



Kenya climate and nature financing options analysis

Final report

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Produced by IIED's Shaping Sustainable Markets Group

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The objective of this report is to conduct a preliminary options analysis of financing instruments suited to the Kenya context which can help Kenya, over time, to reduce the gap between the financing needs for climate and nature action and the actual funding the country can leverage from the government’s budget, development partners and capital markets. The long-term goal is also to contribute to tackling the current high costs of capital through instruments that can boost Kenya’s credit ratings, while enhancing the country’s natural capital. This work is not intended to deploy specific instruments. Instead, based on government guidance, this options analysis can form the basis for follow-on work, which may include structuring specific transactions of financing instruments deemed most appropriate by the Kenyan government.

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Abbreviations and acronyms

AfDB	African Development Bank
AGFC	Africa Green Finance Coalition
BOP	balance of payments
CBD	Convention on Biological Diversity
CMA	Capital Markets Authority
CNPB	climate and nature performance bond
COP	Conference of the Parties
CPI	Climate Policy Initiative
ESG	environmental, social and governance
GoK	Government of Kenya
ICNF-WG	Innovative Climate and Nature Finance Working Group
IFC	International Finance Corporation (World Bank Group)
IMF	International Monetary Fund
KPI	Key Performance Indicator
KWS	Kenya Wildlife Service
LDN	Land Degradation Neutrality
MEF	Ministry of Environment and Forestry
NBSAP	National Biodiversity Strategy and Action Plan
NCFP	National Climate Finance Policy
NDC	National Determined Contribution
PBB	performance-based budget
PDMO	Public Debt Management Office
PPP	public-private partnership
PforR	Program for Results
SLBN	sustainability-linked bond
UNFCCC	United Nations Framework Convention on Climate Change
UNFCCC SCF	United Nations Framework Convention on Climate Change Standing Committee of Finance
UoP	use of proceeds

Summary

Objective

This note suggests initial steps to increase finance for climate and nature action in Kenya. It builds on work undertaken by the Ministry of Environment and Forestry (MEF) on the needs for climate and nature, including in the Nationally Determined Contributions (NDCs) and the National Biodiversity Strategy and Action Plan (NBSAP). It also aligns to work done by the National Treasury on the National Climate Finance Policy (NCFP). Finally, it draws on recent international experience with innovative financial instruments.

The scale of the climate and nature financing needs in Kenya is estimated from work on NDC costs and by applying estimated unit costs for biodiversity protection to an increased area. Existing funding is estimated from the Climate Policy Initiative's (CPI) 2021 Climate Finance Landscape report, which provides a baseline from which to project the growth in each source of finance.

Process

We conducted a review of the literature on financing needs and existing funding to provide an estimate of the gap. We then identified the main options for closing the gap and assessed the potential contribution of each option. Discussions were held with MEF, Kenya Wildlife Service (KWS) and the National Treasury at key stages in the process.

Target Audience

This note is addressed primarily to the government of Kenya (GoK), given its diverse nature and multi-faceted set of recommendations. It also aims to contribute to the global dialogue on innovative climate and nature finance, including helping the GoK play a leading role with international development partners to unlock additional public and private financing.

Assumptions

A key technical assumption in estimating needs and the potential contribution of increased finance is that increased funding for nature and climate does not reduce investment in other development sectors. It is assumed funding comes from an increase in total investment or is integrated into development planning and funding.

Key takeaways

The total annual financing gap is estimated at US\$5.13bn. This annual requirement is estimated for ten years, indicating a total of over US\$50bn for the ten-year period. Indicative estimates of the potential contribution of each funding source, both in the short term and after allowing for growth over ten years, suggest that at the end of ten years, the climate and nature financing needs can be met, provided public policies are successful in accelerating private climate and nature investment. The three most important funding sources are: a) growth in funding from domestic revenue; b) 'natural' growth in private investment; and c) the potential for accelerated private sector growth. However, in the short term, a very substantial shortage of climate and nature finance is expected.

Recommendations

The climate and nature financing options analysis recommendations are as follows:

A. Strategic

1. **Coordination:** Establish an Innovative Climate and Nature Finance Working Group (ICNF-WG) to explore and promote the potential for innovative climate and nature finance. The ICNF-WG could leverage existing climate and nature coordination bodies (eg the National Climate Change Council, the Inter-ministerial Climate Finance Technical Advisory Committee, the MEF Private Sector Engagement Framework and the Environment Donors Group). The representatives of the National Treasury in these bodies should take a leading role. The ICNF-WG could consider all innovative finance options, including the use of key performance indicators (KPI) linked bonds, thematic bonds, sustainability-linked bonds, blended finance instruments, credit enhancements for the private sector and public-private partnership (PPP) as a way of delivering public policy, finance and infrastructure that helps to accelerate private investment in climate and nature.
2. **International leadership:** Showcase Kenya's climate and nature finance policy and private sector initiatives with international bodies (eg Coalition of Finance Ministers, the United Nations Framework Convention on Climate Change

Standing Committee on Finance (UNFCCC SCF), the African Development Bank (AfDB), Africa Green Finance Coalition (AGFC – former GCF-NDA Network), the Network of Central Banks and Supervisors for Greening the Financial System (NGFS), etc). The MEF, National Treasury and development partners can leverage upcoming global events (including the UNFCCC Conference of Parties – COP – and the Convention on Biological Diversity (CBD COP)) to share Kenya's experiences and plans for channelling private financing to climate and nature action and piloting new instruments.

B. Analytical and technical

1. **Financing framework:** The National Treasury can take the lead role in expanding the NCFP beyond its current focus on climate funds. While the NCFP is currently being expanded in the ongoing work on the Green Fiscal Incentives Policy, which covers green bonds, carbon mechanisms and green investment banks, the funding for financing climate change responses should be mobilised from both internal and external sources. In this context, resource mobilisation should be closely linked to Kenya's climate finance strategy, particularly in regard to mobilising external financing. The government at all levels will be required to integrate climate change actions into budgetary processes. This must complement and support any external climate finance resources. In particular, sufficient budgetary allocation for all institutions performing climate change functions should be prioritised to ensure that the necessary human, technical and financial resources are available. The issuance must underscore GoK's commitment to increase PPP initiatives for actions that help to achieve low-carbon and climate-resilient development.
2. **Monitoring, Reporting, and Verification (MRV) systems:** GoK and its partners can enhance efforts to standardise and deploy MRV systems that enhance capabilities across sectors that could benefit from climate and nature financing. A well-structured MRV system is required to verify the attainment of KPIs. When selecting the KPIs, the quality of the data must be assessed beforehand, looking at whether the data is easily available, attributable, recent, updated regularly and comparable across countries. Strengthening MRV capabilities will help expedite the development of baselines and the establishment of targets for public and private financing, especially for results-based financing instruments.

C. Financial

1. **Green bonds:** When market conditions improve, revisit the potential for a use-of-proceeds (UoP) green bond issuance as a precursor to a future KPI-linked bond, whether international or domestic, depending on market opportunities. The National Treasury, MEF, and other partners can revisit this existing initiative and consider using experiences with Program for Results (PforR) to identify a small number of 'shadow KPIs' that can be monitored informally (ie without explicit reference in the bond) as a way of piloting a future KPI bond. The ICNF-WG can facilitate potential green bond issuance when market conditions are suitable for a potential green bond for the international market.
2. **KPI-linked bonds:** Design a KPI bond to replace the green bond on rollover, building on the pilot experience with shadow KPIs in the green bond. The National Treasury and ICNF-WG can explore potential KPIs that would address the key policy and infrastructure concerns that determine the rate of expansion of private climate and nature investment, as identified by the ICNF-WG. Potential KPI-linked bonds may include sustainability-linked bonds (SLBs), structured bonds and emerging efforts related to Nature Performance Bonds (PBCN), which offer both an interest rate and a principal reduction upon KPI achievement.
3. **Grants:** The prospects for climate and nature finance are reasonable in the long term, with projected growth in public and private investment. However, there is a serious shortage in the short term, and the main potential source for bridging the short-term gap is a temporary increase in grants, using programmes that focus on facilitating an acceleration of private climate and nature investment. An effort should therefore be made to increase the share of existing grants from current providers, including bilateral and multilateral donors, with particular emphasis on the donors that already provide budget support (eg the UK Foreign, Commonwealth & Development Office (FCDO) and the EU). It may also be useful to explore grants from new philanthropic organisations.
4. **Concessional financing:** Explore further options for concessional financing, whether from multilateral finance organisations or from foundations, to gain access to cheaper capital than non-concessional borrowing sources. Concessional financing is often linked to specific objectives, such as the investment in climate and nature projects, programmes, and/or the achievement of conservation objectives.

