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ADAPTATION

Urban Climate Resilience Masterclass

Module 6

Financing Climate Resilient Urban
Infrastructure

UCRMC Course Overview

Welcome to the Urban Climate Resilience Masterclass! You are about to start Module 6.



Module 1

Introduction to
Climate
Change and
Urban
Resilience



Module 2

Understanding
Climate Risks
in Your City



Module 3

Locally Led
Adaptation for
Urban
Resilience



Module 4

Ensuring
Climate
Resilience of
Urban
Infrastructure



Module 5

Step-by-Step
Guidelines for
Delivering
Climate
Resilient
Infrastructure



Module 6

Financing
Climate
Resilient Urban
Infrastructure

Acknowledgements

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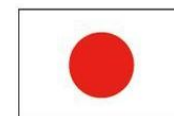
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Global Facility for Disaster Reduction and Recovery



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The Institution of Engineers of Kenya



These contributions were instrumental in ensuring the relevance and quality of the UCRMC Modules.

Agenda

- 01 Why This Topic Matters
- 02 Learning Objectives
- 03 Concepts & Definitions
- 04 Financing Urban Resilience
- 05 Financial Instruments for Urban Resilience Investments
- 06 Financing Urban Resilience in Kenya
- 07 Interactive Exercise
- 08 Summary



Garissa, Kenya; Photo by Luis Tato, AFP

Housekeeping

Listen



Listen carefully, follow along and make your own notes.

Ask



Ask the trainers questions or clarifications at any time.

Share



Your own experience is valuable and we encourage you to share it.

Discuss



Share and discuss with others during exercises, breaks and reflections.

01 | Why This Topic Matters



Mai Mahiu, Kenya; Photo by Daniel Irungu, EPA-EFE

Why This Topic Matters



This module introduces participants to climate finance and helps them focus on how they can identify and access finance for their urban resilience projects and infrastructure.



It provides participants with a simple Climate Finance Framework they can use to think about where climate finance comes from, who provides the money and how it is delivered to them.



It will enable participants to identify potential sources of finance and who they might partner with to access funds in the future.



It will enable participants to explain to funders their adaptation investment needs and why they are important when designing finance proposals.

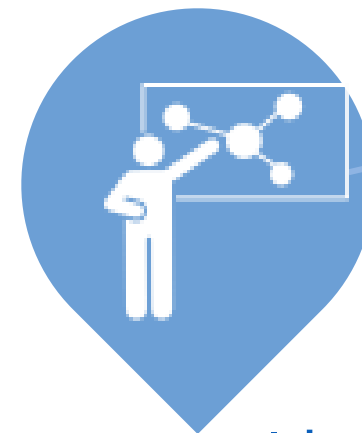
02 | Learning Objectives



Learning Objectives

By the end of Module 6 participants will be able to:

Understand the difference between (1) sources of climate finance, (2) actors who deliver finance (3) the financial instruments used to transfer finance, and (4) investments in green urban infrastructure.



Identify sources of urban climate finance that they can access in their country.



Identify different types of investments they could make to build climate resilient infrastructure in their cities (e.g. NbS, green transport, housing, drainage infrastructure, waste, etc.).



Describe the adaptation rationale of their own projects / investments to explain to finance providers their need for climate finance investment.

03 | Concepts & Definitions



Dhaka; Photo by Shadman, Pexels

Concepts & Definitions

Climate Finance is local, national or international money drawn from public, private or alternative sources that is used to make investments in mitigation or adaptation actions that will address climate change. For the purpose of the UCRMC course, with its focus on adaptation, climate finance can be thought of as the additional money required to make a normal infrastructure investment resilient to the impacts of climate change.

Financial Instruments refers to the contracts between institutions, individuals, or parties which hold monetary value. They are used to deliver finance from the finance providers to the finance users or implementors.



Infrastructure Financing refers to raising the upfront money required to make an infrastructure investment. Financing can come from both public and private sources of finance. It may come in the form of a loan that needs to be repaid, or as a grant or transfer that does not need to be repaid.

Public Sector is the part of the economy controlled by governments. Public sector entities such as governments and their agencies, development banks, climate funds, state-owned enterprises, etc. provide finance for climate resilient infrastructure investment.

Private Sector is the part of the economy run by individuals and companies for profit. The private sector provides finance for investment, often in the form of loans and debt, which must be repaid by the borrower with interest that generates a profit for the private sector lender.

Review Exercise

Across the 6 modules we have learnt many important definitions. How many can you remember? Let's test each other.

- Write down 2 or 3 key words that you remember from this course (Choose ones that you know the definition of)
- Pass the key words to the person on your left
- They must write down the definition to your key words - if they know it!
- Pass back your paper and see if they got them correct
- Praise any correct answers and discuss the definition for any they did not know.



04 | Financing Urban Resilience



Kibera; Photo by Evans Dims, Unsplash

What is climate finance?



Cities need financial resources in order to invest in public infrastructure and services. Climate finance refers to money that can be used to make investments that will address climate change.



As climate change accelerates over the coming decades, cities will need larger amounts of finance to make infrastructure resilient to the impacts of climate hazards, and to invest in new infrastructure that makes people resilient to climate impacts.



While climate finance can be used for adaptation & resilience as well as climate mitigation, in this course we focus on finance for adaptation & resilience.

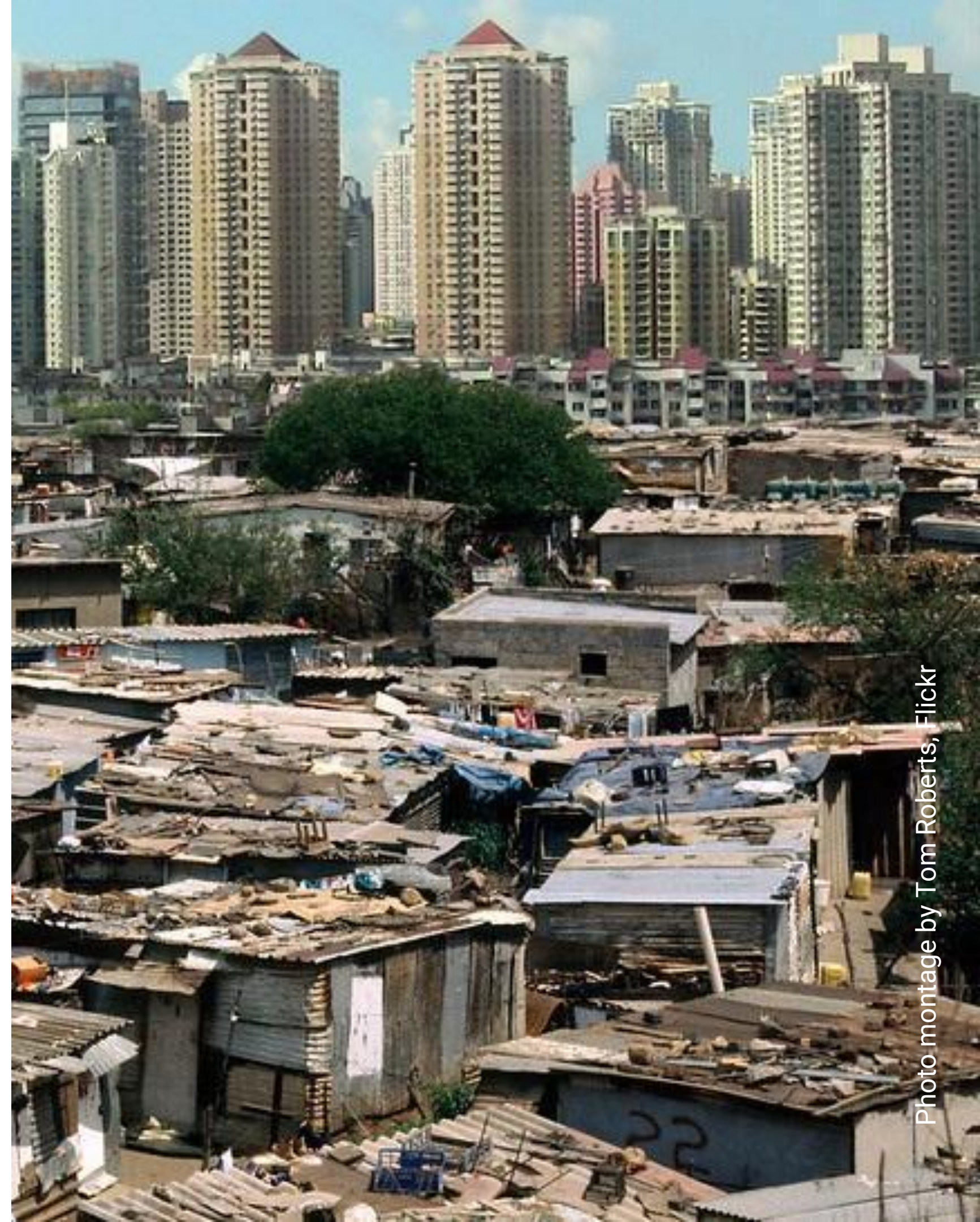


Photo montage by Tom Roberts, Flickr

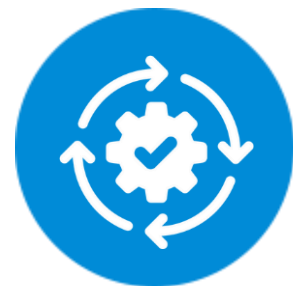
Why is climate finance important?



