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Accessing Green Finance for Africa's Low Carbon Growth Kariuki Muigua*

Abstract

Low-carbon growth has been identified as a key development strategy that can strengthen the response towards climate change and accelerate the achievement of the Sustainable Development agenda in Africa. Green finance at the heart of low-carbon growth. It is a vital instrument that can unlock the Sustainable Development Goals (SDGs) and facilitate the transition to a low-carbon economy. Accessing green finance is therefore necessary for Africa's low carbon growth. This paper critically examines the need to access green finance in Africa. The paper posits that green finance is a prerequisite for Africa's low carbon growth. The paper defines green finance and discusses the role it plays in achieving low carbon growth. It further examines the opportunities available and challenges hindering access to green finance in Africa. In addition, the paper suggests ways through which green finance can be efficiently accessed for Africa's low carbon growth.

1.0 Introduction

The concept of low-carbon growth also known as low-carbon development is an avenue toward development that decouples economic growth from carbon emissions, pollution, and resource use, and promotes growth through the creation of new environment-friendly products, industries, and business models that also improve the quality of lives for citizens¹. Low-carbon development has also been defined as a new pattern of development that aims to reduce carbon dioxide emissions as much as possible while not

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¹ Asian Development Bank., 'Low-Carbon Green Growth in Asia Policies and Practices' Available at https://www.adb.org/sites/default/files/publication/159323/adbi-low-carbon-green-growth-asia-policies-and-practices-executive-summary.pdf (Accessed on 22/07/2024)

affecting the increase of economic welfare at the same time². The term low-carbon development is also used to describe forward-looking national economic development plans or strategies that encompass low-emission and/or climate-resilient economic growth³.

Low carbon growth entails: using less energy, improving the efficiency with which resources are used, and moving to low-carbon energy sources⁴; protecting and promoting the sustainable use of natural resources such as forests⁵; designing and disseminating low-carbon technologies and business models to reinvigorate local economies⁶; and implementing policies and incentives that discourage carbon intensive practices⁷. It has further been pointed out that low carbon growth aims to improve energy efficiency, enforce the development of clean energy, reduce carbon dioxide emissions and hold the global ecological balance⁸. Low carbon growth is therefore a key strategy that can enhance the global, regional, and national response towards climate change⁹. It can strengthen efforts towards climate change by reducing greenhouse gas emissions and enhancing energy efficiency.

Low-carbon growth has been identified as a key development strategy that can accelerate the achievement of the Sustainable Development agenda in Africa¹⁰. It has been noted

² Zhou. P., 'Low-Carbon Development' In: Michalos, A.C. (eds) Encyclopedia of Quality of Life and Well-Being Research. Springer, Dordrecht. Available at https://doi.org/10.1007/978-94-007-0753-5_3382 (Accessed on 22/07/2024)

³ United Nations., 'Low-Carbon Development' Available at https://sustainabledevelopment.un.org/index.php?menu=1448 (Accessed on 22/07/2024)

⁴ Asian Development Bank., 'Low-Carbon Green Growth in Asia Policies and Practices' Op Cit

⁵ Ibid

⁶ Ibid

⁷ Ibid

⁸ Yuan. H., Zhou. P., & Zhou. D., 'What is Low-Carbon Development? A Conceptual Analysis' *Energy Procedia* 5 (2011) 1706–1712

⁹ International Institute for Environment and Development., 'Low-carbon Resilient Development in the Least Developed Countries' Available at https://www.iied.org/sites/default/files/pdfs/migrate/17177IIED.pdf (Accessed on 22/07/2024)

¹⁰ African Development Bank Group., 'Climate Change' Available at https://www.afdb.org/en/topics-and-sectors/sectors/sectors/climate-change (Accessed on 22/07/2024)

that Africa has enormous opportunities to build resilience to climate change as well as transition towards low-carbon development¹¹. Embracing low-carbon growth offers Africa a wide range of opportunities including: opportunities to utilise the vast renewable energy potential in Africa to improve energy access through low-cost and low polluting technologies¹²; opportunities to diversify the energy mix in Africa and reduce dependence on expensive fossil fuels¹³; and opportunities to tap into global climate funds, which will provide the much needed finances for Africa's low-carbon development¹⁴.