1. Introduction

Background

With the twin climate and nature emergencies, many developing countries need to mobilise significant financing over the next several years to enhance their resilience to climate change, reduce their emissions and conserve the ecosystem services provided by nature which underpin countries' economic development prospects.

Yet tight fiscal space and costly access to capital markets lead developing countries to undertake action on climate and nature on a very limited scale, endangering macro/fiscal/ financial stability and, ultimately, the sustainability of their growth and poverty alleviation efforts.

Objective

The objective of this report is to conduct a preliminary options analysis of financing instruments suited to the Kenya context which can help Kenya, over time, to reduce the gap between the financing needs for climate and nature action and the actual funding the country can leverage from the government's budget, development partners and capital markets. The long-term goal is also to contribute to tackling the current high costs of capital through instruments that can boost Kenya's credit ratings, while enhancing the country's natural capital.

This work is **not** intended to deploy specific instruments. Instead, based on government guidance, this options analysis can form the basis for follow-on work, which may include structuring specific transactions of financing instruments deemed most appropriate by the Kenyan government.

2. Kenya's macro and fiscal context

2.1 Kenya's current financing situation

According to the most recent IMF forecast, in 2022, Kenya is expected to accumulate a budget deficit of 8.2% while its growth is projected to reach 5.8%, representing a weakening position compared to 2021. As far as the debt ratios are concerned, Kenya registers a 71% debt-to-GDP ratio (which surpasses the 55% anchor proposed by the World Bank) and 412% debt-to-revenues ratio, a situation which has worsened when compared to 2021.

Ultimately, due to the current balance of payment (-5.1%) and moderately high foreign exchange (FX) debt position (36%), the IMF assesses the country's debt sustainability risk as high, with a rating of B2/B. Despite this, the country's Eurobond spread remains low at 6.2%. The negative outlook expressed both by the IMF and the main credit rating agencies is also due to the heavy costs of debt servicing¹ which have reached \$12bn in 2022 (Source: Bloomberg). This tendency is leading to an increasing dependency on new public debt issuances, requiring the urgent intervention of capital markets to bridge this gap.

The already-weak position concerning the balance of payments is likely to be further impacted by higher oil prices which could lead to pressure on the national currency in the medium-to-long run. Kenya largely relies on imports for refined oil, coming mostly from the United Arab Emirates, India and Saudi Arabia, making it vulnerable to rising oil prices which have spiked as a consequence of the war in Ukraine. Global food prices are also rising dramatically as a result of the war, with food imports and inputs such as fertilisers, becoming more costly.

Pursuing a policy promoting a domestic ownership of debt put forward by the government, Kenya's debt matrix (overall US\$69bn, KES82 trillion) reached an even split between external and domestic sources in June 2022 in an effort to favour domestic creditors. While this move might help hedge risks concerning external debt financing flows, this strategy could exert pressure on domestic financial markets by increasing borrowing costs (Source: Deloitte).

In terms of the market capitalisation of listed domestic companies, after a continuous period of growth which reached an all-time high in August 2021 at KES2,841bn (US\$24,5 bn), the Kenyan market has seen its size shrink. Currently, the domestic market capitalisation is valued at US\$17,9 bn, down 29% from the peak of last year. As of today, the market capitalisation represents 16.7% of the nominal GDP.

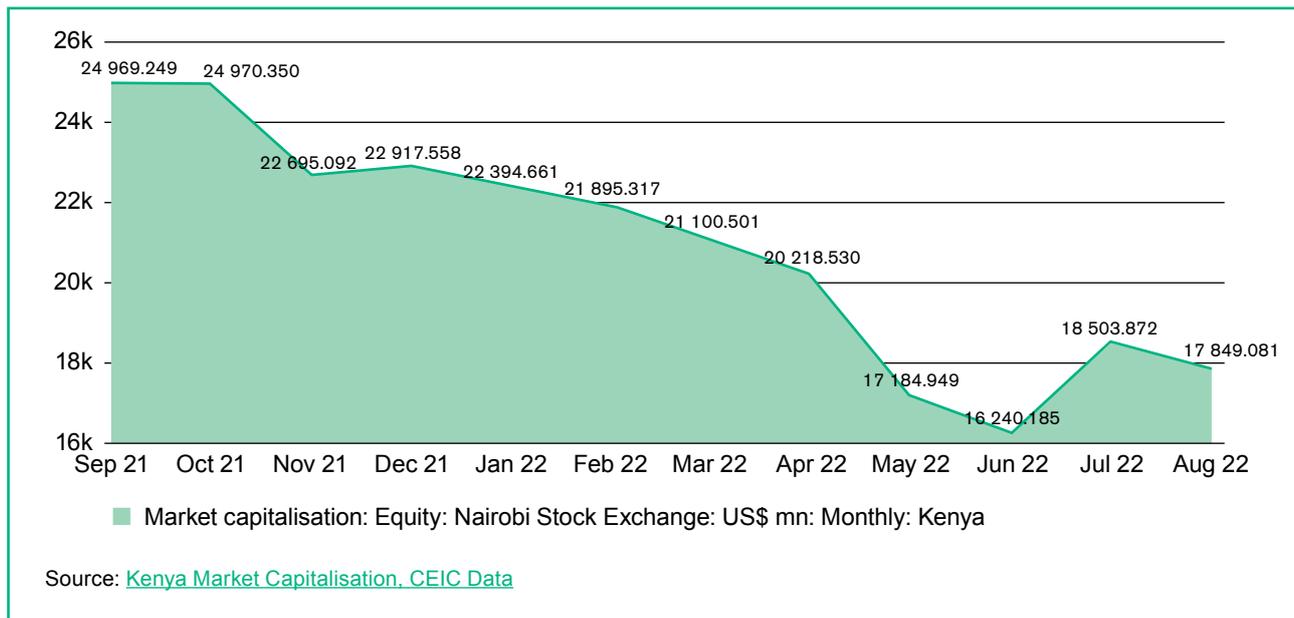
Additionally, it is worth looking into the composition and size of the Kenyan financial sector as well as its financial stability, given the crucial role it might play in mobilising climate finance. Relevant insights are provided by a report published in September 2021 and co-authored by the Kenya Central Bank, the Market Authority and other research institutions.² The report finds that, despite the shock provided by COVID-19, banks are still well-capitalised to withstand future potential adverse scenarios. Capital markets recorded a significant decline in key indicators on account of foreign investors' sale of assets at the height of the pandemic, while local investors divested to the safe bonds market. However, the markets have recovered strongly due to the easing of restrictions and the reopening of the economy. Going forward, Kenya's financial sector is expected to remain stable and resilient in 2022 underpinned by adequate capital and liquidity buffers, coordinated policy reforms and improved regulatory oversight. However, sentiments of economic slowdown due to the pandemic, rising public debt, elevated credit risks, subdued earnings, weak balance sheets for listed corporates and state-owned enterprises, as well as the shocks provided to the energy markets by the Ukraine war, remain issues of concern that might delay a swift deployment of capital for climate and nature purposes and should not be underestimated.

