KENYA'S CLIMATE CHANGE ADAPTATION FINANCE STRATEGY: STATUS AND OPPORTUNITIES FOR GROWTH

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Knowledge for Better Livelihoods

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FOREWORD

This case study was prepared by the African Centre for Technology Studies (ACTS) as an input to the "Mobilizing Development Finance of Strategic and Scaled-up Investment in Climate Adaptation" research project, which was implemented by the International Institute for Sustainable Development (IISD) in partnership with ACTS in Kenya, Libélula in Peru, and Prakriti Resources Centre in Nepal. Funding for the project was provided by Canada's International Development Research Centre (IDRC).

The research project explored challenges to scaling up finance for adaptation across different contexts and opportunities to overcome these constraints. One area of focus was an examination of how developing countries can prepare financing strategies for adaptation priorities; and this case study provided detailed insights on Kenya's ongoing efforts to develop a financing strategy and scale up financing for adaptation. The case study was prepared to inform an IISD research paper that explored opportunities and challenges in the development of effective strategies for financing adaptation.

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Case study summary

Background and Purpose of the Case Study

To mitigate and adapt to the impact of climate change, countries have prepared Nationally Determined Contributions (NDCs) and formulated action plans to help them realize their commitments under the Paris Agreement. However, to implement these climate change actions, developing countries such as Kenya need effective and enabling financial support. Domestic public and private resources have been cited as insufficient to adequately address the climate change adaptation needs of developing countries (Kissinger & Namgyel, 2014; Kono & Montinola, 2019). To fill this climate finance gap, there is a need for developing countries to have in place strategies for mobilizing resources. However, there is limited experience on how such strategies can be effectively developed. The purpose of this case study, therefore, was to generate knowledge on how developing countries can prepare strategies for financing adaptation priorities that attract finance from Multilateral Development Banks (MDBs). This case study is part of a wider research project - ***Mobilizing Development Finance for Strategic and Scaled-up Investment in Climate Adaptation***" which aims to address the substantial gap between the amount of financing required by developing countries to meet their adaptation needs and current levels of international investment.

Methodology

The methodology consisted of desk review and interviews. Desk review involved a comprehensive analysis of various policies, strategies and plans related to climate change and climate financing in Kenya. It also involved a review of the activities of the World Bank and the African Development Bank (AfDB) in the country, aimed at exploring how Kenya and the MDBs may strategically enhance their climate change adaptation finance in the country. Primary data was collected through interviews and Focus Group Discussions (FGD). In total, 8 interviews were conducted (with three (3)AfDB officials responsible for climate change management in East Africa; 2 officials from the World Bank's Africa Region Climate Change Office, The National Treasury (1) and Climate Change Directorate (2). In addition, two FGDs with 16 government and civil society actors (8 Government of Kenya Officers based at the national offices of ministries involved with climate change adaptation planning, implementation and monitoring; 8 officials from the Kenya Climate Change Working Group, a civil society organization network extensively involved with climate change advocacy in Kenya). Due to challenges related to Covid-19, all the discussions were undertaken online through licensed platforms namely Zoom and Teams.

Key Findings & recommendations

- Kenya is one of the countries in the world most affected by adverse impacts of climate change.
- The country's high vulnerability results from physical characteristics such as high levels of aridity in an approximated 80% of its landmass, as well as an over-reliance on economic activities such as rain-fed agriculture which is highly susceptible to climate change and variability.
- During the decade starting 2010, Kenya instituted an elaborate, pro-adaptation climate change governance structure. This strategy involves a constellation of diverse policies, laws and policy instruments, rather than a single plan explicitly designed to guide climate change adaptation. It includes but is not limited to: The climate Change Act (2016), the National Adaptation Plan (2015-2030), the National Climate Change Action Plan (2018-2022), Various county climate change acts, National Policy on Climate Finance (2017) and the NDC finance Strategy.
- To operationalize this strategy, Kenya has invested significant financial, intellectual and infrastructural resources in collaboration with diverse development partners. These partners include multilateral, bilateral and domestic actors. Multilateral Development Banks (MDBs)

constitute an integral part of these partners, contributing significant financial and technical support. The World Bank and the African Development Bank are the major MDBs in the country. Besides investing significant financial resources in promoting climate adaptation, the banks have also played a significant role in supporting the evolution of an elaborate climate change adaptation strategy in the country.

- Several challenges exist in Kenya's endeavour to operationalize her climate change adaptation strategy. These include limited financial and technical capacity, poor coordination and constrained access to adaptation finance.
- There are ongoing efforts to overcome these challenges and several opportunities exist to further manage them. These include:
    a. Transparency and accountability in terms of reporting adaptation finance: There is a need for transparency in adaptation financing to understand whether the climate finance flows are meeting the country's needs. Currently, there is no system in place to track and report adaptation financing; the National Treasury is planning to put in place a system through a segment of the Integrated Financial Management system (IFMIS) (Odhengo et al., 2021). The existence of such a framework could potentially attract more finances into adaptation activities.
    b. Incentives and subsidies to mobilize the private sector into adaptation financing: Incentives and subsidies can be used to mobilize private sector investment in adaptation financing. The National Treasury is currently working on a national policy framework on green fiscal incentives. The framework is intended to provide guidelines to enhance private financing of climate actions in the country
    c. Enhance enabling environment: There is a need for policy coherence to create an enabling environment in terms of adaptation financing in Kenya. Additionally, a policy framework that creates an enabling environment for private-sector investment will help to attract private-sector investment into adaptation actions in the country.
    d. Kenya's devolved governance system also provides an excellent platform for financing and investing adaptation activities from both national and international sources, and can therefore be instrumental in scaling up adaptation financing.
    e. Better coordination among actors and Ministries: Coordination among the different actors at all levels, including ministries, agencies, county-level government entities, international development partners and private sector stakeholders is required to achieve better results in terms of adaptation financing (DIR). Climate financing coordination efforts can be made possible through a Joint Sector Working Group and discussions with development partners (GoK, 2018).
    f. Enhanced project preparation and design: Climate change activities should be country-driven and based on the needs, perspectives and priorities of Kenya. This is an ongoing endeavour. Early engagement with the relevant stakeholders is needed to ensure that the design of investment programs and projects are aligned to the national priorities. There is a need to ensure that during the design phase, projects are aligned to national priorities in terms of adaptation as outlined in the policy documents such as the National Adaptation Plan and National Climate Change Action Plan.