Accessing green finance is a key priority for low-carbon growth¹⁵. Green finance is a vital instrument that can unlock the Sustainable Development Goals (SDGs) and facilitate the transition to a low-carbon economy¹⁶. It can also broaden access to eco-friendly goods and services for individuals and organizations, resulting in socially inclusive growth¹⁷. Accessing green finance is therefore necessary for Africa's low carbon growth.

This paper critically examines the need to access green finance in Africa. The paper posits that green finance is a prerequisite for Africa's low carbon growth. The paper defines green finance and discusses the role it plays in achieving low carbon growth. It further examines the opportunities available and challenges hindering access to green finance in Africa. In addition, the paper suggests ways through which green finance can be efficiently accessed for Africa's low carbon growth.

¹¹ Ibid

¹² United Nations Economic Commission for Africa., 'Low Carbon Development in Africa' Available at https://cdkn.org/sites/default/files/files/Youba-Low-Carbon-Development-in-Africa-CCDA-1-Final.pdf (Accessed on 22/07/2024)

¹³ Ibid

¹⁴ Ibid

¹⁵ Green Financing Key to Sustainable Development, Low-Carbon Transition., Available at https://www.businessdailyafrica.com/bd/opinion-analysis/columnists/green-financing-key-to-sustainable-development-transition-4687174 (Accessed on 22/07/2024)

¹⁶ Ibid

¹⁷ Ibid

2.0 Green Finance

According to the United Nations Environment Programme (UNEP) green financing is to increase the level of financial flows (from banking, micro-credit, insurance and investment) from the public, private and not-for-profit sectors to Sustainable Development priorities¹⁸. UNEP further notes that a key part of green finance is to better manage environmental and social risks, take up opportunities that bring both a decent rate of return and environmental benefits and deliver greater accountability¹⁹. Green finance therefore involves engaging traditional capital markets in creating and distributing a range of financial products and services that deliver both investable returns and environmentally positive outcomes²⁰. Green finance can also be understood as raising capital and financial investments into companies, services, products and projects that accelerate the development of environment friendly and climate-resilient economies²¹. Green finance has also been described as financial instruments whose proceeds are used for environmentally sustainable projects and initiatives, environmental products and policies under the single goal of promoting a green economic transformation toward low-carbon, sustainable and inclusive pathways²².

Green finance aims to boost environmentally-friendly investments and reduce environmentally-harmful ones²³. It has been noted that promoting green finance on a large and economically-viable scale helps ensure that green investments are prioritized

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¹⁸ United Nations Environment Programme., 'Green Financing' Available at https://www.unep.org/regions/asia-and-pacific/regional-initiatives/supporting-resource-efficiency/green-financing (Accessed on 22/07/2024)

¹⁹ Ibid

²⁰ Lee. J. W., 'Green Finance and Sustainable Development Goals: The Case of China' Available at https://www.researchgate.net/profile/Jung-Wan-

<u>Lee/publication/343346476 Green Finance and Sustainable Development Goals The Case of China/links/5f35e9afa6fdcccc43c69013/Green-Finance-and-Sustainable-Development-Goals-The-Case-of-China.pdf (Accessed on 22/07/2024)</u>

²¹ Central Bank of Kenya., 'An African Vision for Sustainable Finance.' https://www.centralbank.go.ke/uploads/speeches/282382859_Sustainable%20and%20Green%20Finance%20Op-Ed.pdf (Accessed on 22/07/2024)

Green Finance Platform., 'Green and Sustainable Finance' https://www.greenfinanceplatform.org/page/explore-green-finance (Accessed on 22/07/2024)

²³ Lee. J. W., 'Green Finance and Sustainable Development Goals: The Case of China' Op Cit

over business-as-usual investments that perpetuate unsustainable growth patterns²⁴. It is also key in financing investments that provide environmental benefits in the broader context of Sustainable Development²⁵.

The concept of green finance covers a wide range of financial products and services which include investment, banking and insurance products²⁶. It has been noted that the predominant financial instruments in green finance are debt and equity²⁷. In order to meet the growing demand of green finance, new financial instruments, such as green bonds and carbon market instruments, have been established, along with new financial institutions, such as green banks and green funds²⁸. Renewable energy investments, sustainable infrastructure finance and green bonds continue to be areas of most interest within green financing activities²⁹. Further, it has been pointed out that the focus of green finance can be on the greening of existing infrastructure spending or mobilizing additional investments in key sectors, such as clean energy, sustainable transport, natural resources management, ecosystem services, biodiversity conservation, sustainable tourism, and pollution prevention and control³⁰.

