How Climate Change Interferes with Economic Opportunity

Macroeconomic Effects

- Lost and **lowered economic growth** and activity
- Lost **fiscal strength and space**, lower revenue, higher expenditure and compromised debt sustainability.
- Food and transport **inflation** due to extreme weather events, eroded foreign reserves which weigh on **exchange rates**.

Figure 1: The Fiscal and Monetary Policy Impacts of Climate Change

Read "How climate finance can address the layered economic impacts of climate change in Africa", Anzetse Were for British International Investment, May 2023
Sectoral Impacts

- **Agriculture**: Climate change threaten a key source of livelihood and increase malnutrition.
- **Water**: Increases in water insecurity, water stress and sectors reliant on water.
- **Tourism**: Kenya’s tourism is natural-asset dependent; rainfall variability, extreme heat and drought lower animal mobility and alter wildlife migrations, affecting tourist visits.
- **Health**: Increased disease burden due to the expansion of malaria-prone areas; increases in diarrheal diseases, cardio-respiratory issue, and the severe mental health effects caused by extreme weather events.
FinAccess Green Finance highlights: For drinking water is lakes/ stream/ rivers/ springs are important
Definitions

- **Sustainable finance** takes *environmental, social and governance (ESG) considerations* into account when making investment decisions in the financial sector, leading to more long-term investments in sustainable economic activities and projects.

- **Environmental considerations** can include climate change mitigation and adaptation, as well as the environment more broadly, for instance the preservation of biodiversity, pollution prevention and the circular economy.

- **Social considerations** refer to issues of inequality, inclusiveness, labour relations, investment in human capital and communities, and human rights issues.

- **Governance considerations** in management structures, employee relations and executive remuneration in ensuring the inclusion of social and environmental considerations into decision-making.

**Examples**: Gender Bonds, Sustainability-Linked Loans and Bonds, Social Bonds, Sustainable investment funds, Social venture capital.

Source: Sustainable finance 101, Global Landscapes Forum
**Definitions**

- **Green finance**: Structured financial activity created to ensure a better environmental outcome.
- Green finance activities aim to increase level of financial flows from the public, private and not-for-profit sectors to green development priorities.
- **Green finance includes climate finance** but is not limited to it as it encompasses a wider range of other environmental objectives, such as industrial pollution control, water sanitation, biodiversity protection and environmental benefits.
- **Examples**: Green Bonds, eco-tourism investment, green insurance, green mortgages, finance for green infrastructure and buildings.

- **Climate Finance** supports mitigation and adaptation actions that will address climate change.
- **Mitigation finance** directs resources to interventions that reduce and avoid GHG emissions, or to maintain/ enhance the sinks of emissions and reservoirs.
  - **Examples**: Investments in renewable energy, energy efficiency, e-mobility; solar bonds, carbon finance; removal of fossil fuel subsidies.
- **Adaptation finance** directs resources to activities aimed at reducing the vulnerability of human or natural systems to the impacts of climate change and climate-related risks.
  - **Examples**: Finance to protect & restore forests, drought-tolerant crops, disaster risk management; investments in water infrastructure.
Framing of the Green Finance Opportunity for Kenya

Green Finance Opportunity
- Support the creation of a **green economy** that is low carbon, resilient to climatic and other environmental shocks, resource efficient and generates green investment, employment and income generation opportunities for Kenyans.
- Green finance as a **key source of finance** that be a significant source of finance for Kenya’s development priorities.

Green Finance Actions
- Leverage green finance to address and adapt to the **economic and sectoral impacts of climate change**, from the macro to micro-economy.
- Target sectors both affected by climate change to **foster resilience** and **mitigate** the impact of sectors that contribute to climate change (transport, energy for cooking etc.)
- Dedicate strategy and resources focused on support to **households and firms**.
- Focus on enablers for **global and private sector** and non-state actors as both funders and implementation players in green finance (e.g. Green Fiscal Incentives Framework; Green Bond Framework)
- Identity and coordinate the **key policy levers** under the mandates of different MDAs.
- Structure a **green finance ecosystem**, infrastructure and vehicles that enable Kenya to attract, deploy, monitor, and retain green finance **consistently at scale**.
Key Green and Climate Finance Stakeholders and Systems in Kenya

Mitigation-Focused Climate Finance
- Public Sector: National Treasury, County Governments, Line Ministries, MDAs

Adaptation-Focused Climate Finance
- Private Sector: Corporate companies, Capital Markets, and SMEs

Finance for a Financial Return on Investment (ROI)
- Development Partners and Finance Institutions: Local, Regional, African and International

Finance for Non-Financial Return on Investment (ROI)
- Civil Society and Community-Based: International, National, and sub-national

Climate Finance at Sector Level
- Sector Climate Finance Service Providers
- Technical Support
- Financing Priorities
- Sectoral Green/Climate Finance Strategy
- Climate Project Origination & Management
- Sector Climate Finance (finance) Data
- County Climate Change Fund Mechanism
Example of a Green Finance Structure: County Climate Change Funds (CCCF)

Public sector mechanism using the architecture of devolution. Funds use public financial management systems to channel funds to counties and wards.

Focus has largely been on poor and rural areas dominated by farmers and livestock keepers.