1. INTRODUCTION

1.1 Background

Across the world, nations need to adapt to the current and projected adverse impacts of climate change. This is because different countries continue to experience adverse impacts of climate change, such as floods, heatwaves, droughts and rising sea levels in diverse ways. Developing countries are particularly susceptible to the adverse impacts of climate change due to multiple factors, but especially their reliance on climate-sensitive sectors such as agriculture and tourism for economic development (Eckstein et al., 2020; Odhengo et al., 2019). In Kenya for instance, the agricultural sector, which is a climate-sensitive sector, employs approximately 80% of the country's working population, constitutes 60% of the country's exports, and contributes close to 30% of the country's GDP (Okereke & Agupusi, 2015). Climate-related hazards are associated with economic losses amounting to 3-5% of the country's annual GDP (GoK, 2020). The 2008 to 2011 drought, for instance, resulted in a 2.8% annual economic growth decline (Odhengo et al., 2021). Specifically, responding to the impacts of floods costs the country approximately 5.5% of GDP every seven years, while droughts cost amount to 8% of GDP every five years (GoK, 2018).

The Paris Agreement (PA) provides a global framework for climate change adaptation and establishes a global goal on climate change adaptation, alongside the much-publicized mitigation goal to limit global warming to well below 2^0C, preferably to 1.5^0C degrees Celsius, compared to pre-industrial levels. The global goal on adaptation aims to enhance global adaptive capacity, strengthen resilience and reduce vulnerability to climate change, contribute to sustainable development and ensure an adequate adaptation response (Paris Agreement, 2015, Section 7.1). It recognizes that even though climate change is a global challenge, developing countries are particularly vulnerable, necessitating international cooperation to support country-driven and gender-sensitive climate change adaptation processes. The agreement also provides for engagement in the national adaptation planning process and indicates that adaptation communications should be "submitted and updated periodically, indicating priorities, implementation and support needs, plans and actions without creating any additional burden for developing countries" (Article 7 sub-section 10, Paris Agreement, 2015). The Paris Agreement also calls for making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development. The Agreement calls on developed countries to provide financial resources to assist developing countries and notes that the provision of scaled-up resources should achieve a balance between mitigation and adaptation (UNFCCC, 2015, Section 9).

1.2 Problem statement

To implement the Paris Agreement, developing countries such as Kenya need effective and enabling financial support[1] to adapt to adverse impacts of climate change and prepare for future climate changes (Odhengo et al., 2019). Although low-cost investments for climate change adaptation have often been deployed by diverse communities across the world for decades, these are limited in their capability to cushion communities from a rapidly and intensely changing climate in the long run (Pelling, 2011) Yet, domestic public and private resources have been cited as insufficient to adequately mobilize climate change adaptation needs of developing countries (Kissinger & Namgyel, 2014; Kono & Montinola, 2019) To fill this climate finance gap, several developing countries are in the process of preparing or planning to prepare financing strategies for adaptation. However, there are limited best practices that can be tapped on to guide the process. Furthermore, there is limited information on the link between having in place

[1] The UNFCCC Standing Committee on Finance's (SCF) defines climate finance as "to local, national or transnational financing–drawn from public, private and alternative sources of financing–that seeks to support mitigation and adaptation actions that will address climate change" (*UNFCCC*, n.d.) This definition has been adopted by the Government of Kenya as the country's operational definition (Climate Change Act, 2016)

financing strategies for adaptation and success in securing financing for priorities, particularly from MDBs. This case study seeks to contribute to filling this gap through a detailed review of Kenya's climate change adaptation policy and strategies, as well as through discussions with Kenya government officials involved with climate change policy design, civil society actors as well as multilateral development actors closely involved with climate change adaptation finance in the country.

1.3 This case study

This case study is part of a wider research project - ***Mobilizing Development Finance for Strategic and Scaled-up Investment in Climate Adaptation***" funded by Canada's International Research and Development Centre (IDRC). The three-year (2019-2021) research project aims to address the substantial gap between the amount of financing required by developing countries to meet their adaptation needs and current levels of international investment. In particular, it strives to increase the extent to which adaptation is mainstreamed into the development finance portfolio of MDBs and ensure these investments are aligned with the adaptation priorities identified by developing countries through their national processes. The project is being implemented through three workstreams – (a) mainstreaming adaptation in development finance; (b) strengthening national strategies for financing adaptation, and (c) promoting innovative financing instruments for adaptation.

This case study, which is aligned to the second workstream on strengthening national strategies for financing adaptation, is based on the Kenyan national climate change strategy titled ***Financing Strategy for Nationally Determined Contribution***(Government of Kenya (GoK & United Nations Development Programme (UNDP), 2020)

1.4 Purpose, objectives and the research questions of the case study

The purpose of this case study was to generate knowledge on how developing countries can prepare strategies for financing adaptation priorities that attract finance from MDBs. The specific objectives were to document:

a) The best practices concerning developing financing strategies for adaptation;
b) The roles and needs of Kenya in attracting MDB investment that addresses adaptation priorities; and,
c) How Kenya engages with MDBs in the identification and prioritization of adaptation programs.

1.5 Justification

As an agricultural and natural resources dependent country, Kenya is one of the countries most vulnerable to adverse impacts of global climate change. In 2018, the country was the 7th most affected country by impacts of climate change (Eckstein et al., 2020). Adverse impacts of climate change in Kenya are manifested in the form of droughts, particularly in the Arid and Semi-Arid Lands (ASALs), flash floods, rising sea level, heat waves among others. Impacts of climate change have had wide-ranging adverse impacts on socio, economic and ecological aspects of the country. For instance, at the macro level, climate change has been associated with an annual 3-5% GDP loss (GoK, 2020). At the micro-level, climate change has adversely disrupted industrial production processes particularly for industries relying on natural resources such as water to run or produce; as well as disrupted livelihoods of millions of people particularly the more than 80% of the population that relies on agriculture. Populations living in the Arid and Semi-Arid Lands (ASAL) regions, which constitute an approximated 80% of the country's landmass are the most vulnerable to adverse impacts of climate change (see figure 1). Both mitigation and adaptation interventions are required to address Kenya's climate change challenges.

