occupies the intersection of environmental policy, development economics and public financial management (AfDB, 2022; IMF, 2023).

The Gambia offers an important setting for examining this intersection. Agriculture, climate-sensitive livelihoods and low-lying coastal settlements make adaptation central to development planning. At the same time, clean energy and efficient infrastructure can contribute to mitigation and reduce dependence on imported fuels. Such priorities compete for scarce public resources, while climate projects may require complex proposal preparation, procurement, monitoring and reporting. The global literature emphasises that access to finance and the ability to use it effectively are distinct policy problems (UNEP, 2023; AfDB, 2023).

Climate finance is not a homogeneous resource. It may take the form of grants, concessional or market-rate loans, guarantees, equity and blended structures, each allocating financial risk and future obligations differently. Its purpose may be mitigation, adaptation or both. International reporting also distinguishes commitments from disbursements and public provision from private mobilisation (OECD, 2024; UNFCCC, 2022). Treating all climate finance as interchangeable can obscure its fiscal and distributive implications.

This article asks: (i) how can climate finance support sustainable development outcomes in The Gambia; (ii) how should adaptation and mitigation priorities shape instrument choice; (iii) what role do public, private and community beneficiaries play; and (iv) which governance capabilities are necessary for effectiveness? The contribution is an integrated analytical framework that translates recent climate-finance literature into actionable appraisal principles without claiming unobserved national project effects.

Conceptual And Theoretical Foundations

Climate finance as a development instrument

Climate finance encompasses financial resources intended to support climate-change mitigation and adaptation. Its developmental relevance depends on additionality, concessionality, access, effectiveness and the distribution of costs and benefits. For example, finance that reduces flood exposure may protect household assets and local commerce, while investment in reliable renewable electricity may enhance productive activity and service delivery. These co-benefits, however, are contingent rather than automatic: infrastructure can be poorly maintained, benefits can be captured by relatively affluent users and debt service can constrain social spending (IPCC, 2022b; IMF, 2023).

Public goods, externalities and financing choice

Climate mitigation produces benefits that extend beyond project boundaries, while many adaptation investments protect shared infrastructure and ecosystems. These public-good and externality features weaken the case for relying solely on commercial finance. Grant funding or concessional public investment may be warranted where benefits are broad but project cash flows are limited. By contrast, commercially viable renewable-energy assets may attract private capital where tariffs, creditworthiness and regulation support predictable revenue (IEA, 2023; AfDB, 2023). The central implication is that financing structure should follow the economic characteristics of the intervention rather than the reverse.

Climate justice, vulnerability and inclusion

The equity dimension concerns who bears climate risk, who can access financing and who receives project benefits. Smallholder farmers, informal workers, women, persons with disabilities and low-income coastal communities may face constraints in meeting collateral, documentation or co-financing requirements. A financing programme that is efficient in aggregate can still deepen inequality if its eligibility rules systematically exclude vulnerable households. The IPCC (2022a) highlights the importance of inclusive and context-sensitive adaptation, while UNEP (2024) emphasises persistent financing and implementation gaps.

Institutional capacity and policy coherence

Institutions translate commitments into implementable projects. Capabilities include project preparation, fiduciary systems, procurement, safeguards, coordination across ministries, monitoring and long-term maintenance. Weaknesses in these areas can delay disbursement or diminish results even where funds

have been approved. Effective climate finance therefore requires policy coherence between national development strategies, public investment plans and climate commitments (UNFCCC, 2022; IMF, 2023).

Review Approach and Evidence Base

This is a structured narrative review and conceptual policy analysis, not an empirical impact evaluation. The review prioritises major synthesis assessments and institutional publications from the IPCC, OECD, UNEP, UNFCCC, African Development Bank, Climate Policy Initiative, IMF, World Bank, FAO and IEA. Sources are compared by purpose, geographical relevance, financial definition and policy implication. The method supports interpretive synthesis but does not establish causal effects for specific Gambian projects.

The review proceeds in four steps. First, it distinguishes adaptation, mitigation and cross-cutting finance. Second, it compares grants, debt and risk-sharing instruments. Third, it identifies the beneficiary and governance conditions through which financing may produce development co-benefits. Fourth, it derives an appraisal framework and implementation priorities for The Gambia. Because the source base combines global and regional evidence, conclusions about The Gambia are explicitly framed as context-sensitive policy propositions requiring local verification.