Green finance is key in achieving low-carbon growth³¹. It has been identified as a vital foundation for fundamental economic low-carbon transformation³². For example, green finance can bolster climate action by enhancing investments in renewable sources of

²⁴ Ibid

²⁵ Green Finance Platform., 'Green and Sustainable Finance' Op Cit

²⁶ Ibid

²⁷ Ibid

²⁸ Ibid

²⁹ Ibid

³⁰ Lee. J. W., 'Green Finance and Sustainable Development Goals: The Case of China' Op Cit

³¹ Cui. Q., Ma. X., & Zhang. S., 'Does Green Finance Drive Low-Carbon Economic Development? Evidence from China' Available at https://www.tandfonline.com/doi/full/10.1080/1331677X.2023.2183421 (Accessed on 22/07/2024)

³² Ibid

energy and reducing reliance on fossil fuels³³. Green finance and investments can also unlock green growth by achieving economic growth while reducing pollution and greenhouse gas emissions, minimising waste and improving efficiency in the use of natural resources³⁴. It is therefore necessary to access green finance for Africa's low carbon growth.

3.0 Accessing Green Finance for Africa's Low Carbon Growth: Opportunities and Challenges

Accessing green finance is an urgent priority in Africa³⁵. Climate change continues to be a major threat to development in the continent³⁶. It has been noted that climate change is having a growing impact on the African continent, hitting the most vulnerable hardest, and contributing to food insecurity, population displacement and stress on water resources³⁷. Africa has been identified as the most vulnerable continent to the impacts of climate change³⁸. Despite having the lowest greenhouse gas emissions, Africa faces exponential collateral damage as a result of climate change posing systemic risks to its economies, infrastructure investments, water and food systems, public health, agriculture, and livelihoods, threatening to undo the continent's modest development gains and slip it into higher levels of extreme poverty³⁹. Climate change therefore represents a major threat to Africa achieving the Sustainable Development Goals⁴⁰.

³³ World Economic Forum., 'Africa's Vast Potential and Combating Climate Change' Available at https://www.weforum.org/agenda/2024/02/green-finance-can-unlock-africas-vast-potential-and-aid-the-global-fight-against-climate-change/ (Accessed on 22/07/2024)

³⁴ Organisation for Economic Co-operation and Development., 'Green Finance and Investment' Available at https://www.oecd-ilibrary.org/environment/green-finance-and-investment_24090344 (Accessed on 22/07/2024)

³⁵ United Nations., 'Green Financing could Help Africa Mitigate Climate Change Effects' Available at https://www.un.org/africarenewal/magazine/march-2024/green-financing-could-help-africa-mitigate-climate-change-effects (Accessed on 23/07/2024)

³⁶ United Nations Climate Change., 'Climate Change is an Increasing Threat to Africa' Available at https://unfccc.int/news/climate-change-is-an-increasing-threat-to-africa (Accessed on 23/07/2024)

³⁷ Ibid

³⁸ African Development Bank Group., 'Climate Change in Africa' Available at https://www.afdb.org/en/cop25/climate-change-africa (Accessed on 23/07/2024)

³⁹ Ibid

⁴⁰ Ibid

Confronting climate change in Africa is thus an urgent need if the continent is to realize the Sustainable Development agenda⁴¹.

Green financing could help Africa to strengthen its response towards climate change⁴². Africa can utilize green financing to mobilize resources for financing climate change resilience⁴³. African countries have been urged to explore innovative green financing mechanisms to promote a green transition to mitigate the effects of climate change⁴⁴. Green finance can power Africa's low carbon and green growth thus enhancing the continent's resilience to climate change⁴⁵.