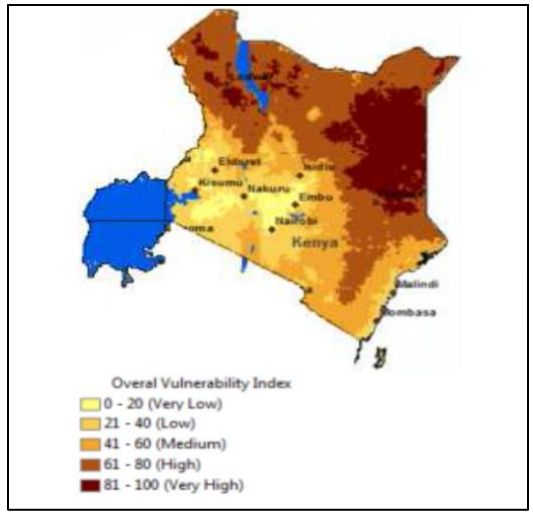

Figure 1: *Climate change vulnerability index for various regions in Kenya*

Source: *Government of Kenya (2020)*

Future climate projections for Kenya indicate that the country will continue to experience increasing surface temperature and precipitation upto 2050 (Managua, 2011). However, the precipitation projections are more uncertain than temperature projections(Government of Kenya (GoK), 2020). That is, while some regions will experience increased rainfall (and therefore improved production and/or floods), others will experience depressed rains (and therefore drought). Like other countries in Sub-Saharan Africa, the country is therefore likely to experience some climate change-related opportunities as well as loss and damages associated with climate change in the future. Overall, climate change is likely to cause more harm than good to the region, as the AfDB (2019) for instance projects that by 2050 the most vulnerable African countries would lose more than 15% of their GDP due to climate. Strategies to enhance mobilization of financial resources to fund adaptation projects is therefore justified.

Extensive financial resources are required to address the country's high vulnerability to the adverse impacts of climate change. Under the UNFCCC, developed counties are obligated to finance climate change adaptation (and mitigation) efforts in developing countries. This support is implemented through three main funds namely the Green Climate Fund (GCF), the Global Climate Facility (GCF) and the Adaptation Fund (AF). International climate change finance is also available through bilateral, multilateral and regional frameworks. The expectation by developing countries that international actors support their climate change adaptation finance is well reflected in national climate change plans and UNFCCC Conference of Party Negotiations (COPs). Kenya's initial NDC (GoK 2015) was for instance fully conditional to international support while the Updated NDC pegs 86% of its USD 62 billion to international support (GoK, 2020: 1&2). But there exists a significant shortfall to finances made available to developing countries by developed counties to address climate change (adaptation and mitigation) at the global level. For instance, although in 2009 developed countries pledged to avail USD 100 billion to the GCF to finance climate action in developing countries, this commitment has not been met fully. (Arndt & Tarp, 2017). At the national level, shortfalls in climate finance are also well-reflected. For instance, while submitting her updated NDC, the Government of Kenya states that:

> *"Despite our first NDC being fully conditional to international support, most of the progress made in implementation to date is from domestic resources"(GoK, 2020:1)*

Multilateral Development Banks can and do play a significant role in providing blended climate finance to developing countries. Such finance has the potential to complements climate finance accessible through national, UNFCCC and bilateral sources. It is therefore important to review the progress Kenya has made in her efforts to access such finance in the context of wide-ranging potential sources of international climate finance.

2. METHODOLOGY

The overall design of this study involved a review of published and grey literature on climate change adaptation and finance, as well as an analysis of primary data. The secondary data collection consisted of the following two main activities:

a) A comprehensive analysis of various policies, strategies and plans related to Kenya's climate change and climate financing.

b) A review of the activities of the World Bank and the African Development Bank in Kenya, to explore how Kenya can strategically enhance her climate change adaptation finance. These multilateral institutions have historically played an integral role in financing development investment in the country, and are considered among the most integral multilateral institutions on climate finance in Kenya (GoK, 2012; Odhengo et al., 2021, WP 1).

Primary data was collected through interviews and Focus Group Discussions (FGD). Interviews were undertaken with three (3) AfDB officials responsible for climate change management in East Africa; two (2) officials from the World Bank's Africa Region Climate Change Office; officers from the National Treasury (1) and Climate Change Directorate (2). In addition, one(1) Focus Group Discussion was undertaken with eight 8 Government of Kenya officers based at the national offices of ministries involved with climate change adaptation planning, implementation and monitoring; and one FGD with 8 representatives from the Kenya Climate Change Working Group, a civil society organizations network extensively involved with climate change advocacy in Kenya. Due to challenges related to Covid-19, all the discussions were undertaken online through licensed platforms namely Zoom and Teams.

3. FINDINGS

3.1 Kenya's climate change adaptation finance strategy

Kenya's climate change adaptation strategy can be said to be a constellation of diverse policies, laws and policy instruments, rather than a single plan explicitly designed to guide climate change adaptation and climate change adaptation finance. The country's documented climate change management strategy can be traced to the year 2010 when the country formulated the Climate Change Response Strategy(GoK, 2010). During the decade spanning 2010-2020, an elaborate climate change management institutional infrastructure significantly evolved, propelling Kenya to a position of regional (to global) leadership on climate change in the establishment of institutional frameworks necessary for climate change management(Ageyo & Muchunku, 2020; Odhengo et al., 2021; Orindi et al., 2020; USAID, n.d.). This climate change management institutional framework is heavily oriented towards climate change adaptation. Discussions with different actors (government officers, MDB, civil society actors) as well as a review of diverse government documents observe that prioritizing climate change adaptation in the country's climate change institutional framework is necessitated by the country's high vulnerability to adverse impacts of climate change. This prioritization of climate change adaptation compared to mitigation is well reflected in the country's updated Nationally Determined Contribution (NDC) which was submitted to the UNFCCC in December 2020. According to the NDC (GoK, 2020), while the country's mitigation needs between 2020 and 2030 are $ 17,725, that of adaptation for the same period is $ 43,927. Kenya's climate change framework is summarized in Table 1 and includes among others, the updated Nationally Determined Contribution (2020-2030), the Climate Change Act (2016), the National Adaptation Plan (2015-2030), the National Climate Change Action Plan (2018-2022), various county climate change acts, National Policy on Climate Finance (2017) and the NDC finance Strategy. According to the government, the process of developing the diverse policies, instruments, strategies and laws have been participatory. Although this is uneven across the different levels of governance, this normally involves consultations with citizens as well as their political representatives through the different stages of formulation and legislation. This practice is in line with the Constitution of Kenya (2010) where adequate citizen participation is required for the country's policy and legislative process. Failure to adequately integrate public participation may therefore result in delayed or failed legislative and policy initiatives. Indeed, poor public participation has been blamed for the enactment of the climate change bill which was passed by the Kenyan parliament in 2012 (Thomson Reuters Foundation News, 2013) but was only enacted into law in 2016.

