

# Sustainable Financing in Infrastructure Projects in Kenya

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## ABSTRACT

Sustainable finance refers to the process of taking environmental, social and governance (ESG) considerations into account when making investment decisions in the financial sector, leading to more long-term investments in sustainable projects. To guide the transformation towards a sustainable and inclusive economy, the United Nations in 2015 developed the 2030 Agenda for Sustainable Development. However, measuring the impact that sustainable investments have on their environmental targets remains challenging. There is a risk that investors may become reluctant to invest at the scale necessary to mitigate climate change, especially if policy action to address climate change is lagging. Only with accurate and adequately standardized reporting of climate risks in financial statements can investors discern projects' actual exposures to climate-related financial risks. It is against this backdrop that the study fathomed to assess the state of sustainable finance in projects, to assess the role of financial institutions in sustainable finance and to assess policy issues in sustainable finance in projects. The study adopted desk review also known as Meta-analysis method to extract information concerning sustainable finance in infrastructure projects with subsets on the state of sustainable finance in projects, the role of financial institutions in sustainable finance and policy issues in sustainable finance in projects. The study observed that new financial products and services with ESG have been incorporated into general lending, insurance and investment strategies. A number of new regulatory and legislative regulations have been invented by government or other auditing financial bodies (the European Union and the Capital Market Commission) and have been compulsorily or voluntarily adopted in order to classify and evaluate the weight of the environmental, social and sustainable information in the capital market. Banks are adjusting their lending policies by giving incentives on loan pricing for sustainable projects by adopting less carbon-intensive technologies. On policy issues in sustainable finance, IMF conducts the analysis of risks and vulnerabilities and advising its members on macro-financial policies regarding sustainable finance which has stimulated the private sector capital investment on sustainable projects. Equally, UNEP through its resource efficiency programme offer countries the service of reviewing their policy and regulatory environment for the financing system and developing sustainable finance roadmaps, and assisting central banks, regulators on how to best improve the regulatory framework of domestic financial markets to shape the way and supporting multi-country policy initiatives at sub-regional, regional and global level. In conclusion, sustainable finance is well developed in the international capital markets of Europe, USA, Japan and Australia while in Africa the idea is still nascent and requires the guidance of international monetary and non-monetary institutions to stimulate the financial markets to adjust to sustainable finance initiatives. Further, there is a significant lack of official, regulatory or binding legal standards, for the taxonomy, the evaluation and the notification of environmental, social and corporate governance information in the capital market. The study recommends that: Financial stakeholders should design a holistic taxonomy for the long-term evaluation and notification of the sustainable financial risk models; Sufficient regulatory safeguards should be enacted in every financial product that will satisfy the demand for a clearer sustainable evaluation; Financial instruments and credit rating should be indexed against ESG factors; In parallel with the global initiatives inspired by the United Nations, lending institutions should undertake actions with regard to increasing the level of social responsibility; Lenders insist on information disclosure on how institutional investors and asset managers integrate ESG factors in their risk processes; The capital stock markets should trade Green financial instruments such as green bonds, green loans, green venture capital, green credit guarantee and green insurance on the counter; Entrench PPP Models for resource mobilization and risk sharing and enhance awareness creation and publicity on sustainable finance benefits and operations should be enhanced.