Local actors engaged through govt-planning processes – participatory planning tools.
## Pillars for a Conducive Environment for Green Finance Mobilisation

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**Enablers**

- Awareness Raising: Supply and Demand Side
- Green Finance and Sector Specific Data Infrastructure
- Deepen Local Green Financiers, Capital Markets and Institutions

**Scaling and Retaining Green Finance**

- Institutions for Green Project Origination and Preparation
- Green Finance Professional Service Providers (Green Verifiers, Legal Services, Standards/ Accreditors, Monitoring & Reporting, Green Finance Data etc.)
- Blended Finance at Institution and Transaction level
Useful links

- What does Climate Risk really mean for African economies?, by Anzetse Were
- Promoting the uptake of solar irrigation through innovative carbon financing, by Jared Ochieng, Duncan Oyaro and Tanguy Boussard
- How climate finance can address the layered economic impacts of climate change in Africa, by Anzetse Were
- Empowering local communities to utilise climate data for effective adaptation, by Milkah Chebii
- Innovative lending product improves access to water and sanitation in Nairobi’s Mukuru informal settlement, by Seeta Shah
- Creating an enabling environment for a voluntary carbon market in Kenya, by Anzetse Were
- The Impacts of Climate Change on Fiscal and Monetary Policy in Africa, by Anzetse Were
- How to develop a green project pipeline in Africa, by Anzetse Were
- Climate Finance: Four ways Africa can secure this new wave of financing, by Anzetse Were
- How Africa can benefit from the private sector’s growing interest in climate finance, by Anzetse Were
- Green Finance in Kenya Report, co-authored by Anzetse Were
- Financing affordable and climate resilient feeds for dairy farmers in Kenya, by Jared Ochieng and Duncan Oyaro
ANNEX: Green Finance Insights from 2021 FinAccess Household Survey
FinAccess Green Finance highlights: Climate-related events as a source of income shocks

Slight increase in the number of reports of climate-related shocks from 2019 to 2021. About 3m adults experienced such shocks in 2021 compared to 2.4m in 2019.

- Cost of living: 82.8%
- Major health problem: 31.8%
- Loss of income: 23%
- Death of a relative: 20.2%
- Climate (drought, pests etc): 11%
- Theft/violence: 4.1%
- Death of main income earner: 3.4%

2019 = 2,401,434 adults affected
2021 = 2,993,226 adults affected
Addressing climate-related shocks is financed mainly through informal solutions; formal including insurance are not playing a significant role in supporting Kenyans in dealing with climate-related shocks.

How climate related shocks are financed

- **Informal**: 29.5% (41.5% of total)
- **Cut expenses**: 15.1% (15.7% of total)
- **Sold assets**: 25.9% (26.6% of total)
- **Did nothing**: 12.7% (16.8% of total)
- **Formal**: 10.7% (4.7% of total)
- **Insurance**: 0.0% (0.7% of total)

Number experiencing drought/ floods as a **MAIN** shock = 469,654
Number experiencing pests/ diseases as **MAIN** shock = 164,944

**Base:** Kenyans who mention experience climate related shocks as **MAIN** shocks and device used

**FinAccess Green Finance highlights:** How coping with climate-related shocks is financed

- Pest/ diseases (locust)
- Flooding/drought/climate related event
FinAccess Green Finance highlights: Effect of climate change on income in farming

Challenges farmers faced in 2021

- Drought: 36.9%
- Pests and diseases: 34.5%
- High/Increased cost of inputs: 29.8%
- Difficulty starting because of lack of capital: 26.8%
- Difficulty finding inputs (seeds etc.): 22.3%
- Difficulty finding customers: 20.5%
- Small land sizes: 15.8%
- High labor costs: 9.8%
- Unscrupulous middlemen: 7.2%
- Theft: 7.1%
- Invasion by wild animals: 5.4%
- Difficulty getting products to market transport/road…: 5.3%
- Floods: 4.4%
- Difficulty getting paid for products sold on credit: 2.9%
- Lack of storage facilities: 1.7%
- Mobile payment platforms sometimes fail: 0.2%
FinAccess Green Finance highlights: Main source of financing green agriculture

Source of finance for investing in green agriculture

- Profit from farming: 17.2%
- Friends/family: 16.4%
- Mobile money: 12.4%
- Income from other sources: 11.6%
- Chama: 9.2%
- Secret hiding place: 6.1%
- MFI: 5.3%
- Selling assets: 5.3%
- SACCO: 5.0%
- Bank: 3.3%
- Hire purchase: 3.0%
- Shopkeeper/buyer credit: 2.6%
- Others: 1.7%
- Grants/NGO: 0.7%
- Government loan: 0.1%

Base: Farmers investing in green agriculture = 433,207
FinAccess Green Finance highlights: Firewood/ biomass is the main energy source of cooking

Main source of energy for cooking

- Electricity
- Paraffin
- LPG (gas)
- Biogas
- Firewood and other raw wood/biomass products
- Charcoal
- Solar

Base: Total adult population
FinAccess Green Finance highlights: Source of lighting

Main source of energy for lighting

- Main Electricity
- Gas Lamp
- Solar
- Paraffin
- Wood
- Torch/Spot light-Dry cells
- Others (dry cells/ candle/car charger/generator/biogas)

Districts:
- Mombasa
- Kwale
- Kilifi
- Tana River
- Lamu
- Garissa
- Wajir
- Mandera
- Marsabit
- Isiolo
- Meru
- Embu
- Kilifi
- Machakos
- Makueni
- Nyandarua
- Nyeri
- Kirinyaga
- Murang’a
- Kiambu
- Tana River
- Turkana
- West Pokot
- Samburu
- Trans Nzoia
- Uasin Gishu
- Elgeyo-Marakwet
- Nandi
- Baringo
- Laikipia
- Nakuru
- Narok
- Kajiado
- Kericho
- Bomet
- Kakamega
- Vihiga
- Bungoma
- Busia
- Siaya
- Kisumu
- Homa Bay
- Migori
- Kisii
- Nyamira
- Nairobi City
FinAccess Green Finance highlights: Main Source of Drinking water - lakes/stream/rivers/springs are important
FinAccess Green Finance highlights: Pit latrines (covered and uncovered) dominate in human waste disposal