The elections which took place in August 2022 will prevent any discussion around deficit reduction in the foreseeable future and could trigger a reduction in economic output, as has been the case during every election period over the past 30 years. Additionally, the burden of eight years of high infrastructure spending, the high costs of COVID relief packages and food deficiency linked to high commodity prices

¹ Mostly driven by the repayment of significant amounts of debt denominated in a foreign currency despite a weakening KSh, resulting in higher taxation as the government tries to meet its debt obligations. Interest rates on the treasury-issued debt range between 8.9% and 9.9% depending on the maturity (Source: [Kenya Central Bank](#)).

² Kenya Central Bank and others, Kenya financial sector stability report (Sept. 2021), available at: www.centralbank.go.ke/uploads/financial_sector_stability/1995278959_Kenya%20Financial%20Sector%20Stability%20Report%202020.pdf

Figure 1. Kenya's market capitalisation, September 2021 through August 2022



in 2022, could lead to an even greater increase in inflation (Source: [The Star of Kenya](#)). According to Kenya Central Bank calculations, the annual average inflation in August 2022 was 6.6% (Source: [Central Bank of Kenya](#)).

Over the past three years, the National Treasury of Kenya, with the support of the World Bank, the Central Bank of Kenya, the Nairobi Stock Exchange, the National Treasury's Climate Finance Unit and the Public Debt Management Office (PDMO), has conducted preliminary assessments on issuing a sovereign green bond. Originally due in June 2021, it has been delayed awaiting more favourable market conditions (see Box 1, below).

Such a line of action displays the intention of the government to promote green debt instruments to diversify the investor base, potentially gain a pricing benefit and improve the country's reputation. Issuance of a sovereign green bond could set the ground for more innovative instruments in the green debt sphere, such as KPI-related instruments. At the World Economic Forum, the OECD identified seven challenges to sustainable finance: i) high income countries receive 97% of sustainable investment funds; ii) strong demand for sustainable finance is putting upward pressure on interest rates; iii) difficulty of using sustainable finance to turn brown

industries green; iv) insufficient depth of financial markets in developing countries; v) ineffectiveness of current monitoring and rating in developing countries, especially for results-based instruments; vi) excessive focus of sustainable financing on energy and transport and neglect of adaptation; and vii) excessive proliferation of sustainability standards.³ The IFC and UNEP reviewed the challenges in Kenya and identified 18 barriers, including: structural barriers (ie market structures and incentives); low availability of investment vehicles (ie poor pipeline of investments); limited policy and regulatory incentives (especially on reporting); and lack of awareness.⁴

While the current outlook appears to be unfavourable for raising additional debt in the short run, innovative solutions linking the attainment of KPIs and natural capital restoration are emerging. Significant existing case studies, such as the example of Chile's SLBs issued in March 2022 or Uruguay, issued in October 2022, have shown a change of interest rates by 25bps subject to achievement of environmentally-focused KPIs.⁵ An average adjustment of 25bps has also been witnessed in the corporate market both in developed and developing countries.⁶

In the medium-to-long run, the potential to reduce debt service costs, although limited, relies upon the identification of outcome payers (while this market

³ www.weforum.org/agenda/2022/05/sustainable-finance-challenges-global-inequality/

⁴ https://wedocs.unep.org/bitstream/handle/20.500.11822/9858/Aligning_Kenya%E2%80%99s_Financial_S_1.pdf?sequence=5&isAllowed=y

⁵ <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/world-s-1st-sovereign-sustainability-linked-bond-issued-by-chile-69226229> and <https://www.lexology.com/library/detail.aspx?g=2be00416-7ce6-45f3-b976-ba9a42ffceef>

⁶ Luxembourg Green Exchange (LGX) DataHub, as of 31 December 2021.

BOX 1. SUMMARY OF WORLD BANK GROUP ENGAGEMENT ON GREEN BONDS AND CLIMATE FINANCE IN KENYA

Kenya has committed to ambitious climate goals under the Paris Agreement. Kenya's NDCs were [updated in 2020](#) to reduce greenhouse gases by 32% by 2030 at the cost of US\$62bn. The government further committed to funding 13% of this, with the rest to come from international support. This pointed to the need to find new ways to raise funding for these significant climate goals.

Green bonds

The principal secretary of the National Treasury, requested World Bank technical assistance to design and structure a sovereign green bond in 2019. A Green Bond Steering Committee was established comprising line ministries, the Central Bank of Kenya, the Capital Markets Authority (CMA), the Nairobi Stock Exchange (NSE), Kenya Bankers Association, the National Treasury's Climate Finance Unit and the Debt Management Office. The option for issuing a sovereign green bond was included in the budget policy and revenue-raising measures (funding strategy and budget statement) FY20-21. In preparation for the transaction, with the help of the World Bank, the National Treasury developed the Sovereign Green Bond Framework. Kenya also launched green bond policy frameworks which set the foundation for the development of a green bond market in Kenya. They include: the CMA Policy Guidance Note for issuance of green bonds and NSE Listing Rules incorporating listing requirements for green bonds. Further, the National Treasury, through the National Sovereign Green Bond Steering Committee, also developed an *Eligible Green Projects Screening Template* that objectively and thoroughly evaluates projects to ensure they align with the Sovereign Green Bond Framework. Consequently, a proposed list of green eligible projects in line with National Climate Change Action Plan (NCCAP) priority sectors was developed for financing with the proceeds of the Sovereign Green Bond. A list of eligible projects has been reviewed by an independent third party, CICERO, which graded the governance process as 'good' and the selected projects as 'medium green' category. In addition, the Sovereign Green Bond Framework received a commendable Second Party Opinion (SPO) rating of CICERO 'medium green' on governance structure and procedure. The rating implies that Kenya's economy is on the right path towards a low-carbon and climate-resilient future.

A strategic communications plan was developed to attract investors, create awareness and communicate Kenya's experience to catalyse other sovereign green bond transactions in the region.

The National Treasury shared the framework with potential underwriters (investment banks), which opined that the framework was in line with international best practices. The work also involved creating an online portal to select projects and post-issuance impact reporting. In addition, the World Bank provided technical assistance to the PDMO to build its capacity to establish an investor relations function/team. As part of the initiative, guidance was provided on engaging with investors on environmental, social and governance (ESG) issues, including international best practices and peer-to-peer knowledge exchange. The WB-IFC Joint Capital Markets Program (JCAP) sponsored this green bond advisory programme, which involved about US\$100,000 of funding support. This preparatory work has not yet led to the issuance of a sovereign green bond. Instead, the PDMO issued a plain vanilla Eurobond in June 2021, raising US\$1bn (interest rate of 6.3% for a 12-year tenure). There remains a substantial opportunity for Kenya to be a market leader in Africa by issuing a sovereign green bond to diversify the investor base, potentially gain a pricing benefit and improve the country's image and reputation in the global arena. The National Treasury announced in November 2021 its [intention to issue](#) a sovereign green bond. The transaction is expected to be executed when market conditions are favourable, in line with the PDMO's funding plans and debt management strategy. There are no further updates on this green bond.

Climate finance

The World Bank also provides advisory support on ESG reporting to the CMA, securities markets and pension funds actors, including regional pension fund supervisors in sub-Saharan Africa. The team is looking to work with pension fund associations to produce guidelines on a regional basis on ESG reporting to advance a regional dialogue on ESG reporting. The guidelines are expected to serve as a foundation in discussions with the CMA. The CMA has also contacted the IFC Corporate Governance team on ESG reporting. The IFC **Climate Finance team is working on capacity-building activities with the Kenya Bankers' Association and the NSE on green bond issuances.** The IFC also is exploring ways to participate in sustainable bond issuances and support a demonstration transaction. Finally, JCAP plans to host a climate finance event with the Central Bank of Kenya and banking supervision agencies to facilitate bond issuances.