Africa has vast potential for renewable sources for energy which remains untapped⁴⁶. In addition to solar energy, Africa's renewable assets include wind power, geothermal energy, biomass, hydroelectricity and minerals such as lithium, graphite and cobalt, which are needed for renewable energy technologies including the production of solar panels and batteries for electric vehicles⁴⁷. It has been noted that renewable energy offers Africa's best opportunity to achieve the Sustainable Development Goals⁴⁸. In order to achieve this goal, Africa must therefore increase investment in developing its renewable

⁴¹ Muigua. K., 'Reflections on Confronting Climate Change in Africa' Available at https://kmco.co.ke/wpcontent/uploads/2023/08/Reflections-on-Confronting-Climate-Change-in-Africa.pdf (Accessed on 23/07/2024)

⁴² United Nations., 'Green Financing could Help Africa Mitigate Climate Change Effects' Op Cit

⁴³ Ibid

⁴⁴ Ibid

⁴⁵ African Development Bank Group., 'Powering Africa's Green Growth offers major investment opportunities, Ivorian Environment Minister tells USTDA-AfDB workshop' Available at https://www.afdb.org/en/news-and-events/press-releases/powering-africas-green-growth-offers-major-investment-opportunities-ivorian-environment-minister-tells-ustda-afdb-workshop-69508 (Accessed on 23/07/2024)

⁴⁶ Begashaw. B., 'Africa and the Sustainable Development Goals: A long Way to go.' Available at https://www.brookings.edu/articles/africa-and-the-sustainable-development-goals-a-long-way-to-go/ (Accessed on 23/07/2024)

⁴⁷ African Development Bank Group., 'Renewable Energy Offers Africa's Best Opportunity to achieve the Sustainable Development Goals, experts say' Available at https://www.afdb.org/en/news-and-events/press-releases/renewable-energy-offers-africas-best-opportunity-achieve-sustainable-development-goals-experts-say-63909 (Accessed on 23/07/2024)

energy and attract greater support of the private sector and international financial institutions⁴⁹. Accessing green finance offers an opportunity for African countries to harness their renewable energy potential and achieve low carbon and green growth in the continent⁵⁰. It has been noted that accessing green finance can accelerate low carbon growth in Africa through investments in sectors such as energy efficiency and renewable energy, climate-smart agriculture, resilient infrastructure, and nature-based solutions among others⁵¹.

There are several opportunities for accessing green finance for Africa's low carbon growth. For example, it has been noted that African states have generally proposed ambitious reductions in their greenhouse gas emissions under their Nationally Determined Contributions (NDCs), provided they can access the international funding they will require to meet them⁵². Most African countries have ratified the Paris Agreement with ambitious NDCs requiring up to \$3 trillion for implementation⁵³. As a result, it has been pointed out that African countries should now focus on addressing issues of sustainability and finance under the Paris Agreement in order to mitigate the impacts of climate change⁵⁴. It estimated that Africa requires \$ 7-15 billion annually by 2030 to enhance adaptation to climate change and that by 2050, climate impacts could cost African states \$ 50 billion⁵⁵. African countries can therefore utilize NDCs as an instrument to access green finance for climate action by demonstrating their climate commitments⁵⁶.

⁴⁹ Ibid

⁵⁰ African Development Bank Group., 'African Development Bank Launches Model for Deploying Green Financing across the Continent' Available at https://www.afdb.org/en/news-and-events/african-development-bank-launches-model-deploying-green-financing-across-continent-56903 (Accessed on 23/07/2024)

⁵¹ Ibid

⁵² University of Cambridge Institute for Sustainability Leadership (CISL). (2024). Financing Africa's Low Carbon Green Economy Transition Cambridge, UK: University of Cambridge Institute for Sustainability Leadership.,
Available

https://www.cisl.cam.ac.uk/files/cisl_african_climate_finance_needs_paper_24jan23.pdf (Accessed on 23/07/2024)

⁵³ United Nations., 'Green Financing could Help Africa Mitigate Climate Change Effects' Op Cit ⁵⁴ Ibid

⁵⁵ The Africa NDC Hub., Available at https://africandchub.org/ (Accessed on 23/07/2024)

The Africa NDC Hub., 'Africa's NDC Journey and the Imperative for Climate Finance Innovation' Available at https://africandchub.org/sites/default/files/2021-

National, regional, and international financial institutions also have a key role to play in accessing green finance for Africa's low carbon growth⁵⁷. It has been noted that the current landscape of green finance is too low to enable Africa achieve its development targets⁵⁸. For example, annual climate finance flows in Africa are approximated to stand at only \$ 30 billion which is short of the estimated \$ 2.8 trillion required to implement Africa's NDCs by 2030⁵⁹. Financial institutions in Africa and at the global stage can help to mitigate this gap and contribute towards effective response to the threat of climate change by enhancing access to green finance in Africa⁶⁰. Financial institutions including banks and capital markets can enhance access to green finance for Africa's low carbon growth through green products such as green bonds and green loans⁶¹. For example, the African Development Bank has developed the African Green Bank Initiative, a model for deploying green financing across the continent⁶². This Initiative has been identified as key in bolstering the capacity of local financial institutions to build a robust pipeline of bankable green projects, while de-risking investments and entrenching long-term investor confidence toward climate-resilient and low-carbon projects in Africa⁶³. It is necessary for other countries to embrace such initiatives in order to foster access to green finance for Africa's low carbon growth.