Globally, it is estimated that USD \$4.5 – US \$5.4 trillion will be required in infrastructure investments in cities between 2015 and 2030. The World Bank states that cities will require USD \$11 – USD \$20 billion per year to support adaptation and make infrastructure resilient to climate change.



Developing countries face significant challenges in accessing climate finance. Many have little fiscal autonomy and only collect a limited amount of tax revenue or service charges from citizens and businesses to raise capital for local development.



Cities need to identify the most effective way to access capital for resilient infrastructure investment. This will vary from city to city, and country to country. It could involve finance provided by domestic sources or international sources. It can also come from the public sector or the private sector.



Nairobi: Photo by Vicente Camarasa

Climate Finance Framework



Sources

Sources refer to the institution or entity where climate finance originates. This could include international agencies, governments, businesses, individuals and many others.



Actors

Actors are the institutions, individuals or parties who provide, deliver and use climate finance.



Financial Instruments

Financial instruments are contracts between institutions, individuals, or parties which hold monetary value. They are used to deliver finance from the finance providers to the finance users / implementers.



Investments

The **investment** refers to what type of project, program, infrastructure, service or other investment the climate finance is used for.

Climate Finance Framework

Sources 	Actors 	Financial Instruments 	Investments 
International	Governments Multilateral Banks Climate Funds	Grants Concessional loans Guarantees	Transport  Energy 
National	National government ministries	Intergovernmental transfers National climate funds	Telecom  Buildings 
Municipal	City Treasury City Departments & Agencies Citizens	Taxes User fees Development levies	Water  Waste 
Private sector	Banks Institutional Investors Companies Households & individuals	Loans Green bonds Project finance	Health & Sanitation  Public spaces 

Climate Finance Framework

Sources of urban climate finance

Sources 	The institution or entity where climate finance originates.
International	International climate finance comes from institutions outside your country.
National	National climate finance comes from your central government.
Municipal	Municipal climate finance comes from your city budget.
Private sector	Private sector climate finance comes from businesses, banks, or individuals seeking to make profit from green investments. These could be national or international businesses.

Climate Finance Framework

Actors that deliver urban climate finance

Sources 	Actors 	The institutions, individuals or parties who provide, deliver or use climate finance.
International	Governments Multilateral Banks Climate Funds	International finance can be provided by donor governments, development finance institutions (e.g. World Bank, Asian Development Bank) or climate funds (e.g. Green Climate Fund).
National	National government ministries	This could include the Ministry of Finance or other line Ministries (e.g. Environment, Transport, Public Works) who provide finance for projects in cities.
Municipal	City Treasury City Departments & Agencies Citizens	Municipal finance comes from city budgets. It is often paid for by citizens (through taxes and fees) and is distributed by the Treasury or line departments.
Private sector	Banks Institutional investors Companies Households & individuals	The private sector includes commercial banks and institutions (e.g. pension funds) who seek to make a profit by investing in infrastructure projects. It also includes businesses, households and individual investors.

Climate Finance Framework

Financial instruments used to deliver urban climate finance

Sources 	Financial Instruments 	Contracts between institutions, individuals, or parties which hold monetary value. They are used to deliver finance from the finance providers to the finance users / implementers.
International	Grants Concessional loans Guarantees	International actors can provide finance as grants which don't need to be repaid or as concessional loans with low interest rates.
National	Intergovernmental transfers National climate funds	National governments provide money to cities through direct transfers and grants. These can come from national budgets or dedicated climate funds.
Municipal	Taxes User fees Development charges	Municipalities generate their own revenue from citizens in the form of taxes, user fees for infrastructure and services or development charges.
Private sector	Loans Green bonds Project finance	The private sector provides loans and debt, charging an interest rate to make a profit. If cities take on debt they ultimately have to repay the lender for the cost of borrowing.

Climate Finance Framework

Types of urban climate finance investments

Investments 	The type of project, program, infrastructure, service or other investment the climate finance is used for.
Transport 	Improved drainage of roads (e.g. with grey-green solutions) to improve drainage for stormwater and flooding.
Energy 	Decentralized solar energy for energy security and reduced reliance on ageing grids that can't meet demand during heatwaves.
Telecom 	Constructing telecom towers away from flood-prone areas based on climate risk data
Buildings 	Cooling solutions for buildings to minimize the impact of heat stress.
Water 	Improved access to safe drinking water in heat-stressed cities.
Waste 	Improved waste collection to avoid clogging of sewers and drains that heighten the impact of flooding.
Health & Sanitation 	Investments in public health to minimize vector-borne diseases that are increasing because of climate change.
Public spaces 	Planting or rehabilitating mangroves and wetlands to protect against coastal erosion and storms.

Experience Share

Open Floor

- Do you have any examples or stories of finance for urban resilience in your city?
- Consider the sources, actors, instruments, and investments that may have been involved.
- Raise your hand if you have an example or story to share with the room.



05 | Financial Instruments for Urban Resilience Investments



Kibera; Photo by Ebby Higgins, The Seattle Globalist

Financial instruments for urban resilience investment

This section provides a deep dive into specific **financial instruments** that can be used to make investments in climate resilient infrastructure in cities.

It focuses on financial instruments that come from **national and municipal sources**, since these are the primary sources of finance that are available to cities.

It also focuses primarily on **public sector finance and not private sector finance**, since few Tier-2 cities in developing and middle-income countries are eligible to borrow from the private sector.

The main instruments outlined in this deep dive are intergovernmental transfers, grants, concessional loans, taxes, user fees and development levies.



Homa Bay Town; Photo by Robert Omollo, The Star

Why focus on national & municipal finance?

Own source revenue from national and municipal governments is the primary source of public sector climate finance in the world. It is therefore the most likely source for cities to access climate finance from.

Cities can rarely access international finance, for example, from international donor countries, multilateral development banks and climate funds. These are primarily accessed by national government ministries and agencies. There are very few international funds that provide direct access to city governments. Accessing these funds may also take several years, involve very complicated application procedures, and provide no guarantee that funding will be provided.

This course focuses on more immediate sources of finance that cities can tap into within their own national context. Cities targeting international finance should work with partners in national government to develop a financing strategy.

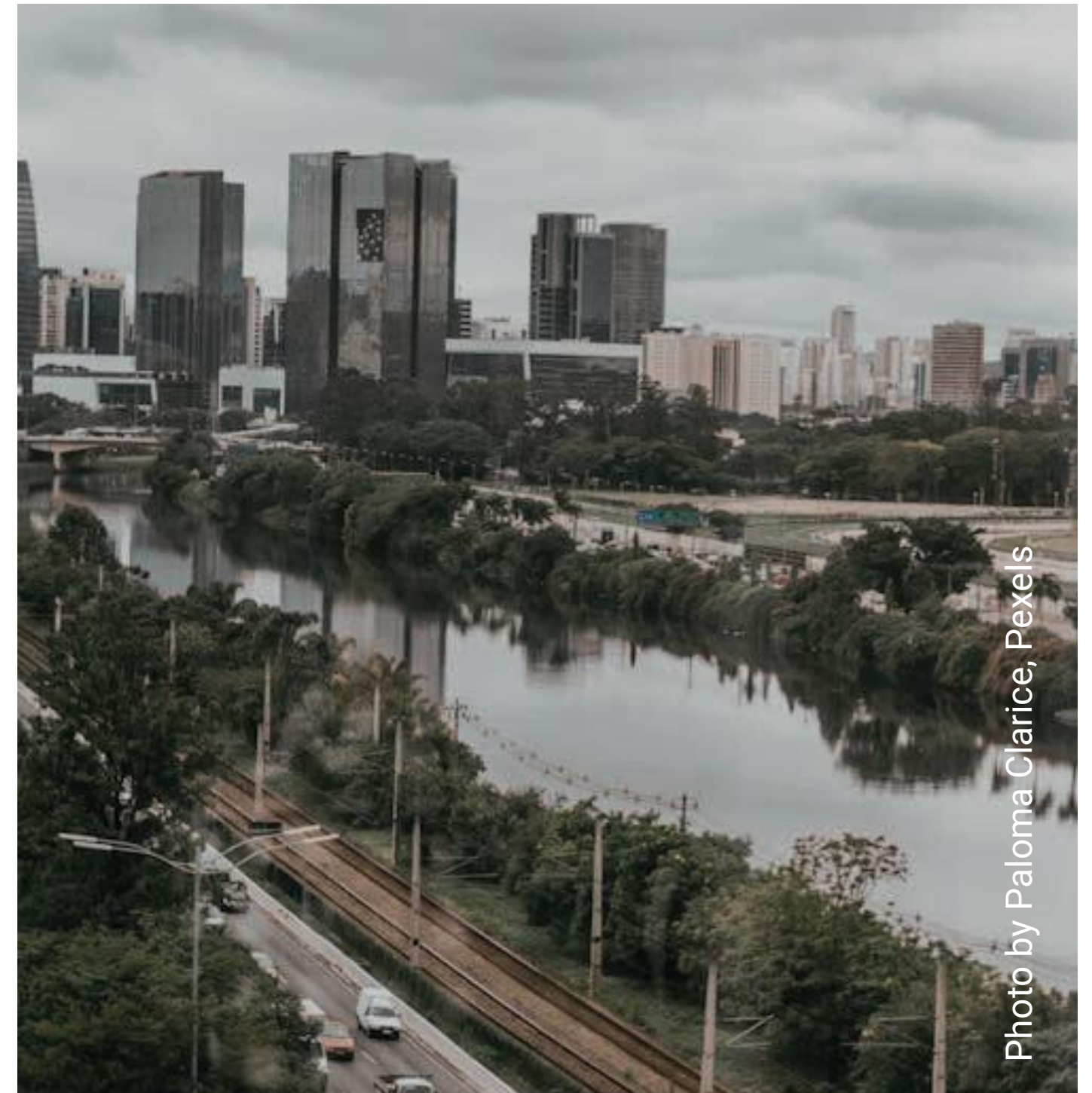


Photo by Paloma Clarice, Pexels

Why focus on public finance and not private finance?