Source: www.greenbondskenya.co.ke/ and World Bank staff

matures) to make up for the discount in coupon or principal repayment if the KPIs are achieved. The benefits of issuing debt using innovative KPI instruments transcend the simple debt cost reduction: it would allow the country to position itself as a market leader in Africa to attract the interest of concessional finance whose aims might be well aligned with the nature- or climate-related targets set in the instrument.

The current challenging macroeconomic outlook necessitates investigating innovative forms of public financing. It also highlights the need to leverage both domestic and foreign private capital to compensate for the country's overall weakening macroeconomic outlook and trigger a virtuous circle to consolidate Kenya's rating and reduce the overall debt burden.

Table 1. Kenya's 2022 macroeconomic and debt metrics overview

MACROECONOMIC AND DEBT METRICS	
Real GDP growth	5.7%
Average annual inflation	6.6%
Budget deficit	7.5%
Growth – deficit	-2.4%
Debt / GDP	71%
Debt / revenues	412%
FX debt	36%
Balance of payments (BOP)	-5.8%
Rating	B2/B
Eurobond spread	6.2%

Sources: [Kenya, Country Data, IMF](#); [Kenya, Country Data, World Bank](#)

Table 2. IMF macro-economic data over time

BASELINE	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Kenya Shilling, unless otherwise indicated	ACT.	EST.	PROJ.	PROJ.	PROJ.	PROJ.
Macroeconomy:						
Total external debt	6,248	7,362	9,437	9,437	10,279	11,090
Debt service	437	448	560	644	696	714
External debt	3,516	4,089	4,546	4,914	5,329	5,734
GDP	10,175	11,109	12,342	13,732	15,306	17,067
Exports of goods and services	1,109	1,178	1,419	1,662	1,944	2,236
External debt ratios:						
Debt stock to exports (%)		625	665	568	529	496
Debt stock to GDP (%)		66	76	69	67	65
External debt stock to GDP (%)		56	48	52	52	52
Debt service to exports (%)		38	39	39	36	32
Debt service to GDP (%)		4	5	5	5	4
Debt service coverage ratio (%)		263	253	258	279	313

Source: IMF, June 2021, First review of the extended arrangement under the extended finance facility

2.2 Current financing instruments for climate and nature

In order to pursue the objectives of this report, it is useful to assess the existing financing for climate and nature in Kenya and then use this as a basis for considering future prospects and the extent to which these prospects meet the needs expressed in the NDC and other sources. Although there is some existing work on some elements of existing climate and nature finance, there is no existing comprehensive report on this.

The most recent analysis of climate financing is the Kenya Climate Finance Landscape published in 2021 by the CPI using data from fiscal year 2017/18 (FY18).⁷ The CPI analysis estimated public climate finance at US\$1.41bn,⁸ including funding from own revenue (US\$0.33bn), state enterprises (US\$0.34bn), external funding outside the budget (\$0.41bn) and external inside the budget (\$0.33bn). Both bilateral and multilateral external funding is split roughly equally between inside and outside the budget. In addition, there are three budget programmes for biodiversity protection in the 2021/22 budget,⁹ with total expenditure of US\$0.12bn. Total climate and nature public finance is therefore around US\$1.53bn per year.

The CPI analysis also estimated private climate finance at US\$0.97bn, including foreign investors (\$0.63bn) and Kenyan investors (\$0.33bn). Total public and private climate and nature expenditure was US\$2.50bn. Total public revenue in FY18 was US\$15.75bn and capital expenditure was US\$5.41bn.¹⁰ Thus public climate and nature expenditure in FY18 was about 10% of total public expenditure in FY21 and 28% of capital expenditure.

Overall, this clearly shows the government's intention to favour climate and nature finance, a tendency which is being followed through by private sector actors and institutions, and which hints at suitable conditions for future expenditure and financial instruments aimed at protecting and restoring nature.

As mentioned previously, Kenya has been investigating the issuance of sovereign green bonds and also, through the work of Kenya Bankers Association (KBA), the Nairobi Securities Exchange, Climate Bonds Initiative, Financial Sector Deepening (FSD) Africa and the Dutch development bank FMO to cultivate a domestic green bond market. The possibility of progressing with a debt swap transaction is also being assessed.

2.3 Kenya's financing gap for climate and nature

This section summarises the approach used for, and the provisional findings of, the financing gap analysis. It clarifies that the gap is an indicative, order of magnitude estimate, intended to provide an idea of the size of the challenge. It serves as a motivator to explore innovative financing solutions, since the financing gap cannot be closed by using grant financing or fiscal resources alone.

The analysis of climate and nature financing needs draws on two main sources: the 2020 update of the NDCs and an indicative analysis of biodiversity protection costs.¹¹ The NDC update has been drawn up to inform the needs for public finance. These sources present additional financing needs beyond what is already being financed and are therefore estimates of the financing gap. It is outside the scope of this paper to assess the quality of the strategies or the financing needs estimates.

- The NDC has annual expenditure needs of US\$4.39bn, including agriculture (US\$0.63bn),¹² water (\$0.97bn), renewable energy (\$1.69bn) and other sectors (\$1.11bn).
- For biodiversity protection, it is assumed that Kenya will achieve the 30x30 objective.¹³ It is assumed that the current average cost of land protection (US\$16.6 /ha/yr) is applied to expand protected land area from 12% to 30% by 2030 and that an average payment for ecosystem services (PES)

⁷ This report provided data specifically for Kenya, applying similar principles to those used by CPI in preparing their regular global Climate Finance Landscape reports.

⁸ This report presents all figures in US\$ billion, to two decimal places. Conversion from KSh to US\$ has used exchange rates in the IMF International Financial Statistics series.

⁹ Programme-Based Budget 2021/22, budget programmes 1002000, 1010000 and 1019000.

¹⁰ MoF/IMF Extended Financing Facility tables, converted to US\$.

¹¹ The costs were compiled on different dates. It has been assumed that cost estimates are presented in real terms and do not incorporate inflation, although this is not clear.

¹² The requirements for agriculture are similar to the estimate for sustainable land management in the 2016 Sustainable Land Management Strategic Investment Framework, which covered nature and climate and estimated annual financing needs for sustainable land management at \$0.58bn.

¹³ The 30x30 is a global target to protect 30% of each country's land and marine jurisdiction by the year 2030.

of US\$50 /ha/year is required.¹⁴ For the ocean, an estimate of the costs of increasing marine protection from the current 1% of area to 30% is based on the average cost of land protection only. Overall, the assumptions point to an estimated requirement of US\$0.78bn for delivering the 30x30 objective for land only.

The total financing gap is estimated at US\$5.13bn/yr. This is a continuing annual requirement for ten years, giving a total requirement of over US\$50bn over the period. This gap represents an indicative, order of magnitude estimate. It does however provide an idea of the size of the challenge and to serves as a motivator to explore innovative financing solutions. It is clear that closing this gap using grant and other forms of concessional funding alone is not possible, and a range of market-based instruments, and opportunities to leverage external private finance, must be explored and progressed while simultaneously maintaining a focus on debt sustainability and the underlying cost of capital. Although the gap might seem too large to fill, the urgency of nature protection, climate adaptation, debt management and overall credit rating of the country make the need for new financing solutions increasingly urgent.

