

GREEN GROWTH AND SUSTAINABLE DEVELOPMENT IN DEVELOPING ECONOMIES: OPPORTUNITIES AND CHALLENGES

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ABSTRACT

In recent years, there has been growing attention to green growth as a means of integrating environmental sustainability with economic development, particularly in developing economies. This review aims to: (i) clarify and differentiate key concepts; (ii) identify the key opportunities of green growth (across various sectors) in developing economies; (iii) discuss challenges to the implementation of green growth; and (iv) identify and evaluate strategies adopted by governments and international development partners to promote green growth in developing economies. Articles and reports were collected through a search in the Publish or Perish software. The paper organizes these insights thematically, moving beyond anecdotal evidence, and provides a framework for understanding and promoting green growth in the developing economies. The review found that, although green growth strategies are often developed and prioritized through national frameworks, such as Kenya's GESIP or Ethiopia's CRGE, their implementation and impact are frequently hindered by financial shortages, institutional capacity gaps, and the exclusion of informal and marginalized groups. Case studies of best practices and successful interventions highlight the importance of coordinated governance, financial and technological innovation, and participatory planning. However, critical issues related to inequality, informality, and corruption remain underexplored in existing research. It also emphasizes that adopting a more equity-centered, participatory, and context-sensitive approach is essential to better address the tensions and trade-offs involved in green growth transitions. This research benefits scholars and practitioners interested in how sustainability is integrated into national development strategies in the developing economies.



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1. INTRODUCTION

The nexus between green growth and sustainable development has become a central focus for global development in the 21st century, especially for developing countries facing the dual challenges of environmental degradation and social inequality. Climate change,

biodiversity loss, water shortages, and energy insecurity are increasingly limiting development options that were once considered feasible and even preferable just a few decades ago (United Nations Environment Programme 2011; World Bank, 2012). For the developing world, many of whose economies are highly vulnerable to climate impacts due to their dependence on natural resources and climate-sensitive sectors such as agriculture, forestry, and

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fisheries, there is an urgent need to adopt development models that are both environmentally sustainable and socially inclusive (African Development Bank, 2023; Global Green Growth Institute, 2020).

The COVID-19 pandemic has further intensified these structural tensions, revealing underlying vulnerabilities in current systems and intensifying calls for a green recovery grounded in resilience, equity, and regeneration (Global Green Growth Institute, 2020). In this context, the concept of “green growth” as a means to promote economic progress and development while reducing environmental harm and improving social well-being has gained significant traction as a practical approach to advancing sustainable development in developing economies. Green growth has garnered support for its potential to align the economic goals of developing countries with the needs of ecological restoration and climate resilience, while also enabling a “just transition” for marginalized communities (African Development Bank, 2023). As reflected in various sources (Republic of Rwanda, 2012; Government of Kenya, 2016; Organisation for Economic Co-operation and Development, 2024), green growth has been incorporated into national development policies and strategies in countries like Rwanda, Kenya, Bangladesh, Colombia, Uganda, and others; regional organizations such as the United Nations Economic Commission for Africa (UNECA), African Development Bank (AfDB), and Organisation for Economic Co-operation and Development (OECD) have also invested in policy frameworks and technical tools to help countries in implementing these strategies (Republic of Rwanda, 2012, Government of Kenya, 2016; Organisation for Economic Co-operation and Development, 2024).

However, the adoption of green growth strategies across developing economies has been inconsistent, often fragmented across sectors and limited in ambition and scope. Moreover, while the green growth discussion draws on ideas from ecological modernization, sustainability transitions, and broader green economy research, practical studies on its implementation and outcomes in developing areas are inconsistent and somewhat normative (African Development Bank, 2023; United Nations Economic Commission for Africa, 2020). For example, ecological modernization literature highlights the importance of technological innovation and institutional change as drivers of sustainability; in contrast, the green economy literature has concentrated on redistribution mechanisms and system-wide transformation (United Nations Environment Programme, 2011; Hallegatte et al., 2012; Guo et al., 2017; Fernandes et al., 2021). The sustainability transitions literature, on the other hand, stresses the need for significant changes in socio-technical regimes for long-term progress. The literature offers valuable but partial and often isolated insights into the factors, processes, and results of greening economies and societies. Specifically, the clarity about how “green growth,” “green economy,” and “sustainable development” are defined and applied in policy and practice remains a topic of debate (United Nations Economic Commission for Africa, 2020).

The growing body of empirical research on green growth experiences has identified promising sectoral opportunities, such as renewable energy, climate-smart agriculture, green infrastructure, and sustainable transportation, along with their potential connections to decarbonization, resource efficiency, poverty reduction, job creation, and resilience building (World Bank, 2012; Global Green Growth Institute, 2020; Organisation for Economic Co-operation and Development, 2013; Capasso, 2021; Komakech, 2025). However, the existing evidence remains somewhat scattered, often limited to case studies or viewed through the lens of donor-supported projects. Comprehensive, cross-sector evaluations of integrated green growth strategies that examine policy trade-offs, institutional dynamics, and implementation challenges are still rare. Likewise, the informal economy, which often generates the majority of jobs in developing countries and plays a crucial role in local livelihoods and ecosystems, is frequently overlooked in discussions and policies related to green growth.

Similarly, the significance of governance and institutions, along with their gaps in influencing or obstructing green growth pathways, is widely acknowledged. However, the literature provides few clear explanations of how these factors operate in different contexts and sectors (African Development Bank, 2023; United Nations Economic Commission for Africa, 2020; Komakech, 2025). For instance, while Rwanda’s 2022 revision of its Green Growth and Climate Resilience Strategy (GGCRS) shows alignment between political commitment and donor support, significant challenges remain in coordination, financing, and local implementation (Republic of Rwanda, 2022). Kenya’s Green Economy Strategy and Implementation Plan (GESIP) (Government of Kenya, 2016) provides a comprehensive policy and implementation framework across multiple sectors; however, similar gaps persist, particularly at the county and other subnational levels. These issues, among others, may explain the gap between intentions and actual results in green growth efforts and planning. However, they are not well documented or understood across complex, diverse settings that are also shaped by external debt, short policy timelines, and elite capture.