Table 1: A summary of laws, policies and strategies relevant to climate change adaptation financing in Kenya[2]

Laws, policies, strategies and policy instruments	Description	Implications for climate change Adaptation	Implications for climate change adaptation finance
Strategies			
National Climate Change Response Strategy (2010)	This strategy sought to institutionalize and systemize the management of climate change in Kenya	• States that adaptation remains Kenya's key climate change priority (pg.25) • Recommends the formulation of a climate change policy and law • identified priority sectoral adaptation (and mitigation) needs, • Acknowledges and identies existing adaptation capacity needs, • Initiated the establishment of a climate change management secretariat and national climate change steering committee aimed at enhancing coordination of climate change adaptation (and mitigation) in the country	• Undertook initial albeit non-desegregated costs of climate change management in Kenya • Identifies potential sources of climate finance locally (e.g. Local Authority Transfer Fund (LATF) and Constituency Development Fund (CDF)) and external (e.g. from multilateral banks and bilateral actors)
NDC Financing Strategy	Developed by the GoK through the support of UNDP, this strategy provides costing details for Kenya's climate priority actions based on available government finance, and highlight funding gaps that may be filled by development partners.	• The strategy is mainly based on the review of the existing plans such as NCAAP 2018-2022, MTP III, which emphasize that climate change adaptation in Kenya's priority climate action	• Reveals Kenya adaptation finance gap for the period 2020-2030 (US $ 8,691 million as compared to US $ 9,934 for mitigation) • Emphasize the urgency for mobilizing resources from domestic and international public finance sources for climate change adaptation
Policies			
National Climate Change Framework Policy (2016)	This policy aims to facilitate a coordinated, coherent and effective approach by the government of Kenya as it responds to local, national and global challenges and opportunities resulting from climate change	• Situates the challenge of climate change, and the need for the mainstreaming of climate change adaptation through National Adaptation Plans • Requires that climate change adaptation is informed by research and do not contribute to maladaptation	• Acknowledges the finance as key to the successful implementation of climate change adaptation • Requires that climate change adaptation is financed from a diversity of domestic and international finance
National Policy on Climate Finance (2017)	This policy aims to position Kenya to better access climate finance through	• Among other things, this seeks to 1)put in place a mechanism to enhance the allocation of adaptation	• Among other things, this calls for the 1) establishment of a mechanism to

[2] *This summary contains a representation of policies, strategies and laws that relate to climate change adaptation and finance strategy in Kenya. It does not cover this landscape in its entirety .*

	diverse mechanisms both at the national and county levels. The policy responds to Kenya's climate change management needs as outlined in the Climate Change Action Plan (2013-2017)	finance to match climate change mitigation 2) track adaptation finance 3) develop a strategy to explore sources of adaptation finance	enhance the allocation of adaptation finance to match climate change mitigation 2) tracking adaptation finance 3) establishment of a strategy to explore sources of adaptation finance
Laws			
Climate Change Act (2016)	Kenya was one of the first African countries to legislate a climate change law(USAID, n.d.).This law provides the legal and institutional framework for the mainstreaming of climate change in all development sectors in the country.	• Provides for the formulation of 5-year climate change action plans for the implementation of climate change adaptation (and mitigation) • Provides the legal framework for litigation to protect actions likely to adversely impact climate change adaptation efforts • Establishes a Climate Change Council, headed by the President, positioning climate change adaptation (and mitigation as priority issues for the country	• Establishes a Climate Change Fund for the financing of priority climate change adaptation (and mitigation actions) through grants and loans • The Fund widens Kenyans climate change adaptation finance basket, as it provides for a diverse source of funds (grants, gifts and endowments etc) that are external to the government of Kenya
County Climate Change Acts	Several counties- Garissa, Isiolo, Kitui, Makueni and Wajir- have established county legislation to institutionalize the management of climate change(Climate Analytics & New Climate Institute, 2020)	• These acts provide a county-level legislative framework for the design, financing and implementation of climate change adaptation (and mitigation). This is particularly crucial for Arid and Semi-Arid Counties where vulnerability to climate change is highest.	• Many County Climate Acts establish County Climate Funds where the county commits a given percentage of its budget to climate change management. Like the national climate change fund, the CCCF provides an opportunity for counties to tap on international public and private funds, as well as domestic private funds.
Public Finance Management Act (PFM)	Provides a framework for tracking public expenditures, including those of climate finance		Provides a framework for tracking adaptation finance
Policy Instruments			
Kenya National Adaptation Plan (2015-2030)	This document consolidates various adaptation plans and actions drawn from across planning sectors. It acts as a key adaptation reference for the country's climate change policies including the climate change Act and Climate Change Action Plans. It aligns the country's adaptation plans to the development vision such as the vision 2030. It is also used to communicate Kenya's adaptation plans to the UNFCCC.	• explicitly recognize that adaptation is the main priority for the country because of the adverse socioeconomic impacts of climate change being experienced and the ever-increasing vulnerabilities of the different sectors. • The plan outlines various adaptation actions over the short, medium and long term and aligns these to the vision 2030	• Develops a comprehensive costing of Kenya's climate change adaptation needs for 15 years