**Keywords:** Sustainable Financing; Infrastructure Projects

## INTRODUCTION

Sustainable finance which started gaining popularity in the 1980's refers to the process of taking environmental, social and governance (ESG) considerations into account when making investment decisions in the financial sector, leading to more long-term investments in sustainable projects (IMF, 2015). Environmental considerations include climate change mitigation and adaptation, Social considerations could refer to issues of inclusiveness and human rights issues while governance of public and private institutions including management structures. To guide the transformation towards a sustainable and inclusive economy, the United Nations in 2015 developed the 2030 Agenda for Sustainable Development (Hossain, Yoshino, and Tsubota, 2023). Global investment requirements for addressing climate change are estimated in the \$31 trillion, with investments in infrastructure alone requiring about \$6 trillion per year up to 2030 (OECD 2017). In developing countries, the investment remains largely insufficient to close the \$2.5 trillion annual funding gap to achieve sustainable development goals (SDGs) targets by 2030, and the level of private sector participation is still very limited (Ari and Koc, 2021). While sustainable investing started in equities, strong investor demand and policy support spurred issuance of green bonds, growing the stock to an estimated \$590 billion in 2019 from \$78 billion in 2015 (Lolagari, Daneshvar, Zaj and Roodposhti, 2022). In Sustainable Finance, financial institutions explicitly incorporate the negative social and environmental externalities into their decision-making like adjusting the lending policies by giving discounts on loans attached to sustainable developments.

The European Union strongly supports the transition to a low-carbon, more resource-efficient and sustainable economy and has been at the forefront of efforts to build a financial system that supports sustainable growth. As a result, the directive on the broader content of financial reports with non- financial information was enacted in 2014 (Directive 2014/95/EU). Sustainable finance can contribute to climate change mitigation by providing incentives for firms to adopt less carbon-intensive technologies (Schoenmaker, 2017). Channels through which investors can achieve this goal include engaging with company management, advocating for low-carbon strategies as investor activists, and lending to firms that are leading in regard to sustainability (Dziawgo, 2019). All these actions send price signals in the allocation of capital. However, measuring the impact that sustainable investments have on their environmental targets remains challenging. There is a risk that investors may become reluctant to invest at the scale necessary to mitigate climate change, especially if policy action to address climate change is lagging. Only with accurate and adequately standardized reporting of climate risks in financial statements can investors discern projects' actual exposures to climate-related financial risks. There are promising efforts to support private sector disclosures of such risks as supported by IMF but these disclosures are often voluntary and uneven across countries and asset classes. In 2006, United Nations introduced the "six principles for responsible investment" at the New York Stock Market to boost the significance of sustainable finance based on combining in the best long-term interests of retail and institutional investors, the financial markets, the economy, and the environment and society as a whole (Sukirman, 2018). Comprehensive climate stress testing by central banks and supervisors would require much better data. Greater standardization would also improve the comparability of information in financial statements on climate risks (Edmans and Kacperczyk, 2022). It is against these backdrops that the study fathomed to assess the state of sustainable finance in projects, to assess the role of financial institutions in sustainable finance and to assess policy issues in sustainable finance in projects.

## LITERATURE REVIEW

In Iran, Lolagari, Daneshvar, Zaj, and Roodposhti (2022) assessed Sustainable Financing Model with Project Risk on 12 international projects based on the proposed conceptual model of fuzzy hierarchy analysis, the epsilon constraint methods and NSGA II algorithm. Findings showed that between the two algorithms, financing projects must be changed to reduce the risk of sustainable financing of international projects, which can lead to an increase in the total cost of financing projects. Based on the NSGA II algorithm and epsilon constraint method, the domestic capital market can provide 54.89% of the deficit budget of the country's international projects; 44.81% of the project deficit budget can be financed from a foreign bank loan source, and only 0.2% of the budget can be funded through the company's internal resources. Therefore, the risk of financing from the domestic capital market and the cost of funding it are very appropriate. Equally, harmful environmental effects after the implementation of each project should be factored.

In Turkey, Ari and Koc (2021) investigated alternative equity-based financing models and propose a waqf-owned financial intermediary (WOFI) through agent-based model and scenario-based computer simulations for financing solar power plants. The simulation results show that WOFI reduces wealth inequality dramatically through capital pooling by keeping the desired amount of profit in the waqf pool for building megaprojects, whereas conventional debt-based financing models raise inequality. Thus, waqf-based institutions have a remarkable potential to contribute towards sustainable development goals by taking account of long-run social implications, economic growth, and environment-friendly projects. The financial system facilitate decision-making on the trade-offs between economic, social and environmental goals by producing information ex ante about possible investments, and allocate capital; Monitoring investments and exerting corporate governance after providing finance; and facilitating the trading, diversification and management of risk for sustainable finance.