Therefore, the issue of distributive justice in the processes and outcomes of green growth and green transitions is often overlooked in the literature. In other words, who benefits, who suffers, and how are the costs and benefits of greening distributed among different actors and interests, especially vulnerable populations, women, youth, and other marginalized groups? The question of how to shape these transitions to be inclusive and fair, rather than an afterthought or a bonus outcome, remains insufficiently theorized and untested in developing contexts. This literature review aims to fill the gaps in the theory and practice of green growth as they relate to sustainable development in developing economies. By reviewing and synthesizing the conceptual, policy, and sectoral literature and examining case studies and other field evidence to understand what has worked, why, and under what conditions; which barriers to greening are most persistent or widespread; and what practices can help overcome them, this paper contributes to clearer theory, cross-sector

understanding, and more effective policy adoption of the green growth agenda. Specifically, this review aims to answer the following questions:

1. How is “green growth” defined, distinguished from, and related to “green economy” and “sustainable development”?
2. What are the key opportunities for green growth (in energy, agriculture, industry, and other sectors) in developing countries?
3. What are the main challenges to promoting green growth in developing countries?
4. What strategies have governments and international development partners adopted to promote green growth initiatives in developing economies?

The rest of the paper is organized as follows: Section 2 describes the selection and review approach. Section 3 presents a thematic and critical discussion of existing knowledge gaps. Section 4 concludes the paper with implications for policy, practice, and future research.

2. METHODOLOGY

A qualitative literature review was conducted to synthesize the academic and policy literature on green growth and sustainable development in developing countries. The qualitative review design was chosen for its suitability in capturing the complex and multidisciplinary nature of policy recommendations, sectoral transformation pathways, institutional constraints, and development outcomes. It allows for a nuanced and in-depth understanding of different perspectives while organizing them thematically rather than quantifying or statistically generalizing the results (Komakech, et al., 2024; Snyder, 2019; Tranfield et al., 2003;). It also aligns with the nature of green growth research, which often emphasizes the interconnectedness of environmental, economic, and social objectives within country-specific and institutional contexts.

To identify relevant literature for this review, a purposive search was conducted using Publish or Perish software, which searched Google Scholar for peer-reviewed and policy-based documents. The search strategy combined the following keywords: “green growth,” “green economy,” “green growth strategy,” “developing countries,” “emerging economies,” AND “sustainable development.” The time frame for the search was limited up to 2024, with a focus on Africa, Asia, and Latin America. Due to the scope and availability of literature on this topic, this review relied on a predetermined set of articles and reports that had been previously selected, summarized, and validated. This set includes academic articles, multilateral policy reports, and institutional working papers with a clear empirical or analytical focus on at least one of the four thematic areas of this study (i) sectoral contributions to green growth, (ii) barriers and challenges, (iii) strategic interventions, and (iv) best practices in implementation (Altenburg & Assmann, 2017; Dercon, 2014; Herman, 2021; Komakech, 2025; United Nations Environment Programme, 2011; World Bank, 2012).

The selected documents were then analyzed using a qualitative thematic approach with inductive coding. The initial coding involved extracting key content related to the research goals, including findings and recommendations on renewable energy deployment, green industrial policy, institutional barriers, case studies, and policy innovations. Afterwards, similar codes were grouped into broader themes, such as “financial barriers,” “technology transfer,” “policy coherence,” and “inclusive development strategies.” Through this iterative process, the researcher identified patterns, made cross-country comparisons, and highlighted emerging lessons across sectors. This method also helped integrate both theoretical and empirical insights to strengthen the analysis (Braun & Clarke, 2006; Nowell et al., 2017). To enhance credibility and validity, the review triangulated findings from various document types, including academic journal articles, multilateral policy reports, and institutional working papers, thereby minimizing bias from any single source. Reflexivity was also practiced, recognizing the researchers’ roles as interpreters and synthesizers of complex, interdisciplinary literature, especially concerning the Global South.

3. FINDINGS AND DISCUSSION

3.1 Definitions of green growth, green economy, and sustainable development

The terms “green growth,” “green economy,” and “sustainable development” are commonly used in academic discussions on environmentally driven economic transitions. They are often used interchangeably, though with different emphases or preferences across scholarly, policy, and development communities. However, each term carries distinct connotations and focuses when addressing developmental challenges, transition frameworks, and operational issues, especially in developing economies. This section defines these terms, explores the nuances of their approaches, and clarifies their application in this review.

Green Growth has been described in multiple ways. According to Komakech (2025), green growth is a macroeconomic strategy aimed at sustaining economic development and prosperity while reducing environmental risks and tackling resource scarcity. On the other hand, it refers to growth that is both environmentally sustainable and resource-efficient, while also supporting income generation, employment, and poverty reduction (Capasso, 2021; Komakech, 2025; Organisation for Economic Co-operation and Development, 2013; World Bank, 2012). OECD (Organisation for Economic Co-operation and Development, 2011) defined green growth as “fostering economic growth and development while ensuring that natural assets continue to provide the resources and environmental services on which our well-being depends.” This definition was later adopted by the World Bank (World Bank, 2012), which emphasizes that green growth is not an alternative to the broader goal of

sustainable development but rather a necessary condition for it, especially in lower- and middle-income countries facing resource inefficiency and high pollution levels.

The Green Economy is a broader concept that encompasses not only green growth but also the equally vital goals of fairness, good governance, and transitioning to a sustainable way of producing and growing. According to UNEP (United Nations Environment Programme, 2011), a green economy is “one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities.” From this perspective, a green economy entails reorganizing the rules and incentives within the economy, including pricing, production methods, fiscal incentives, and other factors, to account for environmental costs and promote low-carbon, resource-efficient development. Therefore, the green economy is a more fundamental concept that extends beyond green growth (Komakech, 2025); it’s not just about maintaining GDP growth with some ecological protections, but about a more profound shift in how economic and social systems are constructed.

Sustainable development is a broad, normative concept that emphasizes the link between environmental sustainability, economic viability, and social equity over the long term. Summarized clearly in the well-known definition from the UN Brundtland Report (World Commission on Environment and Development, 1987) as “*development that meets the needs of the present without compromising the ability of future generations to meet their own needs.*” Sustainable development, therefore, supports both green growth and the green economy. It also serves as the guiding principle for the UN’s Sustainable Development Goals (SDGs). In other words, these three terms (green growth, green economy, and sustainable development) are interconnected concepts that describe a new approach to development focused on low-carbon, resource-efficient development (Organisation for Economic Co-operation and Development, 2018; Capozza & Samson, 2019; Baranova, 2024)). However, they tend to emphasize different aspects.

For instance, green growth highlights achieving economic growth alongside environmental benefits (World Bank., 2012; Komakech, 2025). In contrast, the green economy is a broader concept involving a systemic shift in monetary and financial systems toward low-carbon, resource-efficient, and inclusive models (World Bank., 2012). Sustainable development, meanwhile, is the most comprehensive and widely used idea, combining intergenerational equity, ecological integrity, and social inclusion (World Commission on Environment and Development, 1987). Although these terms are often used interchangeably, they have gained significance in both academic and practical contexts, each with a specific focus and application (Avis, 2018; Barbier, 2016; Capozza & Samson, 2019; Dercon, 2014; Freire, 2013; Herman, 2021; Organisation for Economic Co-operation and Development, 2018; World Bank, 2012). For example, in developing countries, green growth is often pragmatically integrated into planning documents to connect

environmental concerns with development needs (Government of Kenya, 2016; Komakech, 2025; Republic of Rwanda, 2022; Republic of Uganda, 2017). In contrast, green economy frameworks are more commonly adopted by countries influenced by global development organizations to guide green transitions.