Most municipal governments in middle-income countries are not eligible to borrow directly from the private sector.

They often lack a domestic or international credit rating – which lenders require to make investment decisions.

The laws that govern constitutional power sharing between different levels of government often do not legally allow sub-national governments to take on debt (i.e. borrow from the private sector).

Though some investment can come from households and individuals, this amount of finance is much smaller than private sector investment made by commercial banks, institutional investors and companies.

56%

of countries
forbid any kind of
local government
borrowing

93%

of low and lower-
middle income
cities have
sovereign credit
ratings below
international
investment grade

National and Municipal Financial Instruments

Intergovernmental
Transfers



Grants &
Concessional Loans



Taxes



User Fees



Development
Levies



Instrument 01 | Intergovernmental transfers

Intergovernmental transfers are financial resources transferred from national governments to subnational governments.

These transfers are usually delivered as grants, which are funds that do not need to be repaid. They can be earmarked for a specific investment, or they may be unconditional transfers to be used at the discretion of the receiving government.



Instrument 01 | Intergovernmental transfers

Case Study | Sponge Cities, China

With rapid urbanization and investment in grey infrastructure over the previous decades, China's cities face an increased risk of flooding, water contamination and drought.

In 2015, China's government started the 'sponge city' initiative to incentivize cities to implement nature-based solutions that retain water and slow down water-flow to minimize the potential of urban flooding and conserve water in drought prone parts of the country. The central government provided intergovernmental transfers to 16 pilot cities who each received between 400-600 million yuan (US \$55-\$85 million) to implement sponge city NbS initiatives.

The project has resulted in an increase in green space, natural habitats, and biodiversity and has led to improved water management.



Photo by Toter Yau, Pexels

Instrument 02 | Grants & Concessional loans

Grants are direct transfers to recipients that do not need to be repaid. Grants can be unconditional – where the recipient can choose how to use the funds. Or they can be conditional, where the finance provider earmarks them for a specific purpose.

Concessional loans are loans that are provided to borrowers at a low interest rate and for a longer time than would normally be offered by a commercial bank. Borrowers must pay back these loans. Not all cities are legally allowed to borrow, so concessional loans are only relevant to cities that have borrowing authority.

Grants and concessional loans can be provided by different actors, including national climate funds and national development banks.



Photo by Blue Ox Studio, Pexels

Instrument 02 | Grants & Concessional loans

Case Study | Rwanda Green Fund

The Rwanda Green Fund (FONERWA) was established in 2012 to invest in public and private climate projects. The Fund mobilizes climate finance from a variety of sources – both domestic and international – and uses the money to invest in a variety of sectors across Rwanda. This includes infrastructure, buildings, cities, industries, ecosystem services, energy generation, energy access, health, food and water security, transport, and forestry.

FONERWA is administered by the Ministry of Environment at the national level. It disburses finance as grants and concessional loans. The Fund has mobilized US \$247 million and financed a total of 46 projects since its inception.

Photo by Rwanda Green Fund



Photo by Rwanda Green Fund



Instrument 03 | Taxes

Taxes are mandatory financial contributions to government, levied at local, regional or national levels. Taxes are commonly collected on sales of goods and services, from property taxes and as a percentage of salaries in the form of income tax.

Depending on the country's constitutional arrangements on finance and taxation, different levels of government will have different responsibilities for collecting taxes. Cities generally can only raise some taxes – particularly property taxes and some sales taxes or tourism taxes. National governments more commonly collect income taxes, sales taxes, and in certain places carbon taxes.



Nairobi; Photo by Luis Tato, AFP

Instrument 03 | Taxes

Case Study | Medellín, Colombia

Since 2016, Medellín has invested USD \$16.2 million of tax revenue to create 30 green corridors throughout the city. This has resulted in an interconnected 20km network of shaded routes, including bike lanes and walkways that provide shade to Medellín's citizens.

The city has achieved a 2°C decrease in temperatures leading to reduced risk of heat stress. The project provides additional benefits, including an increase in biodiversity, reduced pollution, carbon sequestration and an increase in cycle activity.



Medellín; Photo by UCL Institute For Sustainable Resources

Instrument 04 | User fees

User fees charge people a fee for using infrastructure or services.

User fees are most often used to charge the public for using public utilities like electricity or water, transportation service, or waste collection services provided by the government.

The charges for user fees can be on a per-use basis (e.g. toll roads), based on consumption/usage (e.g. for electricity), or as a flat periodic fee (annual fee for waste collection).



Photo by Walt Ratterman, SunEPI + USAID

Instrument 04 | User fees

Case Study | Waste Collection | Pune, India

In 2008, Pune Municipal Corporation created a public-private partnership with Solid Waste Collection and Handling (SWaCH), a self-owned cooperative of informal waste pickers made up of the urban poor. Under this agreement, SWaCH provides segregated waste collection services for 500,000 households in Pune, representing 60% of Pune's geographical area.

The business model for providing waste collection services in Pune uses user fees as its primary source of finance. Households are charged a user fee between US \$0.15 and US \$0.60 per month for their service. The Pune government does provide some grant finance to SWaCH to support training and management costs, but otherwise the user fees provide sufficient revenue to cover the costs of waste collection services. This has resulted in the Pune government saving US \$7.9 million per year.



Instrument 05 | Development levies

Development levies are a group of instruments that a city can use to raise capital on the development of land:



Development Charges

One-time charges levied on private companies or people who are developing land. They can be collected as a fee from developers for development permits, as a fee for connecting new buildings to city services (e.g. water, electricity, lighting), or as a payment for negative impacts of development (e.g. traffic, noise pollution).



Land Banking

The practice of selling or leasing city-owned land that is under-utilized or being held in trust, so that the municipality can use that money for investment in infrastructure or services.



Value Capture

A tax charged to landowners to capture the increase in their land value that has occurred as a result of new infrastructure being built – for instance parks, public transport, community centres, etc. which increase property values.

Instrument 05 | Development levies



Development Charges

One-time charges levied on private companies or people who are developing land. They can be collected as a fee from developers for development permits, as a fee for connecting new buildings to city services (e.g. water, electricity, lighting), or as a payment for negative impacts of development (e.g. traffic, noise pollution).

Case study | São Paulo, Brazil

São Paulo sells development rights (known as certificates of additional construction potential – CEPACs) to project developers, who pay for favourable zoning permits. CEPAC revenue is held in a separate fund which is used for investment in public infrastructure – e.g. to improve informal housing or public drainage. São Paulo has raised over US \$1 billion from CEPAC sales.



São Paulo; Photo by Wsfurlan, Getty Images (licensed via Canva)

Instrument 05 | Development levies



Land Banking

The practice of selling or leasing city-owned land that is under-utilized or being held in trust, so that the municipality can use that money for investment in infrastructure or services.

Case study | Bonifacio City

Part of metro Manila in The Philippines, Bonifacio City is a 214-hectare land development designed in 1997. Manila faces high flooding. Bonifacio City features an underground drainage system for stormwater that releases excess water to nearby rivers. This urban flooding system was financed from the US \$800 million sale of former military land where the development now sits.