Further, Sepetis (2020) assessed a holistic Sustainable Finance Model for the Sustainable Capital Market through meta-analysis and observed that regulation for credit ratings do not take into account the explicit examination of environmental, social and governance factors in credit viability assessment as per the taxonomy of sustainable financial risk models. Thus, creation of targeted policies on sustainable interest rate that evaluates risks, commonly accepted accounting standards for the taxonomy in the capital market and a strictly implemented procedure of holistic sustainable finance model is necessary.

Equally, Hossain, Yoshino, and Tsubota (2023) assessed Sustainable Financing Strategies for the SMEs and established that a sustainable financing strategy for SMEs should aim to enhance a low-cost collateral-free supply of loans to SMEs with good track records of repayments to banks. A financing model should address certain borrowing constraints and incorporate institutional mechanisms involving the government, banks, and SMEs to reduce default risk and allow banks to offer lower-interest and collateral-free credit to SMEs, thereby improving their access to finance and performance. Second, the model could be extended to accommodate digital finance using a data-driven credit risk score of the borrowers to reduce banks' default risks and transaction costs with or without government funds. This can resolve moral hazard and selection bias problems based on a public-private partnership approach.

In a situation of crisis, Dziawgo (2019) assessed Sustainable Finance as a new financial investment model through desk review and established that the ESG criteria (environmental-social-governance) during investment decisions is being substituted by obligatory requirements in legal acts in the financial market. The financial crisis of 2001-2002 drew attention to the different legal regulations in accounting and valuation, as well as developing and reviewing financial statements in various countries. The financial crisis of 2007-2008 also focused attention on the imperfections in valuation, presentation and adequacy in financial statements. As a consequence of both crises, the modification of existing regulations and establishing new, often restrictive, legal acts started to occur. At the same time, apart from regulations aiming at improving the quality of financial markets and financial supervision as well as lowering the probability of another financial crisis, another social phenomenon started to become increasingly more important, which could be described as "sustainable finance".

Through a model, Sukirman (2018) observed that the negative impacts brought about by the economic development process prompted the move to adopt the sustainable financing model that gives precedence to economic, environmental and social aspects. The Sustainable Green Lending Model is related to the Equator Principles for assessing environmental and social risks into project finance. In order to attract private funds into various projects financing schemes have been developed including: Subordinated Loan Facility Scheme; Equity Investment Scheme; Pooled Bond Financing; Utility On-Bill Financing; On-Bill Repayment; Loan Purchase Program; Energy Saving Insurance (ESI) and; Linked Deposit Program.

Finally, Edmans and Kacperczyk (2022) observed that Sustainable finance is the integration of environmental, social, and governance ("ESG") issues into financial decisions. Sustainable finance—the integration of environmental, social, and governance ("ESG") issues into financial decisions. There is a pointer to the growth in assets under management by UN Principles for Responsible Investment ("PRI") signatories, from \$6.5 trillion in 2006 to \$121 trillion by the end of 2021, as evidence of the rise in sustainable investing.

## METHODOLOGY

The study adopted desk review also known as Meta-analysis method to extract information concerning sustainable finance in infrastructure projects with subsets on the state of sustainable finance in projects, the role of financial institutions in sustainable finance and policy issues in sustainable finance in projects. This was achieved through analysis of empirical studies and model analysis of journal articles themed as mentioned prior.