In all these cases, sustainable development remains the primary goal. Notably, the concept of green growth challenges the traditional view of trade-offs by offering a new perspective of sustainability as an opportunity for innovation, competitiveness, and resilience. However, despite their widespread use, these concepts are still often defined differently across countries and organizations, leading to confusion and difficulties in comparison that need to be addressed to better align policies, pathways, and stakeholder expectations, especially in the global South. For this paper, the author will use *green growth* to refer to a set of economic strategies and policies with clear environmental benefits; the *green economy* to mean a structural shift toward new development models; and *sustainable development* as the overall normative goal that both strategies aim to support.

3.2 Opportunities for green growth in developing countries

Green growth strategies in developing countries typically emphasize economic sectors with high potential for mitigation and development impact. Renewable energy, sustainable agriculture, green industry and manufacturing, urban infrastructure, and green transportation are common areas for investment and policy focus. Although the emphasis on these sectors may differ across regions and countries, some shared trends in policy priorities, institutional roles, and outcome indicators are clear.

3.2.1 Renewable Energy

Renewable energy has become a key component of green growth strategies across many developing countries. Its role in low-carbon energy systems and universal energy access positions it at the crossroads of climate and development objectives. Expanding renewable energy has been a significant focus in China, India, Brazil, and other rapidly industrializing countries, where public-private partnerships and FinTech platforms are used to mobilize green finance and institutional investments (Aziz et al., 2024; Mo et al., 2022). In Africa, clean energy is also crucial for green growth at both national and regional levels. Uganda’s Green Growth Development Strategy (UGGDS) and Rwanda’s Green Growth and Climate Resilience Strategy (GGCRS) both emphasize the use of off-grid solar, mini-hydro, and biomass systems for rural electrification and industrial transformation (Republic of Rwanda, 2012; Republic of Rwanda, 2022; Republic of Uganda, 2017).

Sector-specific approaches include subsidies, feed-in tariffs, fiscal incentives, and de-risking green investments. Evidence indicates that the renewable energy sector can lower emissions, enhance energy security and access, and create green jobs. The strongest

results are achieved through additional interventions, such as localized production of renewable technologies (Akinsipe & Kammen, 2024; Wei et al., 2023). However, deploying renewable energy is often limited by inadequate grid infrastructure, high capital requirements, and limited institutional capacity, particularly in Sub-Saharan Africa and Southeast Asia.

3.2.2 Sustainable Agriculture

Agriculture is a major employer and a significant contributor to GDP in most developing countries. It is a key source of environmental degradation, including deforestation, soil erosion, excessive water use, and the application of agrochemicals. Still, it is also a crucial area for implementing low-carbon agricultural practices. National strategies for green growth, including those in Uganda and Kenya, recognize sustainable agriculture as an essential area for investment and action. These strategies include sustainable intensification, value addition, integrated soil fertility management, efficient irrigation, and the adoption of climate-smart practices (Barbier, 2016; Government of Kenya, 2016; Dercon, 2014; Organisation for Economic Co-operation and Development, 2013; Republic of Uganda, 2017).

Specific interventions include providing subsidies for sustainable practices, extension services focused on agroecology, and improving market access for smallholders. The study also revealed that sustainable agricultural practices and improved land use can enhance resource productivity, support biodiversity, and reduce emissions. They also help reduce poverty, boost food security, and create jobs in rural areas (Capasso, 2021; Dercon, 2014; Xu, et al., 2020; World Bank, 2012). However, the evidence is less strong regarding avoided deforestation and other biophysical outcomes in forest and savannah regions. Agriculture's role in emissions is less clearly defined, with sector emissions still posing challenges in specific contexts. Additionally, the industry faces obstacles such as geographical poverty traps, insecure land tenure, limited access to technology and credit, and low resilience to climate shocks.

3.2.3 Green Industry and Manufacturing

Industrial policy is a crucial tool for promoting green growth, especially in middle-income and rapidly industrializing countries. The EAC Industrialization Strategy (2012–2032) and Korea's green industrial policy approach exemplify top-down models of green industrial transformation, involving policy shifts and active government support for key sectors such as agro-processing, clean technology, green chemicals, and energy-efficient building materials (Baranova, 2024; East African Community, 2012; Mathews, 2012). Industrial decarbonization through energy efficiency, cleaner production, and circular economy practices has been shown to reduce emissions while simultaneously enhancing export competitiveness and industrial upgrading (Capasso, 2021; Fernandes et al., 2021;

Kararach et al., 2017). Green industrial policies tend to be more successful in countries with large-scale industrial innovation systems that leverage external technology spillovers and economies of scale to create environmentally driven technology markets, as seen in China and India (Herman, 2021). Capacity constraints, low absorptive capacity, and policy fragmentation limit the replication and scaling of green industrialization efforts in low-income countries.

3.2.4 Urban Infrastructure

Urban infrastructure is a crucial element of green growth in developing countries where rapid urbanization heightens pressure on energy, land use, and environmental resources. Green urban infrastructure, including energy-efficient buildings, sustainable land use, green spaces, effective waste management, and efficient water systems, is essential for low-carbon development strategies in the Global South (United Nations Environment Programme, 2011; Kararach et al., 2017). In Africa and Asia, urban planning and green transportation are often seen as cost-effective ways to reduce per capita urban emissions. Upgrading urban infrastructure, greening cities, and promoting sustainable urban land use are top priorities in national strategies such as Rwanda's GGCRS (Republic of Rwanda, 2012; Republic of Rwanda, 2022), Uganda's UGGDS (Republic of Uganda, 2017), and Ethiopia's Climate-Resilient Green Economy (Federal Democratic Republic of Ethiopia, 2011). Policy measures include incentives for green construction, reforms in urban zoning, and investments in sustainable housing and public services. Despite significant potential to reduce urban emissions, implementation faces challenges due to financing and governance gaps, as well as the widespread informality of urban settlements. Examples from Rwanda's capital, Kigali, and Uganda's Kampala demonstrate both the possibilities and the complexities involved.