2.4 Possible KPIs for climate and nature action in Kenya

This section reviews some options for the sorts of KPIs that are likely to be useful in future climate and nature financing linked to KPIs. In recent decades, KPIs have been a central feature of moves towards performance-based budget (PBB) systems¹⁵ in developed and developing countries. PBB systems, and associated KPIs, aim to strengthen the link between strategies and public finance. Given the central role of public finance in many adaptation sectors, it is critical that budget reforms, including KPIs and PBB systems, strengthen the effectiveness of public expenditure on climate and nature and provide a sound basis for ensuring climate and nature expenditure continues to receive at least the current share of the budget.

More recently, KPIs have started to be used by the private and the public sector, with a significant growth of ESG-focused investors, both at the retail

and institutional level. This interest is consistent with reforms in public finance management that make it easier to monitor commitments to nature and climate, including strengthening programme budgeting (with associated KPIs built into budget formulation and reporting) and the use of tags in the budget, used either for the real-time influence of budget negotiations or for occasional public expenditure reviews. There has been growing awareness of the issues of environmental and social sustainability, as well as risk hedging and growing issuance both at the sovereign and corporate levels. Between 2013 and 2021, the issuance of thematic bonds, which include sustainable and green debt, increased from US\$28bn to US\$1.6 trillion. Whilst these thematic bonds do not directly have KPI-linked outcomes, they share an appetite for capital markets for ESG and sustainability-related instruments, which can be easily transferred over SLBs and KPI-related instruments. The possibility of attracting investors with clear and transparent objectives is cited among the most attractive features of thematic bonds.

A key part of the design and monitoring of several financial instruments, KPIs are becoming increasingly important in the sustainable finance realm due to their relevance to both issuers and investors. For issuers, the relatively new nature of KPI-related products allows them a certain flexibility in choosing the objectives they want to achieve and, more recently, the attainment of these KPIs is being positively linked to the cost of debt. The rising awareness expressed by both retail and institutional investors, as well as increasingly rigorous reporting standards for classifying an instrument as 'green' or 'sustainable', is likely to reward KPI-related instruments with sustained growth in investments.

Several instruments use KPIs within their overall structure and for reporting and monitoring purposes.

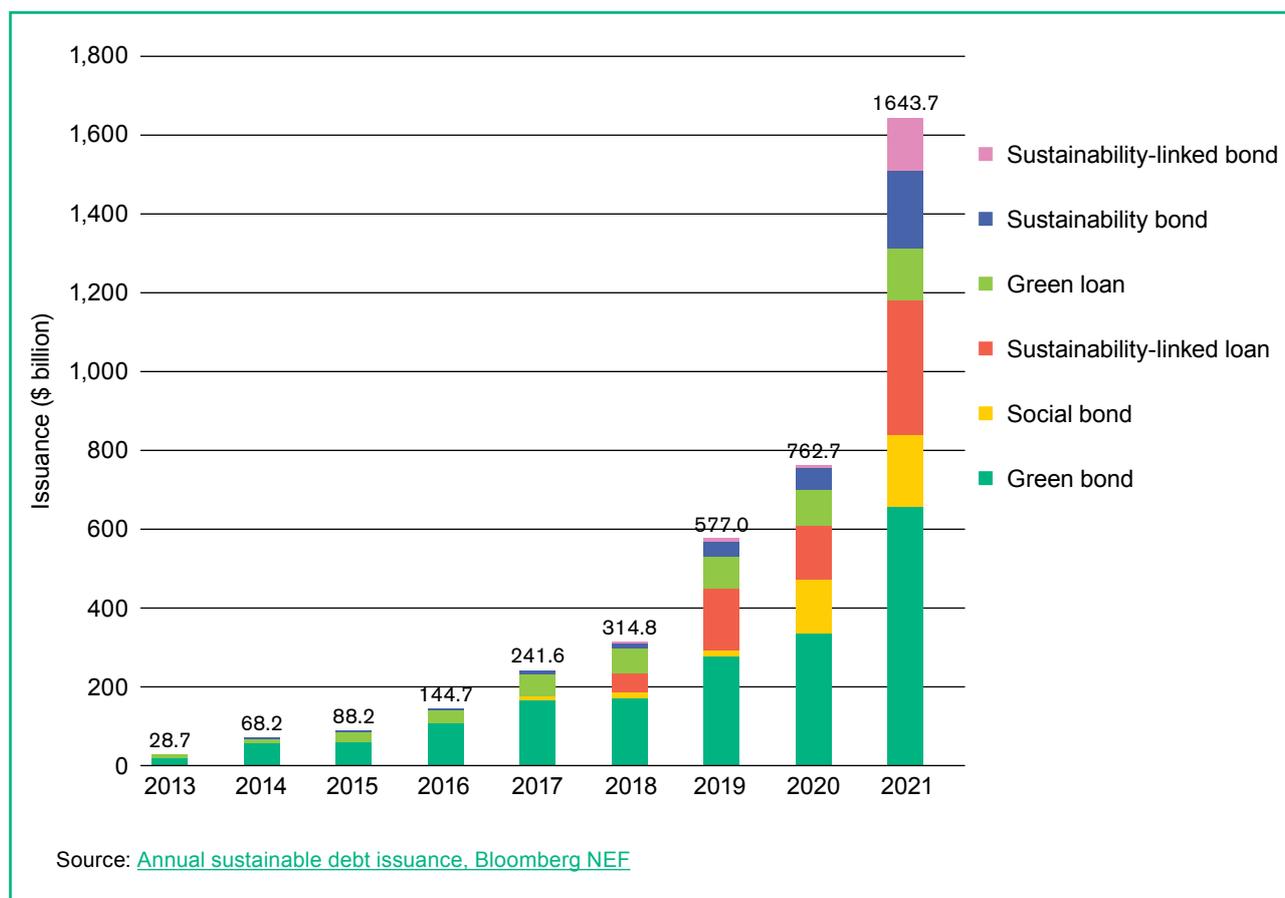
1. Debt-for-climate and nature swaps are linked to the reduction in debt stock or service for climate or nature conservation outcomes. Past swaps identified a project linked to a KPI framework and the funds are used for nature and climate projects. Newer, upscaled approaches are now being piloted, which reduce transaction costs and relieve more debt with a comprehensive engagement by all creditors and payment of the debt relief through the budget and linking the relief to KPIs.

¹⁴ The unit costs of enforcing protection are estimated as the expenditure on nature protection in the FY22 programme budget (ie US\$116m for budget codes 1002000, 1010000 and 1019000) divided by total area protected (ie 12% of land area, or 7m ha and <1% of marine area, or 0.07m ha), based on the World Database on Protected Areas. The level of payments for environmental services (PES) required is being researched as part of the preparation of the P4R programme and this should provide a more accurate estimate.

¹⁵ PBB systems are sometimes referred to as results-based budgets (with the results measured in KPIs). They are also sometimes described as programme budgets, although this term has been used in different ways of the last 50 years and needs to be used with care.