National Climate Change Action Plans (2013-2018;2018-2022)	Guides Kenya on the priority adaptation and mitigation climate change actions that help define Kenya's low carbon climate-resilient development pathway and lead to the achievement of Kenya's NDC targets.	• NCCAP clearly articulates that sustainable development is difficult to achieve considering a changing climate that has negative economic, social and environmental impacts; meaning that adaptation and development goals need to complement each other	• Develops a comprehensive costing of Kenya's climate change adaptation needs for 5 years
The Nationally Determined Contributions (NDCs) (2015;2020)	The NDC sets out Kenya's adaptation and mitigation contribution. Kenya's 1st Nationally Determined Contribution (NDC). The NDC was initially submitted to the UNFCCC in 2015, covering the period 2015-2030. As required by the Paris Agreement, the NDC was updated and submitted to the UNFCCC in December 2020 for the period 2020-2030	• Reiterates that climate change adaptation remains Kenya's climate change priority and highlights priority adaptation actions	• Kenya commits to covering 10% of the entire climate change adaptation budget (USD 43,927 million), while calling upon international actors to cover 90% of the adaptation budget
County Climate Change Funds	Initiated through a collaborative partnership of national and international actors, five-county governments (Makueni, Wajir, Garissa, Isiolo, and Kitui) embarked on earmarking specific amounts of financial resources to climate action through County Climate Change Funds (CCCFs)(Odhengo et al., 2019). Overall, unpublished data obtained from the National Treasury and Planning indicate that 35 counties have established county climate funds[3]	• Through the CCCFs, counties set a minimum budgetary allocation (typically 1% or 2% of their development budgets) to undertake climate change activities(Orindi et al., 2020) • Most of the counties that have piloted or are in the process of establishing CCCFs are ASAL where climate change vulnerability is the highest	• CCCFs help to identify, prioritise and finance investments that seek to reduce climate risks while achieving adaptation priorities through county funds as well as other national and international funds(Orindi et al., 2020).
County Integrated Development Plan (CIDP)	CIDPs are 5-year plans that guide the operations of county governments	County governments are required by the Climate Change Act to mainstream climate change adaptation in their CIDPs	CIDPs are a crucial instrument through which counties may channel resources to climate change adaptation interventions

Source: Authors, based on the various laws, policies, instruments and strategies, and cited literature

[3] *Kilifi,Wajir,Marsabit,Isiolo,Makueni,Mandera,Garissa,Tharaka Nithi,Embu,Kitui,Machakos,West Pokot, Trans-Nzoia, Elgeyo Marakwet, Baringo, Nakuru, Kajiado, Narok, Kakamega, Vihiga, Busia, Siaya, Kisumu, Nyandarua, Nyeri, Kericho, Meru, Bomet, Kisii, Turkana, Tana River, Kiambu, Nyamira, Murang'a, Nandi*

Discussions with government officers suggest that the Government of Kenya has been strategic to influence its development actors to focus attention on climate change adaptation as the priority climate change action for the country. The resultant framework is acknowledged by multilateral development actors, who in diverse ways have sought to collaborate with the government to actualize them. This interrelationship between the government's climate change adaptation (and finance) strategy and its development partners is illustrated by the quotes.

"Donors (such as the WB and AfDB) usually consult with us while designing climate change projects. We have been emphasizing to them that climate change adaptation is our priority climate change action." (Interview with Government Officer, 7th July 2021)

"Kenya has a good NCCAP which touches on the big four agenda. This document highlights the need to address adaptation (and mitigation) in all the development. The net implication of this is that our plans tend to converge with the Kenya government very well" (Interview with World Bank Officer, 7th May 2021)

3.2 Key actors in Kenya's climate change adaptation finance strategy

3.2.1 Government of Kenya

a. National Climate Change Council.

The National Climate Change Council was established by the Climate Change Act to provide an overaching national climate change coordination mechanism in Kenya (Climate Change Act, 2016). The Act provides for the membership of the council, which is constituted by the President who is the chairperson, the Vice President as the vice chairperson and the Mininster incharge of the Minstry of Environment and Climate Change as the Secretary to the council. Other members are drawn Key ministries involved with climate change matters (The National Treasury, Economic Planning and Energy), the Council of Governors, representatives of marginalized communities, civil society and the private sector. The Council has however never met since the enactment of the climate change Act and appointment of members. This gap has been noted to have resulted in significant delays in the operationalization of the Act(Ageyo & Muchunku, 2020) as well as the National Climate Change Action Plan (2018-2022) (Focus Group Discussion with Civil Society organizations representatives). When operational, the Climate Change Council is mandated by the Act (section 6) to undertake the following fuctions:

i. ensure the mainstreaming of the climate change function by the national and county governments;
ii. approve and oversee implementation of the National Climate Change Action Plan;
iii. advise the national and county governments on legislative, policy and other measures necessary for climate change response and attaining low carbon climate change resilient development;
iv. approve a national gender and intergenerational responsive public education awareness strategy and implementation programme;
v. provide policy direction on research and training on climate change including on the collation and dissemination of information relating to climate change to the national and county governments, the public and other stakeholders;
vi. provide guidance on review, amendment and harmonization of sectoral laws and policies in order to achieve the objectives of this Act;
vii. administer the Climate Change Fund;
viii. set the targets for the regulation of greenhouse gas emissions

b. National Treasury and Planning

The National Treasury and Planning is mandated to undertake bilateral and multilateral financial relations in Kenya. This ministry is therefore at the heart of climate finance in the country. This leadership role includes but is not limited to committing financial resources for climate action, and spearheading the establishment of an institutional framework for climate change finance (enactment of legal and policy instruments, establishment of offices responsible for climate finance etc). The ministry also spearheads the establishment of a legislative, policy and institutional framework that supports the nationwide implementation of climate finance. For instance, it has spearheaded the enactment of legal and policy instruments such as the Public Finance Management Act (PFM) 2012 and the National Policy on Climate Finance (Sessional Paper No. 3 of 2017). The Climate Change Act also mandates the National Treasury to establish and host the Climate Change Fund, as well as develop a strategy and make regulations setting out procedures and powers to identify sources of climate finance, to monitor uses by various state, non-state and private sector actors, to enhance integrity.

With a particular focus on climate change adaptation and the place of MDBs, discussions with stakeholders highlight the efforts by the National Treasury to achieve the above endeavours. Such efforts include:

a. Mapping of the country's climate finance landscape is the first attempt to illustrate climate finance spending, disaggregating it by sectors, sources, adaptation and mitigation;
b. Reiterating to actors, including MDBs that climate change adaptation is Kenya's priority;
c. Collaborating with MDBs in the design of adaptation projects such as the Financing Locally-Led Climate Action (FLLoCA) project involving the World Bank and the Government of Kenya; and,
d. Seeking to mainstream climate change adaptation within projects that have an overall development focus such as the construction of roads.