3.2.5 Sustainable Transport

The transport sector is a significant and growing source of GHG emissions, but it also plays a vital role in fostering economic growth, connectivity, and mobility. Green transportation strategies, such as mass transit, electrification, and non-motorized options, are increasingly included in green development plans. The AfDB and other donors view sustainable transport as a key area for reducing GHG emissions and creating green jobs in countries like Kenya, where transport emissions are rising rapidly (African Development Bank, 2023; Government of Kenya, 2016). Transport often ranks lower in priority for political leaders and policymakers in developing countries, who are often preoccupied with more urgent issues. The regulatory and funding environments for green transport remain fragmented and are still mainly dominated by fossil fuel investments, influenced by global market trends. Some investments in green transport are occurring in countries such as Ethiopia and South Africa, where national governments

have supported BRT, light rail, and electric mobility pilots (Federal Democratic Republic of Ethiopia, 2011; United Nations Economic Commission for Africa, 2020;).

3.2.6 Natural Capital Management

Natural capital, including forests, water, soils, fisheries, and biodiversity, provides the ecological foundation for green growth. However, many developing countries face significant threats from over-extraction, climate stress, and land degradation. Green growth strategies are increasingly focusing on sustainably managing ecosystems through integrated landscape approaches, ecosystem valuation, and payment for ecosystem services (Desalegn & Tangl, 2022; Organisation for Economic Co-operation and Development, 2013; United Nations Environment Programme, 2011; World Bank, 2012). For instance, Uganda's green growth strategy highlights natural capital management as one of five key pillars, emphasizing wetlands, forests, and biodiversity as priority assets for long-term resilience (Republic of Uganda, 2017). Essential actions include securing land rights, enforcing environmental laws, and integrating ecosystem services into economic planning. The benefits of these actions include reduced vulnerability, improved water security, and increased carbon sequestration.

3.2.7 ICT and Innovation

Information and communication technologies (ICT) and the digital innovations they enable are crucial drivers and accelerators of green growth across all sectors. They are used in precision agriculture, water monitoring, energy management systems, smart grids, and green FinTech platforms that promote financial inclusion for green investments (Aziz et al., 2024; Fernandes et al., 2021; Hassan et al., 2023; Komakech, 2025; United Nations Economic Commission for Africa, 2016). ICT-based platforms improve transparency, efficiency, and accountability in providing green services and managing resources. In emerging markets and developing countries, green applications such as mobile banking for green microfinance, real-time environmental monitoring and data systems, and online skills training platforms for green jobs are gaining popularity. However, digital divides between rural and urban areas, as well as between genders, remain a concern due to the risk of unequal access to green opportunities.

The main sectors for green growth in developing countries typically include renewable energy, sustainable agriculture, green industry, urban infrastructure, ICT and innovation, green transportation, and natural capital (African Development Bank, 2012; East African Community, 2012; Government of Kenya, 2016; Republic of Rwanda, 2012; Republic of Uganda, 2017; Snyder, 2019). National strategies and policies usually adopt a multi-sector approach to green growth, reflecting the interconnected nature of the transition. However, realizing green growth opportunities depends not only on national planning but also on aligning

enabling policies, securing financing, coordinating institutions, and fostering localized innovation. There is widespread agreement across sectors on the potential for green growth; however, unlocking this potential requires additional structural reforms, targeted interventions, specific adaptations, and inclusive governance to ensure that the benefits are broadly shared.

3.3. Challenges to scaling green growth in developing economies

Many countries have made progress in developing strategic policies and sector-specific plans for green growth. Yet, the systemic challenges to its widespread and effective adoption remain significant and persistent. However, these challenges are not uniform; they vary by context and may differ by country, sector, or intervention scale. Based on common themes from the reviewed literature, this section summarizes key limitations and obstacles.

3.3.1 Financial Constraints

The reviewed literature agrees on the persistent underinvestment and limited access to affordable, long-term finance for green projects. Despite high initial costs, lengthy development times, shallow capital markets, limited fiscal resources, and high risk perceptions, public and private investments in the green sector have not yet reached their full potential to foster growth and development outcomes (Desalegn & Tangl, 2022; United Nations Economic Commission for Africa, 2016). Systemic market failures, coordination issues, and information asymmetries also serve as barriers. In contrast, the absence of financial markets and low private investment in public goods or nature-based solutions add further limitations (Komakech, 2025; Mo et al., 2022; Nguyen et al., 2024).

For example, in Sub-Saharan Africa (SSA), access to climate finance is limited and unevenly distributed across countries. Although significant investment in solar PV and mini-grid systems is urgently needed throughout the region, international flows are focused on a few middle-income countries with more developed regulatory frameworks and larger markets, such as Kenya and South Africa (African Development Bank, 2023; Aziz et al., 2024). Smaller and more fragile countries, which arguably have the greatest need for such investment, are largely excluded from these finance channels due to limited project preparation capacity and complex application processes for multilateral funds. Domestic financial institutions also lack the frameworks and incentives to evaluate, monitor, or lend for green projects (Komakech, 2025; Mo et al., 2022). Meanwhile, China and India have successfully built supportive innovation ecosystems and local green industries (Mo et al., 2022; Zhao et al., 2022). This suggests that the financial challenge is not only a lack of capital but also the ability to effectively absorb, mobilize, and allocate that capital to green sectors.

3.3.2 Regulatory and institutional weaknesses

Regulatory and policy fragmentation, weak enforcement, overlapping mandates among line ministries, and inconsistent policy signals are common issues in many countries, especially where industrial or energy policies overlap with environmental or climate objectives (Herman, 2021; Desalegn & Tangl, 2022; Komakech, 2025; Resnick et al., 2012). For example, Uganda has developed a Green Growth Development Strategy (UGGDS) that provides overall national guidance; however, sectoral policy implementation frameworks remain poorly coordinated and articulated, with limited fiscal tools or incentives. Additionally, local governments often lack both the legal authority and the capacity to implement sustainability initiatives at the community level (Republic of Uganda, 2017). In Southeast Asia, the enforcement of environmental and green standards is generally weak due to limited administrative capacity within line ministries and often adverse dynamics. This not only risks damaging the credibility of green standards but also makes the regulatory environment more prone to policy reversals (Avis, 2018; Fernandes et al., 2021; United Nations Economic Commission for Africa, 2020). The lack of policy consistency across ministries and government levels, along with the absence of long-term policy planning and vision within bureaucracies, is noted in several studies as an additional barrier, reflecting broader institutional inertia.

3.3.3 Technological capacity

Technological innovation, adaptation, and maintenance are at the core of green growth, yet developing countries' technological capabilities in these areas remain limited. Several studies document the low domestic capacity for adaptation, customization, innovation, and maintenance of green technologies (African Development Bank, 2012; Fernandes et al., 2021; Komakech, 2025; Mathews, 2012). The high import dependence of green technologies, particularly in renewable energy and energy efficiency equipment for industrial systems, remains a significant factor driving high costs and hindering domestic value addition and economic spillovers from green transitions. Additionally, barriers to technology transfer remain substantial due to weak intellectual property rights regimes, limited absorptive capacity in recipient countries, and insufficient public investment in research and development (R&D). For example, Mo et al. (2022) highlights how China and India have successfully established deep, localized innovation ecosystems that facilitate the development, adaptation, and innovation of green technologies. In contrast, Africa and low-income countries in Asia generally have limited basic infrastructure and capacity for science, innovation, and technology development and adaptation (Mo et al., 2022). This disparity is particularly evident in sectors like agriculture, where the limited adoption of climate-smart technologies and practices stems not only from inadequate services but also from the poor

contextualization of externally developed innovations to local contexts, which is partly due to local agroecological systems (Barbier, 2016; Xu et al., 2020).