Bonifacio City; Photo by David Montasco

Instrument 05 | Development levies

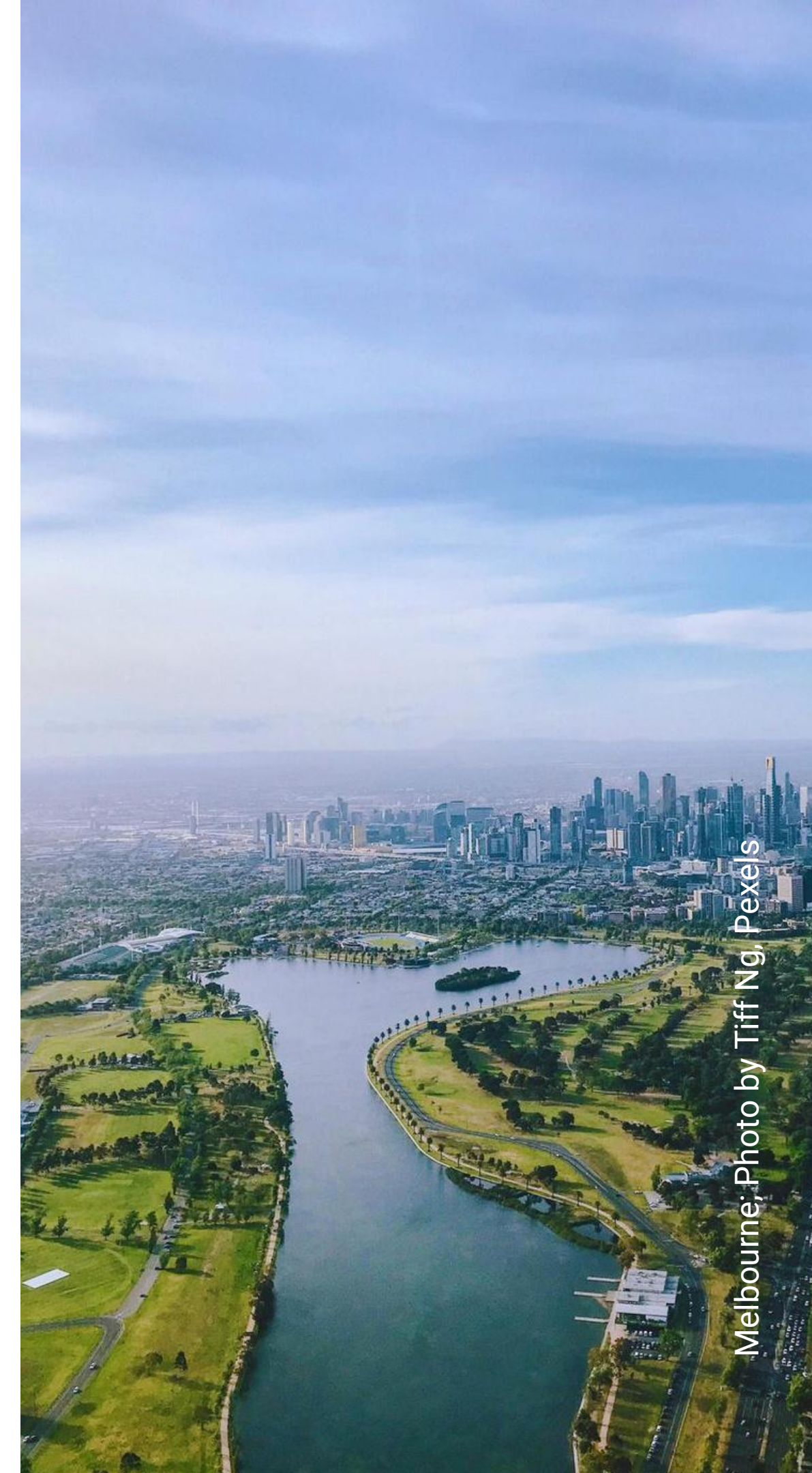


Value Capture

A tax charged to landowners to capture the increase in their land value that has occurred as a result of new infrastructure being built – for instance parks, public transport, community centres, etc. which increase property values.

Case study | Melbourne, Australia

Melbourne levies an annual 'parks charge' on commercial & residential properties to capture the rising value of properties as a result from the city investing in green space. The parks charge is used to finance the upkeep of urban parks, gardens, trails, waterways, and public facilities which protect biodiversity, sequester carbon, improve urban air quality and are important places for recreation.



Melbourne: Photo by Tiff Ng, Pexels

Questions



→ Does anyone have any questions about the financial instruments discussed in this section?

→ Are there any financial instruments you are familiar with?

→ Are there any financial instruments you are not familiar with?

→ Do you need any clarification on specific instruments or case studies?



06 | Financing Urban Resilience in Kenya



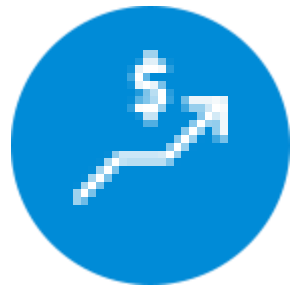
Climate Finance in Kenya



In 2018, total climate finance in Kenya was USD \$2.5 billion. USD \$1.53 billion came from the public sector and USD \$0.97 billion came from the private sector.



Overall, there is a need for an extra USD \$5.13 billion per year. This means USD \$50 billion extra is needed for climate investment in Kenya per year.



More finance is needed for adaptation & resilience, in particular. Only 11.7% of climate finance in Kenya is directed towards adaptation. There is an urgent need to increase finance for adaptation and resilience, particularly in water management, health, urban resilience, the blue economy, disaster risk management, and forestry.



There are now efforts to mainstream climate finance into urban planning, enabling participatory budgeting and community engagement to prioritize resilience project, e.g. through the County Climate Change Funds (CCCF).



Photo by Janusz Pienkowski, Canva

Recap: Climate Finance Framework



Sources

Sources refer to the institution or entity where climate finance originates. This could include international agencies, governments, businesses, individuals and many others.



Actors

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Financial Instruments

Financial instruments are contracts between institutions, individuals, or parties which hold monetary value. They are used to deliver finance from the finance providers to the finance users / implementers.



Investments

The **investment** refers to what type of project, program, infrastructure, service or other investment the climate finance is used for.

Climate Finance Framework in Kenya

Sources 	Actors 	Financial Instruments 	Investments 
International	Bilateral governments (e.g. UK) Multilateral Banks (e.g. AfDB) Climate Funds (e.g. GCF)	Grants Concessional loans Guarantees	
National	National Treasury National Government Ministries State Corporations National Climate Funds	Intergovernmental transfers Grants Taxes (e.g. VAT, custom duty) Development levies (e.g. housing levy, fuel levy, railway levy etc).	Transport 
County	County Departments County Climate Funds		Energy  Telecom  Buildings 
Municipal	City Departments & Agencies Citizens	Taxes User fees Development levies	Water  Waste  Health & Sanitation 
Private sector	Banks Institutional Investors Companies Households & individuals	Loans Green bonds Project finance	Public spaces 

Source 01 | International finance

International climate finance comes from institutions outside your country and typically flows through national government channels. International finance can come from international climate finance, multilateral development banks and bilateral donors.

Local governments can apply directly for grants or concessional loans from international bodies. However, this requires having relationships with international donors, which are often developed by national agencies. It also requires demonstrating robust financial management and project implementation capabilities.

Cities can also engage directly with international climate finance institutions such as the Green Climate Fund (GCF) and Global Environment Facility (GEF).

Overall, there are some mechanisms for cities and municipalities to access international funds directly, but these are few and far between. Very few initiatives funded by international agencies that have direct access for sub-national entities, which means the national government may need to play an intermediary role to help access these funds.