The National Treasury is also Kenya's National Designated Authority (NDA) to the Green Climate Fund (GCF). The Green Climate Fund (GCF) was established by parties to the United Nations Framework Convention on Climate Change (UNFCCC) in 2010, to enhance the efforts of developing countries to manage the challenge of climate change through adaptation and mitigation interventions. Under the Paris Agreement, GCF serves the important role of supporting the goal of keeping climate change well below 2 degrees Celsius. As the NDA, the National Treasury plays the following key roles:

- Provide broad strategic oversight of the Funds activities in Kenya,
- Convene relevant public, private and civil society stakeholders to identify priority sectors to be financed by the Fund,
- Communicate nomination of entities seeking accreditation to the Fund,
- Implement a no-objection procedure by issuing 'Letters of No Objection' on funding proposals submitted to the Fund,
- Provide leadership with the deployment of readiness and preparatory support funding in Kenya, and
- Communicate Kenya's strategic priorities for financing low-emission and climate-resilient development across the economy.

Source: *(The National Treasury, n.d.)*

c. Ministry of Environment and Forestry

The Ministry of Environment and Forestry is bestowed with the responsibility of coordinating climate change actions in the country. This role is undertaken through the Climate Change Directorate (CCD), which also coordinates the Minstries, Counties, Department and Agencies (MCDAs). In addition, the ministry is mandated to provide technical guidance to the National Climate Change Council (NCCC), the National Treasury and the Technical Advisory Committee (Odhengo et al., 2019). Additionally, the ministry is the national focal point for the UNFCCC. This mandates the ministry to, for instance, spearhead the formulation of the Nationally Determined Contribution (NDC). As earlier seen, Kenya's updated NDC is heavily orientated towards climate change adaptation given Kenya's high vulnerability to the adverse impacts of climate change. The National Environment Management Authority (NEMA) which is a state department within the Ministry of Environment and Forestry is a National Implementing Entity of the GCF and the Adaptation Fund and has been accredited to have direct access to funding.

d. Line Ministries and State Departments

Based on the Climate Change Act (2016), climate change ought to be mainstreamed into all spheres of the economy. The Acts state that all departments shall have a climate change unit/department to coordinate the mainstreaming of the Climate Change Action Plan Aand other climate change statutory functions and mandates into sectoral strategies for implementation.

e. County governments

The constitution of Kenya (2010) introduced devolved governance involving the national government and forty-seven county governments to decentralize power and resources at the grassroots. The Climate Change Act (2016) recognizes that the county governments are key in financing climate change in the country and states in section 19(1) that country governments shall mainstream climate change actions into county government functions that incorporate the NCCAPs into various sectors (Odhengo et al., 2019). Climate action mainstreaming at the county level is expected to occur through the CIDPs, which are five-year development plans, as well as the annual plans. Several counties have also embarked on the establishment of County Climate Change Funds. Initially, this initiative was piloted through a collaborative partnership of national and international actors and five Arid and Semi-Arid counties namely Makueni, Wajir, Garissa, Isiolo, and Kitui (Murphy & Orindi, 2017; Odhengo et al., 2019). Arid and semi-arid regions of Kenya are \ most vulnerable to adverse impacts of climate change. By 2020, an additional ten counties have or are currently developing their CCCFs(Orindi et al., 2020)

3.2.2 Development Partners

a. Multilateral actors

Multilateral Development Banks play an instrumental role, not only through the financing of climate change and adaptation projects but also as implementing agencies of diverse climate change funding windows. A review of documents and interviews with stakeholders indicate that the World Bank and the Africa Development Bank are the MDBs with the highest portfolios in Kenya. Between 2013 and 2019, the World Bank, in collaboration with the Government of Kenya and other partners such as DFID, SIDA, UNICEF among others had co-financed 42 projects worth an approximated US $ 6,984,825,000. Over the same period, the AfDB together with the government of Kenya and other partners had financed a diverse portfolio of 33 projects amounting to $ 4,461,216,857. A review of the Bank's financing agreements with Kenya indicates substantive efforts to mainstream climate change adaptation (and mitigation) in their finance portfolios. For instance, approximately US $ 1,500,825,500, which is equivalent to 27% entire WB funding portfolio in Kenya between 2013 and May 2020 can be quantified as climate finance. climate change adaptation finance occupies the larger proportion of the World Bank's climate finance at 16% while mitigation finance follows closely at 14% (analysis in WS 1- Multilateral Development Banks and Climate Change Adaptation Finance: The case of World Bank and African Development Bank in Kenya). On its side, the AfDB has sought and achieved parity between climate change adaptation and mitigation finance ((African Development Bank (AfDB) et al., 2020; Interview with AfDB officer, 17th February 2021). For the AfDB officer interviewed, "climate change adaptation is a priority while climate change mitigation is an opportunity." (Interview with AfDB officer, 17th February 2021). This statement relates to the views of both the government and civil society actors who reiterate the need to prioritize climate change adaptation in Kenya. In general interviews with both the WB and the AfDB as well as Kenyan government officials indicate the following:

a) That the MDBs have adopted a proactive role in supporting the Kenyan government to design and implement climate change adaptation policies and projects towards reducing the impact of climate change and protecting the country's investments from future adverse impacts of climate change.

b) That there is significant engagement with Kenya's climate change policies such as the National Climate Change Action Plan (2018-2022). However, there is a desire by the government to ensure that the outcome is Kenyan driven.

c) Through the engagement, the MDBs' Country Strategy Papers are informed by Kenyan's priorities.

The financial mechanism of the United Nations Convention on Climate Change (UNFCCC) includes the Green Climate Fund, Adaptation Fund, Global Environment Facility, and Special Climate Change Fund. UN agencies such as UNDP, UNEP, UNSDR and FAO act as delivery partners for these funds that can support climate change adaptation in Kenya. MDBs also serve as implementing entities for the UNFCCC financial mechanism. Table 2 lists the various UNFCCC climate finance windows and how they support finance for climate change adaptation in Kenya.