3.3.4 Governance capacity

Policy coordination, stakeholder participation, and accountability are vital principles of practical, adaptable green growth governance, yet their implementation often falls short. While many developing economies have made progress in sectoral policy design and flagship green growth strategies, significant gaps remain in governance and implementation capacity (Capozza & Samson, 2019; Organisation for Economic Co-operation and Development, 2018; World Bank, 2012), which are less discussed in the scholarly literature. A lack of multi-ministerial and cross-sectoral coordination, along with the integration of climate and green elements into planning, poses a significant obstacle to the effective implementation of cross-cutting national climate plans and investments, as several studies have highlighted (Freire, 2013; Ofori et al., 2022). Furthermore, participation, especially at sub-national and community levels, remains a critical gap, as projects often lack bottom-up approaches and are frequently externally funded. The equity and gender dimensions of green growth are commonly overlooked, despite evidence showing that women and vulnerable groups disproportionately experience environmental degradation and benefit the least from green investments (Organisation for Economic Co-operation and Development, 2013; Organisation for Economic Co-operation and Development, 2018). The lack of transparency and public oversight in resource allocation and the monitoring of green project outcomes hampers learning and adaptive management.

Finally, while there have been essential advancements and investments in country green growth strategies and sectoral plans, the potential impact of these frameworks is influenced by, and often limited by, these broader structural factors (Capozza & Samson, 2019). Additionally, the success of green growth will depend on how effectively these challenges can be addressed through an integrated, multi-sectoral approach, coordinated with support from a wide range of stakeholders (World Bank, 2012). These challenges, limitations, and constraints are highly context-specific, requiring different solutions, approaches, and priorities depending on the country and sector, and involving both national and sub-national (local and community) levels of implementation.

3.4 Implementation strategies for green growth

The concept of green growth has gained popularity as a comprehensive approach to promoting sustainable development in developing countries. This is especially true for green strategies developed or adopted with the assistance of international development partners or multilateral agencies (Komakech, 2025). This section, therefore, aims to identify and evaluate successful models of green growth implementation in developing economies.

Drawing on reviewed cases and a thematic analysis, it highlights strategies that have demonstrated measurable outcomes and offers insights into the enabling conditions for their success.

3.4.1 Policy and planning frameworks

National governments have led the green growth agenda in many countries by incorporating it into their long-term development plans and strategies through standard policy frameworks. These include Green Growth Strategies (GGS), National Development Plans (NDPs), Nationally Determined Contributions (NDCs), and Climate Resilience Strategies. For instance, Rwanda's Green Growth and Climate Resilience Strategy (Herman, 2021; Republic of Rwanda, 2012) presents a vision based on four thematic 'pillars of action' focused on industrialization and value addition, sustainable urbanization and housing, rural livelihoods and ecosystem restoration, and better land use planning and management. The strategy is supported by institutional and financial 'enabling pillars' that cut across sectors. Kenya's Green Economy Strategy and Implementation Plan (Government of Kenya, 2016) similarly aims to 'strengthen' the country's devolved government system to implement green growth. This plan, aligned with Kenya Vision 2030 and the SDGs, is organized around five key 'pillars' focused on infrastructure, ecosystems, economic and climate resilience, natural resources, and the efficient use of public resources. The literature confirms that, while these national green growth frameworks provide essential guidance on planning and priorities, many have yet to result in sustained or scaled action on the ground due to capacity and funding gaps. However, they are valuable examples, illustrating practices and steps that other developing country governments can replicate to mainstream sustainability into economic planning and growth strategies.

3.4.2 Green finance/ Investment vehicles and incentives

Green finance is a common strategy used by governments and international partners to promote green growth. This includes tools like green bonds, climate funds, concessional loans, and results-based or performance-based financing. For example, the African Development Bank (AfDB) has a flagship Climate Change and Green Growth Strategy 2021–2025, which aims to raise over US\$25 billion in climate finance and ensure that at least 40% of its annual average funding is green-related by 2025 (African Development Bank, 2023). GGGG's 2020 Annual Report also states that the organization and its partners have facilitated over \$2 billion in green growth investments worldwide during this period (Global Green Growth Institute, 2020). Despite these efforts, many least developed countries (LDCs) and lower-income nations still face challenges in accessing finance due to poor investment climates, limited project pipelines, and domestic fiscal constraints. Multilateral agencies have attempted to address these issues by offering project preparation facilities or guarantees to mitigate investment

risks; however, success and adoption vary across different contexts.

3.4.3 PPPs and Market-Based Instruments (MBIs)

Another common intervention approach governments are increasingly adopting is the use of PPPs and market-based instruments to attract private-sector investment for green growth and development. Examples of these instruments include feed-in tariffs, payments for ecosystem services, carbon markets, and sustainable procurement policies. The OECD (Organisation for Economic Co-operation and Development, 2024), for instance, highlights that GPP is now widely used by countries to 'repurpose' or 'shift' existing public spending toward low-carbon and other sustainability options. Rwanda has also made private-sector stewardship a core part of its GGCRS strategy, with targeted actions on infrastructure and capacity-building for green growth in sectors such as energy and transportation. Kenya's GESIP plan has also identified PPPs as a key facilitator for scaling up innovations in the country's agriculture and forestry value chains (Government of Kenya, 2016). However, there are also many examples where private-sector incentives have not aligned with public goals due to weak regulatory and enforcement institutions, opaque political-business relationships, and a lack of credible government commitment. When successfully implemented, PPPs provide critical, scalable solutions and models for private sector investment, green infrastructure, and technology transfer.

3.4.4 Technology transfer

Technology is vital for supporting green growth transitions. A key focus for many governments and partners in green growth efforts has been on technology transfer and strengthening local innovation capacity (Guo, et al., 2017). UNEP (United Nations Environment Programme, 2011) flagship report on the green economy strongly urges creating the right conditions and policy environment for transferring green technologies between countries. This transfer should occur not only through North–South exchanges but also through South–South cooperation. Examples include investments aimed at improving energy and agricultural systems and resource efficiency through the deployment of proven technologies. For instance, GGGI's projects in Colombia and Cali's multimillion-dollar investments in waste treatment and transportation illustrate clear cases of global partners providing technical assistance to support locally led knowledge application (Global Green Growth Institute, 2020). While some countries have developed niche innovation ecosystems for green technology development and dissemination, limitations such as absorptive capacity, regulatory readiness, and early-stage financing remain significant barriers to scaling up adoption in most low-income nations.