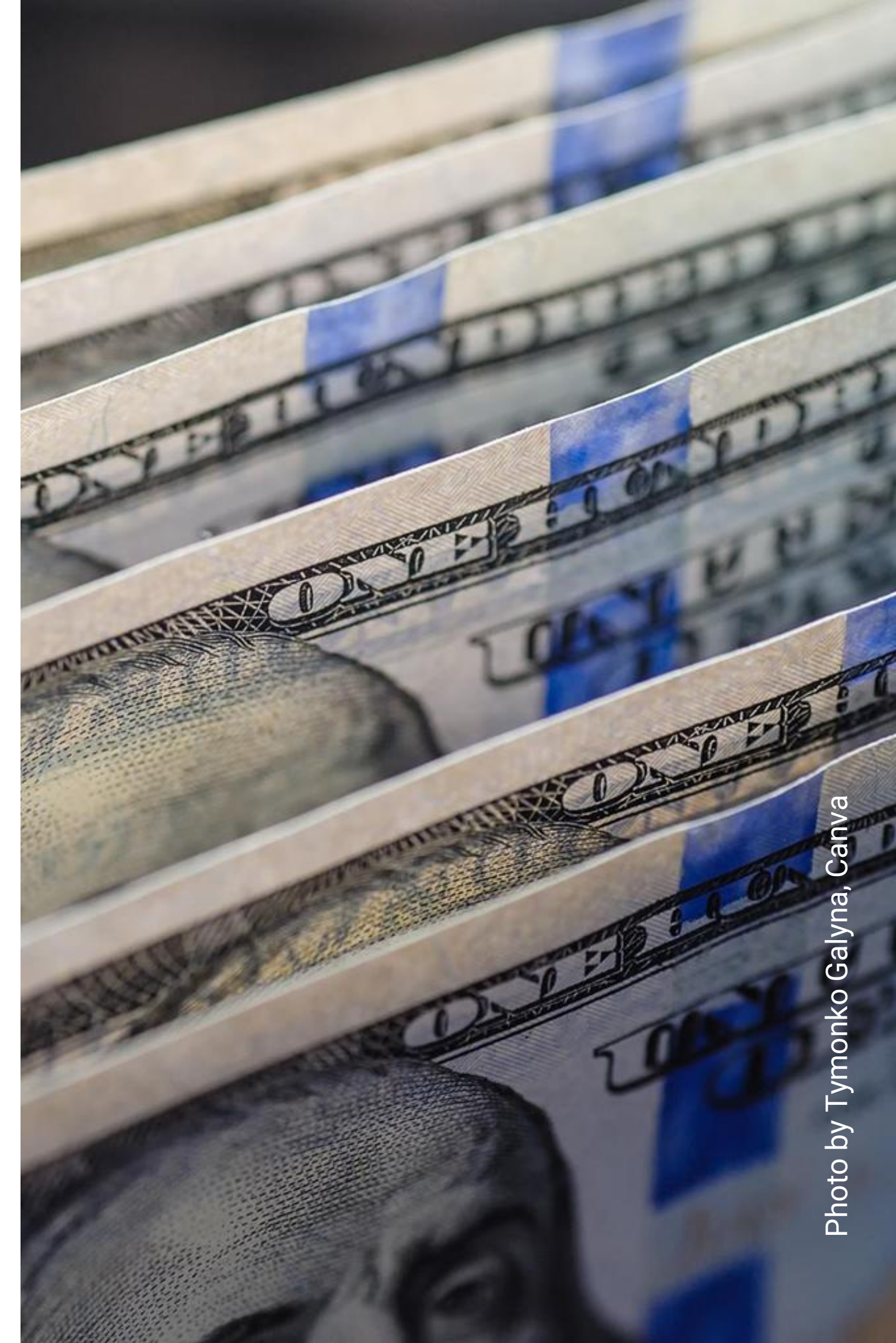


Photo by Tymonko Galyna, Canva

Source 01 | International finance

How to Access International Finance

Identify and engage with donor countries:

- Establish relationships with embassies, development agencies, and institutions such as the World Bank, AfDB, Green Climate Fund, KfW.
- Identify relevant funding opportunities and eligibility criteria.
- Understand their funding mechanisms and application processes.

Leverage national government support:

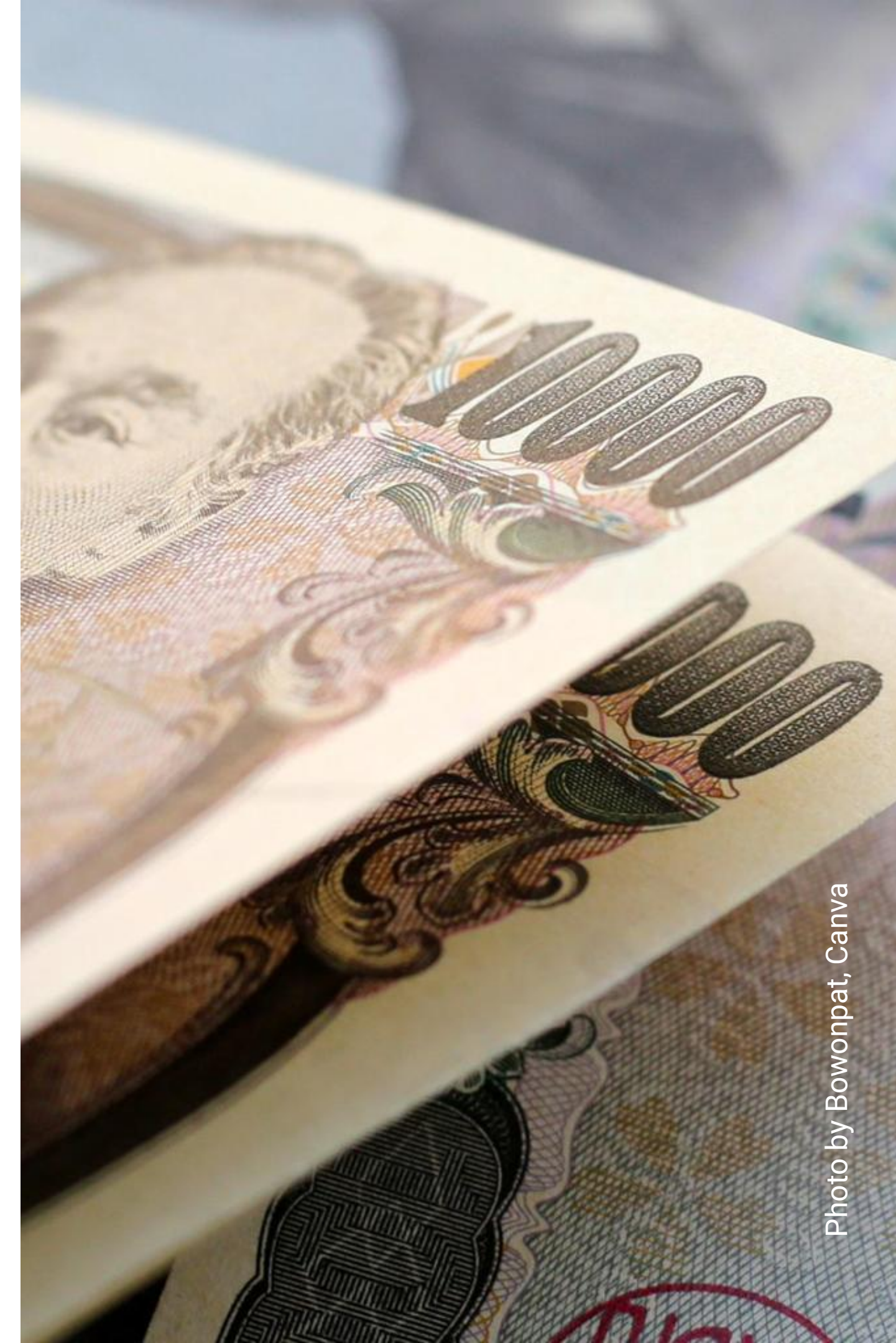
- Collaborate with national ministries to align city projects with national priorities.
- Use the national government's relationships with bilateral/multilateral institutions to facilitate access.

Prepare and submit proposals:

- Develop detailed project proposals aligned with donor priorities. Include clear objectives, budgets, and expected outcomes.
- Demonstrate robust financial management and project implementation capabilities.
- Include comprehensive monitoring and evaluation plans.

Best practices:

- **Build capacity:** Enhance local government staff skills in project management and proposal writing.
- **Engage stakeholders:** Involve local communities and stakeholders in project planning and implementation.



Source 01 | International finance

Case study | Kenya Urban Support Programme (KUSP II)

The Kenya Urban Support Program aims to strengthen the capacities of urban institutions to:

1. Improve the delivery and resilience of urban infrastructure and services.
2. Enhance the private sector engagement in urban planning.
3. Support the transition of refugee camps into integrated host community and refugee settlements.

The program will support 45 counties (excluding Nairobi and Mombasa) and 77 eligible urban areas with funding totalling USD \$1.46 billion delivered as grants to municipalities.

KUSP II is a joint initiative between the World Bank, the Global Center on Adaptation, and Kenya's Ministry of Lands, Public Works, Housing and Urban Development.

LAUNCH OF SECOND KENYAN URBAN SUPPORT PROGRAM (KUSP II)

- National Urban Development Policy (NUDP) formulated to guide sustainable urbanization.



Implementation of the first Kenyan Urban Support Program (KUSP I) worth \$300 million (11th January 2018 - 31st December 2023).



KUSP I aimed to support the establishment and strengthening of urban governance and management institutions and systems.



National Urban Development Policy (NUDP) formulated to guide sustainable urbanization.