2. Thematic (green, social/SDG) use-of-proceeds bonds include covenants tying the proceeds of a bond to the issuer's progress on environmental or social goals. On top of all the requirements of a vanilla bond, they require annual monitoring, impact and KPI reporting. Such instruments tend to display an overall premium, also called greenium, compared to traditional vanilla bonds, and their rigorous structure reassures investors on the effective deployment of capital.
 3. Sustainability-linked bonds (SLBs) tie the financial performance of the bond to the achievement of pre-established, agreed-upon KPIs. The lack of progress towards the KPI achievement can result in a decrease or increase in the instrument's coupon. However, despite being issued in order to attain a specific KPI, they are general-purpose bonds; therefore, the collected funds are not strictly tied to the predetermined KPIs. SLBs are now predominantly used in the corporate space, but they are increasingly being explored by sovereign entities for their versatile nature and the capacity of the issuer to set suitable KPIs as well as to raise investors' interest.
 4. Structured bonds are debt securities that feature individualised and flexible terms, which are attractive alternatives to conventional debt securities. A notable example of a structured bond is the World Bank Wildlife Conservation Bond (WCB). Issued in March 2022, the WCB is a first-of-its-kind outcome-based bond that channels private capital to finance conservation activities, and, together with financing from the Global Environment Facility (GEF), transfers project risk from donors to investors. The structure creates an opportunity for private investment in conservation, supported by sound quantifiable metrics and models.¹⁶
- On top of traditional instruments already displaying a clear track record, a new innovative instrument, the feasibility of which is now being weighed by several countries, could be considered:

Figure 2. Global annual green and sustainable debt issuance, 2013-2021



¹⁶ <https://thedocs.worldbank.org/en/doc/7039bd837e60e484fb3a93ea63951306-0340022022/original/CaseStudy-WildlifeConservationBond.pdf>

5. Climate and Nature Performance bonds (CNPBs) tie coupon and principal adjustments to the delivery of measurable nature-based and climate outcomes and can be used for both new debt issuance and restructuring. Being general-purpose bonds, they are not tied to strict spending verifications. They allow for the simultaneous achievement of nature restoration and a debt cost adjustment, representing a very attractive instrument for developing economies rich in natural capital.

While most of the green ‘thematic’ debt instruments issued over recent years are non-KPI-based in terms of driving a change in coupon, there is a real appetite in the capital markets for ESG and sustainability-related instruments, which can be transferred over SLBs and KPI-related instruments. Although the market is still immature with few concrete examples (Germany and Columbia, so far), it is possible KPI-related/thematic bond instruments have the potential to bring down the cost of capital due to the oversubscription/demand of these products in the market. As noted above, there is further potential to reduce the principal and overall debt coupon through attaching performance components to the instrument, which in the short term requires the need for outcome payers.

Step-up coupons (where a coupon is increased as a result of failure to achieve a KPI) have been the most widespread typology within SLBs in the corporate market and in the very limited sovereign space at this stage.

In putting in place these kinds of instruments, close attention should be paid to implementing a well-structured MRV system to verify the attainment of the KPIs. When selecting the KPIs, the quality of the data must be assessed beforehand, assessing whether the data is easily available, attributable, recent, updated regularly and comparable across countries.

The Kenyan budget includes a sophisticated system for recording and monitoring KPIs, and all the key strategy documents relating to climate and nature (ie NDC, the NBSAPs and the Land Degradation Neutrality (LDN)) also define KPIs, with at least some correspondence with the budget KPIs. The selection of KPIs in the budget has been through an extensive process of discussion and consultation. This should ensure that budget KPIs are suitable for KPI instruments. For example, the recent World Bank report on *Striking the Right Note* suggested that KPIs should be available, attributable, frequent/recent, regular and comparable.¹⁷ This provides an excellent basis for innovative sources of finance that depend on KPIs and helps to consolidate their central role in the budget.

Table 3 below presents a shortlist of some of the most powerful KPIs that meet the following criteria:

- Covering a large share of priority climate and nature expenditure
- Sufficiently low level to change from year to year as a direct result of public expenditure
- Sufficiently high level to reflect real benefits for people and ecosystems (although some of the benefits do not happen in the short-to-medium-term), and
- Linked to international conventions (ie UNFCCC, UN Convention on Biological Diversity (UNCBD) and the UN Convention to Combat Desertification (UNCCD)), which could be useful for securing international finance.

Table 3 also identifies a ‘top four’ of KPIs that could be used for high level KPI financing instruments.

¹⁷ <https://blogs.worldbank.org/psd/striking-right-note-key-performance-indicators-sovereign-sustainability-linked-bonds>

Table 3. Shortlist of KPIs for the budget and strategies

TOP FOUR	SECTOR/TOP FOUR PROGRAMME	KPI SOURCE					KPI RATING 1-3
		BUDGET	MTP3	NDC	NBSAP	LDN	
AGRICULTURE / SUSTAINABLE LAND MANAGEMENT							
	Improved soil organic matter					Y	
KPI1	Area sustainable management	Y		Y	Y		1
	Irrigated area	Y	Y				
	Farmers using alternative fodder				Y		
WATER AND SANITATION / WATER SECTOR RESILIENCE							
	Number of dams completed	Y					
	% Access to water sanitation services	Y	Y				
KPI2	Water stored for irrigation	Y	Y				3
	Number of waste management schemes		Y		Y		
ENERGY / RENEWABLE ENERGY UPTAKE							
	Geothermal MWh	Y					
KPI3	RE systems	Y		Y			3
ENVIRONMENT / BIODIVERSITY PROTECTION							
KPI4	Area restored/protected habitat		Y		Y		2
	9% of land improved (LDN target)					Y	
	Forest area – lower deforestation		Y	Y	Y	Y	
	Forest rehabilitation/afforestation	Y		Y	Y		
	Forest productivity				Y	Y	
	Area forest protected	Y			Y		

3. Scope of financing option analysis

This section describes the scope of the work currently underway to identify options that can help reduce the financing gap. It indicates that based on further analysis and technical discussion with government, the work would include range estimates of the potential volume of financing that each instrument could mobilise. The approach considers both public and private finance and the possible links between the two. Table 5 describes the advantages and challenges associated with each instrument. Depending on government priorities, it is possible to map the comparative advantage of each source of finance for different financing needs. In very broad terms, instruments that are commonly used in private sector financing are likely to be important for energy and some aspects of water supply, provided they are deployed to fully private enterprise or parastatals. The prospects for this financing could be enhanced by public sector financing that contributes to policy certainty. There will also be scope for private financing in the agricultural sector. There are possibilities for innovative financing in other sectors of climate change adaptation and nature, but they are more challenging and mostly require complementary public financing for policy formation and MRV. These instruments could be deployed using a phased approach, starting with the lower-hanging fruit first.

3.1 Conventional public finance

Domestic revenue: The Extended Financing Facility (EFF) tables project an average increase in central government revenue, excluding grants, of US\$1.42bn/yr in real terms from FY19 to FY25.¹⁸ The current share of climate and nature spending in total public spending is 10%,¹⁹ suggesting that new climate and nature spending from the growth in government revenue could reduce the climate and nature financing gap by US\$0.14bn in the first year. This is small, but if the growth were maintained for ten years, it would provide 27% of the financing needed. Funding in the budget has the advantage of being easy to manage with existing capacity and should contribute to strengthening the Public Financial Management (PFM) reforms, including the role of KPIs in the budget.

Effectiveness of climate and nature expenditure in the budget: The strengthening of PFM reforms, including the use of KPIs to reinforce results-based management, should contribute to an increase in effectiveness of climate and nature funding through the budget. Clear objectives and KPI targets help focus management and provide incentives and ensure that funds are allocated to the most effective programmes and activities within programmes. Climate and nature funding within the budget (both from revenue and external sources) amounts to US\$0.66bn. There is no evidence on which to base an estimate of the increase in effectiveness, but a 10% improvement seems a reasonable objective, which would reduce the financing gap by US\$0.07bn. This is probably a one-off improvement as there will be limits to the improvements possible.

Grants: According to the CPI analysis, climate and nature grants outside the budget are US\$0.15bn. Given the priority associated with climate and nature, including the commitments to US\$100bn of funding under the Paris Agreement, these are likely to increase (for example, the GEF-8 cycle increased by 30%). The scale of the increase is unclear, but grant funding for climate and nature could double in the longer term, especially in the light of new commitments to biodiversity arising from the UNCBD and the UNCCD, contributing an additional US\$0.15bn to the financing gap. It can be challenging to align grants with the budget, and they are often used most effectively for supporting 'soft' activities (ie studies, analysis, etc) and piloting. The needs for supporting technical work are specific to each programme and need to be defined as part of detailed programme design. However, it will be possible to draw some broad principles for technical support needs by sector once the scope of government priorities is established. In addition to funding the core functions of government, the support should also focus on facilitating acceleration of integrated climate and nature investments between the public and the private sector (see Box 2).