3.4.5 Capacity-building and Institutional reform

Human and institutional capacity form the foundation for both designing and implementing green growth. Organisations such as AfDB and GGGI (African Development Bank, 2012; African Development Bank, 2023; Global Green Growth Institute, 2020), action plan, for example, highlight strengthening institutional and human capacity as one of the organization's five key cross-cutting competencies for driving green growth and climate action. OECD (Organisation for Economic Co-operation and Development, 2024) also stresses that the success of Green Public Procurement (GPP) heavily depends on the professionalization and capacity-building of public procurement officers and agencies. Rwanda's GGCRS also emphasizes training government staff and digital transformation initiatives as essential components of its core enabling pillars (Republic of Rwanda., 2012). At the local level, reports like UNEP (United Nations Environment Programme., 2011) and UNECA (United Nations Economic Commission for Africa, 2020) strongly advocate for inclusive stakeholder engagement and community participation as fundamental to fair green transitions and sustainable development. Building capacity and empowering communities are crucial for turning policy into action on the ground.

Finally, various green growth strategies and initiatives offer insights into the different approaches used by developing countries and their international partners. The green growth policy frameworks and investment platforms mentioned earlier serve as valuable examples and best practices that other countries and regions can adopt to expand successful models. In this context, Rwanda's programmatic GGCRS approach, Kenya's GESIP, and the AfDB's green finance mobilization strategy are notable, replicable options. However, as noted, significant adaptation and localization are necessary to align with the institutional contexts of other low-income countries or nations with less reform-minded governments (Resnick et al., 2012). While momentum around green growth is increasing, significant gaps remain in coordinating strategies and plans across sectors and agencies, maintaining financing flows and support for implementation, and prioritizing vulnerable groups and inclusive ownership of transitions. Greater intra-governmental coordination, integration of green growth into macroeconomic policy frameworks, and a stronger focus on developing innovation ecosystems are additional critical steps for countries to take to achieve broader and sustained progress.

3.5 Lessons learned from green growth initiatives

Green growth implementation in developing economies has led to context-specific best practices that demonstrate how environmental and economic goals can support one another. These examples include a variety of design features and delivery methods, sharing common success factors such as institutional coherence, stakeholder engagement, and targeted financial and technical support. Drawing on successful

experiences in specific sectors and countries, this section summarizes key lessons from green growth initiatives that have achieved measurable development outcomes, including improvements in environmental performance, climate resilience, green jobs, and inclusive opportunities. By highlighting each context with compelling success stories, the enabling factors behind each practice are emphasized, showing the essential role of coherent planning, integrated policies, and country-level adaptability in ensuring the scalability and sustainability of green growth efforts. Rwanda's promotion of Decentralized Renewable Energy (DRE), especially off-grid solar and micro-hydro projects, expanded energy access in rural areas and reduced greenhouse gas emissions. This success was attributed to Rwanda's cohesive policies supported by the GGCRS, coordinated donor efforts, and incentives for private sector involvement (Republic of Rwanda, 2012; Republic of Rwanda, 2012). Similar initiatives in Ethiopia and Kenya have also created jobs in solar-related services and strengthened rural livelihood resilience. Key factors included integrating green energy into rural development, strategic institutional plans, and outcome monitoring. The Rwanda experience (Republic of Rwanda, 2022), along with its counterparts in Ethiopia (Federal Democratic Republic of Ethiopia, 2011; United Nations Economic Commission for Africa, 2016) and Kenya (Government of Kenya, 2016), has provided valuable insights into greening the agriculture sector. In Kenya and Uganda (East African Community, 2012; Government of Kenya, 2016; Republic of Uganda, 2017), programs promoting Climate-Smart Agriculture (CSA), such as conservation agriculture and sustainable land management, helped farmers maintain yields and restore soil health. Enablers included secure land rights for smallholders, smart subsidy schemes, and effective extension services. Active participation from farmer associations, NGOs, and agricultural research institutions supported context-specific adaptation and adoption.

Kigali's low-carbon urban transport planning, including Bus Rapid Transit (BRT) systems and non-motorized transport infrastructure, exemplifies urban green growth strategies. This initiative improved mobility, reduced congestion, and increased access to services. The success was supported by high-level political commitment, alignment with spatial development planning, and co-financing from international donors (Republic of Rwanda, 2012; Republic of Rwanda, 2022). Similar initiatives on Green Public Procurement (GPP) have been implemented in Ghana, Rwanda, and Kenya, where public sector organizations incorporated environmental criteria into public tenders, encouraging demand for environmentally friendly and eco-labeled products and helping to transform markets. Success depended on standardized sustainability criteria, clear enforcement mandates, and capacity-building for procurement officers (Organisation for Economic Co-operation and Development, 2024). Another key example is Payments

for Ecosystem Services (PES) schemes in Latin America and parts of Africa, which have helped conserve natural capital and habitats while providing stable income for rural communities. These schemes work best when supported by community governance structures, secure land rights for participating households, and international funding (United Nations Environment Programme., 2011).

Green economy policy frameworks at the national level, such as Kenya's GESIP and Ethiopia's CRGE, demonstrate successful models of integrated planning that turn sustainability goals into sectoral programs and projects. Successful features in both countries included high-level political support, multi-stakeholder participatory processes, and alignment with long-term national development plans (Government of Kenya., 2016; United Nations Economic Commission for Africa, 2020). Mobilization of climate and green finance has also gained some momentum. Institutions like the GGGI and the AfDB have helped partner countries access over \$2 billion in climate finance (African Development Bank, 2023; Global Green Growth Institute, 2020). Drivers of success included strong technical assistance, precise alignment with countries' Nationally Determined Contributions (NDCs), and readiness of green projects for investment.

In conclusion, the programs and projects highlighted above contribute to advancing many SDGs in various ways. As observed, several of them specifically relate to SDG 7 on clean energy, SDG 11 on sustainable cities, SDG 12 on responsible consumption and production, SDG 13 on climate action, and SDG 15 on life on land. Most of these best practices, especially those still ongoing, are generally replicable in other Global South countries. However, the degree of their replicability varies depending on the presence of enablers or the absence of barriers, as reflected in the lessons learned. Replicability is likely to be lower where contextual enablers such as government capacity, the maturity of relevant institutions, and financing ecosystems are weaker. Considering replicability, some good practices have yet to be realized in the Global South, including (i) gender-responsive outcomes, (ii) digital innovation, and (iii) learning through rigorous evaluations after implementation.