## FINDINGS AND DISCUSSION

Concerning the state of sustainable financing, the issue has been on the table since 1980s, especially after the escalation of environmental problems and social inequalities. Many market participants now pay close attention to project's environmental, social and governance (ESG) policies. New financial products and services with ESG have been incorporated into general lending, insurance and investment strategies. A number of new regulatory and legislative regulations have been invented by government or other auditing financial bodies (the European Union and the Capital Market Commission) and have been compulsorily or voluntarily adopted in order to classify and evaluate the weight of the environmental, social and sustainable information in the capital market. Credible information is critical to the operation of stock market as it reduces uncertainties and boosts investor confidence. An increasing number of environmental, social and sustainable performance frameworks and standards have been proposed in relation to how to report, on non-financial information, but there is still a constant market need for systematic, standardized and consolidated form and a common framework for this information.

On the role of financial institutions on sustainable finance, Banks are adjusting their lending policies by giving incentives on loan pricing for sustainable projects by adopting less carbon-intensive technologies. However, measuring the impact that sustainable investments have on their environmental targets remains a challenge. Moreover, the risk averse investors are reluctant to sink their capital at the scale necessary to mitigate climate change, especially if policy action to address climate change is lagging. As an intervention at the global level, UNEP has established the Principles for Responsible Investment (PRI), Sustainable Development Goals (SDGs), United Nations Global Compact (UNGC), United Nations Environment Programme Finance Initiative (UNEPFI) Principles for Responsible Banking, Equator Principles, UNEPFI Principles for Sustainable Insurance, and Green Bond Principles. Further, within the framework of the "Paris Agreement" and the "Sustainable Development Goals (SDGs)", specific initiatives are emerging to fight against climate change, promote sustainable development and continue to achieve improvements in the social sphere. Other actions include aligning Green Framework with the Green Principles 2021 of the "International Capital Markets Association" (ICMA) and "Loan Markets Association" (LMA), as well as with the "European Commission Taxonomy Climate Delegated Act 2021". In 2019, the European Commission's EU Technical Expert Group on Sustainable Finance (TEG) launched an EU Taxonomy, EU Green Bond Standard and low-carbon benchmarks. Credit rating assessments by financial analysts are also an important element of the proper functioning of financial markets. UNEP FI has been working with banking, insurance and investment members to develop tools and methodologies to implement the recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD).

On policy issues in sustainable finance, IMF conducts the analysis of risks and vulnerabilities and advising its members on macro-financial policies regarding sustainable finance which has stimulated the private sector capital investment on sustainable projects. Equally, UNEP through its resource efficiency programme offer countries the service of reviewing their policy and regulatory environment for the financing system and developing sustainable finance roadmaps, and assisting central banks, regulators on how to best improve the regulatory framework of domestic financial markets to shape the way and supporting multi-country policy initiatives at sub-regional, regional and global level.

## CONCLUSIONS AND RECOMMENDATIONS

In conclusion, sustainable finance well developed in the international capital markets of Europe, USA, Japan and Australia while in Africa the idea is still nascent and requires the guidance of international monetary and



non-monetary institutions to stimulate the financial markets to adjust to sustainable finance initiatives. Further, there is a significant lack of official, regulatory or binding legal standards, for the taxonomy, the evaluation and the notification of environmental, social and corporate governance information in the capital market.

The study recommends that:

1. Financial stakeholders should design a holistic taxonomy for the long-term evaluation and notification of the sustainable financial risk models.
2. Sufficient regulatory safeguards should be enacted in every financial product that will satisfy the demand for a clearer sustainable evaluation.
3. Financial instruments and credit rating should be indexed against ESG factors
4. In parallel with the global initiatives inspired by the United Nations, lending institutions should undertake actions with regard to increasing the level of social responsibility.
5. Lenders insist on information disclosure on how institutional investors and asset managers integrate ESG factors in their risk processes.
6. The capital stock markets should trade Green financial instruments such as green bonds, green loans, green venture capital, green credit guarantee and green insurance on the counter.
7. Entrench PPP Models for resource mobilization and risk sharing.
8. Awareness creation and publicity on sustainable finance benefits and operations should be enhanced.

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