Table 2: UNFCCC climate finance windows and how they support finance for climate change adaptation in Kenya

Financing window	**Description**	**Status in Kenya**	**Select implications for climate change adaptation in Kenya**
Green Climate Fund (GCF)	This fund aims to promote low emission and climate-resilient development in developing countries for parties to the Paris Agreement. The types of climate finance available vary from grants, concessional loans to capital contribution.	• Three institutions (Acumen (regional), NEMA (National) and KCB Bank Kenya Ltd (National) have been accredited to access funds under the GCF (Green Climate Fund, n.d.)	Both Nema and Acumen have a track record of implementing climate change adaptation projects in Kenya. Currently, NEMA is implementing a US $ 10 million, GCF water security adaptation project targeting 4.9 million people. The accreditation of KCB as the first Kenyan private sector actor to directly access GCF is an open window of opportunity to strengthen climate change adaptation for instance through comprehensive business planning and ecosystem-based adaptation. According to the Bank, the accreditation allows it to front projects of between US $ 50 Million (Shs.5 billion) and US $ 250 Million (Sh 25 billion)(Kenya News Agency, 2020)
Global Environmental Facility (GEF)	Established on the eve of the Rio Summit in 1992, The GEF serves as a "financial mechanism" to five conventions, which are Convention on Biological Diversity (CBD), United Nations Framework Convention on Climate Change (UNFCCC), Stockholm Convention on Persistent Organic Pollutants (POPs), UN Convention to Combat Desertification (UNCCD), and Minamata Convention on Mercury. GEF climate finance portfolio includes grants and concessional loans to guarantees and private equity(Global Environment Facility, n.d.)	• The following are GEF agencies working in Kenya: African Development Bank (AfDB); Conservation International; Food and Agriculture Organization (FAO); GEF Secretariat; International Fund for Agricultural Development (IFAD); International Union for Conservation of Nature (IUCN); The World Bank; United Nations Development Programme (UNDP); United Nations Environment Programme (UNEP); United Nations Industrial Development Organization (UNIDO). • The World Bank serves as the GEF Trustee, administering the GEF Trust Fund, mobilizing resources for the	The numerous GEF agencies are involved with the financing and implementation of many, climate change adaptation projects and climate change institutional strengthening in Kenya

		Trust Fund and disbursing funds to GEF Agencies. • According to GEF, during the STAR GEF-6 period, up to $5,043,133 of GEF funds has been utilized in Kenya toward climate change activities(Global Environment Facility, n.d.) •	
Adaptation fund	Established under the Kyoto Protocol to support climate change adaptation in developing countries.	• NEMA is the National Implementing Entity- NIE for Adaptation Fund in Kenya	• NEMA is currently implementing an adaptation programme titled "Integrated Programme to Build Resilience to Climate Change and Adaptive Capacity of Vulnerable Communities in Kenya" The programme aims to enhance water management, food security, agroforestry, coastal and mangrove ecosystems and disaster risk reduction(NEMA, n.d.)

3.2.3 Bilateral actors

Bilateral actors play an instrumental role in the financing of climate change projects. Some of the key bilateral partners that have been supporting climate change adaptation projects in Kenya include European Union (EU), Danish International Development Agency (DANIDA), USAID, Department for International Development (USAID), Foreign and Commonwealth Development Office (FCDO) Swedish International Development Cooperation Agency (Sida), the Agence Française de Development (AFD), German international development agency (GIZ), KFW (German-owned Development Bank), the Japan International Corporation Agency (JICA)among others. Significant support has been directed by such bilateral actors to the establishment of Kenya's climate change adaptation institutional frameworks, and well as financial and technical support for the implementation of climate change adaptation interventions. For instance, through the StARK+ program, the UK Government supported the development of the Climate Change Act and the climate finance policy. The UK and Swiss governments have also supported the development of the county climate change funds

3.2.4 Domestic stakeholders

a. Civil Society Organizations (CSOs)

The civil society space in Kenya is rich with regard to numbers and contributions to climate action, in particular climate change adaptation, both at the grassroots as well as national level. In our discussions, civil society actors underscored their priority focus on climate change adaptation interventions towards alleviating the high vulnerability among residents of Kenya's grassroots. Their focus on grassroots interventions potentially explains why some development partners directly or indirectly finance climate action through CSOs (Odhengo et al., 2021).

CSOs have also actively participated in shaping Kenya's climate change adaptation strategy through technical and financial contributions to policy processes such as those related to the representation in the NCCC, NCCAPs, NAP, NDC and county-level climate change governance. Indeed, the innovative county climate change funds were piloted in Kenya through the collaborative efforts of civil societies (Institute for Environment and Development (IIED), Christian Aid and community organisations operating in Isiolo); Ministry of State for the Development of Northern Kenya and Other Arid Lands A collaborative partnership formed consisting of the Ministry and the Kenya Meteorological Department (Orindi et al., 2020).

Currently, under the auspices of the Kenya Climate Change Working Group (KCCWG) diverse civil society actors (non-governmental organizations [NGOs], community-based organizations [CBOs], Private actors, and faith-based organizations [FBOs]), participate in wide-ranging activities that include but not limited to climate change research, lobbying, policy work and capacity building towards enhanced climate change adaptation (and mitigation) in Kenya. In addition, CSOs are incrementally collaborating with research institutions and academia to form communities of practice for climate action (Odhengo et al., 2021).

Interviews with civil society representations, however, indicate that a key limitation to realizing the overall impact of civil societies on climate change adaptation actions is the lack of a centralized information-sharing database, which would for instance support tracking of non-state actor interventions as well as financial resources dedicated to climate adaptation. This limitation is also linked to the weak operationalization of institutional structures that consistently link the government, civil society and the private sectors even though validated structures exist separately for CSOs as well as private sector.

b. Private Sector

Globally, the private sector is thought to present a huge potential for supporting climate change adaptation. The IPCC (Noble et al., 2014), for instance, categorizes the sector together with local government as among the most critical to successful adaptation. This role is related to the need for individual, small, medium or large-scale enterprises to protect their production systems from the adverse impacts of climate change (ibid). This implies that the informal sector (individual, small and medium enterprises), which constitutes the biggest components of the private sector in Kenya is a critical sector of the economy for successful climate change adaptation.

Kenya has emphasized on the role of the private sector in adaptation in its updated NDC. The formal private sector has particularly taken an active role, not just in cushioning the sector from the adverse impacts of climate change, but also in shaping the policy and legislative framework for climate change adaptation. For instance, the Kenya Private Sector Alliance (KEPSA) and the Kenya Association of Manufacturers (KAM) contributed to the development of the two NCCAPs, the NAP and the Climate Change Act(KEPSA, n.d.). The sector also has a representation in the National Climate Change Council (ibid). Yet, there is a need to increase public sector support to leverage private sector investments in climate change adaptation. In the past, private sector investment in climate finance in Kenya has been encouraged through fiscal incentives but more needs to be done as there are still challenges of accessing funds from local commercial banks that are shy to invest in climate-related activities (Odhengo et al., 2019) despite their enormous capacity. Enhancing the capacity for developing bankable adaptation project proposals to convert planned adaptation actions into business cases is also required. The accreditation of KCB Bank Kenya Ltd by GCF could be an important step in this direction.