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 $[\]frac{11/211103_ANDC\%20Hub_Africa\%E2\%80\%99s\%20NDC\%20journey\%20and\%20climate\%20finance_.pdf}{(Accessed on 23/07/2024)}$

⁵⁷ Muigua. K., 'Enhancing Sustainable Finance in Africa' Available at https://kmco.co.ke/wp-content/uploads/2023/08/Enhancing-Sustainable-Finance-in-Africa-1.pdf (Accessed on 23/07/2024)

⁵⁸ Ibid

⁵⁹ Magoma. C., 'A Huge Financing Gap for Climate Action with Public Debt Sustainability Risks Looms in East Africa beyond COP27.' Available at https://www.acepis.org/a-huge-financing-gap-forclimateaction-with-public-debt-sustainability-risks-looms-in-east-africa-beyond-cop27/ (Accessed on 23/07/2024)

⁶⁰ Ibid

⁶¹ Lala. O, & Stone. D., 'The Role of Central and Commercial Banks in Promoting Sustainable Finance in Africa.' Available at https://www.mfw4a.org/blog/role-central-and-commercial-banks-promotingsustainable-finance-africa (Accessed on 23/07/2024)

⁶² African Development Bank Group., 'African Development Bank Launches Model for Deploying Green Financing across the Continent' Op Cit
⁶³ Ibid

The international climate finance landscape also offers Africa an opportunity to access green finance for low carbon growth⁶⁴. It has been noted that for Africa to meet its climate goals, finance is necessary⁶⁵. Platforms such as the Green Climate Fund (GCF) are key in accessing green finance for Africa's low carbon growth⁶⁶. The GCF is the world's largest climate fund which accelerates transformative climate action in developing countries through a country-owned partnership approach and use of flexible financing solutions and climate investment expertise⁶⁷. In addition, it has been noted that establishment of the Loss and Damage Fund will help vulnerable nations including African countries to rebuild the necessary physical and social infrastructure to deal with the negative consequences that arise from the unavoidable risks of climate change including rising sea levels, extreme heat waves, desertification, forest fires and crop failures⁶⁸. The Loss and Damage Fund is key in fostering development in Africa by strengthening the ability of the continent to recover from climate induced disasters⁶⁹. It is therefore necessary to enhance access to green finance in Africa under avenues such as the GCF and the Loss and Damage Fund in order to foster low carbon growth in the continent.

Despite the foregoing opportunities, accessing green finance remains a challenge in Africa. It has been noted that the public international financial flows are nowhere near sufficient to address adaptation, loss and damage or to support the low-carbon development needs of developing countries⁷⁰. For example, developed countries have

⁶⁴ Muigua. K., 'Unlocking Climate Finance for Development' Available at https://kmco.co.ke/wp-content/uploads/2023/08/Unlocking-Climate-Finance-for-Development.pdf (Accessed on 23/07/2024)

⁶⁵ United Nations Development Programme., 'For Africa to meet its Climate Goals, Finance is Essential' Available at https://climatepromise.undp.org/news-and-stories/africa-meet-its-climate-goals-finance-essential (Accessed on 23/07/2024)

⁶⁶ Green Climate Fund., Available at https://www.greenclimate.fund/# (Accessed on 23/07/2024)

⁶⁷ Ibid

⁶⁸ Anderson. K., 'What is the COP 27 Loss and Damage Fund?' Available at https://greenly.earth/en-us/blog/company-guide/what-is-the-cop27-loss-and-damage-fund (Accessed on 23/07/2024)

⁶⁹ United Nations Development Programme., 'Loss and Damage Fund for Developing Countries' Available at https://www.undp.org/belarus/stories/loss-and-damage-fund-developing-countries (Accessed on 23/07/2024)