Source 02 | National Government

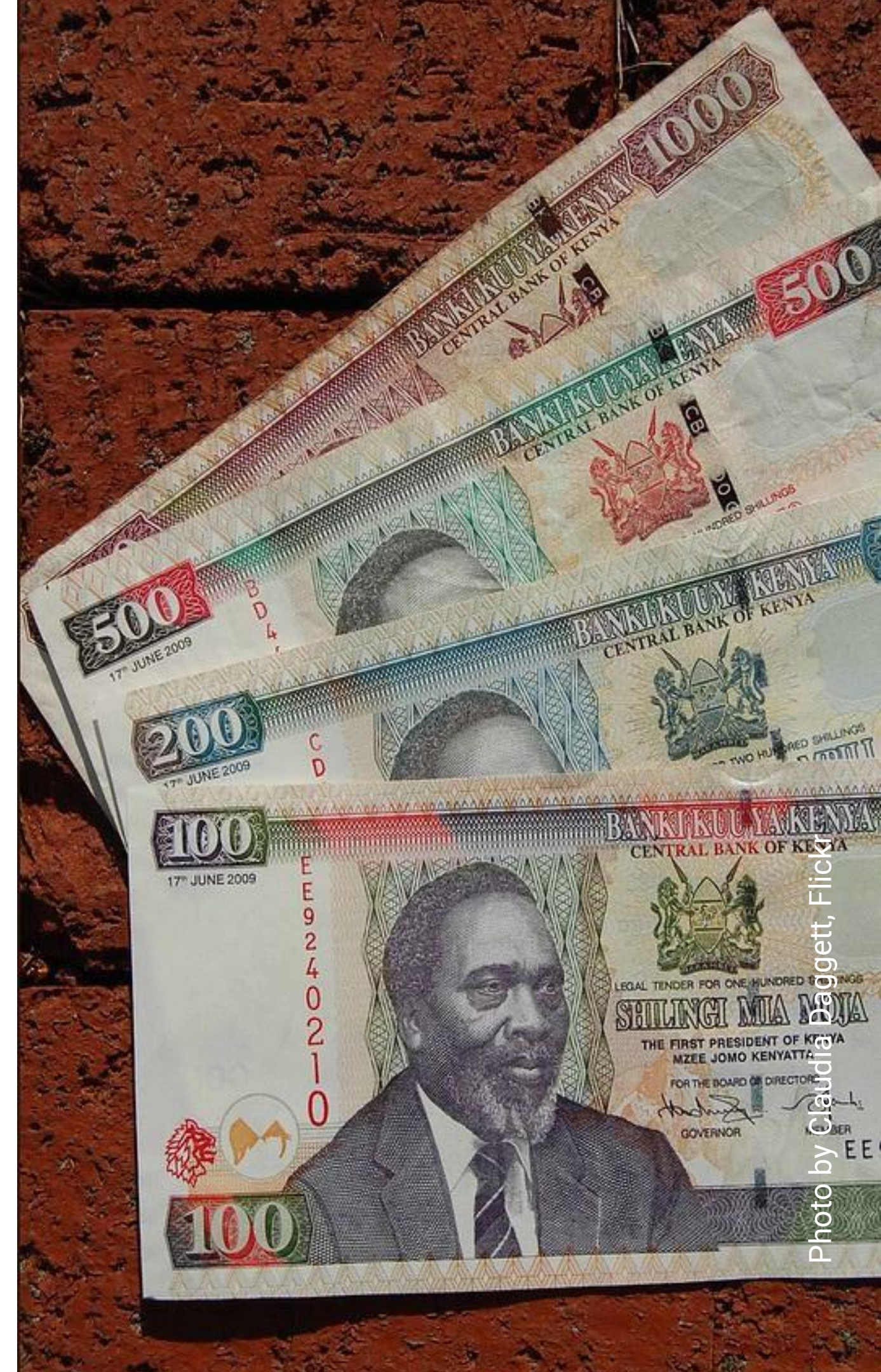
National climate finance comes from the central government. The national government is increasingly playing a crucial role in mobilizing and allocating climate finance, ensuring alignment with national priorities and policies.

Tax revenue collection in Kenya is primarily centralized through the national government, which are then allocated by the National Treasury to County governments through intergovernmental transfers and block grants to various ministries and agencies.

Counties receive their share of revenue through a formula developed by the Commission on Revenue Allocation (CRA) and approved by Parliament every five years.

Most infrastructure finance comes from the national budget and donor funding, with limited contributions from city budgets.

In 2017/18, the national government contributed approximately KES 34 billion (USD 340 million) towards climate-related development expenditures.



Source 02 | National Government

How to Access National Finance

Engage with National Government:

- Ensure city projects align with national climate strategies and policies such as the National Climate Change Action Plan (NCCAP).
- Engage with ministries responsible for environment, energy, agriculture, and infrastructure to identify funding opportunities and project alignment.

Leverage intergovernmental transfers:

- Access funds through the County Climate Change Funds (CCCF), which allocates resources from the national government to counties for climate-related projects.
- Participate in the national and county budgeting processes to advocate for the inclusion of climate projects in the annual budgets.

Develop and submit comprehensive infrastructure projects:

- Prepare detailed project proposals that outline objectives, expected outcomes, budgets, and alignment with national priorities.



Photo by Michael Jung, Getty Images (licensed via Canva)

Source 02 | National Government

Case study | Financing Locally-Led Climate Adaptation Program (FLLoCA)

Actors involved: National Treasury, Ministry of Environment, local county governments. International partners include the World Bank, Governments of Denmark, Sweden, Germany (KfW), and the Netherlands.

Financing accessed: Kenya received a total of KES 39.3 billion (approx. USD \$393 million) over 5 years from international donors in the form of concessional loans. Sources include the above international donors and national government funds. The project will run from 2022 – 2027.

Financial delivery: Under FLLoCA, 90% of the funds will be allocated to County and community levels.



Multi-Sectoral Team Conducts Feasibility Study and Community Engagement. Photo by Mandera County Government

Source 02 | National Government

Case study | Financing Locally-Led Climate Adaptation Program (FLLoCA)

Governance: The programme is managed by the National Treasury in collaboration with county governments.

Use of funds: Projects are identified and prioritized through community consultations to support local climate adaptation priorities. These focus on vulnerable groups including women, youth, and marginalized communities.

Impact: The programme addresses multiple climate risks in counties. It builds on successful pilot projects and aims to scale up to all 47 counties in Kenya. It also strengthens local institutions and enhances community capacity to manage climate risks.



Multi-Sectoral Team Conducts Feasibility Study and Community Engagement. Photo by Mandera County Government

Source 03 | County & Municipal Finance

County and city governments in Kenya are increasingly generating their own funds to support climate-related projects.

County finance largely comes from intergovernmental transfers in the form of block grants delivered to the County budget.

Municipal finance is collected by cities in the form of local taxes, fees, and charges and included in city budgets. However, the volume of tax collected by cities is significantly lower compared to national collections.



Photo by Riccardo Gangale, Bloomberg

Source 03 | County & Municipal Finance

How to Access County & Municipal Finance

Revenue generation:

- **Enhance revenue collection** by improving efficiency in collecting local taxes and fees. Implement modern revenue management systems to track and collect dues effectively.
- **Introduce new revenue streams** by exploring innovative revenue-generating activities such as eco-tourism fees, green building permits, and carbon credits.

Budget allocation:

- **Develop comprehensive climate action plans** that outline clear objectives, timelines, and budgets for climate projects.
- **Prioritize climate projects** in the annual budget is dedicated to climate and environmental projects. Engage in participatory budgeting processes to include community input in prioritizing climate projects.
- **Establish dedicated climate funds** within the county or city budget to ensure continuous financing for climate-related initiatives.



Turkana County; Photo by Khadija Ali, IOM 2023

Source 03 | County & Municipal Finance

Case study | Makueni County Climate Change Fund

Makueni was the first county in Kenya to enact regulations to mainstream climate change in development and established a County Climate Change Fund (CCCF).

- **Actors Involved:** Makueni County Government, National Government, Adaptation Consortium, International Development Partners.
- **Financing Structure:** Financing sources are a combination of county funds, national government transfers, and grants from international partners. Makueni increased the share of county expenditures on the CCCF from 1% in 2017/18 to 6% in 2019/20. The county has allocated Sh. 66 million for climate action plans during the 2023/2024 financial year.



Photo by Government of Makueni County

Source 03 | County & Municipal Finance

Case study | Makueni County Climate Change Fund

- **Governance:** Managed by the County Climate Change Planning Committee (CCPC) with representation from various stakeholders. Projects identified through community consultations and integrated into the County Integrated Development Plan (CIDP) for implementation.
- **Key projects** include construction of sand dams and water pans to enhance water security and support for climate-smart agriculture practices and drought-resistant crops.
- **Impact:** Improved water availability and agricultural productivity, enhancing community resilience. The programme has demonstrated the importance of community involvement, transparent governance, and multi-stakeholder collaboration.