3.3 Challenges facing Kenya's climate change adaptation strategy

Despite the existence of an elaborate, pro- adaptation climate change governance framework, several challenges constrain effective implementation. These are discussed below.

a. Limited financial capacity.

Inadequate financial resources translate into the failure to actualize the goals set in the country's climate change adaptation strategy. Indeed, a review of Kenya's climate change adaptation finance demonstrates a significant shortfall (Government of Kenya (GoK & United Nations Development Programme (UNDP), 2020). According to this review, up to US $ 8.691 million is needed to fill Kenya's climate change adaptation priority needs. While the Government of Kenya has committed to mobilize statutory funds amounting to 10% (US $ 4,393 million) of the country's climate change adaptation budget up to 2030, up to 90% (us $ 39,534 million) of this budget is expected to flow from international actors in line with the Paris Agreement(GoK, 2020). The implication here is that to overcome the current adaptation deficit, more efforts need to be directed to mobilizing international funds towards Kenya's climate change adaptation goals.

b. Inadequate technical capacity

Although ongoing efforts exist to build the technical capacity to manage climate change adaptation, weak capacity remains a constraint to the effective realization of Kenya's ambitious climate change adaptation. Discussions with government, civil society and MDB representatives indicate that this challenge is multifaceted and include but is not limited to 1) Weak capacity to design competitive adaptation programs; 2) the complexity/question of distinguishing change adaptation from mitigation initiatives and finance from development; and 3) challenges with quality program implementation. MDBs have played some role in alleviating this challenge. For instance, according to the AfDB (Interview with AfDB Officer, 17th Feb 2021), "one area we are involved in as a Bank involves institutional strengthening and capacity development towards the right policies, framing of complex issues and a conducive environment for all actors". The World Bank also engages with capacity development efforts such as those involving the development of NDC and integration of climate change adaptation in County-level development planning (Interview with WB official, 7th May 2021).

c. Weak coordination.

This may partly be attributed to the complex climate change governance regime that has over time emerged in the country, as well as the lack of specific institutional frameworks to guide complex interrelationships. For instance, while the technical management of climate change is undertaken within the Ministry of Environment and Forestry whereas, planning and financing are done within the National Treasury and Planning. This results in challenges with access to information, duplication of efforts, difficulties in the design, monitoring and reporting of adaptation projects among others. The Climate Change Council established under the Climate Change Act (2016) provides a good opportunity for enhanced, multistakeholder coordination on climate action. As seen earlier however, this council is yet to convene, further complicating the climate change governance regime in Kenya.

D. Access to adaptation finance (as compared to mitigation finance) remains a challenge.

As explained by some respondents, this may be due to the tendency by development actors including MDBs preference for high capital infrastructural investments compared to lower-cost but longer-term investments such as those concerning improved livelihood processes (Interview with GoK Officer, 5th July 2021; Interview with MDB officer 17th February 2021)

4. CONCLUSION

Kenya is one of the countries in the world most affected by adverse impacts of climate change. The country's high vulnerability results from physical characteristics such as high levels of aridity in an approximated 80% of its landmass, as well as an over-reliance on economic activities such as rain-fed agriculture which is highly susceptible to climate change and variability. In collaboration with international partners, the country, therefore, needs to adapt to climate change to reduce vulnerability and build the capacity to manage future climate changes. The Paris Agreement has underscored the need for international support as the country embark on its adaptation goal.

During the decade starting 2010, Kenya has instituted an elaborate, pro-adaptation climate change governance structure. This strategy involves a constellation of diverse policies, laws and policy instruments, rather than a single plan explicitly designed to guide climate change adaptation. It includes but is not limited to: The climate Change Act (2016), the National Adaptation Plan (2015-2030), the National Climate Change Action Plan (2018-2022), Various county climate change acts, National Policy on Climate Finance (2017) and the NDC finance Strategy.

To operationalize this strategy, Kenya has invested significant financial, intellectual and infrastructural resources in collaboration with diverse development partners. These partners include multilateral, bilateral and domestic actors. Multilateral Development Banks constitute an integral part of these partners, contributing significant financial and technical support. The World Bank and the African Development Bank are the major MDBs in the country. Besides investing significant financial resources in promoting climate adaptation, the banks have also played a significant role in supporting the evolution of an elaborate climate change adaptation strategy in the country.

Yet, several challenges exist in Kenya's endeavour to operationalize her climate change adaptation strategy. These include limited financial and technical capacity, poor coordination, enforcementand constrained access to adaptation finance. There are ongoing efforts to overcome these challenges and several opportunities exist to further manage them. These include:

a. Transparency and accountability in terms of reporting adaptation finance: There is a need for transparency in adaptation financing to understand whether the climate finance flows are meeting the country's needs. Currently, there is no system in place to track and report adaptation financing; the National Treasury is planning to put in place a system through a segment of the Integrated Financial Management system (IFMIS) (Odhengo et al., 2021). The existence of such a framework could potentially attract more finances into adaptation activities.
b. Incentives and subsidies to mobilize the private sector into adaptation financing: Incentives and subsidies can be used to mobilize private sector investment in adaptation financing. The National Treasury is currently working on a national policy framework on green fiscal incentives. The framework is intended to provide guidelines to enhance private financing of climate actions in the country.
c. Enhance enabling environment: There is a need for policy coherence to create an enabling environment in terms of adaptation financing in Kenya. Additionally, a policy framework that creates an enabling environment for private-sector investment will help to attract private-sector investment into adaptation actions in the country. Kenya's devolved governance system also provides an excellent platform for financing and investing adaptation activities from both national and international sources, and can therefore be instrumental in scaling up adaptation financing.
d. Better coordination among actors and ministries: Coordination among the different actors at all levels, including ministries, agencies, county-level government entities, international development partners, civil societies and private sector stakeholders is required to achieve better results in terms of adaptation financing (DIR). Climate financing coordination efforts can be made possible through a Joint Sector Working Group and discussions with non-state-actors (GoK, 2018).
e. Enhanced project preparation and design: Climate change activities should be country-driven and based on the needs, perspectives and priorities of Kenya. This is an ongoing endeavour. Early engagement with the relevant stakeholders is needed to ensure that the design of investment programs and projects are aligned to the national priorities. There is a need to ensure that during the design phase, projects are aligned to national priorities in terms of adaptation as outlined in the policy documents such as the National Adaptation Plan and National Climate Change Action Plan.

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