Table 1. Analytical dimensions and guiding questions

Dimension	Guiding question	Relevant evidence
Financing purpose	Is the investment primarily adaptation, mitigation or cross-cutting?	IPCC (2022a, 2022b); UNEP (2023)
Financial instrument	What is the grant element, repayment obligation or risk-sharing structure?	OECD (2024); AfDB (2023)
Beneficiary	Who gains, who pays and who may be excluded?	IPCC (2022a); FAO (2021)
Institutional readiness	Can implementing agencies prepare, execute and maintain the project?	UNFCCC (2022); IMF (2023)
Development outcome	Which resilience, service, livelihood or emissions indicators are measurable?	IPCC (2023); UNEP (2024)

Source: Author's synthesis of the cited literature.

Global Climate Finance and The Development Challenge

Mobilisation does not equal effective access

The global climate-finance landscape has expanded, but aggregate growth does not necessarily imply adequate or equitable access for the most vulnerable countries. Climate Policy Initiative (2023) documents the scale and composition of worldwide climate-finance flows, while OECD (2024) reports on finance provided and mobilised by developed countries for developing countries. The two series use different definitions and coverage and should not be combined as though they measure the same universe. Moreover, headline totals may include loans whose repayment obligations differ fundamentally from grants.

Access also depends on project readiness. Developing countries may need technical assistance for feasibility studies, environmental and social safeguards, procurement planning and monitoring arrangements before they can secure or absorb finance. This creates a paradox: countries with high vulnerability may be least able to prepare the documentation required by sophisticated funding mechanisms. Investment in institutional capacity is therefore a financing priority in its own right (AfDB, 2023; UNFCCC, 2022).

Adaptation finance and the public-good gap

Adaptation addresses climate hazards and exposure, including flood protection, resilient water systems, climate-smart agriculture and early warning. Many of these interventions deliver avoided losses rather than a direct commercial revenue stream. UNEP (2023, 2024) documents the persistent gap between adaptation needs and international financial flows. Where expected benefits accrue widely across households and communities, grants or highly concessional financing can be more appropriate than loans serviced through user charges.

Mitigation finance and the role of markets

Mitigation investments may offer revenue-generating opportunities in electricity generation, energy efficiency and transport. Nevertheless, investment conditions depend on regulation, grid capacity, demand, currency risk and the credibility of counterparties. IEA (2023) highlights the scale of energy investment requirements, while the World Bank (2024) discusses carbon-pricing developments. These mechanisms can support low-carbon transitions but do not remove the need for careful distributional analysis or targeted protection for low-income users.

Table 2. Financing purposes and sustainable-development pathways

Purpose	Illustrative intervention	Potential development pathway	Key risk
Adaptation	Flood drainage and coastal protection	Avoided damage; continuity of livelihoods and services	Weak maintenance funding
Adaptation	Climate-resilient agriculture and water	Reduced crop losses; more reliable water access	Unequal farmer participation
Mitigation	Renewable electricity and efficiency	Lower emissions; more reliable energy for enterprises	Tariff and currency exposure
Cross-cutting	Mangrove restoration and watershed management	Ecosystem resilience; livelihood support; carbon benefits	Land-use conflict and unclear rights
Enabling	Climate data and project-preparation capacity	Better targeting, investment readiness and monitoring	Fragmented institutional mandates

Source: Author's synthesis of the cited literature.

Financial Instruments, Beneficiaries and Allocation

Grants and concessional loans

Grants do not create a contractual repayment burden and are especially important for highly vulnerable communities and interventions with diffuse benefits. However, grant resources remain scarce and must be governed by transparent eligibility and performance rules. Concessional loans can extend available resources for projects with long-lived benefits, but their terms should be evaluated against debt sustainability, foreign-exchange exposure and expected fiscal returns. Loan finance is not inherently unsuitable for adaptation; its suitability depends on the capacity of the beneficiary or public budget to bear repayment without compromising essential expenditure (OECD, 2024; IMF, 2023).

Blended finance and private-sector participation

Blended finance combines concessional public or philanthropic resources with commercial capital to address investment risks or market failures. Guarantees, first-loss capital and concessional tranches may attract investment into renewable energy or climate-resilient enterprises. However, the public subsidy should be proportionate to a demonstrable financing gap. A transaction that mobilises private capital but transfers disproportionate downside risk to the state may undermine fiscal sustainability (AfDB, 2023; CPI, 2023).