⁷⁰ United Nations., 'Green Financing could Help Africa Mitigate Climate Change Effects' Op Cit

failed to deliver on an agreed climate finance target of \$100 billion annually by 2020⁷¹. This has resulted in inadequacy, imbalance and unpredictability of climate finance flows to developing countries⁷². As a result, it has affected implementation of climate change mitigation and adaptation measures in developing countries⁷³. Lack of access to green finance also hinders investments in key areas necessary for low carbon growth in Africa including renewable energy⁷⁴. As a result, a large part of Africa has so far been left out of the energy transition with a majority of the population still relying on fossil fuels for their domestic energy needs including cooking⁷⁵. It is therefore necessary to promote access to green finance in order to fast-track the energy transition in Africa⁷⁶. Access to green finance in Africa is also hindered by inadequate legal, policy, and institutional capacities⁷⁷. It is vital to address these challenges in order to promote access to green finance for Africa's low carbon growth.

4.0 Conclusion

It is imperative to access green finance for Africa's low carbon growth. Green finance can power Africa's low carbon and green growth thus enhancing the continent's resilience to climate change⁷⁸. Accessing green finance can accelerate low carbon growth in Africa

⁷¹ Kone. T., 'For Africa to meet its Climate Goals, Finance is Essential.' Available at https://climatepromise.undp.org/news-and-stories/africa-meet-its-climate-goals-finance-essential (Accessed on 23/07/2024)

⁷² United Nations., 'Accessing Climate Finance: Challenges and opportunities for Small Island Developing States.' Available at https://www.un.org/ohrlls/sites/www.un.org.ohrlls/files/accessing_climate_finance_challenges_sids_report.pdf (Accessed on 23/07/2024)

⁷³ Ibid

⁷⁴ International Renewable Energy Agency., 'Renewable Energy Market Analysis: Africa and its Regions' Available at https://www.irena.org/Publications/2022/Jan/Renewable-Energy-Market-Analysis-Africa (Accessed on 23/07/2024)

⁷⁵ Ibid

⁷⁶ Ibid

⁷⁷ United Nations., 'Green Financing could Help Africa Mitigate Climate Change Effects' Op Cit

⁷⁸ African Development Bank Group., 'Powering Africa's Green Growth offers major investment opportunities, Ivorian Environment Minister tells USTDA-AfDB workshop' Op Cit

through investments in sectors such as energy efficiency and renewable energy, climatesmart agriculture, resilient infrastructure, and nature-based solutions among others⁷⁹.

UNEP notes that green financing can be promoted through changes in countries' regulatory frameworks, harmonizing public financial incentives, increases in green financing from different sectors, alignment of public sector financing decision-making with the environmental dimension of the Sustainable Development Goals, increases in investment in clean and green technologies, financing for sustainable natural resource-based green economies and climate smart blue economy and the increased use of green bonds among other initiatives⁸⁰. It is therefore necessary to create an enabling legal, policy, and regulatory framework for green financing in Africa⁸¹. It has been noted that in order to attract green financing, Africa needs to have policy and regulatory frameworks with set targets in line with ambitious development plans⁸².

It is also vital for financial institutions to enhance access to green finance in Africa⁸³. Financial institutions in Africa including banks and capital markets have been urged to embrace green products such as green bonds and green loans as vehicles of green finance for Africa's development⁸⁴. In addition, private equity has been identified as an emerging and powerful tool in driving greener economic growth⁸⁵. Private equity funds provide the needed liquidity and returns, while effectively managing risks associated with climate investments such as renewable energy, carbon credits, and biodiversity certification among others⁸⁶. Infusing equity into climate-resilient infrastructure is

⁷⁹ African Development Bank Group., 'African Development Bank Launches Model for Deploying Green Financing across the Continent' Op Cit

⁸⁰ United Nations Environment Programme., 'Green Financing' Op Cit

⁸¹ Ibid

⁸² United Nations., 'Green Financing could Help Africa Mitigate Climate Change Effects' Op Cit

⁸³ Muigua. K., 'Enhancing Sustainable Finance in Africa' Op Cit

⁸⁴ Lala. O, & Stone. D., 'The Role of Central and Commercial Banks in Promoting Sustainable Finance in Africa.' Op Cit

⁸⁵ European Investment Bank., 'New Green Partnerships for Africa' Available at https://www.eib.org/en/stories/climate-environment-partnership-africa (Accessed on 23/07/2024)

⁸⁶ Ibid

significantly accelerating progress towards low-carbon growth ultimately steering countries towards a sustainable and climate-resilient future⁸⁷. African countries should therefore establish and embrace innovative financing mechanisms such as green bonds and private equity through public private partnerships, to fund their climate change projects and programs that are vital in promoting low carbon growth⁸⁸.