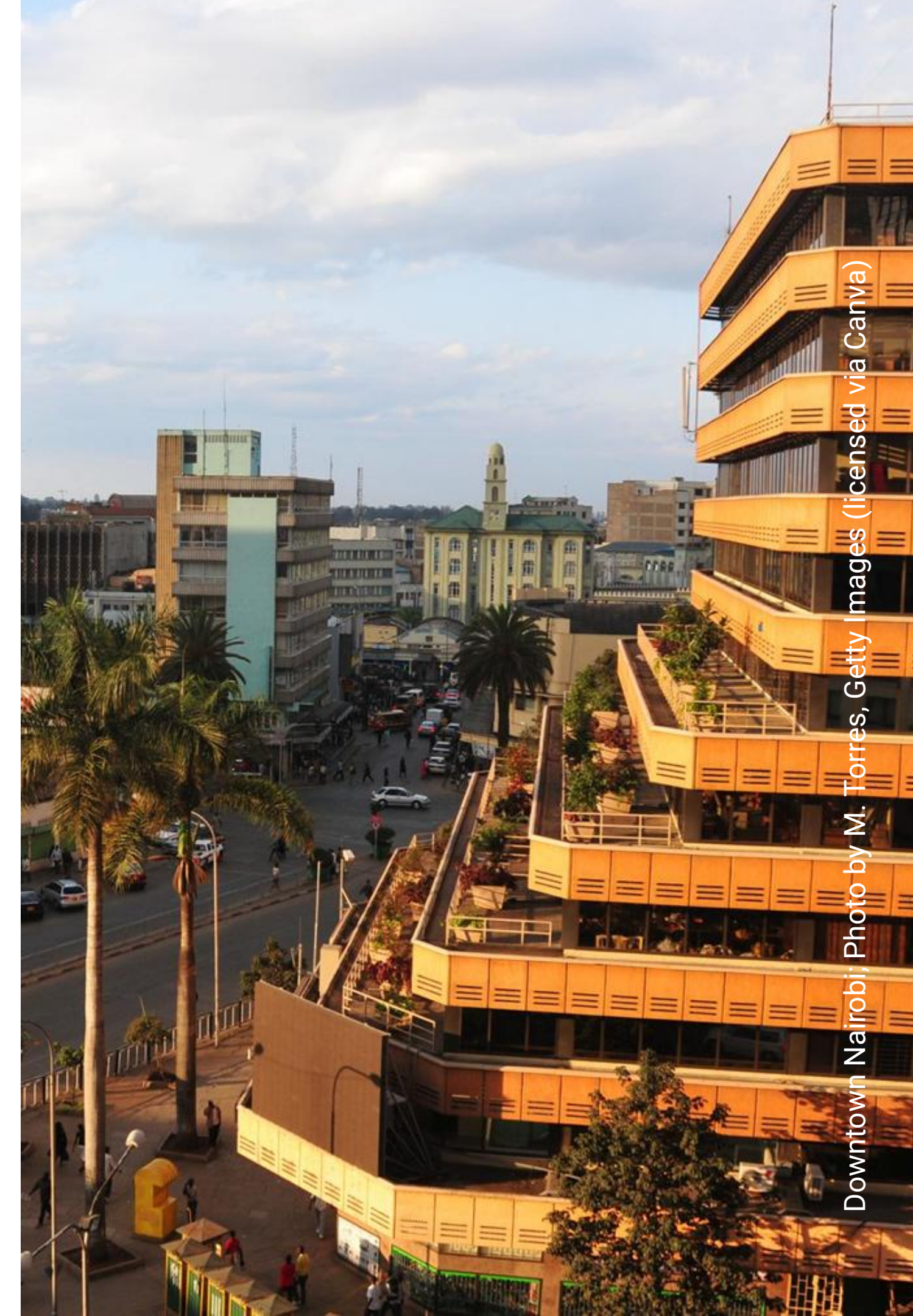
Photo by Government of Makueni County

Source 04 | Private Sector

Private sector climate finance comes from businesses, banks, or individuals seeking to make profit from green investments. These could be national or international businesses.

Kenyan cities can borrow from the private sector via commercial loans, but this is subject to national government regulations and approvals. They can also directly benefit from corporate social responsibility initiatives from the private sector.

Cities have the potential to issue green bonds to fund climate-resilient projects. The national government has been working on establishing a framework for sovereign green bonds, which could pave the way for sub-national green bonds.



Downtown Nairobi; Photo by M. Torres, Getty Images (licensed via Canva)

Source 04 | Private Finance

How to Access Private Finance

Engage with private investors:

- Prepare detailed project proposals highlighting the financial returns, environmental benefits, and risk mitigation strategies.
- Collaborate with private sector partners in PPPs to co-finance projects, sharing risks and benefits.

Build capacity and networks:

- Enhance local government officials' understanding of private finance mechanisms and project management.
- Establish connections with local and international investors, financial institutions, and development partners. Attend relevant forums and conferences.

Use financial intermediaries:

- Work with financial intermediaries like banks and investment funds that can bridge the gap between city governments and private investors.



Photo by KIFFWA Limited

Source 04 | Private Finance

Case study | Kibarani, Mombasa

In 2020, Mombasa city successfully reclaimed the 50-year-old, 12-acre Kibarani dumpsite, located in the strategic area of Makupa causeway along the Indian ocean, into a public recreational park through partnership with local private sector stakeholders. The heaps of waste posed danger to marine ecosystem and human health.

Actors involved:

- **Mombasa County Government** which initiated closure and rehabilitation of the dumpsite. President Kenyatta revoked land allocations to private developers and then decommissioned the dumpsite.
- **Mombasa Cement Company** led the rehabilitation project as part of its community social responsibility program.
- **Local community** were engaged in the rehabilitation process.



Transformed Kibarani Dumpsite; Photo by Chadi TV

Source 04 | Private Finance

Case study | Kibarani, Mombasa

Financing structure: Over KES 700 million (USD \$7 million), primarily funded by Mombasa Cement Company with some support from county and national governments. There were in-kind contributions from the community in terms of labor and participation.

Environmental impacts: New ecological park with over 500,000 plant species, including mangroves, sisal, and coconut palms. Improved air quality and reduced pollution.

Social impacts: Created a recreational space for the public, enhancing the quality of life for residents. Established a feeding center providing meals to approximately 33,000 people daily.

Lessons learned: Demonstrated the effectiveness of PPPs in urban development projects, importance of community participation in urban regeneration.



Transformed Kibarani Dumpsite; Photo by Chadi TV

Summary: How city officials can access finance for their climate resilient infrastructure projects

- Use **intergovernmental transfers** that have been delivered to County budgets and earmarked for infrastructure in cities. This could include County Climate Change Funds that specifically have a climate resilient investment mandate.
- Use **own source revenue** from taxes or user fees collected by the municipality for climate investments.
- Participate in financing initiatives like KUSP II, CCCF, FLLoCA, etc to access funds from the **national budget and donor funding** channeled through the national budget.
- Identify **private sector partners** who can co-finance projects e.g. through public-private partnerships.
- Develop or update **climate action plans** in readiness for unexpected or future local and international funding opportunities.



Summary: How Kenyan cities can access finance for climate resilient infrastructure

- **Developing compelling project proposals** on city-level projects aligned with national climate priorities and demonstrate their potential impact on urban resilience and adaptation.
- **Strengthening local government institutions** to effectively manage climate finance, e.g. in project management, financial management, and monitoring and evaluation. Establishing dedicated climate finance units within city administrations can help streamline efforts.
- **Directly engage with and apply to international climate funds** like the Green Climate Fund (GCF), Global Environment Facility (GEF), and Adaptation Fund. This requires understanding the application processes, meeting eligibility criteria, and preparing strong project proposals that meet the specific requirements of these funds.
- **Forming partnerships with Multilateral Development Banks** such as the World Bank and African Development Bank (AfDB) can provide cities with access to concessional loans, grants, and technical assistance.
- Cities should **create an enabling environment for private sector investment** through PPPs by offering incentives such as tax breaks or guarantees. Engaging with private investors to co-finance projects can also be an effective strategy.

Summary: How Kenyan cities can access finance for climate resilient infrastructure

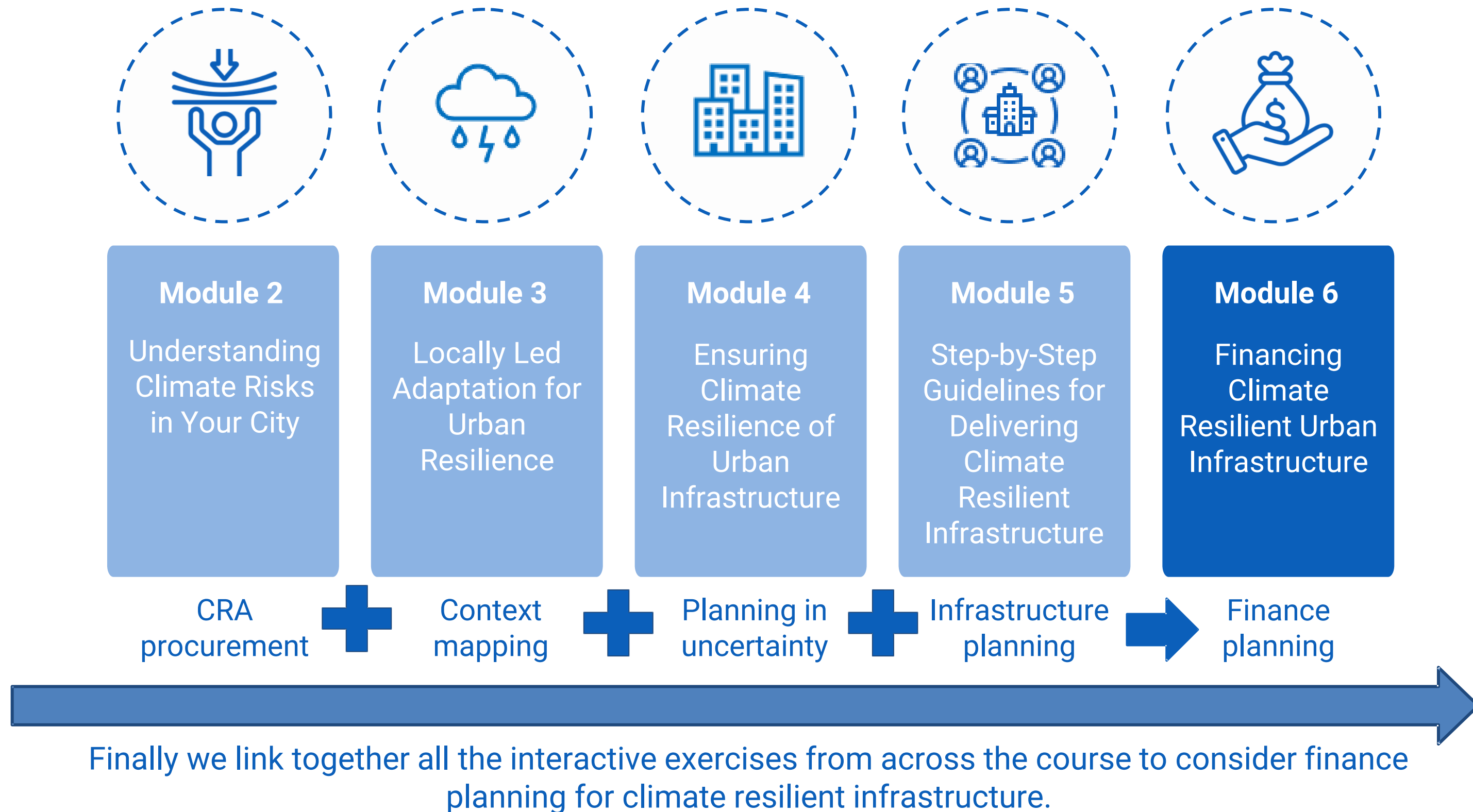
- **Cities can issue green bonds to raise funds** for climate-related projects. This involves developing a green bond framework, identifying eligible projects, and adhering to international standards for green bonds. Collaborating with financial institutions and advisors can facilitate the issuance process.
- **Participating in carbon markets** by developing projects that generate carbon credits, such as renewable energy or afforestation projects, can provide an additional revenue stream. Cities need to navigate the regulatory landscape and establish mechanisms to trade carbon credits effectively.
- **Cities should actively seek bilateral aid** from countries with established climate finance programs **and explore grants from philanthropic organizations**. Building relationships with these donors and demonstrating the potential impact of city-level projects can increase the chances of securing funding.
- **Implementing robust Monitoring, Reporting, and Verification (MRV) systems** can help build trust with funders and attract more finance by demonstrating the effective use of current funds and achievement of climate goals.
- Cities should **actively participate in international climate forums and networks** to showcase their projects, share experiences, and learn from other cities. This can help attract international attention and funding support for urban climate initiatives.