Beneficiary structure and inclusion

Public agencies, private firms, community organisations and households face different constraints and incentives. Public-sector projects may achieve broad coverage but depend on budgetary maintenance and accountability. Private investments may provide operational discipline but risk concentrating services where customers can pay. Community-led investments can improve local ownership but need administrative support and mechanisms to manage local power asymmetries. Instrument design should therefore combine financial feasibility with social targeting and transparent grievance procedures (FAO, 2021; IPCC, 2022a).

Table 3. Policy-oriented instrument selection matrix

Instrument	Most defensible use	Required safeguards	Illustrative beneficiaries
Grant	Public goods and non-revenue adaptation	Transparent targeting; audit; maintenance plan	Vulnerable communities; local authorities
Concessional loan	Long-lived investments with credible fiscal or project returns	Debt analysis; currency-risk assessment; procurement controls	Public utilities; government agencies
Guarantee / blended	Viable projects constrained by identifiable risks	Additionality test; contingent-liability reporting	Energy developers; climate SMEs
Technical-assistance grant	Project preparation, climate data and fiduciary strengthening	Skills transfer; institutional ownership; output verification	Ministries; municipalities; local implementers

Source: Author's synthesis of the cited literature.

The Gambia: Priority Sectors and Implementation Conditions

Agriculture and food-system resilience

Agriculture is a natural priority because rainfall variability, flooding and climate-related disruptions can affect production, income and food security. Potential investments include water harvesting, climate information, soil management, resilient storage and extension services. FAO (2021) argues for agrifood-system resilience to shocks and stresses; IPCC (2022a) underscores the importance of locally appropriate adaptation. In The Gambia, appraisal should assess who receives extension support, whether women and smallholders can access the intervention, and whether recurrent operating costs are funded.

Coastal, urban and water resilience

Coastal exposure, urban drainage and water management create adaptation needs that often produce large public benefits with limited direct revenue. Appropriate finance may combine grants for protective infrastructure with institutional support for land-use planning and maintenance. Project evaluation should consider avoided damage, continuity of essential services, ecosystem effects and potential displacement rather than construction outputs alone (IPCC, 2022a; UNEP, 2024).

Energy access and low-carbon development

Reliable energy can contribute simultaneously to productive activity, public-service delivery and emissions mitigation. Renewable generation, energy efficiency and decentralised systems are relevant pathways, but financing depends on demand forecasts, affordability, grid integration and payment risk. IEA (2023) emphasises the importance of investment conditions for clean-energy transitions. For The Gambia, the appropriate financing package should balance commercial viability with affordability for households and microenterprises.

Governance and coordination

A central implementation challenge is the fragmentation of project data across funders and agencies. A national registry could record financing source, instrument, terms, approval and disbursement dates, sector, geographic location, implementing institution, intended beneficiaries and reported outcomes. Such a system would improve transparency and reduce double counting. The registry should distinguish approved commitments from funds received and expenditures made, consistent with the definitional concerns discussed by OECD (2024) and UNFCCC (2022).

Table 4. Proposed Gambian climate-finance priorities and indicators

Policy area	Priority action	Illustrative monitoring indicator
Agriculture	Support water-efficient and climate-resilient production	Beneficiary reach; crop-loss trends; functioning irrigation
Coastal and urban	Fund protective drainage and nature-based resilience	Assets protected; service interruption; maintenance status
Energy	Support affordable renewable and efficient systems	Reliability; affordability; estimated emissions avoided
Public finance	Track commitments, disbursements and debt terms	Share of projects with complete financial records
Institutional capacity	Finance project preparation and	Project readiness; procurement

	safeguards	timeliness; audit follow-up
Inclusion	Require meaningful beneficiary consultation	Participation by vulnerable groups; grievances resolved

Source: Author's synthesis of the cited literature.

An Integrated Policy Framework

The synthesis supports a sequential policy framework. The first stage identifies the climate hazard or mitigation opportunity and establishes its relationship to a national development priority. The second assesses the distribution of benefits, the existence of a revenue stream and the potential repayment burden. The third matches the intervention to an instrument and implementing institution. The fourth evaluates safeguards, community participation and maintenance. The final stage specifies measurable outcomes and transparent reporting obligations. Each stage is necessary because a well-financed project may still fail to generate durable development benefits if it is poorly targeted or maintained.