4. CONCLUSION

This review provides a thematic synthesis of green growth strategies, sectoral priorities, cross-cutting issues, and emerging good practices from developing countries. Anchored in the evolving discourse on green growth, green economy, and sustainable development, the review confirms that significant momentum and effort have been dedicated over the past decade and a half to mainstreaming green growth considerations into national development plans. However, notable gaps remain in implementation and follow-through. Evidence from various sectors, including renewable energy, agriculture and forestry, green infrastructure, and climate finance, suggests that green growth is achievable and can yield multiple co-benefits, such as emissions reduction, increased resilience, green jobs, and greater inclusion. Promising national strategies, such as Rwanda's GGCRS, Kenya's GESIP, and Ethiopia's CRGE, demonstrate that strong political will, integrated planning, and strategic investments can foster green growth. Cross-cutting challenges, including limited access to green finance and investment, weak regulatory and institutional capacity, high informality, and governance gaps, act as barriers to achieving inclusive green growth. These issues are often linked to inequality and corruption. Additionally, socio-political considerations, including who benefits from green growth and who is left behind, remain underexplored in the literature.

This review builds on existing research by thematically synthesizing insights scattered across sectors and regions, highlighting lessons from replicable models, and identifying emerging knowledge gaps. The review promotes a green growth paradigm that is more inclusive, participatory, and tailored to specific contexts, with equity and accountability as fundamental principles. Future research opportunities include conducting a quantitative research study to evaluate the impact of evaluations, performing gender-disaggregated analyses, and exploring the political dimensions of green growth, especially in the informal economy. Regarding policy and practice, there is a need to move beyond mere rhetoric and target-setting, focusing instead on institutionalizing efforts shifting from project-focused approaches to systems-based thinking, and from isolated actions to coordinated efforts. Ultimately, green growth presents a significant opportunity to decouple economic development from environmental harm in the Global South, but this can only be achieved through a just, evidence-based, and people-centered approach.

References:

African Development Bank. (2012). *Green growth: Perspectives for Africa and the AfDB in the 21st century*. Briefing Note 8. <https://www.afdb.org/fileadmin/uploads/afdb/Documents/Policy-Documents/FINAL%20Briefing%20Note%208%20Green%20Growth%20452012.pdf>

- African Development Bank. (2023). *Climate change and green growth strategic framework: Operationalising Africa's voice — Action plan 2021–2025*. <https://www.afdb.org/en/documents/climate-change-and-green-growth-strategic-framework-operationalising-africas-voice-action-plan-2021-2025>
- Akinsipe, O. D., & Kammen, D. M. (2024). The African fulcrum to bend the curve of the climate crisis to a just transition. *Environmental Research Communications*, 6(7), 075030.
- Altenburg, T., & Assmann, C. (2017). *Green industrial policy: Concept, policies, country experiences*. UN Environment. https://www.idos-research.de/uploads/media/GREEN_INDUSTRIAL_POLICY.Endf_01.pdf
- Avis, W. R. (2018). Inclusive green growth in developing countries. Institute of Development Studies. https://assets.publishing.service.gov.uk/media/5af9702340f0b622dd7aa2c8/Inclusive_green_growth_in_developing_countries.pdf
- Aziz, G., Sarwar, S., Waheed, R., Anwar, H., & Khan, M. S. (2024). Relevance of fintech and energy transition to green growth: Empirical evidence from China. *Heliyon*, 10(13), e33315. DOI: 10.1016/j.heliyon.2024.e33315
- Baranova, P. (2024). Supporting green business growth: Towards a transformative approach. In *Sustainable and resilient global practices: Advances in responsiveness and adaptation* (pp. 81–98). DOI: 10.1108/978-1-83797-611-920241005
- Barbier, E. B. (2016). Is green growth relevant for poor economies? *Resource and Energy Economics*, 45, 178–191. DOI: 10.1016/j.reseneeco.2016.05.001
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. DOI: 10.1191/1478088706qp063oa
- Capasso, M. (2021). Degrowth or green growth: A reflection on the recent public discourse in Norway. *Sustainability*, 13(2), 698. DOI: 10.3390/su13020698
- Capozza, I., & Samson, R. (2019). Towards green growth in emerging market economies: Evidence from environmental performance reviews. OECD Green Growth Papers 2019–01. https://www.oecd.org/content/dam/oecd/en/publications/reports/2019/03/towards-green-growth-in-emerging-market-economies_7fb2c9ea/d5e5b5d7-en.pdf
- Dercon, S. (2014). Is green growth good for the poor? *The World Bank Research Observer*, 29(2), 163–185. DOI: 10.1093/wbro/lku007
- Desalegn, G., & Tangl, A. (2022). Enhancing green finance for inclusive green growth: A systematic approach. *Sustainability*, 14(12), 7416. DOI: 10.3390/su14127416
- East African Community. (2012). *Industrialization policy 2012–2032*. <https://www.mtic.go.ug/wp-content/uploads/2021/11/EAC-Industrialization-Strategy.pdf>
- Federal Democratic Republic of Ethiopia. (2011). *Climate-resilient green economy (CRGE) strategy*. <https://www ldc-climate.org/wp-content/uploads/2018/01/crge-strategy.pdf>
- Fernandes, C. I., Veiga, P. M., Ferreira, J. J. M., & Hughes, M. (2021). Green growth versus economic growth: Do sustainable technology transfer and innovations lead to an imperfect choice? *Business Strategy and the Environment*, 30(4), 2021–2037. DOI: 10.1002/bse.2730
- Freire, M. E. (2013). Urbanization and green growth in Africa. *The Growth Dialogue*. https://www.greenpolicyplatform.org/sites/default/files/downloads/resource/Urbanization_and_GG_in_Africa_The_Growth_Dialogue.pdf
- Global Green Growth Institute. (2020). *Annual report 2020: Accelerating climate ambition and building back better*. https://gggi.org/wp-content/uploads/2021/06/GGGI-Annual-Report-2020-WEB-doublespreads_210531-2.pdf
- Government of Kenya. (2016). *Green economy strategy and implementation plan (GESIP) 2016–2030*. [https://www.greenpolicyplatform.org/sites/default/files/downloads/policy-database/KENYA\)%20Improving%20Efficiency%20in%20Forestry%20Operations%20and%20Forest%20Product%20Processing%20in%20Keyna_0.pdf](https://www.greenpolicyplatform.org/sites/default/files/downloads/policy-database/KENYA)%20Improving%20Efficiency%20in%20Forestry%20Operations%20and%20Forest%20Product%20Processing%20in%20Keyna_0.pdf)
- Guo, L. L., Qu, Y., & Tseng, M.-L. (2017). The interaction effects of environmental regulation and technological innovation on regional green growth performance. *Journal of Cleaner Production*, 162, 894–902. DOI: 10.1016/j.jclepro.2017.05.210
- Hallegatte, S., Heal, G., Fay, M., & Treguer, D. (2012). From growth to green growth framework (Working Paper No. 17841). National Bureau of Economic Research. https://www.nber.org/system/files/working_papers/w17841/w17841.pdf
- Hassan, A., Yang, J., Usman, A., Bilal, & Ullah, S. (2023). Green growth as a determinant of ecological footprint: Do ICT diffusion, environmental innovation, and natural resources matter? *PLOS ONE*, 18(9), e0287715. DOI: 10.1371/journal.pone.0287715
- Herman, K. S. (2021). Green growth and innovation in the Global South: A systematic literature review. *Innovation and Development*, 13(1), 43–69. DOI: 10.1080/2157930x.2021.1909821
- Kararach, G., Nhamo, G., Mubila, M., Nhamo, C., Nhemachena, C., & Babu, S. (2017). Reflections on the Green Growth Index for developing countries: A focus on selected African countries. *Development Policy Review*, 36(S1). DOI: 10.1111/dpr.12265