In addition, it is imperative to unlock climate finance in Africa⁸⁹. It has been noted that Africa needs approximately \$2.8 trillion between 2020 and 2030 to implement its NDCs⁹⁰. However, the current landscape of climate finance is way short of this target⁹¹. Inadequate financing for climate projects in Africa is a major obstacle in the continent's efforts to reach its goals under the Paris agreement⁹². In order to unlock climate finance in Africa, it is vital for developed countries to deliver on an agreed climate finance target of \$100 billion annually⁹³. There is also need to enhance access to finance under the Loss and Damage Fund to enable African countries recover from climate induced disasters⁹⁴.

Accessing green finance for Africa's low carbon growth is vital in fostering Sustainable Development in the continent.

⁸⁷ Ibid

⁸⁸ United Nations., 'Green Financing could Help Africa Mitigate Climate Change Effects' Op Cit

⁸⁹ Muigua. K., 'Unlocking Climate Finance for Development' Op Cit

⁹⁰ Magoma. C., 'A Huge Financing Gap for Climate Action with Public Debt Sustainability Risks Looms in East Africa beyond COP27.' Op Cit

⁹¹ Ibid

⁹² Ibid

⁹³ Kone. T., 'For Africa to meet its Climate Goals, Finance is Essential.' Op Cit

⁹⁴ United Nations DevelopmentProgramme., 'Loss and Damage Fund for Developing Countries' Op Cit

References

African Development Bank Group., 'African Development Bank Launches Model for Deploying Green Financing across the Continent' Available at https://www.afdb.org/en/news-and-events/african-development-bank-launches-model-deploying-green-financing-across-continent-56903

African Development Bank Group., 'Climate Change in Africa' Available at https://www.afdb.org/en/cop25/climate-change-africa

African Development Bank Group., 'Climate Change' Available at https://www.afdb.org/en/topics-and-sectors/sectors/climate-change

African Development Bank Group., 'Powering Africa's Green Growth offers major investment opportunities, Ivorian Environment Minister tells USTDA-AfDB workshop' Available at https://www.afdb.org/en/news-and-events/press-releases/powering-africas-green-growth-offers-major-investment-opportunities-ivorian-environment-minister-tells-ustda-afdb-workshop-69508

African Development Bank Group., 'Renewable Energy Offers Africa's Best Opportunity to achieve the Sustainable Development Goals, experts say' Available at https://www.afdb.org/en/news-and-events/press-releases/renewable-energy-offers-africas-best-opportunity-achieve-sustainable-development-goals-experts-say-63909

Anderson. K., 'What is the COP 27 Loss and Damage Fund?' Available at https://greenly.earth/en-us/blog/company-guide/what-is-the-cop27-loss-and-damage-fund (Accessed on 23/07/2024)

Asian Development Bank., 'Low-Carbon Green Growth in Asia Policies and Practices' Available at https://www.adb.org/sites/default/files/publication/159323/adbi-low-carbon-green-growth-asia-policies-and-practices-executive-summary.pdf

Begashaw. B., 'Africa and the Sustainable Development Goals: A long Way to go.' Available at https://www.brookings.edu/articles/africa-and-the-sustainable-development-goals-a-long-way-to-go/

Central Bank of Kenya., 'An African Vision for Sustainable Finance.' https://www.centralbank.go.ke/uploads/speeches/282382859_Sustainable%20and%2 OGreen%20Finance%20Op-Ed.pdf

Cui. Q., Ma. X., & Zhang. S., 'Does Green Finance Drive Low-Carbon Economic Development? Evidence from China' Available at https://www.tandfonline.com/doi/full/10.1080/1331677X.2023.2183421

European Investment Bank., 'New Green Partnerships for Africa' Available at https://www.eib.org/en/stories/climate-environment-partnership-africa

Green Finance Platform., 'Green and Sustainable Finance' https://www.greenfinanceplatform.org/page/explore-green-finance

Green Financing Key to Sustainable Development, Low-Carbon Transition., Available at https://www.businessdailyafrica.com/bd/opinion-analysis/columnists/green-financing-key-to-sustainable-development-transition-4687174