Table 5. Climate-finance appraisal and accountability framework

Stage	Core decision	Minimum documentary evidence
1. Strategic fit	Does the proposal address a credible climate and development priority?	Risk assessment; national plan alignment
2. Benefit and equity	Who benefits, who pays and who may be harmed?	Stakeholder analysis; inclusion plan
3. Instrument choice	Is grant, debt or risk-sharing finance appropriate?	Cash-flow case; grant element; debt or risk appraisal
4. Delivery readiness	Can the implementer execute and maintain the investment?	Procurement, safeguards and maintenance plans
5. Results and learning	Can outputs and outcomes be independently checked?	Baseline, indicators, reporting and grievance system

Source: Author's synthesis of the cited literature.

Propositions for subsequent testing

The conceptual framework generates four propositions for future empirical research. P1: climate finance is more likely to produce durable development benefits when project selection explicitly links climate risk to local development priorities. P2: concessionality matters most for adaptation investments with limited direct cash flows. P3: institutional capacity strengthens the relationship between financing commitments and implemented outcomes. P4: meaningful community participation improves beneficiary inclusion and long-term maintenance. These are analytical propositions derived from the literature, not tested hypotheses or observed results.

DISCUSSION

The central lesson is that the amount of finance mobilised is an incomplete measure of success. A financing package should be judged by whether it supports a technically sound intervention, reaches vulnerable beneficiaries and produces outcomes that persist beyond the funding period. The emphasis on delivery quality is consistent with the IPCC's assessment that effective climate responses depend on enabling conditions, governance and context (IPCC, 2023). It also responds to UNEP's concern that adaptation needs substantially exceed current support (UNEP, 2023; UNEP, 2024).

Instrument choice introduces a second trade-off. Grants can protect fiscal space but may be limited in scale; loans may accelerate investment but create repayment and exchange-rate risks; blended structures can mobilise private finance but introduce complex contracts and contingent liabilities. A principled allocation system should avoid categorical claims that one instrument is always superior. Instead, it should evaluate financial terms against the distribution of benefits, the durability of the asset and the risk-bearing capacity of the beneficiary (OECD, 2024; IMF, 2023; AfDB, 2023).

A third implication concerns the interpretation of climate-finance performance. Commitment announcements can create a misleading sense of implementation success. Policymakers should track approvals, disbursements, expenditures, operational outputs and beneficiary outcomes separately. They should also account for whether investments crowd in genuinely additional resources or merely reclassify existing development spending. These distinctions are particularly important when comparing sources with different climate-finance accounting conventions (UNFCCC, 2022; CPI, 2023).

For The Gambia, the most practical route is a portfolio approach: prioritise grant-supported adaptation for shared and vulnerable assets, use concessional finance selectively for bankable public infrastructure, and deploy private or blended capital where contractual and regulatory conditions justify it. The portfolio should be accompanied by project-preparation support, transparent procurement, independent review and local participation. This is a reasoned policy recommendation, not a finding of measured Gambian project performance.

POLICY RECOMMENDATIONS

First, establish an integrated climate-finance tracking system that differentiates funding sources, instruments, terms, commitments, disbursements and verified expenditures. The system should support public reporting without double counting and should be aligned with national budgeting processes (OECD, 2024; UNFCCC, 2022).

Second, adopt a standard instrument-selection protocol requiring an explicit explanation of why grant, concessional debt or blended finance is suitable for each intervention. This should include fiscal-risk assessment and an affordability test where costs may be passed to households (IMF, 2023; AfDB, 2023).

Third, treat project preparation and institutional strengthening as core climate investments. Finance should cover feasibility studies, safeguards, climate-risk screening, procurement readiness, monitoring systems and maintenance planning, rather than concentrating exclusively on capital construction (AfDB, 2023; UNEP, 2024).

Fourth, make beneficiary inclusion verifiable. Projects should document consultation, access conditions, gender and livelihood implications, grievance resolution and the distribution of benefits. A climate intervention that raises aggregate resilience while excluding highly exposed households should not be treated as unqualified success (IPCC, 2022a; FAO, 2021).

Finally, commission a subsequent empirical assessment using an auditable portfolio of climate-finance projects, consistent indicators and longitudinal observations. Such research could test the four propositions developed here and establish which combinations of instruments and institutions deliver measurable outcomes in The Gambia.

