

ABSTRACT

This thesis comprises one conceptual paper and three empirical papers that collectively examine the interconnections among climate finance, financial inclusion and financial development using a panel dataset of twenty-eight (28) Sub-Saharan African (SSA) countries over the period 2010 – 2022. The thesis investigates the moderating roles of financial inclusion and Sovereign Environmental, Social and Governance (SESG) in shaping the nexus between climate finance, inclusive growth and financial development in SSA. The thesis provides a multidimensional analysis of the individual and joint impact of these factors, offering critical insights for policy formulation in the context of sustainable development and climate action.

Chapter two presents a conceptual paper on the climate finance and financial inclusion nexus from a global perspective. It gives an overview of the important milestones in the implementation of global climate finance initiatives, roles of central banks in managing financial risks emanating from climate variabilities and the emerging issues in climate finance and financial inclusion. The paper highlights the structural imbalances in the distribution of global climate finance between mitigation and adaptation initiatives with 91% of global climate finance directed toward mitigation efforts, and only 9% toward adaptation and dual benefits. The overview shows that while the availability of climate finance from global mechanisms is important, it is not enough. Its impact depends on strong financial institutions, markets and broad access to financial services. Local financial institutions particularly help in mobilising, channeling and deploying climate finance to address climate change. Financial inclusion enables low-income populations and small businesses to effectively access and use climate finance to strengthen their resilience and adjust to changing climate conditions. The paper therefore emphasises the need for the development of climate-responsive financial products to support climate action and enhance resilience among marginalised populations. Policy implication of the paper is that developing countries should prioritise inclusive financial instruments and building the capacity of their financial institutions and markets to access climate finance from global mechanisms for deployment to vulnerable communities at the grassroots who experience the most severe consequences of climate change.

The first empirical paper which examines the role of financial inclusion in the climate finance–inclusive growth relationship in SSA is presented in Chapter three. Inclusive growth expands social and economic opportunities by enhancing incomes, creating jobs, building human capital, and strengthening social safety nets. It ensures that economic development benefits everyone especially low-income populations by promoting equitable access to resources and opportunities (Berg and Ostry, 2011). In SSA, advancing inclusive growth and shared prosperity is essential for decreasing the vulnerability of households and communities to future socioeconomic shocks, including those driven by climate change. Empirical evidence from the study shows that while climate finance positively influences inclusive growth, financial inclusion unexpectedly constrains it, and their interaction yields a negative effect. This may stem from over-indebtedness of underserved populations due to low financial literacy, increased financial fraud, unequal access, underdeveloped systems, and exclusion of the underserved populations from the informal sector. These issues erode trust and exacerbate socio-economic inequalities which hinder inclusive growth.

While both climate finance and financial inclusion individually and directly impact inclusive growth, their interaction appears to produce diminishing returns or unintended consequences when implemented together. This counterintuitive result may be attributed to several structural and institutional challenges including misallocation of resources, over-indebtedness of underserved populations, weak regulatory

framework which do not protect the poor from exploitation by providers of financial services, or uneven distribution of economic benefits. The study also finds that climate finance is most effective at lower thresholds of financial inclusion. These findings imply that policymakers in SSA countries should encourage financial institutions to design tailored, climate-responsive financial services that target underserved populations. This will ensure that financial inclusion supports rather than undermines climate finance and inclusive growth outcomes in the region.

Chapter four contains the second empirical paper on the role of financial development and financial inclusion on climate finance in SSA. Financial development describes the improvement and expansion of financial institutions, markets, and systems to effectively support economic growth, reduce poverty, enhance overall financial stability and efficiently allocate capital. Financial inclusion mechanisms on the other hand ensure that the benefits of climate finance extend to underserved and vulnerable populations. Climate finance utilises existing financial instruments and institutional frameworks within the broader financial ecosystem to advance targeted environmental and developmental outcomes. This indicates that the efficiency of climate funding is influenced by how inclusive and accessible the wider financial system is. The study finds that financial inclusion and financial development both individually and jointly impact climate finance flows positively. Based on these findings, countries in SSA should align their financial sector development goals with inclusive finance strategies, incentivise financial institutions to design climate finance products and invest in capacity-building of financial institutions and markets to effectively mobilise and deliver climate finance to support climate adaptation and resilience especially for marginalised populations in SSA.

The last empirical paper is presented in Chapter five. It examines how financial development is impacted by climate finance through the channel of Sovereign Environmental, Social and Governance (SESG) performance. Given that the effectiveness of green finance is closely linked to stable macroeconomic conditions and the presence of robust regulatory institutions and markets, it is essential to address environmental sustainability, social considerations, and governance frameworks to safeguard investor interests and promote long-term financial resilience. This is critical to mobilising greater flows of climate-related funds through long-term financial instruments such as green bonds, thematic bonds and sustainability linked bonds and loans to advance climate action in SSA. The core hypothesis of this paper is that the influence of climate finance on financial development is not consistent across countries but rather depends on the SESG characteristics of the recipient nation. The efficiency of climate finance in driving financial development is more likely to be amplified in countries with strong SESG credentials, whereas in those with weak SESG performance, the impact of climate finance may be weakened. The study finds that both climate finance and SESG performance independently contribute to financial development in SSA.

Strong SESG performance can help to moderate the negative effects of limited climate finance on financial sector development. This finding implies a potential substitution effect, where strong SESG frameworks may reduce the reliance of countries on climate finance as a driver of financial sector growth. Moreover, a unidirectional causal link from SESG performance to financial development is found which highlights the foundational role of strong SESG performance in driving financial sector development. The study's findings have important policy implications. Sub-Saharan Africa countries should integrate SESG milestones into their financial development strategies to encourage sustainable practices, enhance transparency, and attract climate-aligned investments that support regional climate action.

Together, these studies highlight the critical need to align climate finance mechanisms with financial sector development and strong ESG structures. This alignment is essential to ensure that climate finance addresses environmental challenges and contributes to broader socio-economic goals particularly in SSA. By integrating climate finance into the underlying financial systems, countries can expand inclusive access to climate finance for vulnerable populations who are often disproportionately affected by climate change yet underserved by traditional financial institutions. Moreover, robust governance frameworks are vital for effective implementation of climate-related projects. Without strong financial institutions and inclusion, climate finance risks being misallocated or failing to reach those most in need.

The study therefore recommends targeted policy actions to improve access to climate finance. These include developing customised financial instruments and delivery channels for marginalised communities, promoting financial inclusion through digital finance, microfinance, and community-based models, and strengthening institutional capacity by investing in regulatory reforms, data infrastructure, and human capital to support climate-resilient and inclusive economic growth. Implementing these interventions can steer SSA toward a more climate resilient, financially inclusive, and sustainable development path. It will also position climate finance as a key driver of both environmental sustainability and social equity.