International Institute for Environment and Development., 'Low-carbon Resilient Development in the Least Developed Countries' Available at https://www.iied.org/sites/default/files/pdfs/migrate/17177IIED.pdf

International Renewable Energy Agency., 'Renewable Energy Market Analysis: Africa and its Regions' Available at https://www.irena.org/Publications/2022/Jan/Renewable-Energy-Market-Analysis-Africa

Kone. T., 'For Africa to meet its Climate Goals, Finance is Essential.' Available at https://climatepromise.undp.org/news-and-stories/africa-meet-its-climate-goals-finance-essential

Lee. J. W., 'Green Finance and Sustainable Development Goals: The Case of China' Available at https://www.researchgate.net/profile/Jung-Wan-Lee/publication/343346476_Green_Finance_and_Sustainable_Development_Goals_The_Case_of_China.pdf

Muigua. K., 'Enhancing Sustainable Finance in Africa' Available at https://kmco.co.ke/wp-content/uploads/2023/08/Enhancing-Sustainable-Finance-in-Africa-1.pdf

<u>-1.pdf</u>

Muigua. K., 'Reflections on Confronting Climate Change in Africa' Available at https://kmco.co.ke/wp-content/uploads/2023/08/Reflections-on-Confronting-Climate-Change-in-Africa.pdf

Organisation for Economic Co-operation and Development., 'Green Finance and Investment' Available at https://www.oecd-ilibrary.org/environment/green-finance-and-investment 24090344

The Africa NDC Hub., 'Africa's NDC Journey and the Imperative for Climate Finance Innovation' Available at https://africandchub.org/sites/default/files/2021-11/211103_ANDC%20Hub_Africa%E2%80%99s%20NDC%20journey%20and%20climate%20finance_.pdf

The Africa NDC Hub., 'Africa's NDC Journey and the Imperative for Climate Finance Innovation' Available at https://africandchub.org/sites/default/files/2021-11/211103_ANDC%20Hub_Africa%E2%80%99s%20NDC%20journey%20and%20climate%20finance_.pdf

The Africa NDC Hub., Available at https://africandchub.org/

The Africa NDC Hub., Available at https://africandchub.org/

United Nations Climate Change., 'Climate Change is an Increasing Threat to Africa' Available at https://unfccc.int/news/climate-change-is-an-increasing-threat-to-africa

United Nations Development Programme., 'Loss and Damage Fund for Developing Countries' Available at https://www.undp.org/belarus/stories/loss-and-damage-fund-developing-countries

United Nations Economic Commission for Africa., 'Low Carbon Development in Africa' Available at https://cdkn.org/sites/default/files/files/Youba-Low-Carbon-Development-in-Africa-CCDA-1-Final.pdf

United Nations Environment Programme., 'Green Financing' Available at https://www.unep.org/regions/asia-and-pacific/regional-initiatives/supporting-resource-efficiency/green-financing

United Nations., 'Accessing Climate Finance: Challenges and opportunities for Small Island Developing States.' Available at https://www.un.org/ohrlls/sites/www.un.org.ohrlls/files/accessing_climate_finance_challenges_sids_report.pdf

United Nations., 'Green Financing could Help Africa Mitigate Climate Change Effects' Available at https://www.un.org/africarenewal/magazine/march-2024/green-financing-could-help-africa-mitigate-climate-change-effects

United Nations., 'Low-Carbon Development' Available at https://sustainabledevelopment.un.org/index.php?menu=1448

University of Cambridge Institute for Sustainability Leadership (CISL). (2024). Financing Africa's Low Carbon Green Economy Transition Cambridge, UK: University of Cambridge Institute for Sustainability Leadership., Available at https://www.cisl.cam.ac.uk/files/cisl_african_climate_finance_needs_paper_24jan23.p df

World Economic Forum., 'Africa's Vast Potential and Combating Climate Change' Available at https://www.weforum.org/agenda/2024/02/green-finance-can-unlock-africas-vast-potential-and-aid-the-global-fight-against-climate-change/

Yuan. H., Zhou. P., & Zhou. D., 'What is Low-Carbon Development? A Conceptual Analysis' *Energy Procedia* 5 (2011) 1706–1712

Zhou. P., 'Low-Carbon Development' In: Michalos, A.C. (eds) Encyclopedia of Quality of Life and Well-Being Research. Springer, Dordrecht. Available at https://doi.org/10.1007/978-94-007-0753-5_3382