LIMITATIONS AND FUTURE RESEARCH

This article synthesises published evidence and proposes a context-sensitive framework. It does not report original interviews, a systematic meta-analysis, project-level field observations or causal impact estimates. International and African evidence may not transfer directly to The Gambia because institutional arrangements, exposure and financial terms differ. Future research should triangulate verified project records, beneficiary surveys, administrative data and key informant interviews, distinguishing climate outcomes from broader development trends. Where feasible, baseline and follow-up observations should support credible comparison strategies.

CONCLUSION

Climate finance can contribute to sustainable development when financing decisions reflect climate vulnerability, developmental co-benefits, appropriate concessionality and the practical capabilities of implementing institutions. The Gambian policy challenge is therefore not simply to attract larger commitments, but to build an accountable pipeline of well-designed investments that protects livelihoods, improves essential services and supports a low-carbon transition. A transparent instrument-selection framework, robust project preparation, beneficiary inclusion and outcome monitoring provide a defensible foundation for more effective climate-finance governance. The article offers a conceptual basis for these reforms and a research agenda for subsequent empirical testing.

REFERENCES

African Development Bank (2022). African Economic Outlook 2022: Supporting Climate Resilience and a Just Energy Transition in Africa. https://www.afdb.org/en/documents/african-economic-outlook-2022

African Development Bank (2023). African Economic Outlook 2023: Mobilizing Private Sector Financing for Climate and Green Growth in Africa. https://www.afdb.org/en/documents/african-economic-outlook-2023

Buchner, B. et al. (2023). Global Landscape of Climate Finance 2023. Climate Policy Initiative. https://www.climatepolicyinitiative.org/publication/global-landscape-of-climate-finance-2023/

Climate Policy Initiative (2021). Global Landscape of Climate Finance 2021. https://www.climatepolicyinitiative.org/publication/global-landscape-of-climate-finance-2021/

Food and Agriculture Organization (2021). The State of Food and Agriculture 2021: Making Agrifood Systems More Resilient to Shocks and Stresses. https://www.fao.org/3/cb4476en/cb4476en.pdf

Intergovernmental Panel on Climate Change (2021). Climate Change 2021: The Physical Science Basis. https://www.ipcc.ch/report/ar6/wg1/

Intergovernmental Panel on Climate Change (2022a). Climate Change 2022: Impacts, Adaptation and Vulnerability. https://www.ipcc.ch/report/ar6/wg2/

Intergovernmental Panel on Climate Change (2022b). Climate Change 2022: Mitigation of Climate Change. https://www.ipcc.ch/report/ar6/wg3/

Intergovernmental Panel on Climate Change (2023). Climate Change 2023: Synthesis Report. https://www.ipcc.ch/report/ar6/syr/

International Energy Agency (2023). World Energy Investment 2023. https://www.iea.org/reports/world-energy-investment-2023

International Monetary Fund (2023). Fiscal Monitor: Climate Crossroads—Fiscal Policies in a Warming World. https://www.imf.org/en/Publications/FM/Issues/2023/10/10/fiscal-monitor-october-2023

Organisation for Economic Co-operation and Development (2024). Climate Finance Provided and Mobilised by Developed Countries in 2013–2022. OECD Publishing.

United Nations Environment Programme (2021). Adaptation Gap Report 2021: The Gathering Storm. https://www.unep.org/resources/adaptation-gap-report-2021

United Nations Environment Programme (2022). Adaptation Gap Report 2022: Too Little, Too Slow. https://www.unep.org/resources/adaptation-gap-report-2022

United Nations Environment Programme (2023). Adaptation Gap Report 2023: Underfinanced. Underprepared. https://www.unep.org/resources/adaptation-gap-report-2023

United Nations Environment Programme (2024). Adaptation Gap Report 2024: Come Hell and High Water. https://www.unep.org/resources/adaptation-gap-report-2024

United Nations Framework Convention on Climate Change (2022). Fifth Biennial Assessment and Overview of Climate Finance Flows. Standing Committee on Finance. https://unfccc.int/topics/climate-finance/resources/biennial-assessment-of-climate-finance

World Bank (2024). State and Trends of Carbon Pricing 2024. https://www.worldbank.org/en/publication/state-and-trends-of-carbon-pricing