07 | Interactive Exercise



Photo by Ricardohosoe, Getty Images (licensed via Canva)

Start Your Journey





Finance Plan Canvas

The finance plan canvas helps to make ideas granular whilst considering suitable financial instruments.

1. Project description: Use your mission and strategy from the content map and infrastructure plan to formulate a short project description.
2. Project objectives: Consider the options, construction, timeline, and upkeep from your infrastructure plan to create key project objectives.
3. Suitable financial instruments: Consider which of the financial instruments we have been discussing could be suitable. for each one and provide:
 - a. A reason why this instrument is suitable.
 - b. The actors who would be involved in providing or supporting this financial instrument.

Finance Planning		
Project Description		Project Objectives
Suitable Financial Instruments	Reason	Actors
1.		
2.		
3.		
4.		
5.		

Finance Planning



Project Description

Project Objectives

Suitable Financial Instruments

Reason

Actors

- | | | |
|----|--|--|
| 1. | | |
| 2. | | |
| 3. | | |
| 4. | | |
| 5. | | |

Finance Planning



Project Description

Project Objectives

How would you describe this climate resilient project to ensure that it goes forward?

Suitable Financial Instruments

1.

2.

3.

4.

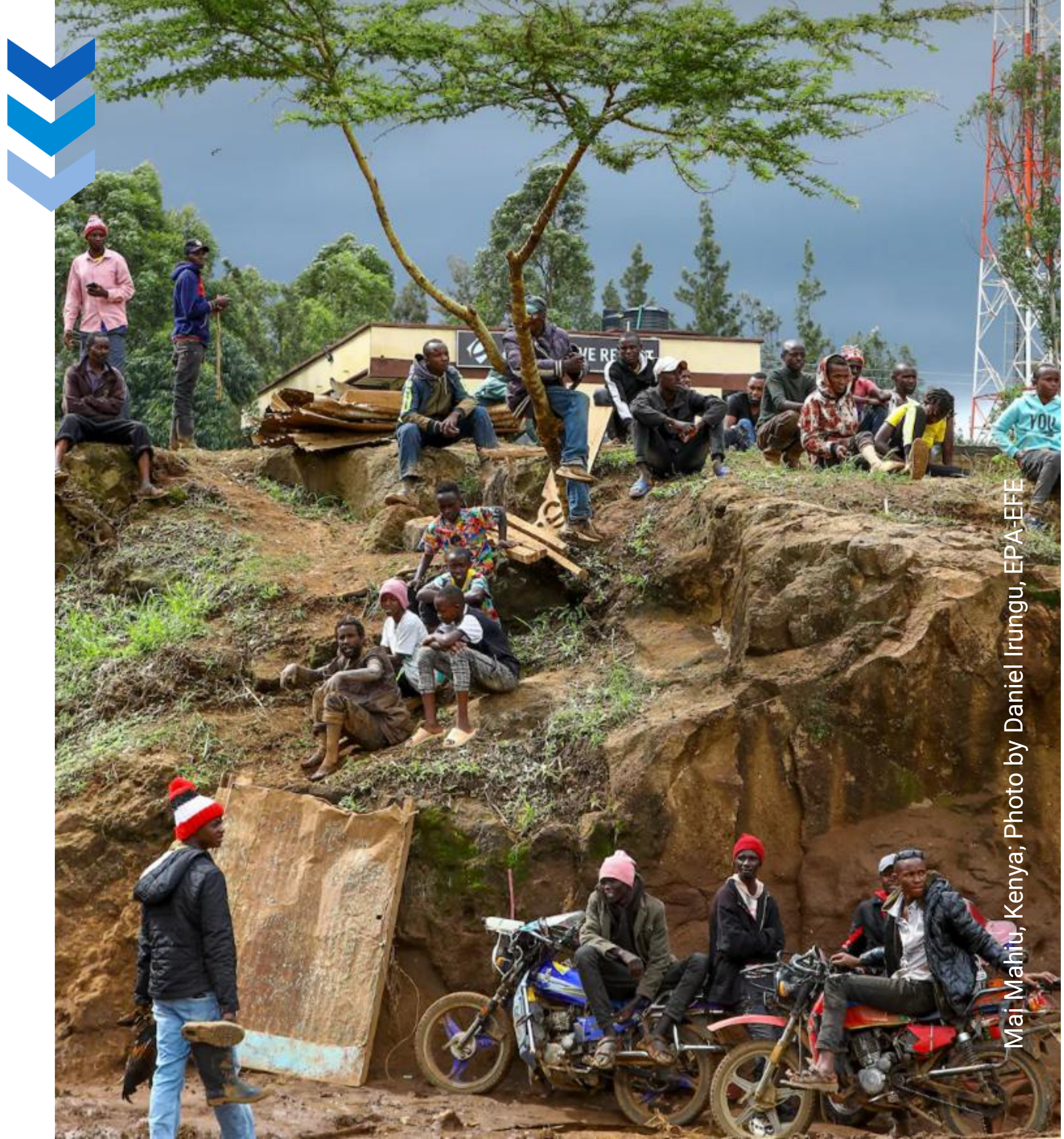
5.

Finance Planning

Pitching to an official

- What language should you use to address this person / audience?
- Is climate resilience the most important factor in their decision making?
- How will you convince them of the importance, and feasibility of your project?
- What information might you need from the CRA, E&I considerations, finance instruments options to be able to fully present your project?

How would you describe this climate resilient project to ensure that it goes forward?



Presentation

One presentation per table

- Start your presentation by describing the audience that it is for.
- Present your finance plan with this audience in mind.
- Open the floor for questions and comments.



08 | Summary



What is Your Role in Delivering Climate Resilient Infrastructure?



Understand how climate change will increase climate risks for diverse groups of people in your city by undertaking or commissioning a CRA.



Identify infrastructure, services, neighbourhoods, and vulnerable groups, who are impacted by climate hazards and/or will be impacted more in the future as climate change brings new challenges.



Identify and deliver infrastructure investments that could help make your city and its citizens more resilient to climate risks. These could be new infrastructure investments or upgrades to existing infrastructure.



Access finance to make investments in climate resilient infrastructure in your city.



Explain to senior officials and/or finance providers why the infrastructure investment you are proposing will help lead to climate resilience – i.e. how is it different than business as usual.



Nairobi; Photo by Simon Maina, AFP

UCRMC Course Summary

Congratulations on completing Module 6: Financing Climate Resilient Infrastructure.



Module 1
Introduction to
Climate
Change and
Urban
Resilience



Module 2
Understanding
Climate Risks
in Your City



Module 3
Locally Led
Adaptation for
Urban
Resilience



Module 4
Ensuring
Climate
Resilience of
Urban
Infrastructure



Module 5
Step-by-Step
Guidelines for
Delivering
Climate
Resilient
Infrastructure



Module 6
Financing
Climate
Resilient Urban
Infrastructure

You have now completed the Urban Climate Resilience Masterclass. Congratulations once again!!



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