¹⁸ This increase comes partly from the real increase in GDP and partly from an increase in revenue as a % of GDP.

¹⁹ In the long term, the climate and nature share in total expenditure is likely to increase as climate and nature issues become more urgent, but this is unlikely to happen in the mid term, given other priorities, including post-COVID recovery.

Programme loans: The CPI analysis suggests that Multilateral Development Banks (MDBs) provided climate and nature loans worth US\$0.31bn, with roughly half being inside the budget and half outside. The World Bank, AfDB and International Fund for Agricultural Development provided the majority of this funding, and Green Climate Fund (GCF) contributions are increasing. The MDBs are committed to increasing climate and nature funding, but the increase will be limited because any new climate and nature loans will have to be offset by a reduction in loans for other sectors, given that Kenya is at its debt ceiling. An increase of more than US\$0.2bn is unlikely.

There is growing experience in designing loans to support PFM reforms, including those related to KPIs and PBB, with the World Bank Program for Results (PforR) being a good example of this experience. This should lead to some additional improvement in the effectiveness of programme loans, which will make a further contribution to reducing the financing gap.

Total public climate and nature finance: The combined potential contribution of the above sources of conventional public finance is thus unlikely to be more than US\$0.74bn in the first year, reducing the annual climate and nature financing gap from US\$5.13bn to US\$4.39bn. However, the contribution will increase steadily as revenues grow, assuming that climate and nature expenditure at least maintains its current share of the budget.

3.2 Private climate and nature finance

According to the CPI analysis, private climate finance was US\$0.97bn in FY18. No estimate of private investment in nature is available. There is no analysis of recent trends in private climate and nature finance in Kenya, but CPI have produced a series of Global Climate Finance Landscape reports which suggest annual growth in global private climate finance was 10%.²⁰ If annual growth in private climate and nature finance returns to pre-COVID levels of 10% and Kenya follows global trends, then private sector climate and nature finance would grow by US\$1.55bn (ie from \$0.97bn to \$2.52bn) at the end of ten years, at which point it would be filling 30% of the financing gap.

BOX 2. PRIORITIES FOR ACCELERATING PRIVATE FINANCE OF CLIMATE AND NATURE

The NDC and NBSAP provide a comprehensive set of climate and nature policies for Kenya, all of which contribute to an enabling environment that accelerates private climate and nature investment. There are, however, a number of policies that are particularly important for private investors, including the following:

- Policies that reduce the cost of borrowing (eg through cheap loanable funds and loan guarantees or banking regulations)
- Pricing policies (eg feed-in tariffs, carbon pricing and direct subsidies) and PES that improve the profitability of green products and services
- Investments in public infrastructure (eg smart grids, charging networks and water metering) that allow private companies to distribute products and services
- Research and development (eg on technologies and market systems) to improve the efficiency of private investment, and
- Long-term fiscal incentives²¹ in energy (eg VAT exemptions for inputs to renewables and changes in fuel taxation²²), transport (eg reduced duty and subsidies for electric vehicles), cooking (eg VAT exemption for clean stoves)²³ and biodiversity (eg tax breaks linked to conservation).

The CPI analysis picks up very little private sector adaptation investment. However, it has no way of estimating adaptation that is financed by enterprises and households from their own incomes, and there has been much interest in building supply chain resilience amongst African enterprises.²⁴ While this adaptation happens largely independent of government or financial markets, as a routine feature of private investment, there are options for the government to support it, including through providing public information about climate risks and facilitating networking that enables enterprises and households (including smallholders) to share experiences of successful adaptation.

20 The growth has slowed to 6% since COVID and this lower rate could continue for several years during the recovery, but 10% growth in the mid-to long-term seems a reasonable expectation.

21 These will be covered in the planned National Policy Framework on Green Fiscal Incentives.

22 IRENA (2022) [Renewable Energy Market Analysis: African and its regions](#)

23 CPI (2021) [The Landscape of Climate Finance in Kenya](#)

24 A planetary boundaries perspective on the sustainability: resilience relationship in the Kenyan tea supply chain & Influence of Supply Chain Resilience Practices On the Performance of Food and Beverages Manufacturing Firms in Kenya: A Survey of Nairobi City County. DOI: [10.18533/ijbsr.v11i1.1356](https://doi.org/10.18533/ijbsr.v11i1.1356)

Carbon markets: Kenya has the largest portfolio of Clean Development Mechanism (CDM) activities in East Africa and had issued over 45 MtCO₂e of carbon credits by 2020,²⁵ mostly for cooking stoves, renewable energy and water purification.²⁶ Over 100 MtCO₂e of credits are expected to be issued under the CDM between 2021 and 2030. The price of CDM credits has been quite variable in recent years but is now between US\$3–4 \$/tCO₂e,²⁷ suggesting the CDM mechanism credits could deliver about US\$40m a year over the next ten years. In the last two years, Kenya has indicated an interest in developing new carbon market mechanisms, and there should be opportunities to expand the scale and price of carbon markets. If new mechanisms doubled both the annual volume and the average price over the ten years, they would provide US\$160m per year by the end of ten years.

3.3 Innovative options for climate and nature finance

Grants for concessions on debt principal

(outcome payment): While interest rate concessions are very small, there is a possibility, in the mid- to long term, that donors who provide grants for budget support (eg the EU or the UK) could be interested in strengthening KPI bonds by supporting concessions on principal repayment. Budget support donors have shown interest in supporting climate and nature sectors but have not done so largely because of concerns over KPIs. If KPI bonds proved the reliability of KPIs for measuring the effectiveness of climate and nature spending, this could potentially encourage donors to provide climate and nature budget support in the form of concessions on bond repayment. Typical budget support programmes amount to US\$0.05bn over several years, which would make a small initial contribution to the gap, but could provide opportunities for expansion if successful.

Sovereign green bonds: Some additional climate and nature funding from green bonds is possible. However, the scope for this is limited because any increase in funding for climate and nature sectors will need to be offset by reductions in expenditure in other sectors, unless synergies are operated (most notably in the field of green infrastructure which could help achieve two development goals

simultaneously). The potential will be determined by the budget process and the extent to which the current share of climate and nature expenditure in the total budget (ie 10%) could be increased. The extent of any increase is a political decision but to illustrate the order of magnitude of this potential source of additional funding, if the climate and nature share in total funding increase from 10% to 11% of total expenditure, this would provide an additional US\$0.16bn. If this grows in line with public expenditure (ie at 8% a year), it will reach US\$0.35bn after ten years.

Impact of government KPI bonds on private investment:

Policy uncertainty and public infrastructure are two of the key concerns for private climate and nature investment (see Box 2). If government KPI bonds used KPIs that delivered greater policy certainty and improved public infrastructure, this would lead to an acceleration in the growth of private investment, including through corporate KPI bonds. If the annual growth in private climate and nature finance were to accelerate from the pre-COVID levels of 10% to 15% as a result of public KPI bonds, this would increase the contribution of private climate and nature finance by a further US\$1.40bn at the end of ten years.²⁸

Innovative public-private-partnerships and civil society collaboration:

The previous paragraph refers to the possibility that government KPI bonds could contribute to an acceleration in private investment, some of which might be financed through private KPI bonds, as well as by PPPs for green infrastructure. Government KPI bonds include new solutions for public-private partnership in climate and nature, with joint investment and contracting arrangements. These include Collaborative Management Partnerships (CMPs) for protected areas.²⁹ Kenya does not yet have any CMPs, but there are 40 in Africa. A sample of nine had annual budgets of between US\$0.5m and 13.7m. If Kenya could initiate a few larger CMPs, this could make a significant contribution to the needs for nature finance.