- Komakech, R. A. (2025). Circular economy and green growth: Enablers, benefits, and implementation challenges. *Sustainable Business and Society in Emerging Economies*, 7(2). DOI: 10.26710/sbsee.v7i2.3454
- Komakech, R. A., Ombati, T. O., & Kikwatha, R. W. (2024). Supply chain management, total quality management, and circular economy: A bibliometric analysis and systematic literature review. *International Journal of Business and Social Science*, 15(2), 17–44.
- Mathews, J. A. (2012). Green growth strategies—Korean initiatives. *Futures*, 44(8), 761–769. DOI: 10.1016/j.futures.2012.06.002
- Mo, Y., Ullah, S., & Ozturk, I. (2022). Green investment and its influence on green growth in high-polluted Asian economies: Do financial markets and institutions matter? *Economic Research-Ekonomska Istraživanja*, 36(2). DOI: 10.1080/1331677x.2022.2140302
- Nguyen, D. T., Oanh, T. T. K., Bui, T. D., & Dao, L. K. O. (2024). The impact of green finance on green growth: The role of green energy and green production. *Heliyon*, 10(16), e36639. DOI: 10.1016/j.heliyon.2024.e36639
- Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis. *International Journal of Qualitative Methods*, 16(1). DOI: 10.1177/1609406917733847
- Ofori, I. K., Gbolonyo, E. Y., & Ojong, N. (2022). Towards inclusive green growth in Africa: Critical energy efficiency synergies and governance thresholds. *Journal of Cleaner Production*, 369, 132917. DOI: 10.1016/j.jclepro.2022.132917
- Organisation for Economic Co-operation and Development. (2011). *Towards green growth*. <https://sdgs.un.org/publications/towards-green-growth-17025#background>
- Organisation for Economic Co-operation and Development. (2013). *Green growth and poverty reduction: Policy coherence for pro-poor growth*. https://www.oecd.org/content/dam/oecd/en/publications/reports/2013/12/green-growth-and-poverty-reduction_g17a2440/5k3ttg45wb31-en.pdf
- Organisation for Economic Co-operation and Development. (2018). *Perspectives on global development 2019: Rethinking development strategies*. DOI: 10.1787/persp_glob_dev-2019-en
- Organisation for Economic Co-operation and Development. (2024). *Harnessing public procurement for the green transition: Good practices in OECD countries*. DOI: 10.1787/e551f448-en
- Republic of Rwanda. (2012). *Green growth and climate resilience: National strategy for climate change and low-carbon development*. https://www.rema.gov.rw/rema_doc/RGG&CRS%202011/Rwanda%20Green%20Growth%20Strategy%20FINAL%20high%20res.pdf
- Republic of Rwanda. (2022). *Green growth and climate resilience strategy: National strategy for climate change and low carbon development*. https://www.rema.gov.rw/fileadmin/user_upload/Rwanda_Green_Growth_Climate_Resilience_Strategy_0610_2022.pdf
- Republic of Uganda. (2017). *Uganda green growth development strategy (UGGDS) 2017/18–2030/31*. <https://gggi.org/wp-content/uploads/2019/03/Uganda-Green-Growth-Development-Strategy-20171204.pdf>
- Resnick, D., Tarp, F., & Thurlow, J. (2012). The political economy of green growth: Cases from Southern Africa. *Public Administration and Development*, 32(3), 215–228. DOI: 10.1002/pad.1619
- Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104, 333–339. DOI: 10.1016/j.jbusres.2019.07.039
- Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British Journal of Management*, 14(3), 207–222. DOI: 10.1111/1467-8551.00375
- United Nations Economic Commission for Africa. (2016). *Enabling measures for an inclusive green economy in Africa*. https://www.greenpolicyplatform.org/sites/default/files/downloads/resource/UNECA_Enabling%20measures%20for%20an%20inclusive%20green%20economy%20in%20Africa.pdf
- United Nations Economic Commission for Africa. (2020). *Political economy of a green economy: Transition in Africa*. <https://archive.uneca.org/sites/default/files/PublicationFiles/political-economy-of-a-green-economy.pdf>
- United Nations Environment Programme. (2011). *Towards a green economy: Pathways to sustainable development and poverty eradication*. https://sustainabledevelopment.un.org/content/documents/126GER_synthesis_en.pdf
- Wei, S., Jiandong, W., & Saleem, H. (2023). The impact of renewable energy transition, green growth, green trade and green innovation on environmental quality: Evidence from top 10 green future countries. *Frontiers in Environmental Science*, 10. DOI: 10.3389/fenvs.2022.1076859
- World Bank. (2012). *Green resilient and inclusive development*. <https://documents1.worldbank.org/curated/en/285171633074966748/pdf/Green-Resilient-and-Inclusive-Development.pdf>
- World Bank. (2012). *Inclusive green growth: The pathway to sustainable development*. <https://documents1.worldbank.org/curated/en/368361468313515918/pdf/691250PUB0Pub1067902B09780821395516.pdf>

- World Commission on Environment and Development. (1987). *Our common future*. United Nations. <https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf>
- Xu, B., et al. (2020). How to achieve green growth in China's agricultural sector. *Journal of Cleaner Production*, 271, 122770. DOI: 10.1016/j.jclepro.2020.122770
- Zhao, J., Taghizadeh-Hesary, F., Dong, K., & Dong, X. (2022). How green growth affects carbon emissions in China: The role of green finance. *Economic Research-Ekonomska Istraživanja*, 36(1), 2090–2111. DOI: [10.1080/1331677x.2022.2095522](https://doi.org/10.1080/1331677x.2022.2095522)

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