Structured bonds. As mentioned in 3.4, structured bonds represent a financial innovation offering appealing features which can be adapted to climate and nature finance. Exploring such instruments

25 This compares with an annual abatement target of 143 MtCO₂e.

26 https://easternafricaalliance.org/wp-content/uploads/2021/05/CARBON-MARKET-KENYA_SINGLEPAGES.pdf

27 www.spglobal.com/commodityinsights/en/market-insights/latest-news/energy-transition/020322-offer-price-of-2013-cdm-certified-renewable-credits-above-400mtco2e

28 This estimate assumes that financing of 1.11% of GDP grows at 15% compound each year for ten years, reaching 4.49% of GDP at the end of the period, which is an increase of 3.38% of GDP, or 66% of the gap of 5.12% of GDP.

29 <https://thedocs.worldbank.org/en/doc/a1cd419e5367b17b8598269b796a585d-0320052021/original/GWP-Collaborative-Management-Partnerships-Toolkit-low-res.pdf>

could help mobilise additional resources if the tool entails the inclusion of outcome payments upon the achievement of KPIs. The World Bank WCB represents a virtuous example in this regard, since it included a range of conservation success payments going up to US\$13.76m in the most successful scenario, alongside direct transfers to South African parks for an overall amount of ZAD152m. An important feature of the WCB and similar structured bonds is that it does not add to sovereign debt as the bond is issued by another entity (in the case of WCB it was the World Bank Treasury) and conservation funds are provided to the government in the form of a grant. The GoK could consider the potential for such instruments upon the identification of measurable and traceable KPIs in their conservation sphere.

3.4 Overall balance

Table 4 summarises the overall balance. In the short term, the funding gap will create serious constraints on Kenya's ability to respond to the challenges and opportunities posed by climate and nature.

The situation in the long term is more positive but depends on the following assumptions being realised:

- As a proportion of total public expenditure, climate and nature continues to be allocated at least its current share of 10% of total expenditure
- There is an underlying 'natural growth' in private sector funding for climate and nature in Kenya that follows the average global growth trends prior to COVID-19
- Policy certainty provided by government strategies leads to an acceleration in this natural growth from 10% to 15%, which is reinforced by government KPI bonds that include policy KPIs.

The pace of climate change and nature degradation means that Kenya cannot afford to wait for ten years to address the funding needs. Given the scale and pace of the challenge, scarce public finance should be used for protecting against nature and climate risks. The public sector is likely to be the main source of funding for mitigation, although private investment in supply chain resilience will also be increasingly important. Domestic financing options are limited and a major programme of international funding is required in the short term, whilst the longer-term prospect is sought.

Table 4. Potential revenues for climate and nature raised by different instruments

SOURCE OF FUNDING	US\$ BN	
	Y1	Y108
Own revenue	0.14	1.40
Budget effectiveness	0.07	0.07
Grants ³⁰	0.15	0.15
Programme loans	0.20	0.20
Private sector, natural growth	0.10	1.55
Carbon markets	0.04	0.16
Grants for bond principal	0.05	0.05
Government KPI bonds	0.16	0.35
Private accelerated by KPI bonds	0.14	1.40
Remaining gap	4.08	-0.20

³⁰ The figures for grants exclude the suggested temporary increase in donor support in the short- to mid-term to reduce the immediate gap and accelerate growth in private climate and nature investment.

4. Next steps

- **Continue consultations:** the GoK can continue consultation efforts on nature and climate financing. Future consultations might include other key departments such as the National Treasury, including PDMO/RMD, and the budget department, as well as the Ministry of Environment and Forestry and sector ministries.
- **Capture lessons learned and scale successful efforts:** the GoK can consider experiences and early lessons related to the G-FLLoCA (Government Financing Locally-led Climate Action) activities, focusing on those that offer potential for scaling up efforts. This could include those activities related to financing of local urban and periurban climate actions, private sector incentives to support low-carbon emissions and climate-resilient investments, and operationalised market-based mechanisms for carbon trade.
- **Explore issuance of innovative instruments, especially those that do not add to sovereign debt:** the GoK can explore potential for innovative climate and nature instruments, including SLBs, Nature Performance Bonds, as well as structured bonds like the Wildlife Conservation Bond. A summary of all the potential instruments, with a clear reference to KPIs, as well as their pros and cons, is visible in Table 5 below.

Table 5. Overview of the climate and nature financing instruments

AREA/ INSTRUMENT	DESCRIPTION	OPTIONS TO INCLUDE KPIs	PROS	CONS/ CHALLENGES
Domestic public finance				
Public revenue	Money received by the government from tax and non-tax sources to use on government expenditures	Kenya uses programme-based budgeting, and KPIs for each programme are produced for each of the three years of the medium-term budget framework (MTBF) (IMF, 2020)	Supports PFM reforms and results budgets and consolidates capacity	Public budgets often stretched with multiple priorities and can shrink due to external shocks. Limits to revenue increases
Budget effectiveness	Streamlining the budget to ensure efficient expenditure through PFM reforms	Some PFM reforms can include incentives linked to KPI use	Delivered by PFM reforms that include incentives in the budget	PFM reforms can be costly and challenging to implement – requiring strong implementation
External public finance				
Grants	Funds provided for a specific purpose linked to public benefit, and not required to be paid back	Focused on soft support for KPIs and performance	Does not add to debt burden	Only a modest increase in international climate and nature grants
Programme loans	Loans that provide public funding for an area or sector and policy reforms rather than for a specific project	Lending objectives could consist of high level KPIs	New programme design (eg P4R) ensures consistency and complementarity with budget	

AREA/ INSTRUMENT	DESCRIPTION	OPTIONS TO INCLUDE KPIS	PROS	CONS/ CHALLENGES
Private finance				
Private sector – international investors and Kenyan banks	Private sector investment in climate and nature priorities	Private sector instruments can use KPIS	Leveraging private sector funding	Volume depends on policy certainty (and probably happens only after COVID recovery)
Grants for bond principal	Foundations, philanthropic or other funders provide grants to help reduce the bond principal, to support restructuring efforts	Would work against the KPIS established in the bond/ restructured bond	Potential if KPI bonds demonstrate reliability to budget support donors	Unproven
Government KPI bonds	Sovereign bonds based on a KPI framework	KPIS are included as key outcomes	General-purpose financing that supports public decision making, supports existing national climate and nature priorities	Interest concession very small, increase spending in budget at expense of other sectors so limited
Private accelerated by KPI bonds	Further private financing attracted as a result of KPI bonds issued, to provide additional support against national KPI climate and nature framework	Based on nationally identified climate and nature KPIS	Potential to leverage large volumes from the private sector	Unproven and only likely to materialise after at least five years when policy KPIS are demonstrated
Structured bonds	Debt securities that feature individualised and flexible terms (outcome payments)	KPIS can be set by involved stakeholders and outcome payments can be attached to KPIS	Incentivise KPIS and do not add to sovereign debt stock	Require an outcome payer for payment of conservation success payments. Source: IIED and Bankers Without Boundaries



Knowledge
Products

Toolkit

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Green Economy

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The objective of this report is to conduct a preliminary options analysis of financing instruments suited to the Kenya context which can help Kenya, over time, to reduce the gap between the financing needs for climate and nature action and the actual funding the country can leverage from the government's budget, development partners and capital markets. The long-term goal is also to contribute to tackling the current high costs of capital through instruments that can boost Kenya's credit ratings, while enhancing the country's natural capital. This work is not intended to deploy specific instruments. Instead, based on government guidance, this options analysis can form the basis for follow-on work, which may include structuring specific transactions of financing instruments deemed most appropriate by the Kenyan government.

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